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EVEN ODD CAN SWING:
TRADITIONAL BALKAN METERS AND THEIR APPLICATION TO MODERN JAZZ DRUMMING

BY

NIKOLA ĐOKIĆ

THESIS

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Musical Arts in Music with a concentration
in Jazz Performance in the Graduate College of the
University of Illinois Urbana-Champaign, 2022

Urbana, Illinois

Doctoral Committee:

Associate Professor Joel Spencer, Chair
Professor Donna A. Buchanan, Director of Research
Professor Charles “Chip” McNeill
Associate Professor Ricardo Flores

ABSTRACT

This thesis addresses the application of traditional Balkan meters in modern jazz drumming. The two music genres have overlapped since the 1950s on both Balkan and US soil, as jazz music expanded worldwide and incorporated influences from various global musical heritages. Balkan asymmetrical meters have been an inspiration for many jazz musicians ever since: the tension between duple and triple units within the Balkan asymmetrical meters carries their swinging potential and a driving force, providing endless rhythmical and textural possibilities as improvisational support. Rhythmic transcriptions offered in this thesis aim to help drum set players with transferring Balkan asymmetrical meters from traditional percussion instruments, especially *tapan,* to the modern drum set. The performance practice and the role of the *tapan* and drum set player in an ensemble echo each other, each providing a steady time feel and initiating creative rhythmic and melodic ideas. By varying the basic rhythmic pattern in real time and interacting with other players simultaneously, both *tapan* and drum set players can be considered "composers on the spot." Since listening to Balkan music is an irreplaceable component of learning new meters, sounds, timbres, and forms, an extensive table listing selections of Balkan jazz fusion that feature regional meters, recorded between 1959 and 2021 in the US or the Balkans, is offered in the Appendix, as a useful resource for further research and creative exploration of the Balkan Jazz subgenre.

ACKNOWLEDGMENTS

This project is a product of many years of performance practice and academic studies, and it would not have been possible without the support of the many musicians and professors with whom I had the pleasure to collaborate. Special thanks to my research advisor Dr. Donna Buchanan for the help, knowledge, patience, and mentorship during the process of writing and revising this thesis. Many thanks to my drum professor Joel Spencer for sharing his knowledge and experience throughout the years of studying with him. Thanks to my committee members, professors Charles “Chip” McNeil and Ricardo Flores, for their support and guidance. Thanks to the University of Illinois at Urbana-Champaign School of Music faculty, staff, and fellow students with whom I shared many memorable moments, both on and off the stage. Finally, thanks to my family, friends, and colleagues from Serbia and the USA who were supporting and encouraging me all this time.

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NOTES ON TRANSCRIPTION

Throughout this paper I will rely on the drum set notation presented in the graphic below, acknowledged for decades as a standard way of notating drum parts. In this system of notation, as laid out in Figure A, the instruments of the drum set are distributed throughout the staves, and each line or space represents either a drum or part of a drum. Figure B overlays an image of the drum set itself on the staff to show the visual relationship between drum set parts and their positions in the staves.

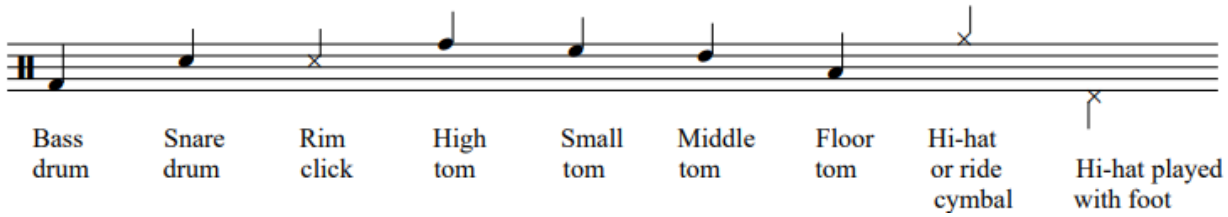

Figure A. Drum set notation key.

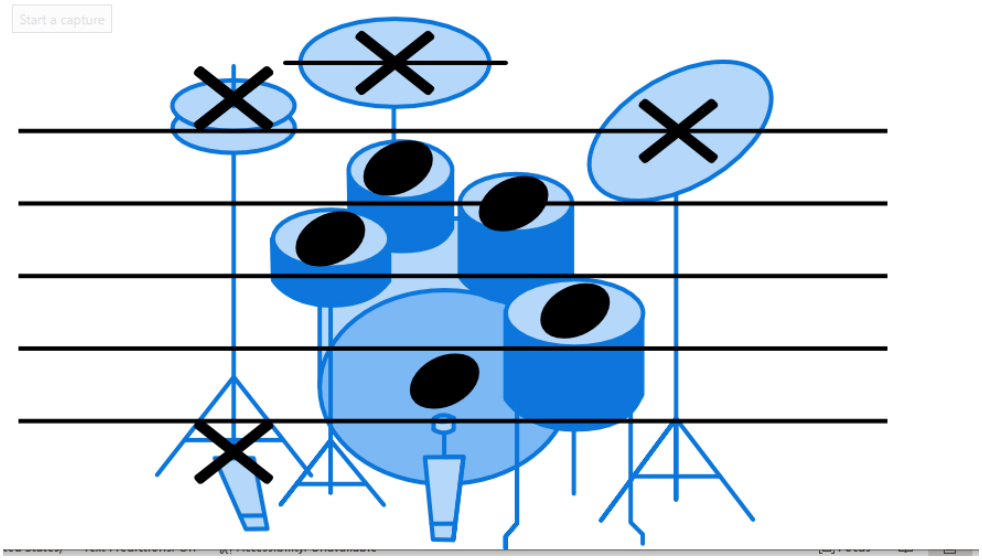

Figure B. Drum set notation graphic.[1]

[1] Digital Image, Drumeo.com, https://www.drumeo.com/beat/how-to-read-drum-music/

CHAPTER 1

INTRODUCTION: THE BALKANS, JAZZ, AND ME

> There's a lot of jazz in me, but there is also a lot of rock, a lot of classical, a lot of ethnic music, a lot of blues, a lot of movie soundtracks. I'm a mixture of all those things.
> — John Zorn[1]

Born and raised in Yugoslavia, "East for the West, West for the East" music was a part of my everyday life: I heard it on the radio, on television, at concerts, in restaurants—everywhere. Although no one in my family, immediate or extended, was a musician, I remember listening to the vinyl records my mother used to buy, everything from ABBA and Boney M to Yugoslav popular and children's songs. My interest in music grew over time, leading me through MTV hits during the 1980s and hard rock and heavy metal through the early 1990s. At a cousin's suggestion I switched my aural focus from guitar lines to drum parts in the popular music we listened to; soon after I took up drumsticks for the first time and began playing with local rock bands by age fifteen.

It was the element of improvisation within the rhythmic idiom that captured my focus from the beginning. When listening to drummers on recordings I would try to hear the nuances they used to embellish the groove, fill-ins, and breaks, and to come up with my own interpretation, imagining myself occupying the drum throne of that particular band. Sitting in the driver's seat felt so powerful to me—being in charge of providing the groove for the band, on top of which other band members can play their music parts. At the same time, I started to realize that another world of music existed parallel to the one I was living in, far richer than I expected: the world of Balkan traditional music. It was reserved mostly for elders, my parents' generation, almost all of whom migrated from rural areas to the cities and accepted the modern urban

[1] John Zorn, liner notes for John Zorn, *Spillane*, Elektra Nonesuch 7559791722, 1987.

lifestyle. Those two worlds—"folk" and "pop"—rarely collided, as they were separated both in media (TV and radio shows) and in everyday life (folkloric music at weddings and other social gatherings, popular music in concerts and clubs).[2]

In the first part of this chapter, I describe my early musical upbringing with an emphasis on my first encounter with asymmetrical meters. The trajectory of my musical growth and thinking will be illustrated in five selected musical examples, as they permanently influenced my approach to complex meters. In the second half of the chapter, I discuss my research objectives, methodological approach, and the overall significance of the project.

*****

The first composition I encountered that brought "folk" and "pop" music together was "Lipe cvatu" (Linden blossoms) by the Yugoslav rock'n'roll band *Bijelo Dugme* (White Button), from their 1984 album of the same name. Put in a 7/8 metric framework with rock music vocals on top, the song incorporated traditional folk instruments (*gajde*, a bagpipe; *tambura*, a strummed lute; and *tapan*, a large bass drum) together with modern pop/rock instruments (electric guitars and bass, electronic drums).[3] It reached households throughout the former Yugoslavia, becoming very popular among different generations and ethnicities. At that time, I was not aware of the very existence of irregular meters, since my musical environment was

[2] The terms "folk" and "pop" have been in common use since the 1980s in the former Yugoslavia to describe two parallel social worlds with their own music, fashion style, and lingo. For pop fans, pop-rock and jazz music represented western, progressive, modern lifestyles, while ethnic music was considered retrograde and outdated—for peasants. For folk audiences, pop-rock represented decadence, aggressiveness, and fashion with no deeper content, while ethnic music represented a connection to one's roots, ancestors, heritage, land, history, emotions, and more subtle esthetics.

[3] Renowned for their fusion of Balkan and rock elements, *Bijelo Dugme* was one of the most popular regional bands throughout the mid-1970s and 1980s. Their sound and stage presence reflect the influence of Led Zeppelin, Deep Purple, and Van Halen.

deeply rooted in duple time. This rhythm sounded both new and somehow familiar at the same time, and I remember I noticed the small grace note ornaments preceding the major accented notes on the *tapan*, which gave the rhythm its propulsive motion and dance groove (Figure 1.1).

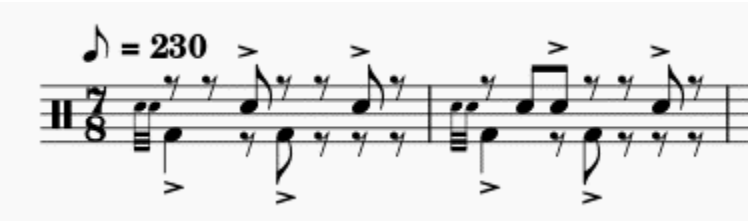

Figure 1.1. The basic drum pattern of the song "Lipe Cvatu" played on *tapan.*

A few years later I discovered two other Yugoslav rock bands, "Smak" and "Leb i Sol" (Bread and Salt), that also used folk elements in their music.[4] I was particularly interested in the music of the latter, as they utilized mixed meters from Macedonia. Their famous rendition of the folk song "Jovano, Jovanke," metered in 7/8 (3+2+2), was recorded on the 1991 album *Live in New York* during their US tour. I remember I spent many hours listening back to the recording and trying to play along, starting with just counting the beat. That process of counting the 7/8 meter with 3-2-2 subdivision as "one-two-three, one-two, one-two" proved to be the life-long lesson I took away from that period. Another song from the same album, a rendition of traditional Macedonian song "Uči me majko, karaj me" (Teach me, mother, scold me) was even more intriguing, due to the intricate rhythm played in 11/8 by the (late) drummer Dragoljub Djuričić. I remember watching several of their consecutive concerts in Belgrade during winter 1993 and listening to the stereo cassette later, trying to transcribe the rhythm played on the drum set (Figure 1.2).

[4] Two drummers from those bands, Slobodan "Kepa" Stojanović and Garabet Tavitijan respectively, are highly respected among musicians for their skill on the drum set and greatly influenced my playing.

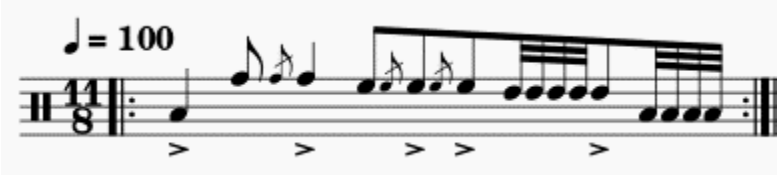

Figure 1.2. Drum set rhythm of the song "Uči me majko, karaj me."

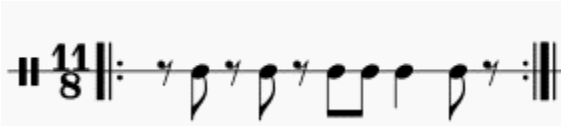

Figure 1.3. Synthesizer keyboard rhythmic pattern for "Uči me majko, karaj me."

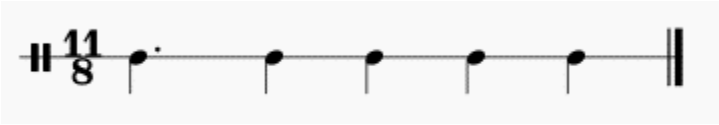

Figure 1.4. Clave-sounding loop for "Uči me majko, karaj me."

The rhythm is counted in 3-2-2-2-2, as hinted at by the prerecorded clave-sounding loop that serves as a metronome throughout the composition (Figure 1.4.) . The drum part is approached more from a traditional percussion angle, as it is played entirely on tom-toms to emulate the sound of a *tapan*.[5] The rhythmic pattern moves around the drum kit in downward motion, from the high-pitched to the low-pitched tom-tom. The bass drum is used sporadically, only to accentuate the beginning of the phrase (Figure 1.2). The accented note on beat 2 (the fourth eighth note) would be perceived as the off-beat in 4/4 time, but it is actually the first note of two eighth-note segments in 3-2-2-2-2. Consequently, two accented notes on beat 4 (the 7th and 8th eighth notes) would be perceived as starting on the downbeat, but they start on the upbeat

[5] Omitting snare drum and cymbals, as distinguished characteristics of the modern drum set.

instead. Additionally, the syncopated rhythmic pattern played by the synthesizer keyboard brings the ultimate challenge to the listener (Figure 1.3.).

Interest in the band's entire discography led me to other compositions with similarly intriguing metric frameworks. These include "Devetka" (Niner) from their first album, *Leb i Sol* (1977), and "Aber dojde, Donke" (The Message came, Donka), which appears on their 1978 album *Leb i Sol 2*, in which two sections of the mostly rubato Macedonian melody frame a section in 11/8 (2-2-3-2-2). "Devetka" was the first song with the irregular meter of 9/8 rendered in a fusion jazz rock style that I heard, which expanded my understanding of the potential for these meters to function in different contexts.[6] Added accented 8th note on snare drum on the last eight note of the 9/8 bar delays the arrival of the first beat of the next bar, making the rhythm sound as it if it's slowing down, or dragging, as shown in Figure 1.5.[7]

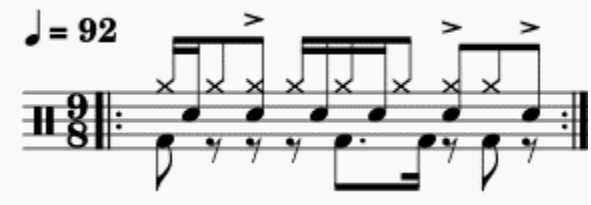

Figure 1.5. The basic drum set pattern of the song "Devetka."

At the same time, I listened to Sting and his former band, The Police. All the drummers involved had a great influence on my playing, from The Police's Steward Copeland to Omar Hakim and Kenwood Dennard from Sting's solo projects. But it was Sting's 1993 album *Ten*

[6] This piece bears strong resemblance to the traditional Macedonian folk song "So maki sum se rodila" (I was born with pain), which was previously recorded by the Zagreb Jazz Quartet as the title track for their second album, released in 1966.

[7] The relationship between triple and duple units creates the rhythmic tension within the groove, which can be described as a push-pull process, in this case resulting in the feeling of dragging or slowing down. In 7/8, the same relationship gives the rhythm a propulsive momentum.

Summoner's Tales which, in my perception, revolutionized popular music with its treatment of lyrics, arrangements, chord choices, and meters. From the first note I was mesmerized by Sting's usage of complex meters and by the amazing ability of drummer Vinnie Colaiuta to make them sound perfectly smooth. Three compositions from the album, "Seven Days" (in 5/8), "St. Augustine in Hell" (7/8), and "Love is Stronger Than Justice" (also in 7/8) inspired me so much that I listened to the recording again and again, trying to capture the feeling of the rhythms played. The lesson I learned from Vinnie Colaiuta appeared to be directly related to my future understanding of irregular rhythms applied to the drum set: the way he orchestrated the 5/4 beat in "Seven Days" and created polyrhythmic implications through accented strokes on the hi-hat gave the illusion that the pattern is even, as if in 4/4 time. By grouping 16th notes into groups of four and accenting the first note of each group (or technically, every fifth 16th note), polyrhythm is produced over the duration of two bars. We can hear the quarter note pulse (five groups of four 16ths) starting on downbeat of the first bar, then shift to the upbeat position (2nd, 3rd, and 4th accent), and then resolve back to the downbeat (the 5th accent matches the downbeat played on the rim-click, as shown in Figure 1.6.).

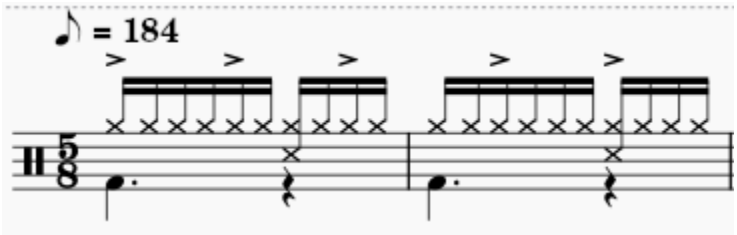

Figure 1.6. The basic drum set pattern of the song "Seven Days."

This approach of juxtaposing duple or quadruple time over asymmetric rhythms gives a new perspective to asymmetric rhythms used in popular music, which can also be applied in treatment of the Balkan rhythms and meters. Vinnie Colaiuta's approach to 7/8 in "St. Augustine in Hell"

taught me a second lesson in creating polyrhythmic allusions in an asymmetrical framework (Figure 1.7).

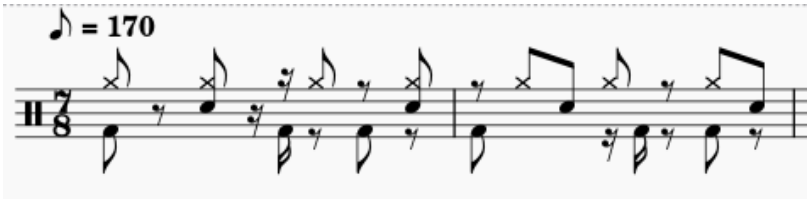

Figure 1.7. The basic drum set pattern of the song "St. Augustine in Hell."

In this example, Colaiuta groups two bars of 7/8 into one phrase, where the quarter note pulse played on the bell of the ride cymbal continues over the bar line. In the first bar those quarter notes fall on the downbeat, while in the next bar they fall on the upbeat. The relationship between the bass drum and the snare drum stays the same, while the ride cymbal pattern moves back and forth between the downbeat and upbeat position. As in previous example in 5/4 in "Seven Days," here our ears can be easily tricked when following the constant quarter note pulse throughout the two-bar phrase, thinking that we are in regular, steady 4/4 time. This solution may look simple at first sight, both while listening and in notation. However, it reveals a complex concept of polyrhythm that requires a lot of listening and practice to achieve, as the pivot point (in this case the quarter note pulse in the ride cymbal) is shifting while the bass drum/snare drum pattern remains the same.[8]

During the same period, I was amazed by the drumming of Billy Cobham on his 1975 album *Spectrum*. Besides his compositions "Quadrant 4," "Stratus," and "Red Baron," which would all be widely recognized as quintessential illustrations of jazz-rock fusion, the title track "Spectrum" caught my attention because of its 7/8 meter.

[8] On his following album, *Mercury Falling* (1996), Sting continued his interest in mixed meters with "I Was Brought to My Senses" (7/4) and "I Hung My Head" (9/4).

Parallel to the process of diving deep into rock 'n' roll drumming, I gradually discovered more sophisticated drum playing on TV and radio. Dave Brubeck's "Take 5," with its swinging rhythm, catchy piano riff, and melodic drum solo, shifted my focus towards more complex musical expression and improvised music. His quartet's "Blue Rondo à la Turk" (in 9/8) from the same album immediately connected me to my roots in Balkan music, simultaneously confirming my interest in jazz. I enrolled in a jazz program at the local music school and soon found myself playing in various student groups; early work with jazz standards as a basic repertoire evolved into working on original arrangements and compositions.

The first step in our musical experiments was to play jazz standards in different popular styles, such as funk, soul, and reggae. Along with that and inspired by notable Balkan jazz artists, we tried to blend jazz and Balkan music ourselves, our arrangements searching for a perfect balance between the two influences. These creative attempts culminated in an (unreleased) album consisting of traditional Balkan folk songs in jazz settings, such as jazz ballad, medium swing, jazz waltz, and bossa nova/Latin styles. While most jazz artists from the Balkans were adding complex harmony ("jazz chords") to folk melodies, putting them into typical jazz/Latin rhythms (swing, jazz waltz, Afro-Cuban, Samba/Bossa Nova), and playing "jazz solos" over that form, we tried to learn from their work and eventually expand the possibilities for improvising with our own arrangements.[9]

Although our efforts were received positively by our fellow jazz musicians, I felt strongly that something was still missing in our attempts to find the ideal way to blend jazz and Balkan music. As I will discuss further in chapter 4, It was Bojan Zulfikarpašić's 1993 debut album,

[9] The term "jazz chords" is used in musician's slang in Serbia to describe the chords with tensions, commonly used in jazz harmony, while "jazz solo" describes the different type of scales used by jazz improvisers (as opposed to more simplified harmonic language and melodies utilizing different types of scales in traditional music).

entitled *Bojan Z. Quartet,* followed by his 1995 *Yopla* and 1998 *Koreni* (Roots), which provided the missing piece to my Balkan jazz puzzle. Zulfikarpašić blended the two styles in a unique way, keeping the key elements of both worlds distinctive while creating a cohesive, compact form for improvisation using both musical languages.

The music of Dave Brubeck and Bojan Zulfikarpašić prompted me to explore both jazz and Balkan music more deeply, and I have continued to pursue that endeavor ever since. Growing up between these two worlds enabled me to embrace the stylistic differences between them and to grasp the musical aesthetics of both. This orientation has remained present in my musical growth ever since and helped me to be open to other musical influences as well; realizing my versatility as a performer and blending jazz and Balkan music are two of my lifetime goals.

With this introduction in mind, I now turn to the second part of this chapter, in which I provide an overview of the scope, goals, and significance of my project, as well as my approach to the transcription and analysis of Balkan meters and their application to the drum set.

Statement of Purpose

This thesis addresses the application of traditional Balkan meters in modern jazz drumming. The two music genres have overlapped since the 1950s on both Balkan and US soil, as jazz music expanded worldwide and incorporated influences from various global musical heritages. My background studying jazz, Latin, and Balkan music, my professional career as a drummer/percussionist deeply rooted in both Balkan music and jazz, and my musical upbringing during the particular moment when Balkan and jazz musics were being combined have afforded me a solid background and unique perspective on performing this material and developing an original approach to applying Balkan rhythms in various musical styles. I find it both inspiring

and challenging to emulate various percussion sounds on the drums and to be able to perform them simultaneously, utilizing skills of coordination and independence. In my own practice and while preparing for this research I have noticed the lack of guidelines for drummers and percussionists on transposing traditional Balkan meters, rhythms, and sounds to the modern drum set, especially when compared to the many method books on applying Latin percussion rhythms to drums. Considering this gap in scholarship and performance literature, I expect my work to draw attention to the topic, as well as to contribute to the educational materials for teaching drums and percussion.

Drawing upon the works of leading musicians, both American and Balkan, responsible for merging Balkan music and jazz, I show the mutual influence between these two musical styles, focusing on the performance of rhythm from the 1950s to present times. By analyzing six recordings from jazz artists influenced by Balkan music I examine how rhythmic patterns and sounds originally played on percussion instruments idiomatic to the Balkan region can be transposed to the modern drum set. In its entirety, the project includes a recital with my performance of six typical Balkan rhythms played on both traditional percussion instruments and the drum set. An additional composition performed on the recital is my own arrangement of the jazz standard, "The Girl from Ipanema." Originally written in 4/4 time, I rewrote the piece in an asymmetrical meter related to Balkan music. The quartet formed for this recital, besides drums and percussion, includes saxophone, piano, and double bass.

Objectives

This project accomplishes three main goals. The first is to understand how different jazz drummers perceive and perform some of the most common Balkan meters. The second objective is to examine how these rhythms, originally played on Balkan percussion instruments, can be

transposed to the modern drum set with consideration for sound, timbre, dynamics, and coordination in addition to rhythm and meter. The third objective is to demonstrate how these rhythms can be applied practically in various musical settings, with a focus on jazz and jazz-influenced music.

Methodology

In addition to acquainting myself with scholarship on both Balkan music and jazz drumming practice, my project methodology primarily involves transcription, analysis, and comparison of recordings and musical examples from jazz artists in both the Balkans and the USA. When selecting these recordings, I sorted them chronologically, starting with Dave Brubeck's 1959 composition "Blue Rondo à la Turk" and concluding with Vladimir Nikolov's 2020 composition "One More Day." I include a general overview of available audio and video recordings of the most common Balkan meters applied to modern drumming in the form of a table. In addition, I have discussed six specific recordings of each meter performed by contemporary drummers and percussionists within my text. In analyzing these recordings, I was interested to see how the artists implemented these Balkan meters on the drum set. My main focus is the basic rhythms and their variations throughout the selected performances, which I transcribed in one or two-bar phrases, based on each performer's creative approach to the orchestration, metric subdivisions, texture, timbre, and technical aspect of the instrument.

Chapter Overview

This thesis is organized in four different chapters. Chapter one reveals my personal and musical background related to jazz and Balkan music and the background of this project in the form of an introduction, as well as the general overview of the paper. Chapter two puts Balkan meters and dances in historical and geographical contexts, as well as supplying an overview of

the Balkan percussion instruments and their performance practice, with focus on *tapan*. Chapter three contains a brief historical overview of Balkan traditional music and of how it was merged with jazz from 1958 to the present. Chapter four provides discussion on the role of the drummer and Balkan meters in jazz setting, as well as the rhythmic approach analysis of six selected performances of traditional Balkan rhythms played on the drum set from selected recordings.

Significance

This thesis brings together a variety of scholarly and performance-related perspectives regarding Balkan music, jazz, percussion instruments, and drumming. It fills a gap in scholarship on Balkan and jazz drumming, and offers a resource concerning Balkan meters and performance practice for drummers and percussionists. It also identifies the existence of a Balkan jazz subgenre, equivalent to the already established genres of Latin jazz, Scandinavian jazz, and many others. (The discussion of this subgenre merits further discussion beyond the scope of this thesis). It shows that Balkan additive meters comprise just as solid a rhythmic support for improvisation as does duple or triple meter in traditional jazz music. Moreover, once mastered and properly executed, these rhythms provide endless rhythmic and textural possibilities, both as an inspiration and a driving force for various musical settings: “Even Odd Can Swing.”

CHAPTER 2

HISTORY AND PERFORMANCE PRACTICE OF BALKAN METERS

One of the most prominent characteristics of Balkan music is its asymmetrical meters (5/8, 7/8, 9/8, 11/8, etc.). Since these types of meters are not common practice in most music associated with western Europe and its legacy, both listening to Balkan music and reading the numerous written sources on the topic are very helpful for understanding and successfully performing them. In the past several decades many jazz musicians have begun to use these meters in their artistic works, and they have been the focus of numerious scholarly studies since the early twentieth century. In this chapter I situate these Balkan meters in their geographical and historical context, as well as contextualizing them in scholarship on Balkan music. I then offer background information on the relationship between meter and dance in Balkan music and introduce regional percussion instruments. The major focus of this chapter is on *tapan* performance practice, which directly corelates with the role of the drummer in the modern jazz setting.

Brief Introduction to the Balkan Region

The Balkan peninsula, named after the mountain region in present-day Bulgaria and Serbia, lies in the heart of the southeast Europe and encompasses several countries and ethnic groups. It extends from Slovenia and Croatia on the north, through the states of Bosnia and Herzegovina, Serbia, and Romania in the region's central part, and to Montenegro, Albania, Macedonia, Greece, and Bulgaria in the south; Turkish Thrace also belongs to the region. Copious migrations throughout the area, from ancient history to the early twentieth century, as well as the influential presence of numerous empires—Greek, Roman, Byzantine, and Ottoman—have made the Balkans a melting pot of different cultures and influences. It is also a

crossroads between western and eastern Europe, as well as between Europe and the Middle East. As each state has accepted refugees and immigrants from other nations, who bring with them the customs and heritage of their home countries, this integration process has deeply impacted the cultural diversity of the region, resulting in a substantial variety of musical practices.[10] One distinctive aspect of traditional Balkan music is its rhythmic material, almost always connected to dance patterns.[11]

Scholarship on Balkan Meters and Percussion

The 1938 article "The So-Called Bulgarian Rhythm" by Hungarian composer and ethnomusicologist Béla Bartók is widely acknowledged as the first publication which brought Balkan meters to a wider Western audience.[12] Bartók notated several melodies from Hungary, Romania, and Bulgaria, and also introduced the works of two Bulgarian musicologists, Dobri Hristov and Vasil Stoin, in collecting and notating traditional Bulgarian songs and dances. This discussion on understanding and notating asymmetrical meters gained the attention of many scholars who have continued to research Balkan music and meters ever since. In her 2000 article "Bartók's Bulgaria: Folk Music Collecting and Balkan Social History," Donna Buchanan reexamines Bartók's engagement with and understanding of Bulgarian traditional music and compares Bartók's and Vasil Stoin's song collections.[13] Two tables presented in the article show how Bartók's compositions made use of Balkan meters; these tables are sorted by meter and related Bulgarian dance, as well as Dobri Hristov's classification of Bulgarian additive rhythms.

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[10] Niţă Frăţilă, "Asimetrični ritam (aksak) u muzičkoj tradiciji balkanskih naroda" [The asymmetric rhythm aksak in the musical tradition of the Balkan peoples]. *Zbornik Matice Srpske za scenske umetnosti i muziku* 14 (1994): 47.
[11] Herman Rechberger, *Balkania: Rhythms in Songs and Dances from Albania, Bulgaria, Greece, The Republic of Macedonia, Romania, and Serbia* (Helsinki: Fennica Gehrman Oy, 2015), 6.
[12] Béla Bartók, "The So-Called Bulgarian Rhythm," in *Béla Bartók Essays*, ed. Benjamin Suchoff (New York: St. Martin Press, 1976), 40–49.
[13] Donna A. Buchanan, "Bartók's Bulgaria: Folk Music Collecting and Balkan Social History," *International Journal of Musicology* 9 (2000): 55–91.

Karen Peters, in her 2003 article "Meter as a Marker of Ethnonational Identity," discusses the origin of Balkan meters, comparing the findings of Bulgarian ethnomusicologist Dobri Hristov with those of the Serbian scholars Ljubica and Danica Janković.[14] In his study on "Bartók's Bulgarian Dances and the Order of Things," László Vikárius shares insights into Bela Bartók's work as a composer ("Six Bulgarian Pieces," 1937) and musicologist (his article on the "So-Called Bulgarian Rhythm").[15] Nitya Fratila, in her study of *aksak* rhythm in Balkan music offers an historical overview of the Balkan region.[16] She notes the first appearance of Balkan meters in the works of classical composers and reviews the work of Romanian composer and scholar Constantin Brăiloiu, who coined the term *aksak.*[17]

Bridging the connection between Balkan meters and the classical musical tradition, Aleksandra Vojčić, in her article on beat patterns, analyses and compares several pieces from classical (Bartók, Ligeti), jazz and popular (Dave Brubeck, Sting), and Balkan (the traditional dance *čoček*) genres.[18] Vojčić's comparison connects the topic of Balkan meters to the present day, while her explanation of 9/8 through dance steps highlights the relationship between Balkan music and dance.

A number of sources consider our physiological and psychological awareness of Balkan complex meters. Along with the historical background of traditional instruments and bands in

[14] Karen Peters, "Meter as a Marker of Ethnonational Identity? Metric Controversy, Folk Song Variants, and the Representation of Balkan Cultural Identities." *Bŭlgarsko muzikoznanie* 27, no. 4 (2003): 56–74.
[15] László Vikárius, "Bartók's Bulgarian Dances and the Order of Things." *Studia Musicologica* 53, no. 1/3 (2012): 53–67.
[16] Niţă Frăţilă, "Asimetrični ritam (aksak) u muzičkoj tradiciji balkanskih naroda" [The asymmetric rhythm aksak in the musical traditions of the Balkan peoples]. *Zbornik Matice Srpske za scenske umetnosti i muziku* 14 (1994): 31–56.
[17] In the Balkan region, classical composers from Serbia used traditional melodies in their works, such as Stevan Stojanović Mokranjac (5/8+7/8, in his 1892 composition "Hajduk Veljko" from VI Rukovet: Iz moje domovine (From my Home Country)), and Isidor Bajić (9/8 meter, based on traditional dance Čoček , in his opera "Knez Ivo od Semberije").
[18] Aleksandra Vojčić, "Beat Hierarchy and Beat Patterns: From Aksak to Composite Meter." *Current Musicology* no. 98 (September 2014): 41–70.

Bulgaria, in his article on Bulgarian rhythm Borislav Petrov opens a discussion about how asymmetrical meters are comprehended by Bulgarians as compared to western Europeans.[19] Similar discourse on metric awareness can be found in Mark Gotham's 2006 article, where he analyzes the different metric levels of *aksak* beats.[20]

In her dissertation, Sylvie Nozaradan explores the human perception of meter and rhythm from a neurological point of view, providing an interesting comparison of how we perceive duple and triple meter, as well as an in-depth analysis of neural responses to listening and sensorimotor reactions in executing those rhythms.[21] In one subsection, Nozaradan compares the perception of uneven meters across cultures through an experiment in which participants from western Europe as well as Bulgaria and Macedonia responded with different levels of accuracy when asked to repeat the same duple- and triple-meter rhythmic samples. Similarly, Justin London's article on complex meters and rhythms analyzes how the human brain can recognize and decipher various rhythmic and metric patterns, together with analysis and comparison of several well-known melodies from classical, jazz, and Balkan repertories.[22]

Several sources focus on the performance practice of Balkan percussion instruments. In his 2015 article on Bulgarian meter in percussion performance, derived from his dissertation, Daniel Goldberg analyzes two Balkan percussion performances and compares the duration of the particular *aksak* beat sequence of 3+2+2 (7/8) in each, focusing on *tapan* players and their performance in small ensemble settings.[23] Balkan percussion instruments are also the focus of

[19] Borislav Petrov, "Bulgarian Rhythms: Past, Present and Future." *Dutch Journal of Music Theory* 17, no. 3 (2012): 157–67.
[20] Mark Gotham, "Meter Metrics: Characterizing Relationships Among (Mixed) Metrical Structures." *Music Theory Online* 21, no. 2 (2015): 1–13.
[21] Sylvie Nozaradan, "Exploring the Neural Entrainment to Musical Rhythms and Meter: A Steady-State Evoked Potential Approach," PhD diss., University of Montreal, 2013.
[22] Justin London, "Some Examples of Complex Meters and Their Implications for Models of Metric Perception." *Music Perception* 13, no. 1 (1995): 59–77.
[23] Daniel Goldberg, "Bulgarian Meter in Performance." PhD diss., Yale University, 2017.

ethnomusicologist and Bulgarian music specialist Timothy Rice's article "The 'Surla' and 'Tapan' Tradition in Yugoslav Macedonia," which provides historical background and an overview of regional instruments, along with their detailed description and typical use in performance practice.[24] Another study on playing *tapan* in the Balkan region is Jurij Arbatskij's book *Beating the Tupan in the Central Balkans*, which is a key source for my understanding and analysis of *tapan* performance practice.[25] Arbatskij's unique findings as both performer-apprentice and scholar in field research allow detailed insight to the role of the *tapan* player in improvised performance of *zurla* and *tapan*, which I find directly correlates with the role of the modern jazz drummer.

The relationship between Balkan dances and meter is highlighted in Herman Rechberger's 2015 book, in which he lists many dances from different Balkan states and sorts them by nationality, meter, and metric subdivision. His table provides a valuable graphic representation of the connections between Balkan dances and meters.[26] The author also compares the usage of swing notation in both jazz and Balkan rhythms.

To my knowledge, the only method book on *tapan* performance is a 1999 study by Dobri Paliev (1928–1997), a notable Bulgarian performer, composer, arranger, and instructor. In this book he describes the *tapan* and its playing technique. He explains the typical rhythms used to accompany traditional Bulgarian dances, accompanied by notated examples.[27]

[24] Timothy Rice, "The 'Surla' and 'Tapan' Tradition in Yugoslav Macedonia," *Galpin Society Journal* 35 (1982): 122–37.
[25] Jurij Arbatskij, *Beating the Tupan in the Central Balkans* (Chicago: Newberry Library, 1953).
[26] Herman Rechberger, *Balkania: Rhythms in Songs and Dances from Albania, Bulgaria, Greece, the Republic of Macedonia, Romania, and Serbia* (Helsinki, Fennica Gehrman Oy, 2015).
[27] Dobri Paliev, *Studies for Tapan* (Sofia: Abis, 1999).

Balkan Meters

The origin of the Balkan's asymmetrical meters has been the subject of discussion among scholars since the early twentieth century. The Bulgarian music theorist and composer Dobri Hristov claimed that these meters were once common to all Slavic populations, many of which are located in the Balkans, but disappeared over time due to the influence of western European music. By contrast, the Janković sisters believed that these rhythms and meters were brought to the Balkans by Turkish and Romani people during the Ottoman era (15th–19th century) and were gradually integrated into Balkan folklore.[28]

The complex nature of Balkan rhythms created notational difficulties for early scholars: Bartók himself notated some of these rhythms originally in 4/4 time, with prolonged note values at the ends of phrases.[29] Various terms were used to describe these meters, such as irregular, complex, additive, odd, and asymmetrical. Another common term is *aksak*, a medieval Turkish word for limping, lopsided, or lame, coined by Romanian composer and ethnomusicologist Constantin Brăiloiu in 1951. Brăiloiu recognizes three possible types of *aksak* meter: authentic (where the number of pulsations is a prime number, as in 7/8), quasi-*aksak* (where the number of pulsations is odd but not prime, as in 9/8), and pseudo-*aksak* (where there is an even number of pulsations, as in 8/8, but they are subdivided into asymmetrical groups, such as 3+3+2).[30] The pseudo-*aksak* type can be found in Spanish, Afro-Cuban, and Brazilian music as a *tresillo* beat pattern, which will be discussed further in the following chapters.

[28] Karen Peters, "Meter as a Marker of Ethnonational Identity? Metric Controversy, Folk Song Variants, and the Representation of Balkan Cultural Identities," *Bălgarsko muzikoznanie* 27, no.4 (2003): 58-59.
[29] Béla Bartók, "The So-Called Bulgarian Rhythm," *Béla Bartók Essays*, 1938, 45.
[30] Aleksandra Vojčić, "Beat Hierarchy and Beat Patterns: From Aksak to Composite Meter." *Current Musicology* no. 98 (September 2014): 49.

All of the above terms, however, originated largely outside the Balkan region itself. By contrast, regional musicians in the south and west Balkans may refer to particularly complex meters, such as 11/16 (2+2+3+2+2), as "crooked" (*krivo*), or simply associate the additive rhythmic patterns with sequences of dance steps. Traditional dance practice differs by place, choreography, gender, age, meter, and accompaniment. Basic genres include men's, women's, mixed gender, solo, and couple dances. These are performed in a large variety of configurations: closed circles, semi-circles, lines, spirals, and more. Village dances were historically accompanied mainly by women's singing, single instruments, or very small instrumental groups. Among these groups the most common for festive, outdoor occasions in Bulgaria and Macedonia were a duo of bagpipe (*gaida*) and *tapan*, or an ensemble of two zurlas (aka. zurnas, a double-reed, conical-bore shawm) and *tapan.* Often these instrumentalists stood in the center of the dance circle or *horo* line, allowing the participants to hear them more easily and move around them.

Besides various dances in duple or quadruple meter (2/4 and 4/4), the majority of Balkan dances are structured in isochronous or asymmetrical meters notated with eighth- or sixteenth-note denominators, depending on the dance tempo. The following table brings together several complex meters found in different Balkan states, organized by meter, subdivision, and related dance (Table 2.1).

Meter	**Subdivision**	**Dance/dance family**
5/16	2+3	Pajduško
7/16	2+2+3	Rŭchenitsa, Geampara
7/16	3+3+3	Černovo
7/16	2+2+1+2	Elenino horo, Petrunino
9/16	2+3+2+2	Grančarsko
10/16	3+2+2+3	Gurguna
5/8	3+2	Șchioapa

Table 2.1. Balkan dances by meter and subdivision, based on Rechberger's collection.

5/8	2+3	Joc de Sanziene
13/16	3+2+2+2+2+2	Žensko Kršteno
13/16	2+2+2+3+2+2	Krivo Sadovsko horo
7/8	3+2+2	Lesnoto, Kalamatianos
15/16	2+2+2+2+3+2+2	Bučimiš
8/8	3+3+2	Syrtos, Čoček
4/4	2+2+2+2	Ovčepolsko Potrčulka
9/8	2+2+2+3	Devetorka, Daichovo, Zeibekiko, Karsilamas
9/8	2+3+2+2	Agrilamas
17/16	7+3+7 (2+2+3+3+3+2+2)	Črveno jabolko
18/16	3+2+2+2+2+3+2+2	Jove, Jovino
18/16	2+2+3+2+2+3+2+2	Bukovsko, Piperova
10/8	3+2+2+3	Gurguna, 2nd version
11/8	2+2+3+2+2	Kopanitsa, Gankino
22/16	2+2+2+3+2+2+2+3+2+2	Sandansko Horo
12/8	3+2+2+3+2	Beranče
25/16	3+2+2+3+2+2+2+2+2+3+2+2	Sedi Donka
13/8	3+2+3+3+2	Beranče II
14/8	2+2+2+3+2+3	Bičak
15/8	2+2+2+3+2+2+2	Pusnitsa
15/8	2+2+2+2+3+2+2	Posednica
16/8	3+2+2+2+2+3+2+2	Sabrali sa se, sabrali
32/8	3+2+2+3+2; 3+2+3; 3+2+2+3+2	Studenečko Tursko, Pelivansko

Table 2.1 Continued. Balkan dances by meter and subdivision, based on Rechberger's collection.[31]

Balkan Percussion Instruments

The Balkan region is home to several membranophones and idiophones. Of these, the most widespread are the *tapan* (aka. *tŭpan* in Bulgarian and *goč* in Serbian), a double-headed membranophone called the *davul* in Turkey, which is very similar to the grand casa or bass drum; the darbuka (aka. *tarambuka*, *darabuka*, or *dumbek*), a single-headed membranophone of Middle Eastern derivation with a ceramic or metallic vase- or goblet-shaped base; and the *daire*, a frame drum or tambourine that also probably originated in the Middle East. Apart from *daire*,

[31] Herman Rechberger, *Balkania,* 10-12.

these instruments are almost exclusively played by men and historically were and are frequently played by Romani musicians in some parts of the region.

Tapan Performance Practice

Playing Technique

The *tapan* is the most frequently used percussion instrument in the Balkans. Its size can vary considerably but usually never exceeds 90 centimeters (36 inches) in diameter and 60 centimeters (24 inch) in depth (from skin to skin).[32] Originally, drumheads were made of calfskin on both sides of the drum, but modern drum makers produce versions with synthetic heads and bodies. One of the drum's unique features is that the head is thicker on one side than the other, increasing its capacity to produce different timbres. In performance, the *tapan* is slung over the left shoulder. One hand strikes the drum with a large curved stick (called *kiyak* in Bulgarian) on the thicker of the two heads, while the other uses a long, thin, flexible switch (usually made of cornel-tree) on the thinner side.[33] The *tapan* can also be struck with the ball of the hand or with the fingers, and beating can be done in the center of the skin or closer to the rim, to create different pitches and timbres. In order to dampen the sound of the thicker skin, which produces the lowest frequencies, *tapan* players often use a cloth or towel (just as drummers do to muffle their bass drum). Arbatskij explains:

> They draped the upper portion of the thicker head of the drum, the one played with the large stick in the right hand, with a towel. When they struck the towel with the heavy beater, they produced a dull thud that was barely audible compared to the other two types of strokes. This helped the drummer to keep time with his right hand almost silently while the left hand improvised and gave the impression of tremendous syncopation. From the motor point of view there was actually a relatively even balance between left- and right-hand movement. Although nearly every beat was 'articulated' with motion, only the high-pitched sound coming from the left hand was clearly heard: the high-pitched strokes of the left hand predominated and gave a real lightness to the playing that contrasted with

[32] Timothy Rice, "The 'Surla' and 'Tapan' Tradition in Yugoslav Macedonia," *Galpin Society Journal* 35 (1982): 125.
[33] Ibid., 126.

> the sections in which the heavy strokes in the center of the right-hand skin predominated.[34]

This playing technique correlates with playing the modern drum set, where drummers frequently use three dynamic levels within the single rhythm performed: the barely audible notes are called "ghost notes" in modern jazz drummers' vocabulary, as they are the main ingredient in adding subdivisions to the main pulse, as well as to fill in the frequency gap between low-pitched (bass drum) and high-pitched notes (snare drum).

Arbatskij uses two-line percussion notation to represent the two basic types of *tapan* strokes that he discerned: low-pitched, played on the thicker skin, and high-pitched, played on the thinner skin. This *tapan* notation can be directly transposed to the modern drum set notation, as it can be seen in notation system by Dobri Paliev, where the low-pitched sound is notated in the space for the bass drum and the high-pitched sound in that for the snare drum.[35]

Improvisation and Rhythmic Variation

Although the instrument is taught today in music conservatories, schools, and folk music clubs, *tapan*-ists once learned their craft in a master-apprentice relationship or from older relatives. Arbatskij notes that improvisation is a major characteristic of Balkan music in general, and an essential ingredient of *tapan* playing. He writes, "One of the primary characteristics of this kind of music . . . is variability within a pattern; and the very vitality of the music is a result of the principle of improvisation."[36] In order to be able to bring variety to the performance, *tapan*-ists thus must be well trained first in basic strokes and meters, then more complex patterns and subdivisions, concluding with taking on an independent role in performance. Arbatskij describes the most common subdivisions that a *tapan* player must be proficient in, although this

[34] Ibid., 134.
[35] Dobri Paliev, *Studies for Tapan,* 1999).
[36] Jurij Arbatskij, *Beating the Tupan in the Central Balkans*, 5.

should not be considered a complete list (see Figures 2.1 and 2.2). Arbatskij's work dates from the early 1950s, before many socialist-era folkloric ensembles and music schools were established; contemporary *tapan* players have continued to produce ever more complicated patterns.

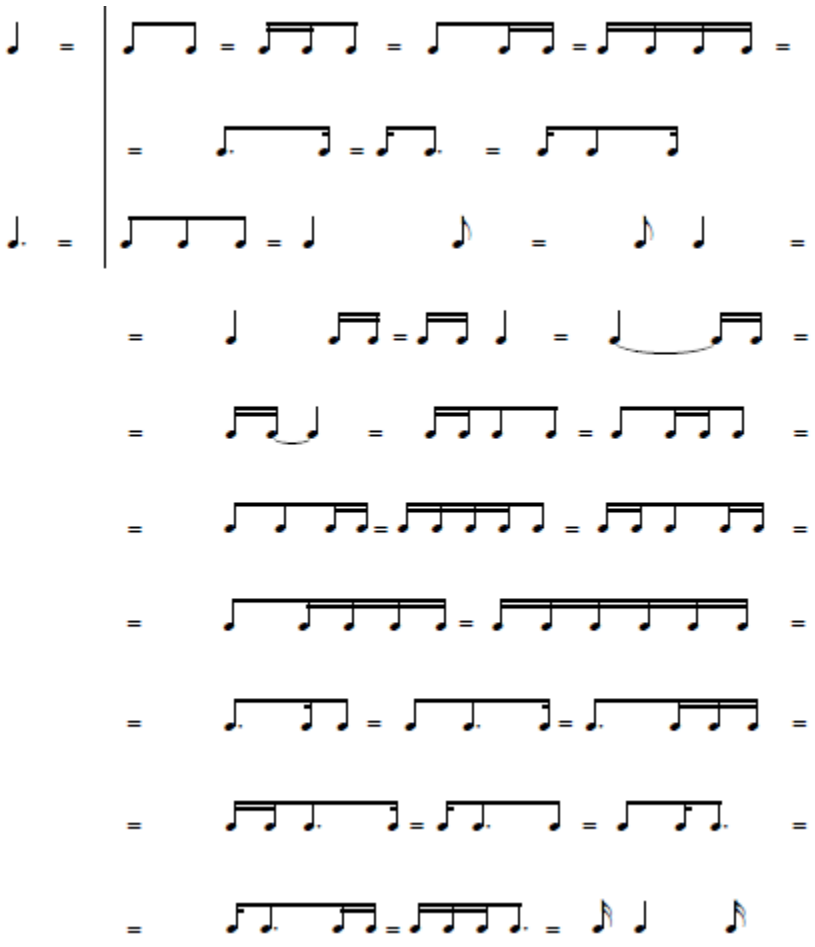

Figure 2.1. Duple and triple units' subdivisions used in *tapan* performance practice according to Arbatskij.

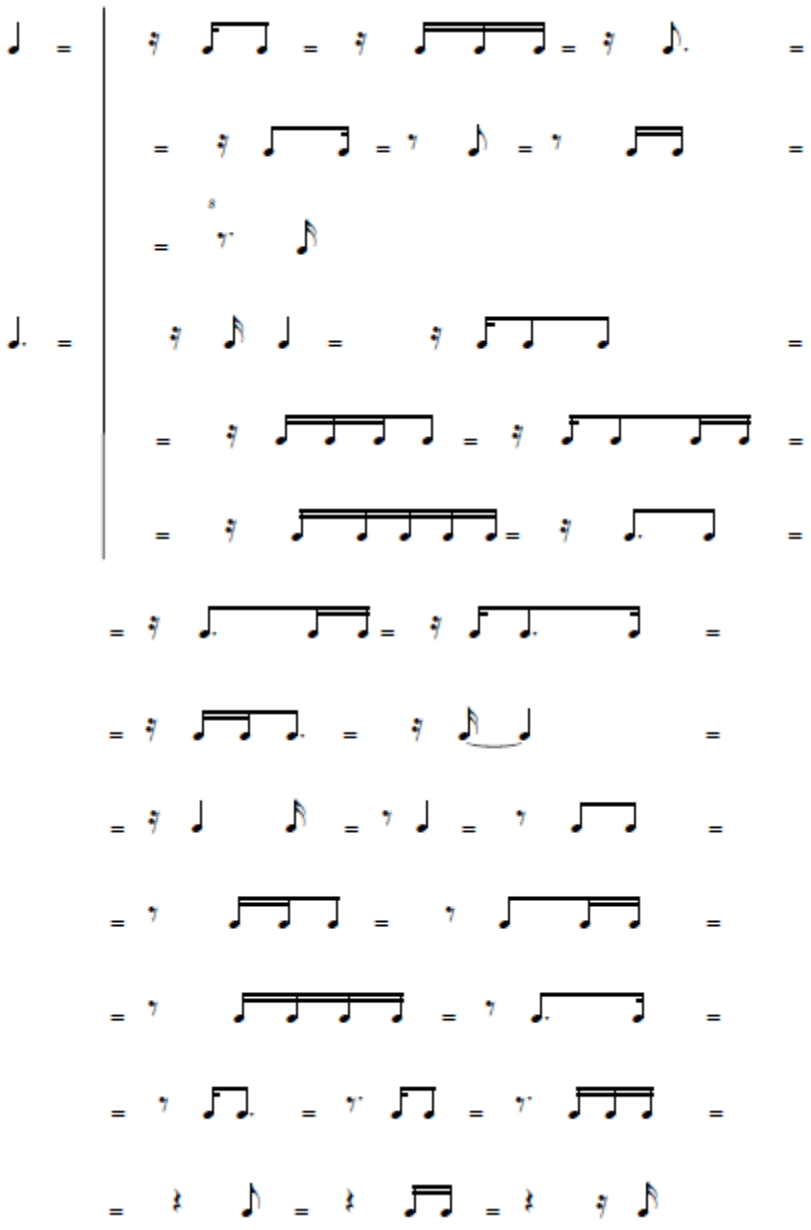

Figure 2.2. Duple and triple units' subdivisions with introduced rests used in *tapan* performance practice according to Arbatskij.

In this chart Arbatskij uses rhythmic subdivisions of "one" and "one and a half" beat's duration, which in performance practice correlates with the notational explanations of Dobriev (short-long). Therefore, if the eighth note is the basic underlying pulse, the first quarter note in the pattern will be labeled as "one" beat and the dotted quarter note as "one and a half" beats,

thereby corresponding to a duple-triple or short-long units of rhythmic value. The author gives insight into the process of rhythmic recreation:

> All the variations of the one value and one-and-a-half value units have to be learned so well by the tapanist that they become second nature to him. They are the groundwork of rhythm, though fixed rhythmical models are alien to tapan beating. The rhythm is constantly recreated during the performance; it is always evolving and its metamorphoses depend on natural inventiveness of the tapanist who makes use of the variations of one value and one-and-a-half value units. These variants, which are always present in the tapanist's mind, are joined together in almost infinite combinations. In actual performance, of course, not all the combinations are realized, but only a few of the theoretically countless combinations.[37]

In order to be a freely creating artist, the *tapan* player has to have constant command of the rhythmic variations and their micro timing, dynamic nuances, and variable accentuation possibilities. The way *tapan* players think during performance strongly resembles that of modern jazz drummers:

> The player must imagine a single passage of the main tune, keeping in mind the fundamental rhythmical form which remains the same for all the melodic variations of the wind instruments. He must analyze in his inner rhythmical mind, and, by means of knowledge of the rules and exceptions of the technique of tupan beating, then consider the possible rhythmic variations in as many combinations as he can grasp. With this complex pattern in his mind's eye, he begins to play without letting himself be diverted by the new possibilities that are constantly emerging.[38]

Tapan players must be familiar with the composition performed, both the melody and the rhythmic pattern. In addition, they must be familiar with the variations made by wind instruments (either playing the melody or improvising). From the palette of rhythmic subdivisions and variations already mastered, *tapan* players then dive into creating their own rhythmic trajectory by making split-second decisions as to which embellishment, variation, dynamics, or accent displacement to realize. The real artistry is to come up with rhythmic ideas

[37] Jurij Arbatskij, *Beating the Tupan in the Central Balkans*, 25.
[38] Ibid., 41-42.

that will complement and emphasize the melody, but at the same time will not disturb the soloist's improvisation. Moreover, they cannot be distracted by the rhythmic variations which emerge in their mind in succession, but rather must be able to choose between them on the spot, according to requirements of the musical setting and individual taste. In Arbatskij's words,

> Since the tupanist, during his performance, is obliged to create independently by means of the variations of one value and one-and-a-half value units which he fits together, his playing is to the greatest degree influenced by his personality. This is why a tupanist's performance must be judged from the point of view of personality. Each tupanist has his own peculiarities of playing—it might even be said, his own manner.[39]

Conclusion

Balkan musical traditions are rich in songs, dances, and instruments present in that area for centuries. The diversity of cultures and influences surfaces in a variety of ways in Balkan music, including in the asymmetric meters, rhythmic patterns, and sounds and timbres of percussion instruments and their performance practice. The relationship between duple and triple beat groups, and the way how they are combined to create longer rhythmic patterns, is the specific characteristic of Balkan asymmetric meters. Variation within the pattern is another prominent aspect of the performance practice, as instrumentalists never repeat their tunes in the same manner. Similarly, *tapan* players rarely repeat the same rhythmic pattern within the meter; they vary the basic rhythmic pattern in real time using subdivisions, syncopation, dynamics, and accent displacement. Although they usually operate with three basic types of sound, their artistry lies in *composing on the spot* and *orchestrating the beat.* Technical proficiency, versatility, and personality are the attributes of the master *tapan* player. The same prerequisites are demanded of the modern jazz drummer.

[39] Ibid., 25.

CHAPTER 3

A PARALLEL CHRONOLOGY OF RHYTHMIC DEVELOPMENTS IN THE BALKANS AND THE USA

> However, one day, in 1968, I sent some recordings of Bulgarian folk tunes to Don Ellis. There were different kinds of odd meters in these records and among them a Sadovsko Horo in 33/16 . . . . I knew that this meter would excite Don's curiosity, but what happened was beyond my wildest expectations. He wrote me that he couldn't wait and he had written the Horo down immediately for his band. Several months later, I heard it under the title of Bulgarian Bulge which is on the Underground album. My friends and I in Bulgaria couldn't believe our ears. Here were musicians, thousands of miles from Bulgaria, playing this music as if it were native to them! That showed me again and again the unbelievable, unlimited, cosmopolitan power of integration that jazz and jazz musicians had.
>
> — Milcho Leviev[1]

Jazz musicians have constantly sought to expand the boundaries of their music, searching for new musical ground to express their creativity. They have adopted the harmonic language of classical composers, bringing to the genre complex harmony and enriched possibilities for improvisation. They have also pursued rhythmic and melodic influences from different cultures, adding a new flavor to the jazz idiom. The purpose of this chapter is to show the evolution of experimenting with different time signatures in jazz, through the prism of blending jazz and Balkan music. In the first part I will review scholarly sources on the fusion of Balkan and jazz music, as well as method books on asymmetrical meters for drum set. In the second part I will provide a context for the analysis of the Balkan-jazz fusion situation by briefly outlining ways that other world musics have been incorporated into jazz. From that point on I will discuss the major artists who were incorporating Balkan meters into their work, through a parallel chronological overview of their major recordings. A two-part timeline table starts with Dave

[1] Don Ellis, *The New Rhythm Book* (Hollywood: Ellis Music Enterprises, 1972).

Brubeck's 1958 album *Jazz Impressions of Eurasia* and concludes with the 2010 album *Paradox Trio with Bojan Z* by Matt Darriau.

Scholarship on Balkan Jazz

This review of literature involves major sources from ethnomusicology on Balkan jazz fusion, as well as dissertations and method books useful for understanding the application of asymmetrical meters to the drum set.

In her 2007 article "Diversifying the Groove: Bulgarian Folk Meets the Jazz Idiom," ethnomusicologist Claire Levy presents the artistic work of notable Bulgarian pianist, composer, and arranger Milcho Leviev, one of the most prominent artists and pioneers in blending jazz and Balkan music between 1960 and 2000. Levy provides analysis of several of his compositions, as well as his impressions of jazz, Latin, and Balkan music and his thoughts on trends in modern music.[2] Levy focuses on the Bulgarian ethnic jazz music scene in her book *Ethnojazz: Local Projections in the Global Village*, published in the same year; the accompanying CD contains recordings of Leviev's first Balkan-Jazz fusion compositions (1962-1966).[3] In her later article "Swinging in Balkan Mode: On the Innovative Approach of Milcho Leviev**,**" Levy offers additional material on Leviev's work based on an interview with the artist.[4]

In his book entitled *The New Rhythm Book*, Don Ellis—trumpeter, composer, arranger, and one of the revolutionary figures in jazz—reveals the entire process of merging Balkan music and meters into his compositions and arrangements. Three chapters in the book, written by the members of his rhythm section (Milcho Leviev on piano, Dave McDaniel on bass, and Ralph

[2] Claire Levy, "Diversifying the Groove: Bulgarian Folk Meets the Jazz Idiom," *Journal of Interdisciplinary Music Studies* 1, no. 2 (2007): 25-42.
[3] Claire Levy, *Ethnojazz: Local Projections in the Global Village*, Sofia: Bulgarian Institute of History of Art, 2007.
[4] Claire Levy, "Swinging in Balkan Mode: On the Innovative Approach of Milcho Leviev," *Jazz Worlds/World Jazz* (2016): 79-97.

Humphrey on drums, respectively), bring insight to the role of each of those instruments in the performance of asymmetrical meters.[5] The appearance of Balkan music in New York's jazz scene in the early 1990s is the focus of Frederick Shenker's article "Jazz Freedoms: Balkan Rhythm, Race, and World Music." Through the prism of American jazz trumpeter Dave Douglas, the author surveys the background of that movement among notable jazz musicians who were seeking new means of creative expression.[6]

Adding a cross-cultural and modern jazz pedagogy context to this discussion**,** Jordan Saul's PhD dissertation examines the use of complex meters in modern jazz, while also providing historical and theoretical background information about those meters in Arab, Hindustani, Turkish, and Balkan music cultures.[7]Additionally, the author provides a detailed overview of non-isochronous rhythms in jazz, starting from early jazz compositions in 1914 until 1969. (In chapter four I will provide an overview of assymetrical meters in jazz inspired by Balkan music, from 1959 to 2020.) Justin London discusses the perception and hierarchical structure of complex meters in his dissertation, through a comparison of several examples from both classical and popular music.[8] In his DMA dissertation, Euan Edmonds analyzes compositions and arrangements for large jazz ensemble by Hank Levy, one of the pioneers in the 1960s who started exploring asymmetrical meters in his works, primarily those influenced by Balkan (Turkish, Greek) and Hindustani music.[9] Notable jazz drummer Tony Williams and his innovations in the treatment of rhythm in modern jazz are the focus of Dave Goodman's 2011

[5] Don Ellis, *The New Rhythm Book* (Hollywood: Ellis Music Enterprises, 1972).
[6] Frederick J. Schenker, "Jazz Freedoms: Balkan Rhythm, Race, and World Music," in *Jazz Perspectives* 9, no. 3 (2015): 217-39.
[7] Jordan P. Saul, "Non-Isochronous Meter: A Study of Cross-Cultural Practices, Analytic Technique, and Implications for Jazz Pedagogy," PhD diss., York University at Toronto, 2014.
[8] Justin London, "Some Examples of Complex Meters and Their Implications for Models of Metric Perception," *Music Perception* 13, no. 1 (1995): 59-77.
[9] Euan Dougal Mackaill Edmonds, "Balancing Complexity: A Study of the Writing of Hank Levy for Large Jazz Ensemble," DMA diss., University of Illinois at Urbana-Champaign, 2018.

dissertation; the author describes is insights into the drummer' role in modern jazz settings, as well as analyzing Williams's creative approach to rhythmic subdivisions and polymetric and polyrhythmic ideas in both playing time and soloing.[10]

Along with audio and video recordings, method books are crucial sources for performers, not only in improving their skills on their instruments but in bridging performance practice and pedagogy. Several method books on asymmetrical meters in drum settings have emerged over the past few decades, catalogued by Jordan Saul in his work on non-isochronous meters:

> A body of non-scholarly mainstream publications has also emerged. This literature may be generally categorized as books which either emphasize NI (non-isochronous) metered sight-reading skills, or as books which address NI meters within specific styles or genres (e.g., progressive rock). Sight reading literature with a pedagogical focus seems to predominate. Early representative examples include the Louis Bellson and Gil Breines book *Odd Time Reading Text: For All Instruments* (Alfred Music Publishing, 1968) and Joel Rothman's book *Reading Can Be Odd* (JR Publication, 1963). More recent publications include *The Drummer's Guide to Odd Time Signatures* by Rick Landwehr (Alfred Music Publishing) and *Jazz Drum Set Independence: 3/4, 4/4, and 5/4 Time Signatures* by Steve Fidyk (Mel Bay Publishing). A number of books emphasize NI meter settings in various genres of rock. Representative examples include: *A Funky Thesaurus: For the Rock Drummer* by Charles Dowd (Alfred Music Publishing), *Odd Meter Bass: Playing Odd Time Signatures Made Easy* by Tim Emmons (Alfred Music Publishing), and the third chapter (Odd Time Signatures) in the book *Progressive Rock Guitar: A Guitarist's Guide to Styles and Techniques of Art Rock* by Glenn Riley (Alfred Music Publishing). Jamey Abersold's well known play-along series includes the recent publication of *Odd Times: Workout in Odd Time Signatures* (Abersold, 2000).[11]

To this list I will add several method books: Joe Morello's *New Directions in Rhythm* (Chicago: Jomor Publications, 1963), Ed Shaughnessy's *The New Time Signatures in Jazz* (New York: Henry Adler, Inc., 1966), Pete Magadini's *Musician's Guide to Polyrhythms* (Hollywood: Try Publishing Co., 1967), Joe Porcaro's *Odd Times* (Hollywood, Try Publishing Co., 1970), Ed

[10] Dave Goodman, "Tony Williams' Drumset Ideology to 1969: Synergetic Emergence from an Adaptive Modeling of Feel, Technique, and Creativity as an Archetype for Cultivating Originality in Jazz Drumset Performance Studies," PhD diss., (University of Sidney, 2011).
[11] Saul, "Non-Isochronous Meter," 148.

Roscetti's *Drummer's Guide to Odd Meters* (Milwaukee: Hall Leonard Corporation, 2000), and Peter Erskine's *Time Awareness for all Musicians* (Los Angeles: Alfred Music Publishing Company, 2005). These books are useful for asymmetrical meters in general, but none of them deals specifically with Balkan meters and rhythms.

Another body of method books on applying ethnic percussion instruments to the drum set has emerged in the past several decades, which are relevant to the process of transposing Balkan percussion instruments to drum set. The most prominent representatives are two books by the same author, the late drummer, percussionist and educator Ed Uribe, entitled *The Essence of Brazilian Percussion & Drum set* (Los Angeles: Alfred Music, 1994) and *The Essence of Afro-Cuban Percussion & Drum Set* (Los Angeles: Alfred Music, 1996). Probably the most comprehensive method book on asymmetrical meters which can be related to Balkan music is written by Ralph Humphrey, the drummer for Don Ellis' band, entitled *Even in the Odds: A Study of Odd Meters and Rhythms for the Drummer* (C.L. Barnhouse Company, 1980). In the first part of the book the author deals with asymmetrical quarter-note meters (5/4, 7/4, 9/4, 11/4, 12/4, and 13/4, in both swing eighth and straight eighth phrasing), while in the second part he offers extensive study of asymmetrical eighth-note meters (5/8, 7/8, 9/8, 11/8, 12/8, and 13/8). The proffered exercises contain both time keeping patterns (which involve mostly ride cymbal, hi-hat, bass drum, and snare drum) and melodic/motivic exercises (which involve mostly tom-toms and snare drum). This book is an invaluable resource for performing drummers, as they must have the total command of the presented material to be able to improvise freely in the modern jazz drum setting.

Blending Other World Musics with Jazz

The first steps towards incorporating new rhythms and sounds into jazz were undertaken by American trumpeter, composer, and arranger John Birks "Dizzy" Gillespie in late 1940s, during his involvement with the Afro-Cuban jazz movement. A true pioneer and innovator, Gillespie's constant quest for new musical challenges led him to break the boundaries of Swing in the early 1940s and to delve into the more advanced creative environment that would come to be known as Be-bop. When Gillespie invited Cuban conga drummer Chano Pozo to join his band in 1947, a successful marriage of Afro-Cuban rhythms and jazz language (harmony and melody) began. The popularity of the new style was secured by the nature of Afro-Cuban rhythms and percussion instruments, which, like Swing music, served as accompaniment for dancers.

Adding conga to his reestablished big band brought both rhythmic and timbral variety, pushing Gillespie towards further explorations of Afro-Cuban rhythms. As opposed to the rhythmic pulse in Swing, which emphasizes downbeats in 4/4 time, all Afro-Cuban rhythms are characterized by straight 8th notes counted in cut time (2/2, or notated as a two-bar phrase) and are structured around the rhythmic groove called *clave*, or key in Spanish, that guides the rhythm, melody, and form of the song.[12] Dizzy Gillespie's fusion of Afro-Cuban and swing rhythms is characterized by the use of "straight 8th notes" in the A section of songs and jazz swing rhythm for the B section (in one of the most common AABA forms in jazz). This creates both harmonic and rhythmic tension between the A and B sections. In his most representative compositions utilizing this principle, "Manteca," "Night in Tunisia, " and "Tin Tin Deo," the conga part fits perfectly into the A section, while during the B swing section, the conga part is adjusted by altering the phrasing from "straight 8th" notes to a swing triplet feel. This stylistic

[12] *Clave* refers both to the tune's foundational rhythmic pattern as well as the percussion instrument that typically plays it

alteration was adopted by other jazz drummers soon after, and eventually became part of the regular vocabulary of modern drummers.

Another musician who incorporated folk rhythms into jazz is American saxophonist Stan Getz. Inspired by Brazilian artists Joao Gilberto and Antonio Carlos Jobim, Getz introduced bossa nova music to American audiences. Getz's albums *Jazz Samba* (1962), *Big Band Bossa Nova* (1962), *Getz/Gilberto* (1963), and *Jazz Samba Encore!* (1963) were the cornerstones of fusing Brazilian ethnic music with jazz.

Blending different rhythms together led to incorporating the sound of traditional percussion instruments into the modern drum set; as demonstrated by the previous examples, the conga, a traditional instrument, made its way into the Latin Jazz world. Conversely, during the process of musical exchange between jazz and traditional music artists, the drum set was introduced to regional percussion players, enabling a single drummer to replace two or three percussion players. The same process occurred during the evolution of the modern drum set in the early 1920s, when the three percussion instruments of the marching band—bass drum, snare drum, and cymbals—became incorporated into a drum set played by a single individual. Finally, blending two different influences together led to the creation of new, hybrid composition forms, a process that also characterized the blending of Balkan and jazz music in both the United States and Balkan countries.

US Jazz and the Balkans

In this section I examine the process of blending Balkan meters into jazz settings, starting with Dave Brubeck's first experiments with asymmetrical meters inspired by Balkan music. The table below (Table 3.1) presents a chronological overview of major US and Balkan artists and their recordings, presented in a parallel timeline for the period 1958–2010 (Table 3.1).

USA	Year	BALKANS
Dave Brubeck-*Jazz Impressions of Eurasia*	1958	
Dave Brubeck - *Time Out*	1959	
	1960	Zagreb Jazz Quartet - *Zagreb Jazz Quartet*
Dave Brubeck - *Time Further Out*	1961	
Dave Brubeck - *Countdown: Time in Outer Space*	1962	Milcho Leviev - "Blues in 9" and "Blues in 10" (1962–1966)
Dave Brubeck - *Time Changes*	1964	
	1965	Zagreb Jazz Quartet - "Vardar"
Dave Brubeck - *Time In* Don Ellis - *Live in Monterey!*	1966	Zagreb Jazz Quartet - "With Pain I Was Born"
Don Ellis - *Live in 3 and (2/3)/4 Time*	1967	Duško Gojković- *Swinging Macedonia*
Don Ellis - *Autumn, Shock Treatment*	1968	
Don Ellis - *New Don Ellis Band Goes Underground*	1969	
Don Ellis - *Tears of Joy*	1971	
Dave Brubeck - *Adventures in Time* Don Ellis - *Connection*	1972	
Don Ellis - *Soaring*	1973	Duško Gojković- *Sketches of Yugoslavia*
	1975	Okay Temiz - *Turkish Folk Jazz* Duško Gojković- *Slavic Mood*
	1982	Lala Kovačev-*Balkan Impressions, Vol.1*
	1983	Lala Kovačev-*Balkan Impressions, Vol.2*
	1985	Lala Kovačev - *Izvorni folklor i džez* (Authentic folklore and jazz)
	1992	Dušan Bogdanović-*Byzantine Theme and Variations*
	1993	Bojan Zulfikarpasić - *Bojan Z Quartet*
Dave Douglas - *Tiny Bell Trio*	1994	
Dave Douglas - *Constellation*	1995	Bojan Zulfikarpasić- *Yopla* Sveti - *Sveti*
	1996	Duško Gojković- *Balkan Connection*
Matt Darriau - *Flying at a Slant*	1997	
Pachora - *Unn*	1998	Bojan Zulfikarpasić - *Koreni* (Roots)
Pachora - *Ást* Matt Darriau - *Paradox Trio*	1999	
	2000	Theodosii Spasov Trio - *Fish are Praying for Rain*
	2001	Nicolas Simion - *Balkan Jazz* Nenad Vasilic - *Folk Songs*

Table 3.1 Continued. Parallel chronological overview of major artists/recordings in blending Balkan music and jazz, 1958–2010.

Matt Darriau - *Gambit*	2002	Theodosii Spassov Trio - *Live in London* Slobodan Trkulja - *Prizivanje kiše* (Invocation of the rain)
	2003	Bojan Zulfikarpasić - *Transpacifik*
	2008	Nenad Gajin - *Kec* (One) Diran Tavitijan - *Treasure*
Matt Darriau - *Paradox Trio with Bojan Z*	2010	Slobodan Trkulja - *Kingdom of Balkanopolis*

Table 3.1 Continued. Parallel chronological overview of major artists/recordings in blending Balkan music and jazz, 1958–2010.[13]

It is interesting to notice that Dave Brubeck's first experiments with meter in America were almost immediately followed by the Zagreb Jazz Quartet works in the former Yugoslavia. Also, in America we have two streams of Balkan-Jazz fusion: one led by Don Ellis (1967–1973), and the other led by New York-based musicians (1994–2010). On Balkan soil, the artists involved in the process were active almost through the entire period examined.

Although the blending of Afro-Cuban and Brazilian musics with jazz was an innovative development, in each instance the resulting music's time signature stood still, with rhythmic frameworks remaining deeply rooted in duple (4/4) meter.[14] It was Dave Brubeck who heard an atypical meter on the streets of Istanbul during his quartet's 1958 tour across eastern Europe, Middle East, and Asia.[15] A traditional Turkish melody in 9/8 time influenced him so much that he composed a tune, "Blue Rondo à la Turk," based on that melody and recorded it as the opener for his quartet's 1959 album *Time Out*. [16] The album sold over a million copies, entering households all over the world and, at the same time, opening a whole new arena of exploration

[13] Artists from 2010–2021 will be mentioned in Table in Appendix.
[14] One exception was the frequent exploration of 3/4 time, adapted for jazz improvisation by implementing a triplet feel to create a new form of "Jazz Waltz."
[15] The Dave Brubeck Quartet traveled to East Germany, Poland, Turkey, Afghanistan, India, Ceylon, and Pakistan, as US Jazz Ambassadors.
[16] Darius Brubeck, "Blue Rondo à la Turk," liner notes for Dave Brubeck, *Time Outtakes*, Brubeck Editions, 4 December 2020.

for jazz artists involving additive rhythms. At that point, it became clear that the next basis for jazz creativity would be meter.

From their tour in 1958 until 1966, the Dave Brubeck Quartet recorded several albums experimenting with different time signatures, all of which involved "time" in their titles, indicating the importance of meter in the group's creative explorations. Brubeck's first explorations with meter started with the album *Time Out* (1959), which incorporated several compositions in mixed meter: along with forementioned "Blue Rondo à la Turk" and "Take Five," probably his most popular piece, other interesting compositions include "Pick Up Sticks" (in 6/4), "Three to Get Ready" (3/4+4/4), "Kathy's Waltz," which contains a polyrhythmic section in which the drummer plays 4/4 time over 3/4 time.[17]

The album *Time Further Out* (1961) advanced an interesting treatment of 7/8 with a triplet feel in the composition "Unsquare Dance," while *Countdown: Time in Outer Space* (1962) includes the composition "Eleven Four" (11/4=3+2+3+3 swing).[18] The subsequent album, *Time Changes* (1964), contains several compositions with asymmetrical meters, such as "Iberia" (a 3/4 jazz waltz treated as a double-time 3 x 2/4), "Someday My Prince Will Come" (two bars of 3/4 treated as 3 x 2/4), "Fast Life" (subdivisions in a 3/8 hemiola rhythm), "Three's a Crowd" (7/4 swing, 2+2+3; the drummer plays a 3+3+1 figure on the cymbals), and "World's Fair" in 13/8 (3+3+2+2+3).[19]

After Dave Brubeck, several other jazz musicians started to show interest in Balkan rhythms and incorporate them into their own music. The American trumpeter, composer,

[17] Dave Brubeck composed several tunes in 5/4 throughout his career, each one more or less resembling the most popular "Take Five."
[18] This composition inspired Don Ellis to compose his famous "Pussywiggle Stomp."
[19] The two last albums in the "time series" present compositions mostly in 3/4 and 5/4 (*Time In*, 1966) and a selected collection of Brubeck's compositions in mixed meters (*Adventures in Time*, 1972).

arranger, and innovator Don Ellis first became interested in the rhythmic heritage of India in the early 1960s, while studying with Hari Har Rao in the Department of Ethnomusicology at UCLA.[20] In the late 1960s he began exploring Balkan rhythms, inspired by Bulgarian music and in collaboration with Milcho Leviev, the notable Bulgarian jazz pianist, composer, and arranger. Don Ellis led his own big band from the early 1960s until his premature death in 1978, at the age of 44. As a versatile instrumentalist (he played drums as well) and prolific composer, Ellis is probably the most prominent artist in Balkan Jazz fusion. His orchestra often included a double rhythm section (with two drum set players, and one or two percussionists), and his compositions varied in the meters involved (ranging from 5/8 and 7/8 to his attempt to notate a piece in 172/8).[21]

Their 1966 debut album *Live at Monterey!* features, among others, one composition in 19/8 ("332221222," titled after the meter's subdivisions) and one in 9/8 meter ("New Nine," subdivided as 2+2+2+3). Another live album recorded in 1967, entitled *Live in 3-and-2/3-of-4,* contains the compositions "Upstart" in 11/8 (3+3+3+2) and "Orientation" in 16/8 (7/8 + 9/8). During 1968 the band released two albums which included compositions in 7/8 meter with a 2+2+3 subdivision: *Autumn* (with "Pussywiggle Stomp," based on the composition "The Preacher" by Horace Silver), and *Shock Treatment* (with "Beat me Daddy, Seven to the Bar," inspired by the 1940 composition "Beat me Daddy Eight to the Bar" by Will Bradley and his Orchestra). These two compositions serve as an example of Don Ellis's creative approach to asymmetrical rhythms: he often used common song forms (AABA, 12-bar blues, etc.) and put them into various mixed meters. That procedure provided a common ground for both musicians

[20] Rhythms from India are rich in complex rhythmic cycles which can be understood as subdivisions. Although it can be relevant for blending jazz and different folk music, further exploration of this is beyond the scope of this paper

[21] Don Ellis, *The New Rhythm Book*, 6.

and listeners to focus more on understanding and following the rhythm and meter. Almost at the same time as Leviev, another famous American jazz composer and arranger, Hank Levy, was also associated with the Don Ellis Orchestra. Like Don Ellis, Hank Levy was inspired by Indian and then Balkan music, and he continued to explore complex meters throughout his career (mostly big band arrangements and compositions in 5/4 and 7/4 time, with a straight eighth-note feel). [22]

In the early 1990s a group of jazz musicians interested in Balkan music gathered in New York, and their collaboration resulted in several bands that included almost the same personnel. In 1995, Grammy-nominated jazz trumpeter, composer, and arranger Dave Douglas formed a group called The Tiny Bell Trio, influenced by music from the Balkans. Along with Douglas on trumpet, the trio featured Brad Shepik on guitar and Jim Black on drums. Their debut album, *The Tiny Bell Trio* (1994), featured an opening track, "Red Emma," in 9/8 (2+2+2+3). The trio's second album, *Constellation* (1995), featured another composition in 9/8 time (also 2+2+2+3), "Taking Sides." Brad Shepik and Jim Black played together in the band *Pachora,* joined by clarinetist Chris Speed and bassist Skuli Sverrisson. They performed hybrid original compositions and new arrangements of traditional songs. Their discography consists of four albums from the period 1997–2003, of which the most representative are the 1998 *Unn* and 1999 *Ást*, with several compositions in 7/8, 9/8, and 11/8. Another significant artist from the same New York movement is Matt Darriau, a composer, arranger, and multi-reedist, interested in Klezmer, Celtic, and Balkan music. He led the band *Paradox Trio* (which was technically a quartet) with Brad Shepik on guitar, Rufus Cappadocia on cello, and Seido Salifoski on

[22] His collaboration with Don Ellis in 1972 resulted in the album *Connection*, featuring Levy's composition "Chain Reaction," among others. This arrangement includes a very innovative treatment of 13/8, divided into two sections: 6/8 (3+3) and 7/8 (2+2+3).

percussion. The band released several albums in the period 1995–2010 with their arrangements of traditional Balkan songs, as well as original compositions inspired by Balkan music.

The Balkans and Jazz

The innovations in treatment of meter initiated by Dave Brubeck had a big impact on jazz musicians in the Balkan region, where the members of the Yugoslav Zagreb Jazz Quartet experimented with blending jazz and traditional Balkan influences in the early 1960s. Their 1959 debut album, *Zagrebački Jazz Quartet* (Zagreb Jazz Quartet), consisted of both jazz standards and original compositions in a traditional jazz style/manner. Soon after this album was released, the quartet changed their lineup and released two EPs in 1965 with four original compositions.[23] One of the compositions, entitled "Vardar," composed by the Serbian jazz pianist, composer, and arranger Bora Roković, is named after a river in North Macedonia. Considering the form, arrangement, and asymmetrical meter (7/4), it is evident that this composition was highly influenced by Paul Desmond's "Take Five" from Brubeck's album *Time Out* (1959) and, more closely, by "Three's a Crowd" from Brubeck's *Time Changes* (1964). Their second album, *With Pain I Was Born* (1966), presents an arrangement of the eponymous traditional Macedonian song "So maki sum se rodila," in which the original melody, in slow 4/4 time, is blended with solo sections in swing double time. The live version of this piece as performed by *The Zagreb Jazz Quartet* (1986) is particularly interesting for my approach to asymmetrical meters, as it contains a new arrangement of the same composition with a solo section in 7/8 with swing elements on the ride cymbal.[24] Another jazz artist from the former Yugoslavia, Serbian trumpeter, composer, and arranger Duško Gojković recorded his original composition "Macedonia" in 5/4 as an opener

[23] Vibraphonist and band leader Boško Petrović was joined by pianist Davor Kajfes, bassist Miljenko Prohaska, and drummer Silvije Glojnaric.
[24] This will be discussed in more detail in the next chapter.

for his 1967 album *Swinging Macedonia*. He used elements of Balkan music throughout his career; his most representative recordings are *Sketches of Yugoslavia* (1973), *Slavic Mood* (1975), and *Balkan Connection* (1996).

About the same time, Milcho Leviev started to incorporate traditional Balkan melodies and meters into original jazz and blues compositions. His first works included experiments melding jazz forms with asymmetrical meters, such as "Blues in 9" and "Blues in 10." Leviev's correspondence with Don Ellis in the late 1960s prompted Ellis's interest in Bulgarian music. This resulted in the composition "Bulgarian Bulge," recorded on his 1969 album *New Don Ellis Band Goes Underground*. The piece is based on the traditional Bulgarian dance "Krivo Sadovsko Horo," metered in 33/16. Leviev eventually joined Don Ellis's band in 1971 for the recording of the album *Tears of Joy*, which features several compositions inspired by Balkan music: Ellis's "How's This for the Opener" in 25/8 (7/8+5/8+7/8+6/8) and "Strawberry Soup" in 9/4 (9/8+9/8), and Leviev's "Blues in Elf" in 11/8 (3+3+3+2). The album *Soaring* from 1973 contains two compositions in 7/4 ("Sidonie" and "Whiplash"), as well as "Sladka Pitka" in 9/8 (2+2+2+3).

In the late 1970s, Serbian and Yugoslav jazz drummer and composer Branislav Lala Kovačev started to blend traditional Balkan melodies with jazz improvisational language, culminating in various projects, most notably the 1986 album *Izvorni folklor i džez* (Authentic folklore and jazz). On that recording, released as a double CD package, Kovačev gathered notable musicians from the jazz and rock scenes in Yugoslavia (with double bass, rock guitar, Latin percussion), along with a traditional brass band led by folk trumpeter Feat Sejdić and the vocal group Paganke (Pagan Women). Most compositions are actually creative arrangements of traditional Balkan folk songs, such as "A Tribute to V" and "Svadbarska" in 7/8 (3+2+2),

"Wedding Dance" in 9/8 (2+2+2+3), "Walk Dance" and "Altana" in 11/8 (2+2+3+2+2), and "Thirteen" in 13/8 (2+2+2+3+2+2).[25]

In the 1990s Serbian pianist and composer Bojan Zulfikarpašić arranged several traditional folk songs in a jazz manner, as well as composed his own compositions influenced by Balkan music. His 1993 debut album, *Bojan Z. Quartet*, along with his 1998 album *Koreni* (Roots) and the 2003 *Bojan Z. Trio*, displays creative treatment of traditional Balkan melodies and rhythms. On these recordings Zulfikarpašić plays with musicians of various nationalities, providing a helpful source for comparing how drummers from different backgrounds perceive and perform Balkan rhythms and meters. [26]

Conclusion

This chapter has showed the parallel trajectory of blending jazz and Balkan music on both US and Balkan soil, through a chronological overview of major artists and their recordings, from Dave Brubeck's early experimentations with meter in his 1958 album *Jazz Impressions of Eurasia* to the 2010 album of the New York-based group Paradox Trio, led by Matt Darriau, with guest artist Bojan Zulfikarpašić from the Balkans. The process of blending Balkan and jazz music evolved simultaneously in parallel tracks on two continents; while Don Ellis was the first artist who merged Balkan and jazz music in America, the Zagreb Jazz Quartet, Duško Gojković, Lala Kovačev, Oktay Temiz, and others were demonstrating the possibilities of Balkan asymmetrical meters in jazz settings in Europe. To this fusion process, each musician brought their own artistic approach regarding form, style, and improvisational language. For drummers and percussionists, who had a major role in creating rhythmic variations and a timbral texture

[25] Other Balkan jazz musicians to mention from the same period are Iancsi Korossy (Romania/Hungary) and Anatoliy Vapirov (Ukraine, Russia). WHICH? Ukraine or Russia? Or Ukraine and Russia?
[26] His composition "The Joker" and arrangement for the song "Niška Banja" will be discussed in the next chapter.

supportive of jazz improvisation, Balkan asymmetrical meters represent an ultimate challenge regarding time feel, coordination, and versatility.

CHAPTER 4

SWINGING THE ODDS: UNDERSTANDING AND PERFORMING BALKAN METERS ON THE DRUMSET IN JAZZ SETTINGS

This chapter consists of two parts: in the first part I describe the role of the drummer in jazz ensembles through the prism of the drum set's sound and performance practice. I also explain the process of timekeeping as one of the drummer's main roles, as well as the skills of coordination and independence they use in performance. In addition, I discuss the role of the cymbals in establishing the time feel and groove, and possible ways to understand asymmetrical meters and their swinging potential.

In the second part I discuss the seven compositions that I performed on my accompanying doctoral recital. These are based on the most common Balkan meters in jazz. I offer short information about the compositions as well as notated examples of basic rhythmic patterns appearing in selected recordings that served as references for my own rhythmic applications and variations played during the recital.

PART I
The Role of the Drummer and the Drum Set

> The drummer must always stive to communicate a solid and flowing feel of the meter with the other musicians above all else. Once timekeeping has established a good foundation, his/her next job is to kick the musical phrases and engage in rhythmic dialogue with the other musicians.
>
> — Charles Dowd[27]

[27] Charles Dowd, *A Funky Thesaurus for the Rock Drummer* (Los Angeles: Alfred Music Publishing Company, 1986), 20.

In all musical situations, the drummer's major focus is the time feel, which can be described as the vital consideration of where to place the beat, or pulse, in relationship to the other members of rhythm section, notably the bass player.[28] A consideration of the coordination and instrument navigation that drum set players must undertake is pertinent for understanding the application of Balkan meters in this context. Comparing the roles and performance practice of *tapan* and drum set players illuminates their approach to creativity while composing in real time, as well as the rhythmic, melodic, and timbral choices they constantly make during that process.

Timbre and Sound Across the Drum Set

The typical jazz drum set is comprised of a bass drum, snare drum, two or more tom-toms, and various types of cymbals in different sizes and timbres (the hi-hat, ride, and crash cymbals are most frequently used). The frequency range of the entire drum set goes from the snare drum, as the highest pitched drum, through small tom-tom(s) and floor tom, whose sound most closely resembles that of the Balkan *tapan*, to the bass drum, the lowest-pitched instrument. Cymbals can also vary in size and frequency range and their timbres are typically described as dark, low, dry, medium, and so forth.

The bass drum is played with the foot on the pedal, which operates a spring-driven beater. The sound is produced when the beater hits the center of the drumhead. Some inside muffling can be used to shorten the sustain of the tone and dampen the volume, a practice also implemented by *tapan* players, who place a cloth or towel over the upper area of the drumhead. Because the beater of the drum set pedal is fixed in one position, drummers cannot change the strike area. Nonetheless, good foot technique allows drummers to perform one, two, or multiple strokes on the bass drum, as well as to adjust the volume of the strokes.

[28] Ralph Humphrey in Don Ellis, *The New Rhythm Book*, 75.

The hi-hat is played with both the foot and sticks, as two cymbals are placed on top of each other on a hi-hat stand with a spring-driven pedal. Foot movement allows those two cymbals to open ("splash sound") and close ("chick sound"), while playing with sticks on top of the hi-hat allows for both keeping time and creating sound effects. Coordinating hand and foot movements is vital when playing the hi-hat, and this coordination enables variety in articulation and dynamics.

The snare drum usually occupies the central position of the drum set and is usually the highest pitched drum in the kit. It can be made of metal or wood and comes in different sizes (usually 10–14 inches in diameter, and 3.5–8 inches in depth). The snare wires attached to the bottom head offer two basic sound possibilities: with "snares on," where the wires touch the bottom head and create a buzzing sound when the upper head is hit, and "snares off," where the wires do not touch the bottom head, creating a sound suitable for emulating the sounds of other percussion instruments such as the timbale, conga, or darbuka. The snare drum can be played with sticks, brushes, mallets, or hands/fingers on the center of the drum, close to the rim, and the rim itself.[29]

Coordination and Independence

Playing with all four limbs on the different parts of the drum set requires adjustments of the playing technique of each limb. Both of the drummer's hands are constantly moving around the drum set, switching from one playing surface to another. Besides coordination and independence, the economy and the order of movements of each limb are vital for clear execution of material played. The term *sticking* in percussion vocabulary refers to the order of hand strokes which enables the equal engagement of both hands, in which the leading hand

[29] In drum set vocabulary, the sound produced by playing the rim of the snare drum with the drumstick is called a "rim click," while hitting both the rim and the head at the same time is called a "rim shot."

usually starts the pattern, and the other hand follows in alternating motion. Considering the drum set this term is expanded to the coordination of all four limbs, which includes the shortest possible trajectories to cover when moving from one playing surface to another and requires the least amount of energy involved. When playing duple meters, the sticking patterns are usually evenly spread among two hands, and drum set player can predict which hand to use in advance. However, with asymmetric meters the number of beats measure is not even, so additional adjustment of sticking sequence is required. The same challenge occurs in foot patterns on bass drum and the hi-hat, which then reflects on the coordination of the entire body.

Keeping Time

There are several rhythmic and timbral possibilities to keep the flow of time on the drum set, and the sounds selected for that purpose pertain to the drummer's discretion and the style of music played. For basic timekeeping, the most frequently used parts of the drum set are the bass drum, snare drum, and cymbals. The ride cymbal and the hi-hat are vital tools for establishing the swing feel, and other parts of the drum set are used as a rhythmic and timbral addition to the basic groove. As we saw in the example of the *tapan* player in chapter two, the accents played on the low- and high-pitched heads of the *tapan* establish the basic groove, whereas other sounds provide rhythmic and timbral support. On the drum set, the same relationship can be established between the bass drum and the snare drum placed on the upbeats and downbeats respectively. Both drummers and *tapan* players use syncopation and dynamics when creating rhythmic variations; the main difference between the two is the use of cymbals on the drum set, as both a timekeeping and a timbral vehicle. So, when translating Balkan meters to the drum set, blending different timekeeping tools offers more possibilities, such that other parts of the drum set play a more significant role than they might in a standard jazz context.

Performance Practice

> Once the time feel (or the groove) is established to a satisfactory level, the drummer is free to use rhythmic and melodic ideas to support the flow of the music.
>
> — Ralph Humphrey[30]

In jazz contexts, the interaction between band members is brought to the highest level, as each musician takes part in improvisation. While one soloist is improvising ("soloing"), the others provide the accompaniment ("comping"). Playing a supportive role by no means should be passive: instead, other musicians are encouraged to participate in their colleague's soloing with discrete melodic, harmonic, and rhythmic ideas. The real artistry lays in balance: how the other band members support the soloist with their own ideas, while at the same time not standing in their way.

The role of drum set players in jazz goes beyond timekeeping, as they are expected to constantly create different rhythmic, melodic, and timbral variations of the basic groove. That process requires superb technical control of the instrument and familiarity with the rhythms and stylistic grooves of the music played, as well as proficiency with all possible rhythmic subdivisions of the meters involved. Equipped with these skills and abilities, the drummer can contribute to the soloist's improvisations by suggesting musical ideas during performance, as *tapan* players do in Balkan music.

The other aspect of jazz drumming is to play improvised solo sections, which usually take one of the four following forms: playing an open solo, soloing over the form of the song, "trading fours" ("or eights"), and playing over the vamp. An open solo is freely improvised section with no other musicians involved; it does not have to be related to the form of the song or the time signature. When playing an open solo, drummers can accompany themselves by

[30] Ralph Humphrey in Don Ellis, *The New Rhythm Book*, 76.

simultaneously playing a rhythmic background, or foot ostinato, as a vehicle for sustaining the groove. One of the techniques that modern jazz drummers employ in such situations is to play the hi-hat with the foot as a timekeeper, which requires outstanding coordination and independence.[31] Soloing over the form of the song requires drummers to maintain an inner time feel, as they must keep the form of the song going in their mind while creating their solo. To accomplish this, they usually hum the melody of the song as they play or follow its harmonic rhythm. When "trading 4s" or "trading 8s," the drummer answers a band member's four- or eight-bar solo with one of equal length, in "call and response" form. When soloing over a vamp, the drummer improvises over a repetitive phrase or riff supplied by the other band members. This is a very challenging for drummers, as they must demonstrate their creativity, time feel, and technical command of the instrument while soloing.

The multi-level understanding of the drum set furnished above should facilitate the readers' understanding of the drummer's role in the jazz ensemble, as well as further discussion of timekeeping, metric perspectives, and the swinging potential of Balkan meters in the following sections.

Cymbal as Symbol

The development of swing directly correlates to the evolution of the modern drum set. It dates to the beginning of the twentieth century, when the process of transposing three separate percussion lines in New Orleans' Second Line drumming resulted in the creation of a multi-part percussion set (traps) played by a single person.[32] The invention of the first bass drum pedal and hi-hat finally established the role of the drummer as the timekeeper, responsible for providing the beat and the groove for the band. In swing era bands in the 1920s and 1930s, it was common

[31] A tambourine mounted on the hi-hat stand can add additional timbral interest to the foot ostinato pattern.
[32] The bass drum, snare drum, and cymbal, each played by a different musician.

practice for the drummer to keep the beat by playing the hi-hat cymbal supported by playing each quarter note in 4/4 time on the bass drum ("four to the floor").[33] This practice emerged from the enlargement of the orchestras (up to fifteen musicians in the Big Band Era), serving as a means to support the quarter note pulse played by unamplified double bass ("walking bass") over the sound of the larger ensemble; this timekeeping was often reinforced with strong backbeats ("2" and "4") on the snare drum.[34] In late 1930s and early 1940s, drummer Kenny Clark switched the timekeeping mechanism from the hi-hat cymbal and a bass drum to the ride cymbal, establishing the now famous "spang-a-lang" ride cymbal pattern that became synonymous with jazz (Figures 4.1 and 4.2).[35]

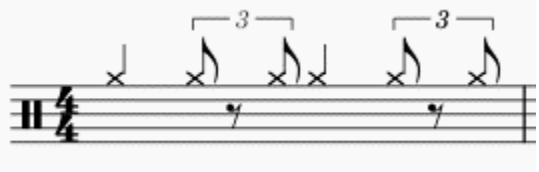

Figure 4.1. Ride cymbal swing pattern notated in triplets.[36]

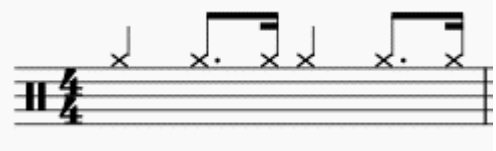

Figure 4.2. Ride cymbal swing pattern notated in 16th notes.

Clark played the back beat with his foot on the hi-hat cymbal, enabling him more freedom to add syncopated accents on the snare drum and bass drum. This integrated communication between all

[33] Steve Smith, *The History of the US Beat* (Hal Leonard, 2002), DVD.
[34] Such practice continued to be an integral part of blues, gospel, and rock 'n' roll beats.
[35] John R. Tumpak, *When Swing was the Thing* (Milwaukee, WI: Marquette University Press, 2008), 329.
[36] The exact notation is still the subject of different analysis and opinions, but most drummers and experts agree that the triplet feel/subdivision is the closest to reality. The phrasing of beats two and four changes with the tempo, going from a dotted eighth note and a sixteenth (or even 32nd note) in very slow tempos, to two eighth notes in fast tempos.

four limbs of the performing drummer opened an entirely new world of different rhythmic layers that could be played by a single musician.

In the post be-bop era drummers added more and more variations to the typical ride cymbal pattern, displacing the hi-hat from beats 2 and 4, which added more tension and texture to the rhythms played.[37] Until the present day, jazz drummers have used different variations and approaches to timekeeping, but the ride and hi-hat cymbals remain the main tools for connecting all parts of the drum set together: rhythmically (by playing the subdivisions of the beat), tonally (by producing a clear, high-pitched sound which cuts through the frequency spectrum of any type of ensemble), and stylistically (by providing the sonic texture necessary for embellishing rhythmic nuances of specific musical styles).

Hearing the Meter

As shown in chapter two, Balkan asymmetrical meters are almost always related to dance and are common to many different ethnicities living throughout the region.[38] The component of dance is present in jazz music as well, as the swing movement was initially related to dance steps and dance rhythms, all deeply rooted in 4/4 meter. Balkan asymmetrical meters, on the other hand, are not derived from adding or subtracting one beat from duple meters, or by prolonging note values in order to create longer and shorter ones; instead, they always follow the metrics of the dance pattern or lyrics (or both). The odd number as a numerator in the time signature (such as 5 in 5/8, or 11 in 11/8 meter) might suggest that each beat has the same importance or weight, and that counting practices follow accordingly: for example, 5/8 meter counted "one-two-three-

[37] Don Ellis, *The New Rhythm Book*, 82.
[38] Niţă Frăţilă, *Asimetrični ritam (aksak) u muzičkoj tradiciji balkanskih naroda* [The asymmetric rhythm aksak in the musical tradition of the Balkan peoples], 46.

four-five," or 9/8 meter counted "one-two-three-four-five-six-seven-eight-nine."[39] However, the more adequate counting for Balkan meters would be "one-two, one-two-three" for 5/8, and "one-two, one-two, one-two, one-two-three" for 9/8. So, in the case of Dave Brubeck's "Blue Rondo à la Turk," notated in 9/8, another option for notating the time signature would be (2+2+2+3)/8, as suggested by Justin London, among others.[40] In faster tempos, counting off a piece in this way can be hard to pronounce; therefore Don Ellis suggested marking the subdivisions using a method borrowed from Indian rhythmic practice: 5/8 (2+3 version: ta-ka, ta-ki-ta), 7/8 (3+2+2 version: ta-ki-ta, ta-ka, ta-ka), 9/8 (2+2+2+3 version: ta-ka, ta-ka, ta-ka, ta-ki-ta).[41]

Within the broader application of asymmetrical meters in western European classical music some musicians have attempted to notate asymmetrical meters in 4/4 time in order to ease their reading by orchestral musicians not familiar with these configurations.[42] Although this superimposition is technically possible, the idea misses the key element of Balkan grooves, which is the relationship between long composite units (three beats) and their shorter counterparts (two beats). Two examples from popular music can be very helpful in explaining this relationship, as shown in Figures 4.1 and 4.2. The first example represents the type of Balkan *aksak* meter (mentioned in chapter two) that some have called pseudo-*aksak*, which can also be found in many traditional musics around the world. For example, in Latin America it is known under the name *tresillo*. Written in 4/4 time, it consists of two long metrical units of one and a half beats duration followed by a shorter unit of one beat duration. Subdivided and counted

[39] I saw the Brubeck Brothers counting off the tune in this manner, which was very difficult even to pronounce at that tempo.
[40] Justin London, *Some Examples of Complex Meters and Their Implications for Models of Metric Perception*, 72.
[41] Don Ellis, *The Rhythm Book*, 24.
[42] Don Ellis, *The Rhythm Book*, 6.

in the style of Balkan music, this meter would be counted as "one-two-three, one-two-three, one-two" (3+3+2), as shown in Figure 4.3.

Figure 4.3. The *tresillo* pattern.

Another example can be found in a popular melody from Leonard Bernstein's 1957 musical *West Side Story*: the piece "America." The melody is notated in 12/8 but can also be perceived as 3+3+2+2+2, which reflects the relationship between 3/8 and 2/8 (Figure 4.4).

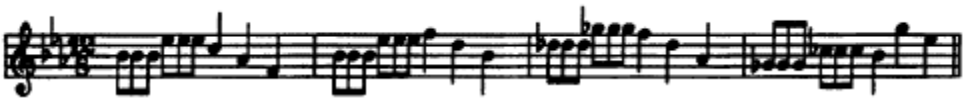

Figure 4.4. Bernstein's "America," *West Side Story*, mm.1-4.

Developing what London calls "metrical hearing" is a prerequisite for understanding and reproducing any type of meter properly.[43] In the context of Balkan meters in jazz, I understand that concept as an ability to recognize the placement of 3/8 and 2/8 units within the larger metric pattern. This relationship will help us understand how Balkan meters swing.

Swinging the Odds

> The time signature cannot "swing" without the feel of the signature firmly implanted through the body.
>
> — Charles Dowd[44]

[43] Justin London, "Some Examples of Complex Meters and Their Implications for Models of Metric Perception," 60.
[44] Charles Dowd, *A Funky Thesaurus for the Rock Drummer* (Los Angeles: Alfred Music Publishing Company, 1986), 20.

The term *swing* as a groove directly relates to the ride cymbal as a part of the modern drum set, and it is also originally related to 4/4 time. The way that drummers interpret the swing beat on the ride cymbal is their personal trademark and crucially impacts the rhythmic feel of the entire band. Going outside 4/4 time, the triplet swing pattern on the ride cymbal proves easily applicable to mixed meters with a quarter-note pulse, as shown in Figures 4.5 and 4.6.

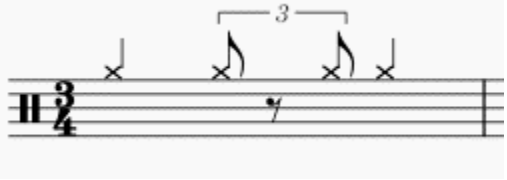

Figure 4.5. Jazz Waltz ride cymbal pattern in 3/4.

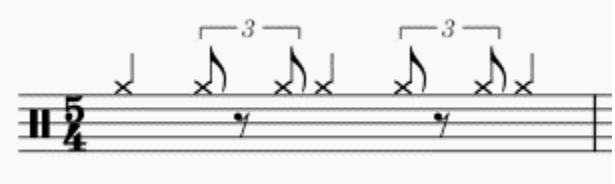

Figure 4.6. Dave Brubeck's "Take Five" ride cymbal pattern in 5/4.

In Balkan music, on the other hand, we are dealing mostly with meters that feature 8th and 16th notes as their denominators; in this regard, they may not appear to be suitable for jazz applications.[45] However, this tension between two- and three-beat composite units that comprise the meter carries a certain swinging potential, as it affords a propelling motion to the beat. As we saw in chapter two, traditionally the first notes of both the 2/8 and 3/8 units are accented, and the third note in the 3/8 unit can be understood as a pick-up note for the upcoming accent on the subsequent duple unit (as shown in Figures 4.7 and 4.8).[46]

[45] Leviev in Don Ellis, *The New Rhythm*, 92.
[46] Leviev in Don Ellis, *The New Rhythm*, 90-91.

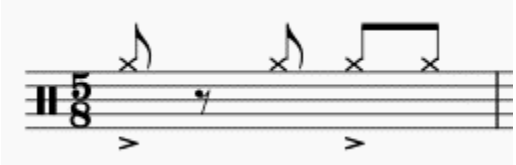

Figure 4.7. Accented 5/8 (3+2) pattern in Balkan music.

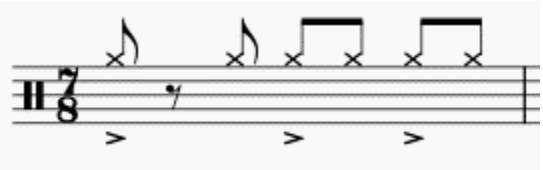

Figure 4.8. Accented 7/8 (3+2+2) pattern in Balkan music.

By focusing on accents, the similarity between the first and third notes in the three-beat unit and the triplet quarter note of the jazz pattern in Figure 4.1 becomes apparent. This relationship between duple and triple units is present in all Balkan asymmetrical meters, as each one of them can be broken down into units of 2 and 3 beats.[47]

Subtracting one beat from a 12/8 blues bar can serve as a first step toward realizing Balkan meters in jazz-related settings. This technique was used by Milcho Leviev in his composition "Blues in Elf" (Figure 4.9).

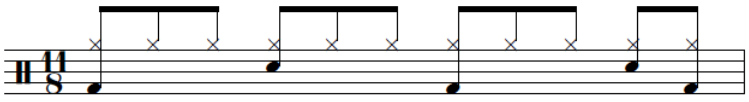

Figure 4.9. The basic rhythmic pattern of Milcho Leviev's "Blues in Elf."[48]

Further applications of Balkan meters in jazz settings will be discussed in the second part of this chapter**.**

[47] Leviev in Don Ellis, *The New Rhythm*, 92.
[48] Don Ellis*, Tears of Joy*, 1971.

PART II

Transferring Selected Balkan Rhythms to the Drum Set

> It's strange because you hear something driving and feeling good, so you transcribe it and see that there aren't a lot of notes on the page. Sometimes you are surprised by that because it sounded like a lot more than it was, but that's because you can't transcribe drive and attitude.
>
> — Vinnie Colaiuta[49]

In the second part of this chapter I will discuss the compositions performed on my accompanying recital. Each composition represents one common Balkan meter (5/8, 7/8, 9/8, 11/8, 13/8, and 4/4). Transcriptions of these meters are in the form of one- or two-bar phrases to illustrate their most common rhythmic patterns and variations. Discussion of each meter is based on recordings of the pieces performed, which served as a foundation for my own drumming. To supplement this discussion, I have designed an extensive table listing additional selections of Balkan jazz fusion that feature regional meters, recorded between 1959 and 2021 in the US or the Balkans, together with my commentary. I found listening to Balkan music an irreplaceable component of learning new meters, sounds, timbres, and forms. I hope that readers will find this table useful as a resource for beginning their own research and creative exploration of this genre.

5/8 Meter

The *paidushko horo* is a traditional dance found in several Balkan countries (Bulgaria, Macedonia, Greece, Serbia, Bosnia, Turkey, Albania) and it has many regional variations.[50] It is typically a men's dance but it can be performed by both men and women. This dance is one of

[49] Rick Mattingly, *Interview with Vinnie Collaiuta*, 1995, 9.
[50] Herman Rechberger, *Balkania: Rhythms in Songs and Dances from Albania, Bulgaria, Greece, the Republic of Macedonia, Romania, and Serbia* (Helsinki, Fennica Gehrman Oy, 2015), 32.

the most common representatives of 5/8, subdivided as 2+3, and it is usually performed at a fast tempo. The basic rhythmic pattern comes from accenting the first note of both the 2- and 3- beat units. Each may be emphasized with a low-pitched stroke ("dum"), or with "dum" on beat one and a higher-pitched stroke ("tek") on beat three (Figure 4.10).

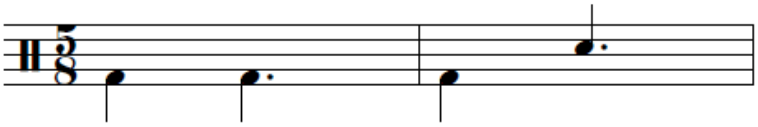

Figure 4.10. Basic rhythmic pattern for the *paidushko horo* as played on *tapan*.

A good example of this dance style is "Paidushko," from the 2005 album *Gambit* by Matt Darriau's Paradox Trio.[51] This performance involves cello, *gaida* (bagpipes), electric guitar, *kaval*, and percussion instruments.[52] One of the percussionists, Seido Salifoski, uses both of the above variations frequently throughout the recording. Around 2:07 a ride cymbal pattern enters, as shown on Figure 4.11.[53]

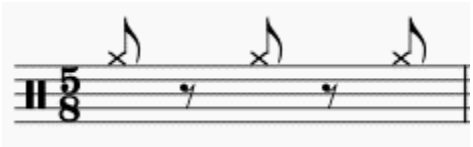

Figure 4.11. Ride cymbal pattern in "Paidushko," by The Paradox Trio.

[51] Matt Darriau's Paradox Trio, "Paidushko," MP3 audio, track 3, on *Gambit*, 2005. https://mattdarriaumusic.bandcamp.com/album/gambit

[52] Besides dumbek (darbuka), other percussion instruments are not specified in the liner notes of the recording. I speculate that Seido Salifoski is playing darbuka with added cymbal, while Matt Kilmer plays *bendir*, a Middle Eastern frame drum equipped with a snare (usually a thin string, like fish line) on the bottom of the head.

[53] On the live recording of this composition (YouTube, Live at Porgy & Bess, Vienna, 2005, https://www.youtube.com/watch?v=UrGPkBIu7ok), Seido Salifoski plays a *darbuka* with a small stick in one hand, and a cymbal with a stick in the other hand. This technique was probably adopted from *tapan* performance practice and adjusted for the *darbuka*. As far as I know, the technique had never been seen before.

When playing time patterns on the ride cymbal, the last pulse of the triple unit can be perceived as a pickup note for the accented downbeat of the subsequent duple unit. This phrasing propels the meter forward, similar to the third note in swing triplet pattern played on a ride cymbal. Switching the order of the meter's duple and triple units can create the illusion of a meter change.[54] This is frequently done throughout the recording (first appearance at 2:35), where the rhythm is played as two 5/8 phrases, creating one 10/8 bar phrase divided 3+2+2+3 (Figure 4.12).

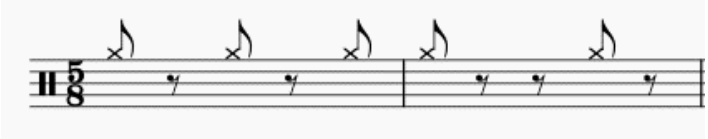

Figure 4.12. Common ride cymbal variation in 2+3.

The second percussion part is played on *bendir*, starting at around 3:45 in the recording (Figure 4.13).

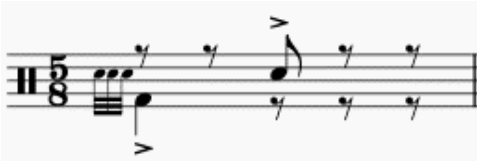

Figure 4.13. Basic rhythmic pattern played on *bendir*.

It might be interesting to notice that, at this tempo (8th note =170 bpm), the rhythm played on the *bendir* can easily be misheard as a 2/4 phrase, as shown in Figure 4.14.[55]

[54] Milcho Leviev in Don Ellis, *The New Rhythm Book*, 90.
[55] In my personal experience, counting the 2+3 subdivision out loud while practicing helps prevent confusion and allows one to stay locked into the meter.

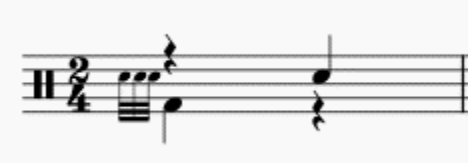

Figure 4.14. 5/8 rhythmic pattern misheard as duple meter.

When transferring this groove to the drum set, accents are played on the bass drum and snare drum respectively and usually are accompanied by either the ride cymbal or the hi-hat. Striking the bass drum on the first note of the 3/8 unit and a snare drum on the first note of the 2/8 unit gives the rhythm a backbeat feel, which is very useful when changing the rhythmic groove from one section of the song to another. At slow and medium tempos, all five eighth notes can be played on the hi-hat or ride cymbal (Figure 4.15).

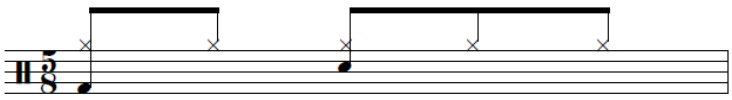

Figure 4.15. Basic 2+3 rhythm played on drum set.

Furthermore, by striking the bass drum on beat one of an initial 5/8 bar and the snare drum on beat one of the following bar, a sense of cut time can be obtained. In other words, the groove is perceived as if it has been halved (Figure 4.16).

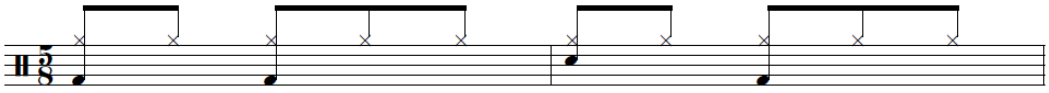

Figure 4.16. Typical "half time" variation for 3+2 rhythm played on drum set.

At faster tempos tempo it is difficult to come up with so many rhythmic variations as the focus is to keep the flow of the ride cymbal, meaning that all syncopated variations should follow each

other without interruption or hesitation.[56] Also, the number of beats per measure (five) does not leave much space for variation, as the positions of the first and third eighth notes in a 2+3 pattern, or the first and fourth eighth note in a 3+2 pattern, are usually filled in, in order to provide an anchor for the beat.

7/8 Meter

This is probably one of the most performed Balkan asymmetrical meters among musicians playing different styles (jazz, rock, Latin, pop, world, etc.). It can be counted in three different ways, depending on the position of triple unit: 2+2+3, 3+2+2, and 2+3+2.[57] The first two variations are the most common, as the third possibility (2+3+2) is very rare in the entire Balkan region.[58] In Bulgarian traditional music this meter is related to the *rŭchenitsa*, performed by either men or women (Figure 4.17).[59]

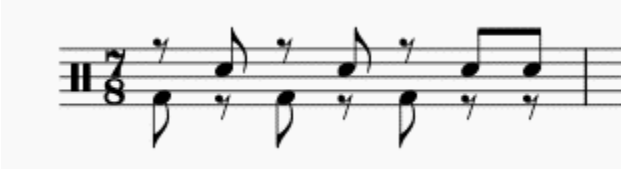

Figure 4.17. *Rŭchenitsa* in 7/8 (2+2+3).

A good example of the 3+2+2 groove is the 1995 recording of Vasil Hadžimanov's composition "Ohrid," which includes drums, keyboard, and saxophone. Drummer Marko Djordjević plays the groove on the tom-toms, emulating the sound of the *tapan*.[60] Cymbals are not used in the basic variation, and snares are off on the snare drum to avoid a buzzing sound.

[56] As I have been advised by several conductors throughout my career: "no matter what you do, keep the flow going."
[57] Don Ellis, *The New Rhythm Book*, 18.
[58] According to Arbatskij, this subdivision did not exist in tapan practice. The compositions which come to mind utilizing this subdivision are dance song "Eleno More" (Macedonia) and "Neikino Horo" (Bulgaria).
[59] Dobri Paliev, *Studies for Tapan*, 7-8.
[60] Sveti, "Ohrid," *Sveti*, Benito Records 007, 1995.

Two different sounds are used for the back beat: on beat 3 the small tom (higher pitch) is played, and on beat 6 the floor tom is played, which brings melodic and timbral diversity to the groove. The first beat, the culminating note of a five-stroke roll, is played on the floor tom, and it is accentuated by a simultaneous stroke on the bass drum to emphasize the down beat as the beginning of the metric phrase (Figure 4.18).

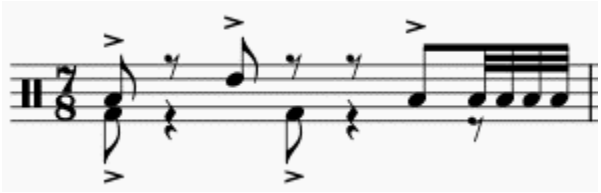

Figure 4.18. The basic groove of the composition "Ohrid."

Further development of the orchestration includes adding the ride cymbal to the rhythm (ca. 1:39 of the recording), usually to mark all seven pulses as a basic variation (or to add accents on beats one, four, and six). By omitting the accent on the third eighth note and putting the backbeat on the first beat of the two duple units, this 3+2+2 meter can be felt "in two," or as comprising two major pulses of unequal length (Figure 4.19).

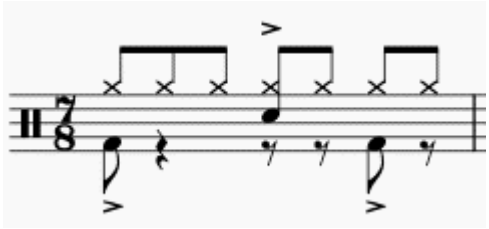

Figure 4.19. The groove with ride cymbal added.

I play this rhythmic pattern such that it emulates the Afro-Cuban cha-cha rhythm. The ride cymbal emulates the sound of the cha-cha bell (the body of the cymbal is used for non-accented notes and the bell of the cymbal for accented notes); the rim-click of the snare drum on beat four emulates the clave; and a small tom on beats six and seven emulates the high-pitched conga (Figure 4.20).

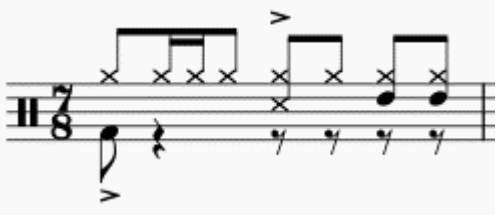

Figure 4.20. 7/8 (3+2+2) played in the Afro-Cuban style of Cha-Cha.

Playing the hi-hat with the foot can add another rhythmic layer to this groove, which brings with it new textural and timbral possibilities. It can be played on beats one, four, and six, following the accents of the 3+2+2 pattern. Also, if the hi-hat is played on beats two, three, five, and seven, a double-time feeling is implied. The latter pattern is very challenging for drummers, as it requires the feet (bass drum and the hi-hat) to keep one layer of time going simultaneously with the hand pattern, which is divided among the ride cymbal and snare drum. Also, by omitting the snare drum, adding the hi-hat played with the foot, and phrasing the two 16th notes more as a triplet feel, the rhythm inclines toward the jazz swing style. This variation leaves a lot of freedom for the other hand to move around the drum set (usually snare drum and tom-toms), as well as for the bass drum to add accents in a lower range (Figure 4.21).

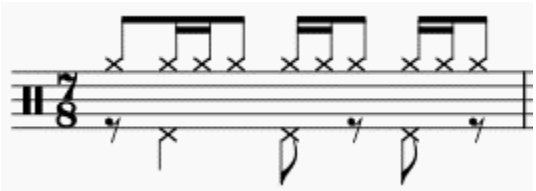

Figure 4.21. 3+2+2 pattern with swing feel.

9/8 Meter

This is also one of the most performed meters among jazz musicians. Traditional dances related to this meter are the Daichovo Horo (Bulgaria), Devetorka and Tetovsko (Macedonia),

and Čoček (southern Serbia, aka. *kyuchek* in Bulgaria), all subdivided 2+2+2+3. The southern Serbian "Fatiše kolo Vranjanke devojke" and "Agrilamas" (Greece) are subdivided 2+3+2+2, while the remaining possibilities for subdivision are 3+2+2+2 and 2+2+3+2 (found, for example, in Turkey).The most common variant used in jazz is 2+2+2+3, shown in Figure 4.22, as it is often rendered on the *tapan*.

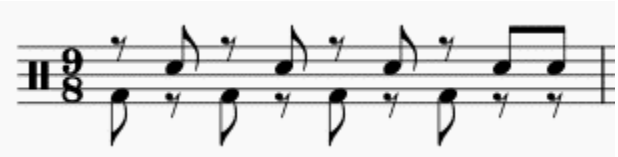

Figure 4.22. The basic 2+2+2+3 groove played on *tapan*.

The first step when transferring this rhythm to the drum set is to add cymbals. The hi-hat can play either eighth notes or quarter notes, while the bass drum usually plays the downbeats, as seen in *tapan* playing. The placement of the snare drum gives the groove its the final shape: it can play the upbeats, but it can also mark the third, seventh, and ninth beats, creating a jazz-rock fusion type of groove (Figure 4.23).

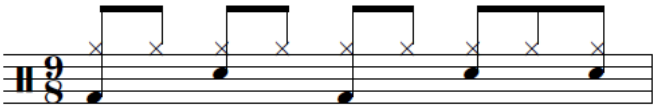

Figure 4.23. 2+2+2+3 pattern as played on the drum set.

Shifting the timekeeping to the ride cymbal opens up the timbral spectrum of the groove, usually used for transiting to the verse section or when modulating to a different tonal center. Also, switching to a different cymbal frequently occurs when soloists change to provide a different sonic background for each. As stated above, on the ride cymbal two main sounds are used: the body of the cymbal for non-accented notes, and the bell of the cymbal for accented notes. (The bell of the cymbal is very effective for playing the quarter note pulse, as its frequency cuts through the timbres of other instruments). Playing the ride cymbal opens space

for active hi-hat playing with the foot, which can add different rhythmic and timbral layers to the groove.

A good example of this technique can be heard on the 1993 recording of Bojan Zulfikarpasić's arrangement of the song from southern Serbia entitled "Nishka Bania" (The Spa of Niš).[61] The instrumentation on the recording includes saxophone, piano, double bass, and drums. Drummer François Merville plays the pattern shown in Figure 4.24, which occurs at the very beginning of the selection.[62]

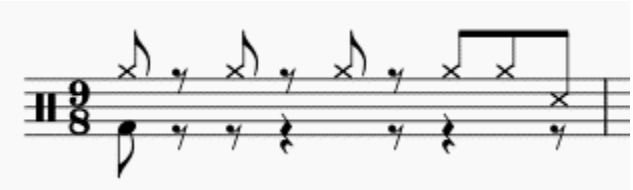

Figure 4.24. 2+2+2+3 basic pattern played on Bojan Zulfikarpašić's arrangement of "Nishka Bania."

This approach to keeping time on ride cymbal, with added bass drum on beat one and a snare rim-click on the last beat of the metric pattern, leaves a lot of space for other instruments.

Another groove played on the snare drum and the bass drum occurs at 1:25 on the recording, and it represents a direct translation from tapan performance practice. The rhythm matches the piano's accompaniment pattern, which comprises a typical rhythmic pattern of the dance genre *čoček* dance (Figure 4.25).

[61] According to some, the song was originally composed around 1927 by Dušan Cvetković, the actor, poet, and musician from the city of Niš. Composed in the manner of other traditional songs of that area, it soon became very popular among musicians and audiences in the region.
[62] Bojan Zulfikarpašić, "Nishka Bania," *Bojan Z. Quartet*, Label Bleu, LBLC 6565 HM 83, 1993.

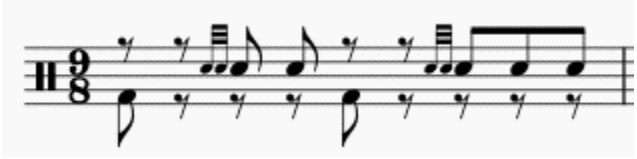

Figure 4.25. 2+2+2+3 pattern related to *čoček*.

For my recital I developed three variations inspired by the polyrhythmic possibilities of 9/8, as its metric pattern can be subdivided in several different ways. As shown in Figure 4.26, 9/8 can be perceived as if in triple time (three bars of 3/8) in Afro-Cuban style.

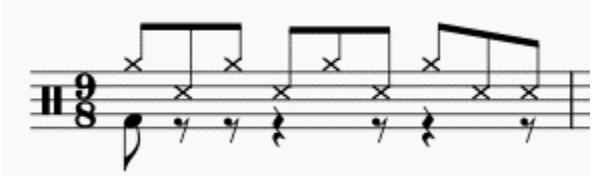

Figure 4.26. A 3/4 variation of 9/8 meter in Afro-Cuban style.

Further orchestration of the pattern includes using the bell of the drum set's cymbal to emulate a mambo bell, the rim click of the snare drum as a clave sound, and the small tom and floor tom to imitate the high-pitched and low-pitched congas (respectively), as shown in Figure 4.27.

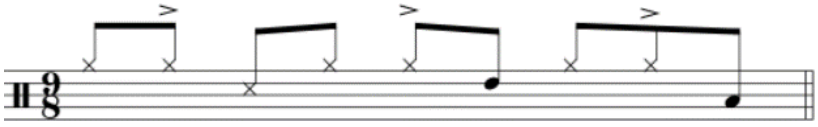

Figure 4.27. The orchestration of the 9/8 pattern on the drum set in Afro-Cuban style.

The swinging potential of 9/8 is shown in Figure 4.27, where the traditional swing rhythm played on the ride cymbal and the hi-hat can be (re)interpreted with a slight change in phrasing of the last three beats. The key element of this variation is the hi-hat, played with foot, which sounds beats two and four as in jazz swing, while the leading hand, which plays the ride

cymbal, alters the pattern on the beat four. That is, instead of a broken triplet, the ride cymbal plays a quarter note followed by an eighth note (Figure 4.28).

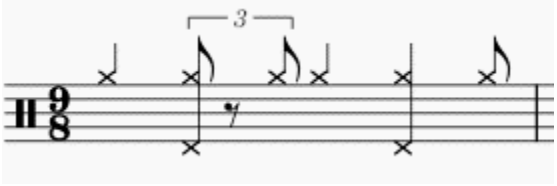

Figure 4.28. Jazz swing influenced variation of the 9/8 pattern.

Finally, the application shown in Figure 4.29 resembles the polyrhythmic "Jungle Beat" drumming style, exhibiting three metric and texture levels. The first is created by the relationship between the bass and snare drum (as the anchors of the groove), the second is the hi-hat pulse (which fluctuates between a quarter note and eighth note pulse), while the third is created by the 16th notes played on the snare at lower dynamic level (the so-called *ghost notes*).

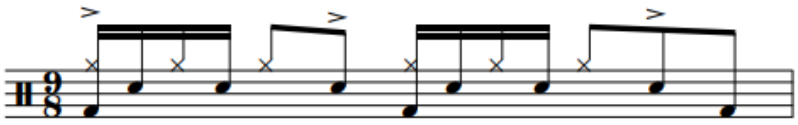

Figure 4.29. "Jungle Beat" drumming variation of the 2+2+2+3 pattern.

11/8 Meter

Turning now to more complex meters, the same general approach is used when transposing Balkan rhythmic patterns to the drum set. Once a steady rhythmic pulse has been established, the sounds to be used are at the drummer's discretion. The relationship between duple and triple units becomes more complicated, as the number of overall units has increased. In the most common subdivision of 11/8 used in jazz improvisation, only a single triple unit appears—as in the previous meters discussed—while duple units are added around it.

The *gankino horo* (Ganka's dance), a traditional dance from Bulgaria, is one of the representatives of 11/8 meter and it is subdivided by 2+2+3+2+2. The basic rhythmic pattern played on *tapan* is shown in Figure 4.30.

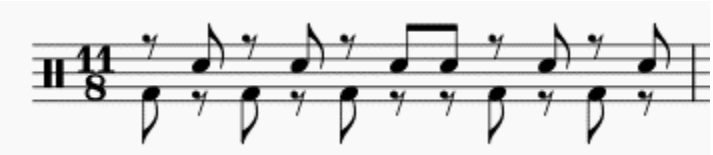

Figure 4.30. The basic rhythmic pattern of the *gankino horo* in 11/8.

This subdivision can be perceived as a palindrome, with the triple unit in the middle and two duple units on each side. This allows for multiple approaches to discerning the meter; two of these are 4+7 and 7+4, depending on how the internal arrangement of seven pulses that embraces the triple unit is heard.

An arrangement of this dance genre for saxophone, guitar, double bass, and drums can be heard on the 2001 album by the Nicolas Simion Group entitled *Balkan Jazz*.[63] The basic pattern of the groove played by drummer Tom Skinner is shown in Figure 4.31. It occurs at the beginning of the recording, played on the rims of the snare drum or tom-toms.

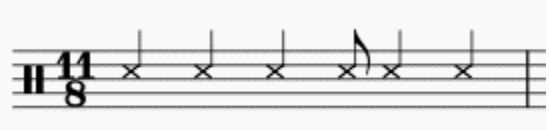

Figure 4.31. The basic rhythmic pattern for the *gankino horo* played by Nicolas Simion Group.

Further orchestration by Skinner includes adding cymbals (either the hi-hat or the ride cymbal, played with sticks) to mark the groove's subdivisions. Switching to the ride cymbal allows more

[63] Nicolas Simion Group, *Balkan Jazz* (Intuition, INT 3339 2, 2001).

freedom for the hi-hat played with the foot, and the optional mounted tambourine on the hi-hat stand can add more timbral variety. Another special effect used when playing the hi-hat with the foot is the sustained "splash" sound, which blends nicely with the ride cymbal and serves to demarcate the triple unit. Adding the snare drum back beat defines the shape of the groove, as it is usually placed at the beginning of the triple unit (beat five) and of the two subsequent duple units (beats eight and ten).

13/8 Meter

Krivo sadovsko horo is probably the most popular representative of this meter, subdivided as 2+2+2+3+2+2. As in the *gankino horo*, in this subdivision of 13/8 there is only one triple unit; however, a third duple unit is added before it. The basic rhythmic pattern of *krivo sadovsko horo* is shown in Figure 4.32.

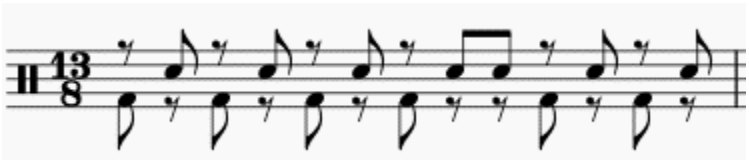

Figure 4.32. The basic rhythmic pattern of *krivo sadovsko horo* played on *tapan*.

Since this subdivision has multiple units, it can also be perceived as 9+4 or 6+7, all in relation to the position of the triple unit within the meter.

A great arrangement of this piece for brass band can be heard on the recording of the Sevlievo Big Band from central Bulgaria.[64] It features a full big band with added tuba, electric guitar, bass guitar, tapan, and the snare drum. In this case the basic rhythmic pattern is divided between the tapan and snare drum, where the tapan plays the low- and high-pitched accents, and

[64] Big Band Sevlievo, *Krivo Sadovsko Horo*, https://www.youtube.com/results?search_query=sevlievo+big+band

the snare drum plays the smaller note values as another textural layer. When transferring this groove to the drum set, one possibility is to make the relationship between the low- and high-pitched tones (the bass drum and the snare drum) similar to that of rock music, as shown in Figure 4.33.

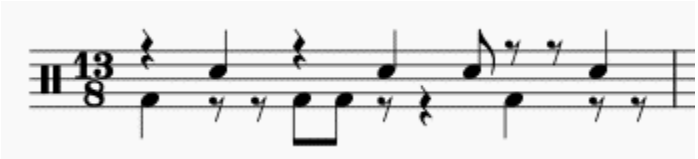

Figure 4.33. A common variation of 13/8 applied to the drum set.

I have developed a variation of this meter that resembles the Afro-Cuban style of mambo, in which the ride cymbal plays the bell pattern, the bass drum emulates the *tumbao* line, the snare's rim click simulates the clave, and the small tom and floor tom mimic the sounds of the high- and low-pitched congas (Figure 4.34).

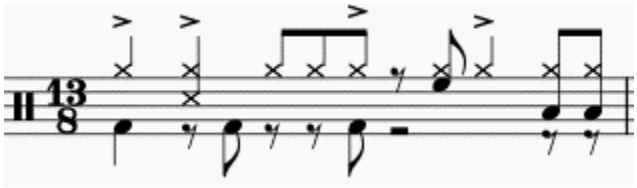

Figure 4.34. The original 13/8 pattern in the Afro-Cuban mambo style.

12/8 (4/4) Meter

The composition "The Joker," by Bojan Zulfikarpašić, from his 1998 album *Koreni* (Roots) is an excellent example of blending different musical influences together.[65] It includes saxophone, piano, double bass, drums, and percussion. The melody is written in 12/8 and resembles Balkan music in its sound and ornamentation (as shown on Figure 4.35).

[65] Bojan Zulfikarpašić, *Koreni,* Label Bleu, LBLC 6614, 1998.

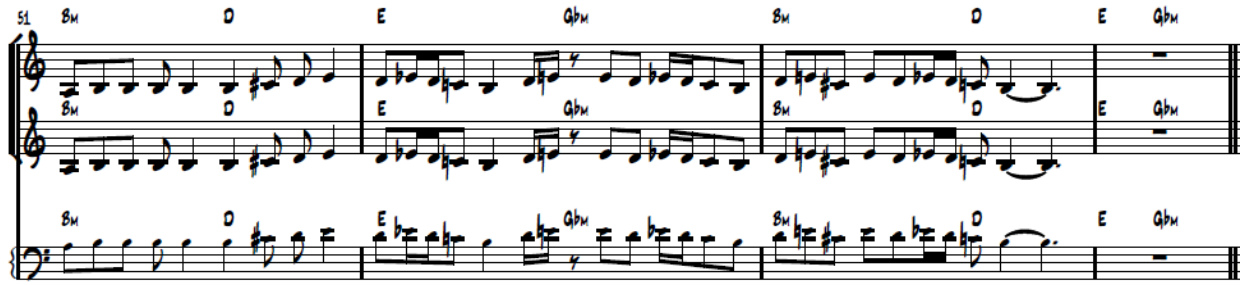

Figure 4.35. The first four bars of the melody from Bojan Zulfikarpašić's composition "The Joker."

The accompanying rhythm, called Chaabi in Morocco, is very challenging due to the displacement of the bass and snare drum notes. As we can see in Figure 4.36, the bass drum plays on the beats five and eleven (the middle note of the second and fourth triple unit), which makes it hard for the unfamiliar ear to count it (as the most common variation of 12/8 meter includes a strong downbeat feel). Also, the displacement of the snare drum results in the sense of a missing backbeat, and since there are no accents on beats one and seven, this creates a tectonic shift in our rhythmic perception (Figure 4.36).

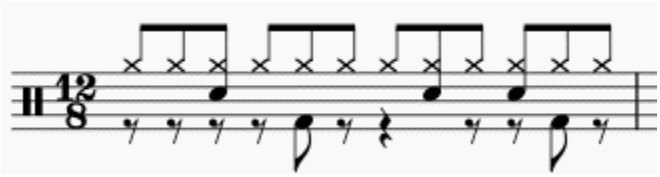

Figure 4.36. 12/8 Chaabi rhythm played on drum set.

For the purpose of my recital, I decided to transpose this 12/8 rhythm to the more familiar Afro-Cuban *bembe* style, which corresponds more to a jazz rhythm setting. I used the ride cymbal to imitate the cowbell pattern, the snare drum's rim click for the clave, and the small tom for the high-pitched conga. As shown in Figure 4.29, the strong quarter-note pulse (if the 12/8 bar is reinterpreted as a 4/4 bar comprising four eighth-note triplets) is further supported by foot

strokes on the hi-hat, while the bass drum's accent on beat one and the rim click on beat seven divide the meter in two, as shown in Figure 4.37.

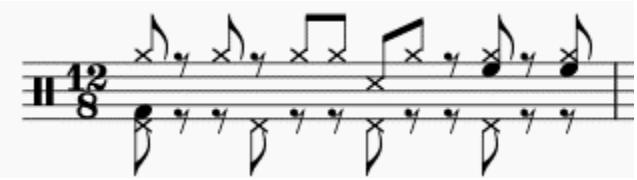

Figure 4.37. The Afro-Cuban *bembe* rhythm played on the drum set.

Since the melody originally written out in 12/8 can also be perceived in 4/4 time if written out in 16th notes, it felt natural to use this polyrhythmic possibility to transition the groove to the 4/4 *čifteteli* pattern well-known across the Balkans and Middle East, shown in Figure 4.38. Interestingly, this melodic and rhythmic vamp is also known as the "Balkan rumba" among some regional musicians.

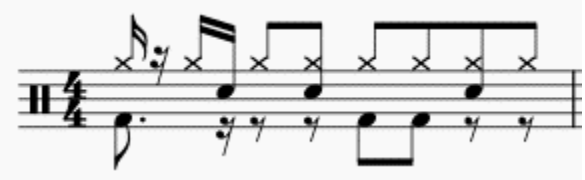

Figure 4.38. A variation of the *čifteteli* vamp played on the drum set.

The key moment is the transition from 12/8 to 4/4, where the drummer's role is to lead the band by setting up the fill that will lead to the new meter. One common way to effect this transition is to emphasize beats three and four of the new meter within the previous metric construct.

"The Girl from Ipanema"

This popular bossa-nova composition is part of the standard jazz repertoire. Written in duple time, its chord changes are structured in two-bar phrases when perceived in 4/4 time. Inspired by the idea of fusing some elements of Balkan music with jazz, I arranged the melody

(*head*) of the composition to begin in 4/4, then switch to 7/4, and finally move to 7/8. The typical bossa-nova pattern as played on drums is shown in Figure 4.39, where the ride cymbal plays the eighth-note subdivisions, the rim-click of the snare drum simulates the clave, and the bass drum and pedal hi-hat together maintain the bossa-nova groove that corresponds to the bass line.

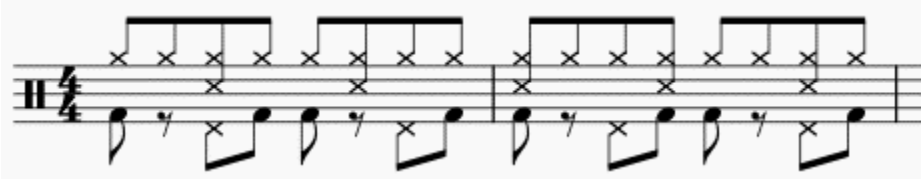

Figure 4.39. The typical bossa-nova pattern played on the drum set.

The transition to 7/4 is accomplished by subtracting the last quarter note of the second bar, so that we get a bar of 4/4 and a bar of 3/4 as a single unit. Although it might look like a simple mathematical operation to eliminate one beat, in practice it requires adjustments on all levels and in all instruments: the melody must be phrased to fit the new meter, as well as the bass guitar line and the piano's comping pattern. For the drummer, the major challenge is to adjust the pulsation of the bass drum and the hi-hat played with foot, as there is no longer a symmetrical space at the end of the meter. One of the options for effecting a smooth transition is shown in Figure 4.40, where the hi-hat note that used to be on beat 15 is omitted in favor of the bass drum, in order to stay in synch with the bass guitar's pulsations. For this transition we have to think of 4/4 as 16/8. This alteration requires a high level of coordination and independence from the drummer.

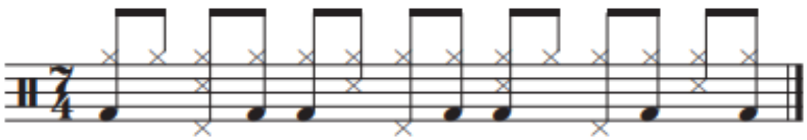

Figure 4.40. The bossa-nova pattern in 7/8 played on the drum set.

Finally, I subdivided the 7/4 bar into two bars of 7/8, while keeping the melody staying in transposed 7/4 meter. In this way it sounds as if the piano, bass, and drums have accelerated to quasi-double-time beneath the melody. The new meter resembles a 2+2+3 subdivision of 7/8, where the bass drum strokes on beats one and three and the snare drum (with snares off) on beat two sustain the foundation of the groove, and the tom-tom and floor tom, sounding on the last beat of the meter, simulate the *tapan* (Figure 4.41).

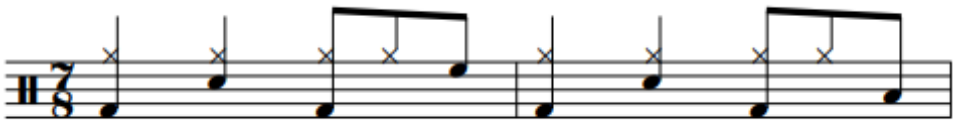

Figure 4.41. The two-bar phrase of 7/8 rhythm used for my arrangement of "The Girl from Ipanema."

Some Considerations and Useful Tips

Learning to play a new meter is a matter of continuous practice, as we have to get used to new ways of thinking and counting. Thus, it might be difficult for musicians who are used to playing in 4/4 time to switch to different meters, but this was true when initially learning to play in 3/4 time as well.[66] Moreover, learning to improvise in asymmetrical meters is challenging because we have to keep our place in the new meter as well as think about something creative to play at the same time.[67]

There is no substitution for focused listening to music, as that is the way how we learn new languages, sounds, and meters. The first step in listening to Balkan meters is to memorize the melody, as this will help us to decipher the meter and locate the beginning of the pattern. The second step is to focus on the meter itself and try to locate the placement of triple and duple units

[66] Don Ellis, *The New Rhythm Book*, 12.
[67] Ibid., 13.

within it. For complex structures the same principle applies, but we can now search for bigger units within the meter, such as groups of four, six, seven, and nine. Counting subdivisions during listening or practicing helps tremendously with building the inner hearing of the meter: counting duple units as "one-two" and triple units as "one-two-three" proves to be one the easiest ways to understand Balkan meters properly. The next step includes humming the melody of the tune or melodic/harmonic riff to maintain the meter, and then trying to play the time or even simple solos. The metronome can be very helpful as well in marking the pulses of a meter and its subdivision; when practicing asymmetrical meters, if the metronome proceeds in duple time, it will mark the "offbeats" in every other bar.

> In conclusion, I would like to say that dealing with odd-time signatures is a very exciting thing, but we should remember that the signature itself (whichever one it may be) is only a tool used to put the music down on the paper, not a purpose. The golden rule of simplicity applies to dealing with odd meters, as well. We can combine, construct and play fantastic combinations like 73/16, but what listener need is grooving … not figures. So after you have learned a new meter, forget the mathematics and concentrate on the new exciting groove the meter can offer.
>
> —Milcho Leviev[68]

[68] Milcho Leviev, in Don Ellis, *The New Rhythm Book*, 65.

SUMMARY

The Balkan region has a rich musical heritage which for centuries was passed down from one generation to another through oral tradition. Balkan music has its own instruments, sounds, timbres, forms, ornamentation, and harmonic and melodic structures. A vital element of Balkan music performance is dance, which was embedded in traditional life through seasonal and religious celebrations and social gatherings for centuries. Together music and dance in the Balkans are characterized by unique asymmetrical meters, probably the most prominent characteristic of this music. Consisting of 5, 7, 9, 11, 13, or more beats per measure, asymmetrical meters are subdivided into duple and triple units, and the rhythmic tension between these units gives the rhythm a propulsive momentum.

Traditional Balkan percussion instruments such as *tapan*, *darbuka*, and *daire* have their own specific sound and timbre, which to a large extent correlates with the modern drum set. However, with cymbal included, the drum set offers wider sonic spectrum than a single percussion instrument, as well as the possibility to play several rhythmic layers at once. The performance practice and the role of the *tapan* and drum set in an ensemble echo each other; that is, *tapan* and drum set players provide a steady time feel and initiate creative rhythmic and melodic ideas. By varying the basic rhythmic pattern in real time and interacting with other players at the same time, both *tapan* and drumset players can be considered "composers on the spot."

The tension between duple and triple units within the Balkan asymmetric meters carries their swinging potential, which is the key element in establishing a solid groove. Dave Brubeck was one the first jazz artists who recognized the potential of asymmetrical meters in jazz, and his 1959 album *Time Out* marks the beginning of experimenting with different time signatures in

jazz. About the same time, Balkan musicians such as the Zagreb Jazz Quartet, Bora Roković, and Duško Gojković started with blending Balkan music and jazz. The initial idea was to put Balkan melodies into a jazz setting by adding advanced harmony, a swing or Latin groove, and to incorporate solos with more jazz vocabulary. In the late 1960s, Bulgarian pianist and composer Milcho Leviev was a key link in bringing Balkan meters to the US, first by corresponding with and finally joining Don Ellis's band in 1970. From that point the fusion of Balkan-jazz just became more and more sophisticated through the work of other musicians on both sides of the Atlantic. This culminated in Bojan Zulfikarpašić's music in the early 1990s, which blended the two styles in a unique way, keeping the key elements of both worlds distinctive while creating a cohesive, compact form for improvisation using both musical languages. Around the same time jazz musicians from the New York scene, such as Matt Darriau, Seido Salifoski, Brad Shepik, Dave Douglas, and others, became interested in Balkan music, which resulted in several recordings of Balkan and jazz fusion. Overall, the process of blending Balkan and jazz music, from Brubeck's initial explorations with time signatures to Bojan Z's sophisticated fusion of Balkan music and jazz, demonstrates the evolution of the approach and techniques used in the process. Especially in the context of globalization, and given the high expectations to which contemporary musicians must respond, modern drummers should be aware of this Balkan-jazz subgenre and how to incorporate Balkan meters and styles into their own performances in a sensitive way.

Drum set students who want to explore Balkan meters and styles, and to incorporate them into their own performance practice, may find this thesis a starting point for their journey. By providing an historical overview of how Balkan music and jazz have been blended, along with an analysis of selected recordings and recommendations for performance technique, this thesis

seeks to demystify the asymmetrical meters that might be enigmatic to many jazz drum students. This is the case mainly because rhythm studies are usually incorporated into aural skills and ear training courses. Yet, many of today's prominent jazz musicians use Balkan meters, such that it has become a distinctive stylistic aspect of jazz music. Professional drummers are expected to be familiar with different styles of music, and the ability to hear, recognize, play, and improvise in Balkan meters adds a valuable skill set to their performance.

In the future, as an outgrowth of this project and my professional development, I plan to create a course on meter comprehension that will help students, both music majors and those who are not, to better understand the rhythm, pulse, and subdivisions of asymmetrical meters, especially. My goal is to perform and record my original compositions and offer workshops for musicians interested in delving into Balkan meters.

More broadly, the fact that jazz and Balkan music have been blended for more than six decades now advocates strongly for the existence of a Balkan jazz subgenre. Although the term "Balkan Jazz" is commonly used to describe brass and multi-instrument wedding bands that play Balkan music (similar to New Orleans Second Line ensembles), I would argue that the term is broader than that. This thesis asserts that Balkan jazz refers to the merging of elements of Balkan music (meters, instruments, ornaments, modes/scales) with the overall musical environment of jazz (harmony, form, improvisational language, and swing). Merging the potentials of Balkan music and jazz is highly beneficial for all musicians, especially drummers, who can and should learn to play these styles and eventually show that "even odd can swing."

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APPENDIX A

SELECTED LIST OF BALKAN JAZZ RECORDINGS (1958–2021)

Artist	Composition	Album	Percussionist	Meter
5/8				
Pachora	Maria Changed	*Ást* (1999)	Jim Black	2+3
Matt Darriau	Paidushko	*Gambit* (2005)	Seido Salifoski	2+3
Matt Darriau	Pump Up the Goat	*Paradox Trio* (2005)	Seido Salifoski	2+3
Nicolas Simion	Balkanella	*Transylvanian Mood* (2015)	Kruno Levacić	5/8, 7/8
Nicolas Simion	Balkanella	*WDR Big Band: Balkan Jazz* (2017)	Benjamin Henocq/ Kruno Levačić	5/8, 7/8
Nikolov-Ivanović Undectet	One More Day	*Frame and Curiosity* (2021)	Srdjan Ivanović	5/8 (2+3), 5/4
7/4 and 7/8				
Dave Brubeck	Unsquare Dance	*Time Further Out* (1961)	Joe Morello	2+2+3
Don Ellis	Pussywiggle Stomp	*Autumn* (1968)	Ralph Humphrey	2+2+3
Don Ellis	Beat Me, Daddy, Seven to the Bar	*Shock Treatment* (1968)	Steve Bohannon	3+2+2
Dusko Gojković	Macedonia	*Sketches of Yugoslavia* (1973)	Tony Inzalaco	3+2+2
Don Ellis	Sidonie	*Soaring* (1973)	Ron Dunn	2+2+3
Don Ellis	Whiplash	*Soaring* (1973)	Ron Dunn	2+2+3
Okay Temiz	Introduction/ Batum	*Turkish Folk Jazz* (1975)	Okay Temiz	2+2+3
Lala Kovačev	A Tribute to V	*Balkan Impressions, Vol. 1* (1982)	Lala Kovačev	3+2+2
Lala Kovačev	Svadbarska	*Izvorni Folklor i Dzez* (1985)	Lala Kovačev	3+2+2
Andy Irvine & Davy Spillane	Chetvorno Horo	*East Wind* (1992)	Noel Eccles & Paul Moran	3+2+2
Bojan Zulfikarpašić	Night Thing	*Yopla* (1995)	François Merville	2+2+3
Sveti	Ohrid	*Sveti* (1995)	Marko Djordjević	3+2+2
Bojan Zulfikarpašić	Zulfikar-Pasha	*Koreni* (1998)	Tony Rabeson/ Karim Ziad	3+2+2
Pachora	Laz	*Unn* (1998)	Jim Black	2+2+3
Pachora	Blue Starfish	*Ást* (1999)	Jim Black	2+2+3
Pachora	Filipovska Rachenitsa	*Ást* (1999)	Jim Black	2+2+3
Matt Darriau	Rufus 7	*Paradox Trio* (1999)	Seido Salifoski	2+2+3
Theododii Spasov	Karchenitsa 216	*Fish Are Praying for the Rain* (2000)	Hristo Yotsov	2+2+3
Theododii Spasov	N-N-N-Natatak	*Fish Are Praying for the Rain* (2000)	Hristo Yotsov	2+2+3
Matt Darriau	Bartok 7	*Live* 2005 (Youtube)	Seido Salifoski	2+2+3
Matt Darriau	Theo's Gambit	*Gambit* (2005/2002)	Seido Salifoski	2+2+3
Matt Darriau	Faux 7	*Gambit* (2005/2002)	Seido Salifoski	7/4 and 7/8

Theododii Spasov	Igra s Kaval	*Golemite Bŭlgarski Maistori, Vol. 2 Compilation on Spotify* (2006)	Hristo Yotsov	2+2+3
Matt Darriau	Zdravo	*Paradox Trio with Bojan Z* (2010)	Seido Salifoski	2+2+3
WDR Big Band	Seven Dreams	*Balkan Jazz* (2017)	Benjamin Henocq/ Kruno Levacić	7/4 - 7/8 (2+2+3)
9/8				
Dave Brubeck	Blue Rondo à la Turk	*Time Out* (1959)	Joe Morello	2+2+2+3/ 3+3+3
Milcho Leviev	Blues in 9	Bulgarian National Orchestra Archive (1962-1966)	unknown	2+2+2+3
Don Ellis/ Hank Levy	New Nine	*Live at Monterey!* (1966)	Steve Bohannon, Alan Estes	2+2+2+3
Don Ellis	Sladka Pitka	*Soaring* (1973)	Ron Dunn	2+2+2+3
Dusko Gojković	Finale	*Sketches of Yugoslavia* (1973)	Tony Inzalaco	2+2+2+3
Okay Temiz	Anadol Havasi Trabzon Karsimalasi	*Turkish Folk Jazz* (1975)	Okay Temiz	2+2+2+3
Lala Kovačev	Wedding Dance	*Balkan Impressions Vol. 1* (1982)	Lala Kovačev	2+2+2+3
Dušan Bogdanović	Variation 4	*Byzantine Theme and Variations* (1992)	Mark Nausef	2+2+2+3
Bojan Zulfikarpašić	Niska Banja	*Bojan Z Quartet* (1993)	François Merville	2+2+2+3
Dave Douglas	Red Emma	*Tiny Bell Trio* (1994)	Jim Black	2+2+2+3
Dave Douglas	Taking Sides	*Constellation* (1995)	Jim Black	2+2+2+3
Matt Darriau	Seido 9	*Flying at a Slant* (1997)	Seido Salifoski	2+2+2+3
Pachora	Pitta	*Unn* (1998)	Jim Black	2+2+2+3
Theodosii Spassov	Little Melody	*Live in London* (2002)/2015	Hristo Yotsov	2+2+2+3
Bojan Zulfikarpašić	Niner	*Transpacifik* (2003)	Nasheet Waits	3+2+2+2
10/8				
Milcho Leviev	Blues in 10	Unknown	Unknown	2 x 5/8
Pachora	Invocation	*Unn* (1988)	Jim Black	3+2+2+3
11/8				
Don Ellis	Upstart	*Live in 3 2/3 /4 Time* (1967)	Alan Estes, Steve Bohannon	3+3+3+2
Done Ellis	Blues in Elf	*Tears of Joy* (1971)	Ron Dunn, Ralph Humphrey	3+3+3+2
Lala Kovačev	Walk Dance	*Balkan Impressions Vol.1* (1982)	Lala Kovačev	2+2+3+2+2
Lala Kovačev	Altana	*Balkan Impressions Vol.2* (1983)	Lala Kovačev	2+2+3+2+2
Pachora	Kaponata	*Unn* (1998)	Jim Black	2+2+3+2+2
Pachora	Freaky Person	*Ást* (1999)	Jim Black	2+2+3+2+2
Theododii Spasov	Fish Are Praying for the Rain	*Fish Are Praying for the Rain* (2000)	Hristo Yotsov	2+2+3+2+2
Nicolas Simion	Gankino Horo	*Balkan Jazz* (2001)	Tom Skinner/Ramesh Shotam	2+2+3+2+2

Slobodan Trkulja	All the things U R (not able to play in 11/8)	*Prizivanje kiše* (2002)	Igor Malesević	2+2+3+2+2
Matt Darriau	Kopanitsa	*Paradox Trio* (2005)	Seido Salifoski	2+2+3+2+2
Avishai Cohen	Eleven Wives	*Gently Disturbed* (2008)	Marc Giuliana	2+2+2+2+2
Slobodan Trkulja	For My Father	*Kingdom of Balkanopolis* (2010)	Arie Den Boer	2+2+3+2+2
Slobodan Trkulja	Golden Apple	*Kingdom of Balkanopolis* (2010)	Arie Den Boer	2+2+3+2+2
Balkan Spirit Ensemble	Uci me majko, karaj me	*Live @ Zig Zag, Berlin* (2016)-YouTube	Dimitris Christides	3+2+2+2+2
Ivanovic-Nikolov Undectet	A be ne be, a be	*Artistry in Broken Rhythm* (2017)	Srdjan Ivanović	2+2+3+2+2
Dimitrije Vasiljević	Balkana Urbana	*Accidental Nomad* (2018)	Andy Wheelock	3+3+3+2
Dusan Jevtović	If You See Me	*If You See Me* (2020)	Gary Husband	3+3+3+2
12/8				
Lala Kovačev	Gipsy Girl	*Balkan Impressions Vol.1* (1982)	Lala Kovačev	3+3+3+3
Bojan Zulfikarpašić	La Petit Gitane	*Koreni* (1998)	Tony Rabeson/ Karim Ziad	3+3+3+3
Bojan Zulfikarpašić	The Joker	*Koreni* (1998)	Tony Rabeson/ Karim Ziad	3+3+3+3
Miroslav Tadić	Kucano Oro	*Live in Plovdiv* (YouTube-2009)	Marc Nauseef	3+2+2+3+2
13/8				
Don Ellis	Chain Reaction	*Connection* (1972)	Ralph Humphrey	13/8 = 6/8 (3+3) + 7/8 (2+2+3)
Big Band Sevlievo	Krivo Sadovsko Horo	Youtube	Unknown	2+2+2+3+2+2
Lala Kovacev	Thirteen	*Balkan Impressions Vol.2* (1983)	Lala Kovačev	2+2+2+3+2+2
Lala Kovacev	Thirteen	*Izvorni Folklor i Dzez-Live* (1985)	Lala Kovačev	2+2+2+3+2+2
15/8				
Pachora	Falevasinta	*Ást* (1999)	Jim Black	2+2+2+2+3+2+2
Bill Bruford	A Part, And Yet Apart	*Earthworks* (1999)	Bill Bruford	4/4 with 15/8 in the middle
Combined Additive Meters				
Don Ellis	332221222	*Live at Monterey!* (1966)	Steve Bohannon, Alan Estes	19/8= 3+3+2+2+3+2+2+2
Don Ellis	Orientation	*Live in 3 2/3 /4 Time* (1967)	Steve Bohannon, Alan Estes	16/8= 7/8 (3+2+2) + 9/8 (3+2+2+2)
Don Ellis	Bulgarian Bulge	*New Don Ellis Band Go Underground* (1969)	Ralph Humphrey, Rick Quintinal	33/8= 8/8 (2+2+2+2) + 7/8 (3+2+2) + 11/8 (2+2+2+3) + 7/8 (3+2+2)
Don Ellis	Strawberry Soup	*Tears of Joy* (1971)	Ron Dunn,	9/4 = 9/8 + 9/8

			Ralph Humphrey	
Don Ellis	How's This for Openers?	*Tears of Joy* (1971)	Ron Dunn, Ralph Humphrey	25/8 = 7/8 (2+2+3) + 5/8 (2+3) + 7/8 (2+2+3) + 6/8 (2+2+2)
Peter Erskine	Bulgaria	*Time Being* (1994)	Peter Erskine	6/4
Bojan Zulfikarpašić	Un demi-porc et deux caisses de bierre	*Yopla* (1995)	François Merville	1st motif: 7/8 (3+2+2) + 5/8 (2+3) + 7/8 (3+2+2) + 7/8 (3+2+2) 2nd motif: 7/8 (3+2+2) + 6/8 (3+3) + 7/8 (3+2+2) + 7/8 (3+2+2)
Pachora	Aquarians	*Ást* (1999)	Jim Black	22/8 = 9/8 (2+2+2+3) + 13/8 (2+2+2+3+2+2)
Slobodan Trkulja	Pitagorino Oro	*Prizivanje Kiše* (2002)	Igor Malesević	25/8
Matt Darriau's Paradox Trio	Theo's Gambit	*Gambit* (2005/2002)	Seido Salifoski	4/4 + 7/8
Avishai Cohen	Emotional Storm	*Continuo* (2006)	Marc Guiliana	Complex: intro 5/8 (2+3) and solo 9/8 (2+3+2+2)
Nenad Gajin	25 Cevapa	*Kec* (2008)	Marko Djordjević	25/8= 11/8 (2+2+3+2+2) + 14/8 (2+2+3+3+2+2)
Sveti	Which Way Is Down?	*Something Beautiful* (2013)	Marko Djordjević	17/8 = 2+2+3+3+3+2+2
Dimitrije Vasiljevic	Zrnov	*Path of Silvan* (2013)	Alessio Romano	17/8 = 9/8 (2+2+2+3) + 8/8 (2+2+2+2)
Eyot	557799	*557799* (2020)	Milos Vojvodić	42/8= 5/8+5/8+7/8+7/8+ 9/8+9/8
4/4				
Lala Kovačev	Love Song & Oro Dance	*Balkan Impressions Vol.1* (1982)	Lala Kovačev	4/4
Lala Kovačev	Delije	*Balkan Impressions Vol.2* (1983)	Lala Kovačev	4/4
Lala Kovačev	Balkan Impressions	*Balkan Impressions Vol.1* (1982)	Lala Kovačev	4/4
Bojan Zulfikarpašić	Mashala	*Bojan Z Quartet* (1993)	François Merville	4/4
Bojan Zulfikarpašić	Zilbra	*Bojan Z Quartet* (1993)	François Merville	4/4

Bojan Zulfikarpašić	Grana od bora	*Bojan Z Quartet* (1993)	François Merville	4/4
Bojan Zulfikarpašić	Chechen Kizi	*Koreni* (1998)	Tony Rabeson/ Karim Ziad	4/4
Bojan Zulfikarpašić	CD-ROM	*Koreni* (1998)	Tony Rabeson/ Karim Ziad	4/4
Pachora	Dratch	*Unn* (1998)	Jim Black	4/4
Nenad Vasilić	Zvezda tjera mjeseca	*Folk Songs* (2001)	Andjelko Stupar	4/4
Matt Darriau's Paradox Trio	Cocek i Gong	*Gambit* (2002/2005)	Seido Salifoski	4/4
Bojan Z	Z-Rays	*Transpacifik* (2003)	Nasheet Waits	4/4
Bojan Z	The Joker	*Transpacifik* (2003)	Nasheet Waits	4/4
Matt Darriau's Paradox Trio	The Turk from Downtown	*Paradox Trio with Bojan Z* (2010)	Seido Salifoski	4/4
Nicolas Simion Group	Ritual	*Third Rapsody* (2016)	Unknown	4/4
3/4				
Lala Kovačev	Kosmajsko Nadigravanje	*Izvorni Folklor i Džez* (1985)	Lala Kovačev	3/4
Bojan Zulfikarpašić	Multi Don Kulti	*Yopla* (1995)	François Merville	3/4
Diran Tavitijan	Serbes Donka	*Treasure* (2008)	Garo Tavitijan	3/4