

**ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF ARTS
AND SOCIAL SCIENCES**

**THE PERCUSSION USAGE OF IGOR STRAVINSKY IN HIS EARLY
BALLETS: THE FIREBIRD, PETRUSHKA AND THE RITE OF SPRING**



**M.A. THESIS
İrem DEKELİ**

**Department of Music
Music Programme**

SEPTEMBER 2019

**ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF ARTS
AND SOCIAL SCIENCES**

**THE PERCUSSION USAGE OF IGOR STRAVINSKY IN HIS EARLY
BALLET: THE FIREBIRD, PETRUSHKA AND THE RITE OF SPRING**



**M.A. THESIS
İrem DEKELİ
(409161106)**

**Department of Music
Music Programme**

Thesis Advisor: Assoc. Prof. Sıtkı Kandemir BASMACIOĞLU

SEPTEMBER 2019

İSTANBUL TEKNİK ÜNİVERSİTESİ ★ SOSYAL BİLİMLER ENSTİTÜSÜ

**IGOR STRAVİNSKİ’NİN ERKEN DÖNEM BALELERİNDEKİ
PERKÜSYON KULLANIMI: ATEŞ KUŞU, PETRUŞKA, BAHAR AYİNİ**

YÜKSEK LİSANS TEZİ
İrem DEKELİ
(409161106)

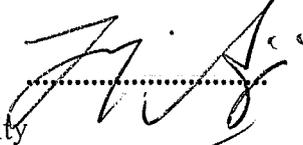
Müzik Anabilim Dalı
Müzik Programı

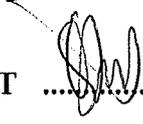
Tez Danışmanı: Doç. Sıtkı Kandemir BASMACIOĞLU

EYLÜL 2019

Irem DEKELI, a M.A. student of ITU Graduate School of Arts and Social Sciences, student ID 409161106, successfully defended the thesis entitled "THE PERCUSSION USAGE OF IGOR STRAVINSKY IN HIS EARLY BALLETS: THE FIREBIRD, PETRUSHKA AND THE RITE OF SPRING", which she prepared after fulfilling the requirements specified in the associated legislations, before the jury whose signatures are below.

Thesis Advisor: Assoc. Prof. Sitkı Kademir BASMACIOĞLU.....
İstanbul Technical University

Jury Members: Assoc. Prof. Dr. Jerfi AJI
İstanbul Technical University

Assoc. Prof. Dr. Muzaffer Özgü BULUT
Ondokuz Mayıs University

Date of Submission : 13 August 2019

Date of Defense : 13 September 2019



FOREWORD

First of all, I would like to thank my advisor Assoc. Prof. Sıtkı Kandemir Basmacıođlu for his devoted support and guidance.

I thank my instructor Amy Salsgiver for her help and guidance throughout my master study at MIAM. She has contributed her knowledge and support to improve me as a percussionist.

I thank my friend Anıl Bostancı, Yunus Aydın and my sister Gizem Dekeli for their patience and lend their helping when I needed.

I would like to express my deepest appreciation to all MIAM family to giving me this chance to study here and discover new musical areas.

Finally, I would like to express my deepest gratitude to my parents for encouraging my musical and educational pursuits.

SEPTEMBER 2019

IREM DEKELI



TABLE OF CONTENTS

	<u>Page</u>
FOREWORD	v
TABLE OF CONTENTS	ix
LIST OF TABLES	ix
LIST OF FIGURES	xi
SUMMARY	xiii
ÖZET	xv
1. INTRODUCTION	1
1.1 Thesis Statement.....	3
1.2 Purpose.....	3
1.3 Significance.....	3
1.4 Method.....	4
1.5 Limits.....	4
2. BRIEF HISTORY OF PERCUSSION IN ORCHESTRATION FROM BEETHOVEN TO STRAVINSKY	5
2.1 Before Beethoven.....	7
2.2 Beethoven Period	9
2.3 After Beethoven	10
3. STRAVINSKY'S LIFE AND MUSICAL DEVELOPMENT	17
3.1 Early Life	17
3.2 Russian Period.....	18
3.3 Neo-classical Period	22
3.4 Serial Period.....	25
4. STRAVINSKY'S EARLY BALLETS AND BALLETS RUSSES	29
4.1 Ballets Russes and Diaghliev	29
4.2 The Firebird.....	29
4.3 Petrushka.....	31
4.4 The Rite of Spring	34
5. PERCUSSION USAGE OF STRAVINSKY IN HIS EARLY BALLETS	35
5.1 The Firebird.....	35
5.2 Petrushka.....	45
5.3 The Rite of Spring	63
6. FINDINGS	77
7. CONCLUSION	79
REFERENCES	83
APPENDICES	87
APPENDIX A. Works of Igor Stravinsky	87
APPENDIX B. Igor Stravinsky's compositions' timpani and percussion requirements	91
CURRICULUM VITAE	93

LIST OF TABLES

	<u>Page</u>
Table 5.1: Instrumentation of The Firebird	36
Table 5.2: The Firebird (1910) structure	36
Table 5.3: Instrumentation of Petrushka	46
Table 5.4: Petrushka (1911) structure	46
Table 5.5: Instrumentation of The Rite of Spring	65
Table 5.6: The Rite of Spring's structure and synopsis	65
Table B.1 Igor Stravinsky's compositions' timpani and percussion requirements ...	91



LIST OF FIGURES

	<u>Page</u>
Figure 2.1: Turkish bass drum.....	5
Figure 2.2: Turkish cymbals.....	6
Figure 2.3: The Turkish crescent.....	6
Figure 2.4: Early nineteenth century kettledrums	10
Figure 2.5: Early Kettledrums from Kastner.....	10
Figure 2.6: Bell lyre; early version of chromatic glockenspiel	12
Figure 2.7: Keyboard glockenspiel.....	13
Figure 2.8: Four-rowed xylophone diagram	14
Figure 2.9: Two-rowed xylophone diagram.....	15
Figure 5.1: The Firebird, Bass drum roll and strings, The Firebird opening	37
Figure 5.2: Sibelius, Finland- Bass Drum part.....	38
Figure 5.3: The Firebird, Bassoon theme and the first xylophone part	39
Figure 5.4: The Firebird xylophone solo.....	40
Figure 5.5: The Firebird xylophone solo (1919 version).....	40
Figure.5.6: Kodaly, Hary Janos Suite, mvt.6, xylophone part	41
Figure.5.7: Khachaturian, Gayne Ballet, xylophone part 1.....	42
Figure.5.8: Khachaturian, Gayne Ballet, xylophone part 2.....	42
Figure.5.9: Infernal dance timpani stroke (Nr. 184).....	43
Figure.5.10: The Firebird, Percussion section (Nr. 165)	44
Figure.5.11: Shostakovich, Symphony No. 15. Mvt.3, percussion section	45
Figure.5.12: Petrushka chord.....	48
Figure.5.13: Petrushka, Song of the Volochobniki theme variation 1	48
Figure.5.14: Petrushka, Song of the Volochobniki theme variation 2.....	48
Figure.5.15: Petrushka; cymbal, triangle and tambourine part	49
Figure.5.16: Petrushka, Tam-tam and cymbal with the orchestration	50
Figure.5.17: Petrushka, glockenspiel part(first act-carnival)	50
Figure.5.18: Petrushka; glockenspiel part 2.....	51
Figure.5.19: Tchaikovsky, Sleeping Beauty, glockenspiel part.....	52
Figure.5.20: Glazunov, Concerto for Violin in A minor, glockenspiel part	52
Figure.5.21: Debussy, La Mer, mvt. 2, glockenspiel part.....	53
Figure.5.22: Petrushka, snare drum transition section.....	54
Figure.5.23: Petrushka, snare drum solo with trumpet	55
Figure.5.24: Prokofiev, Peter and the Wolf, Snare Drum part.....	56
Figure.5.25: Petrushka, bass drum and cymbal section for one player	57
Figure.5.26: Petrushka, bass drum and cymbal part.....	58
Figure.5.27: Xylophone solo over the Russian Dance theme	59
Figure.5.28: Petrushka, tambourine part.....	60
Figure.5.29: Bizet, Carmen No.2 danse boheme, Tambourine part 1	61
Figure.5.30: Bizet, Carmen, No.1 Aragonaise, Tambourine part 2.....	61
Figure.5.31: Dvorak, Carnival Overture, Tambourine part	62
Figure.5.32: Petrushka Falls, his head broken.....	63

Figure.5.33: The Rite of Spring, bassoon solo.....	66
Figure.5.34: The Rite of Spring , the register of the Basson	66
Figure.5.35: The Rite of Spring , the register of timpani	67
Figure.5.36: The Rite of Spring, timpani usage in H3	67
Figure.5.37: The Rite of Spring ,octatonic scale, T represents whole tone intervals and S half-tone intervals.....	67
Figure.5.38: The Rite of Spring, <i>Action rituelle des ancêtres 1</i>	68
Figure.5.39: The Rite of Spring , <i>Action rituelle des ancêtres 2</i>	69
Figure.5.40: The Rite of Spring, two timpanists timpani usage shema.....	69
Figure.5.41: The Rite of Spring, timpani and bass drum part	69
Figure.5.42: The Rite of Spring, percussion tutti part.....	70
Figure.5.43: The Rite of Spring Timpani solo	71
Figure.5.44: Hindemith, Symphonic Metamorphoses, Timpani part.....	72
Figure.5.45: Strauss R, Burleske, timpani part	72
Figure.5.46: The Rite of Spring, bass drum part solo	73
Figure.5.47: The Rite of Spring bass drum and timpani with strings(Nr.73)	74
Figure.5.48: Mahler, Symphony No.3 mvt,1, Bass Drum part.....	74
Figure.5.49: The Rite of Spring, tam-tam glissando with triangle beater	75
Figure.5.50: The Rite of Spring, rape Guero, first act.....	76

THE PERCUSSION USAGE OF IGOR STRAVINSKY IN HIS EARLY BALLETS: THE FIREBIRD, PETRUSHKA AND THE RITE OF SPRING

SUMMARY

Igor Stravinsky has been accepted as one of the pioneers of the modern era because combined classical harmony, orchestration and form traditions with different perspectives. Because the first three ballets of the composer, *The Firebird*, *Petrushka* and *The Rite of Spring*, were different from classical ballets in terms of visual, music and theme in comparison to other examples of the era, they are accepted as quite contrary and innovative. In his pieces, Igor Stravinsky used percussion instruments in highly varied and innovative ways. Most of the percussion parts in his compositions are asked in the orchestra auditions all around the world. This study explores the percussion sections of the first three ballets and examines the innovative approaches that Stravinsky brought to percussion writing. The aim of the study is to examine the percussion sections of the ballets *The Firebird*, *Petrushka* and *The Rite of Spring* in terms of rhythmic structures, orchestration techniques and the search for new timbre and instrumentation. The study consists of seven main sections. The first section covers the introduction. The second examines the use of percussions in orchestra before Stravinsky. Since the 9th Symphony of Beethoven is an important bridge between the classical and romantic era, which also reflects on the use of percussion, this section was examined as before and after Beethoven. In the third section, Stravinsky's life was examined in terms of his musical development and movements, by which he was affected. The fourth section gives information about the three ballets of Stravinsky and about the Ballets Russes ballet company. Also, the effect of new pursuits, regarding the era, on Stravinsky's music was discussed. In the fifth section the percussion uses in the early ballets of Stravinsky were analyzed by the researcher and compared to the percussion sections of works created by other composers. The sixth section constitutes the findings of this study. In this section the innovative approaches, rhythmic structures, orchestration techniques, timbre and instrumental uses of the percussion sections of the first three ballets of Stravinsky were examined with examples and composers who were influenced by Stravinsky's innovative approaches were mentioned. The seventh section is the conclusion part of the study. In this section, the influences of Stravinsky's innovations on the other composers were mentioned.



IGOR STRAVİNSKİ'NİN ERKEN DÖNEM BALELERİNDEKİ PERKÜSYON KULLANIMI: ATEŞ KUŞU, PETRUŞKA, BAHAR AYINI

ÖZET

Igor Stravinsky, eserlerinde klasik armoni, orkestrasyon ve form geleneklerini farklı bakış açılarıyla birleştirmesi sebebiyle modern dönemin öncülerinden biri olarak kabul görmektedir. Bestecinin ilk üç balesi olan Ateşkuşu, Petruşka ve Bahar Ayini klasik bale geleneğinin görsel, müzikal ve tematik olarak dışına çıkması sebebiyle dönemin örneklerine göre oldukça aykırı ve yenilikçi olarak kabul edilmektedirler. Igor Stravinsky eserlerinde perküsyon aletlerini oldukça çeşitli ve yenilikçi bir biçimde kullanmıştır. Eserlerinde yer alan bir çok perküsyon partisi dünya çapında orkestra odüsyonlarında sorulmaktadır. Bu çalışma bestecinin ilk üç balesinde bulunan perküsyon bölümlerinin incelemesini ve perküsyon yazımı konusunda kazandırdığı yenilikçi yaklaşımları ele almaktadır. Araştırmanın amacı Stravinsky'nin Ateşkuşu, Petruşka ve Bahar Ayini balelerindeki perküsyon partilerini ritmik yapıları, orkestrasyon teknikleri, yeni tını ve enstrumantasyon arayışları yönünden incelemektir. Araştırma yedi ana başlık altında incelenmiştir. Birinci bölüm giriş kapsamaktadır. İkinci bölüm Stravinsky öncesinde orkestrada perküsyon kullanımını ele alır. Beethoven'ın 9. Senfonisinin klasik dönem ve romantik dönem arasında önemli bir köprü oluşturması ve bunun perküsyon kullanımına yansımaları sebebiyle bu bölüm Beethoven öncesi ve sonrası olarak incelenmiştir. Üçüncü bölümde Stravinsky'nin hayatı ve müzikal gelişim süreci dönemlerine ve etkilendiği akımlara göre ele alınmıştır. Dördüncü bölümde Stravinsky'nin ilk üç balesi ve Ballets Russes bale topluluğu hakkında bilgi verilmiş, çağa dair yeni arayışların Stravinsky'nin müziğine etkisi ele alınmıştır. Beşinci bölümde Stravinsky'nin erken balelerindeki perküsyon kullanımları araştırmacı tarafından analiz edilmiş, başka bestecilerin eserlerindeki perküsyon bölümleriyle karşılaştırmaları yapılmıştır. Altıncı bölüm bu araştırmanın bulgular bölümünü oluşturmaktadır. Bu bölümde Stravinsky'nin ilk üç balesinde yer alan perküsyon partilerindeki yenilikçi yaklaşımları ritmik yapıları, orkestrasyon teknikleri, tınısal ve enstrumantal kullanımları yönünden örneklerle incelenmiş ayrıca Stravinsky'nin yenilikçi yaklaşımlarından etkilenmiş olan bestecilere değinilmiştir. Yedinci bölüm araştırmanın sonuç bölümüdür. Bu bölümde Stravinsky'nin yeniliklerinin sonraki dönem bestecilerine olan etkilerine değinilmiştir.



1. INTRODUCTION

Igor Stravinsky imbedded his place in the history of music as one of the most prolific and innovative composers of the twentieth century. Stravinsky's contribution to orchestration and instrumentation in the transition from the romantic era to the modernist period in the history of classical western music is undeniable. The composer frequently included the use of percussion in his works and became a source of inspiration for the composers after him.

The percussion parts in the most of his works are asked in orchestra auditions all over the world and taught in schools due to their technical and musical characteristics. The first three ballets of the composer are known as his early works that carried his career to the top. For this reason, to understand the composer's later works better, it is essential to examine the first three ballets.

The overall aim of the study is to examine the orchestration techniques in the first three ballets of the composer and to analyze the use of percussion. The motivation of this paper is trying to analyze the place and function of percussion in orchestration and understanding the new perspectives that the composer brought in this field. Another important purpose of the study is to examine the challenges of the solos for the performer technically and musically. These parts, which involved the search for many innovative methods gave birth to the modernist techniques of percussion instruments. Then, they became a source of inspiration for composers composing ensemble music for percussion. The musical language created by the composer by breaking down the rhythmic and harmonic patterns also manifests itself in instrumentation.

The study consists of seven main sections. After the introduction part, the historical background of the use of percussion instruments in classical western music orchestra was mentioned. Beethoven 9th Symphony is at the center of the subject, which is examined under three headings. Beethoven's 9th Symphony can be considered as a breaking point in this area due to its innovative technical uses. For this reason, the sections are referred as Before Beethoven, Beethoven Period, and After Beethoven. In

the section, the use of percussion in orchestration and its development up to Stravinsky were dealt.

In the third part, the composer's general background is discussed in four sub-headings. The part of early life is about family life and education until the time he composed his first works. Russian period, Neo-Classical period, and Serial period are divided based on the music movements adopted by the composer during his life and the compositions he made during these periods are mentioned. This period separation was taken from Michael Oliver's book *Igor Stravinsky* and Neil Wenborn's *The Illustrated Lives of the Great Composers: Stravinsky*.

In the fourth chapter, Stravinsky's introduction to ballet music and early ballets are explained. Examined in four subheadings the episode begins with his meeting Sergei Diaghilev which was the turning point of his career. In this topic, Sergei Diaghilev and Ballet Russes is discussed and Ballet Russes' innovations on classical Russian ballet are mentioned. In the other three titles, general information about *The Firebird*, *Petrushka* and *The Rite of Spring* ballets are given and the historical and contextual processes are explained.

The fifth part forms the analysis part of the research. *The Firebird*, *Petrushka*, and *The Rite of Spring* ballets are analyzed in terms of overall orchestration and percussion use; innovative ideas are mentioned. The analysis section consisting of three subheadings discusses each ballet separately and examines the works with different focus points in terms of their technical, musical characteristics.

The results of these analyses are given in the sixth section. His compositional techniques being used in the percussion parts are discussed along with a short evaluation of his innovations in orchestration, instrumentation and rhythmic structure building.

The conclusion part examines the influences of his innovations on modernist composers.

This work focuses on understanding Stravinsky's perspective and innovations on the use of percussion, it is aimed to provide an easier understanding of innovative approaches in his later works.

1.1 Thesis Statement

The use of percussion in orchestra, the first examples of which were encountered in the 17th century, began to develop at the end of the eighteenth century. Composers such as Gluck, Haydn, Mozart, and Beethoven started the innovations in the Classical period and these innovations continued with the composers like Wagner, Debussy, Sibelius, Berlioz in the Romantic period. Stravinsky is an important part of this development process in terms of both orchestration techniques, instrumentation and rhythmic structure usage. Percussion parts in many of his works are being asked in orchestral auditions all over the world. Analyzing the percussion usage in his first three ballets is essential in terms of surveying his other works. This also gives a better understanding of the later works of the composers who were inspired by these three ballets.

This study discusses Stravinsky's search for new orchestration techniques, as well as new timbres and sound types using percussion instruments by analyzing the percussion sections of his first three ballets and debates that his use of percussion, not only as a rhythmical element but also a new sonic world, revolutionized the idea of modern music.

1.2 Purpose

This study aims to analyze the composer's innovations in percussion by Stravinsky's first three ballets. For this purpose, information about the following subjects is presented in this thesis.

- a) Brief history of the use of the percussion in the orchestra until Stravinsky
- b) Stravinsky's life and musical development
- c) General information about the first three ballets and Ballets Russes
- d) Examination and comparative analysis of the first three ballets

1.3 Significance

The percussion instruments, which began to develop in the eighteenth century were changed mainly in the late nineteenth century. The percussion instruments developed late, compared to other instrument families. Especially analyzing the romantic period

pieces, plays a significant role in seeing the changes in the modern period. Stravinsky's first three ballets were considered worthy of research. The fact that the first three ballets haven't been searched in a thesis examining the percussion sections constitutes the importance of the study.

1.4 Methodology

This research has been prepared by using qualitative research methods. The analysis were explained with subjective data such as comparison, description, and interpretation based on content and technical characteristics. Preliminary research was carried out for the subject, and after extensive research, the limitations and the works and percussion sections determined for the study were examined. Many books, journals, articles, and web sites were searched. To emphasize the importance of the subject, historical processes were reviewed and added to the research. Qualitative research is a qualitative process that aims to present perceptions and events using qualitative data collection methods such as observation, document review, and interview in a realistic and holistic way in the natural environment. (*Yıldırım and Şimşek, 2011, p.29*)

In this research, the percussion sections of Stravinsky's first three ballets, The Firebird, Petrushka, and The Rite of Spring were analyzed in terms of their innovative orchestration, instrumentation and rhythmic structure techniques. Those percussion parts compared with the similar works of composers such as Hindemith, Kodaly, Prokofiev, Debussy.

1.5 Scope of the Study

This research was limited to the content of the percussion sections in Stravinsky's first three ballets, The Firebird (1910, 1919 versions), Petrushka (1911) and The Rite of Spring (1913). The comparative analyses are limited with similar percussion sections in terms of their periods and qualifications. Other parts of the research include historical and content-related information aimed at clarifying periodic development and characteristics.

2. BRIEF HISTORY OF PERCUSSION IN ORCHESTRATION FROM BEETHOVEN TO STRAVINSKY

Before the Turkish influence on the Western orchestra, kettledrum was the only Eastern percussion instrument in the orchestra. In the second half of the eighteenth century, Janissary music appeared in Europe for the first time. Janissary was the military band of Ottoman Empire. It was known as one of the first military bands in the World and founded in the fourteenth century. “This music attracted the attention of Europe’s armies, and by the second decade of the eighteenth century, August II of Poland had acquired a complete Turkish military band – a gift from the Sultan of Turkey” (Bugg, 2003, p.5). As Janissary percussion instruments, several drums, bells, bass drum, cymbals and triangle were used in Janissary music. Triangle represents the sound of Turkish crescent.



Figure 2.1: Turkish bass drum.¹

¹ Reprinted from James Blades, *Percussion Instruments and Their History*. (London: Faber and Faber Limited, 1984:209)



Figure 2.2: Turkish cymbals.²

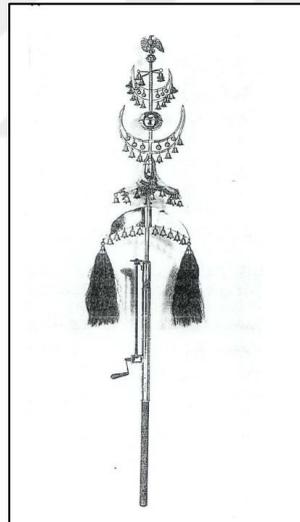


Figure 2.3: The Turkish crescent.³

Traditional Janissary instruments are kettledrums (*kös*), bass drums (*davul*), small cymbals (*zil*), triangle (Turkish crescent) can be given as an example.

² Reprinted from James Blades and Jeremy Montagu, *Early Percussion Instruments From the Middle Ages to the Baroque* (London: Oxford University Press, 1976:16)

³ Reprinted from *The New Grove Dictionary of Music and Musicians* (2001), s.v. “Turkish crescent”

Percussion instruments used in the Janissary band were consisting of bass drum, cymbal, triangle, and kettledrums. This movement influenced Western composers, and they started to compose music in Alla Turca style. Gluck, Haydn, Mozart and Beethoven were pioneer composers about including Turkish percussion instruments in Western orchestra. This flow developed quite slow at the beginning until the nineteenth century. In the nineteenth century, percussion usage of Western composers started to be modified. Composers began to change the standard using of percussion instrument. They realized the potential orchestral usage and the technical range of the instruments. At the same time, instruments' technical and physical capabilities were developed. In twentieth-century they have been used more independently in the orchestration. This development also reshaped the evolution of the modern orchestral percussion section.

2.1 Before Beethoven

In the eighteenth-century Gluck, Haydn and Mozart were outstanding composers in terms of their percussion usage in the Western orchestra. In the eighteenth-century percussion instruments were used to imitate the Turkish Alla Turca music in compositions. Alla Turca is a music style that covers a particular repertory of Western classical music inspired by the music of the Janissaries. The term, Turkish music meant Janissary music with the use of various percussion instruments. The main instruments were bass drum, cymbals and triangle. They were representing Janissary corps with their great sound ranges. The term Alla Turca doesn't cover only the specific percussion usage but also includes some rhythmic and harmonic features.

Schubart described Turkish music as noisy, very rhythmic, usually in 2/4 metre and in F, Bb, D or C; but these keys may have been merely the ones most convenient for wind players, since the 'Turkish' music of Gluck, Haydn and Mozart is mostly in A major (or minor) and C. Their 'Turkish' melodies often included leaping 3rds in quavers or four-note semiquaver *gruppetto* figures which strikingly resemble certain eighteenth-century dances from Hungary. (Badura,2001)

In 1710, a percussion pedal recreating the low "boom" of a drum was added to the organ in the Salisbury Cathedral. Soon afterward a cymbal resembling the sound of the Turkish crescent was added to the organ in the church at Weingarten. This feature was then adapted to the

pianoforte as an optional attachment to the pedal struck with the left foot, allowing pianist to supplement solo or chamber works with the color of the Turkish music (Bugg, 2003, p.22-23).

Most of the composers didn't notate all the percussion in their scores. Sometimes they included only rhythmic line without instrumentation. They were doing that to create an incomplete impression. In performance, they were deciding the percussion section according to the range of orchestration.

This practice strengthens the opinion of certain researchers who believe the designation of bass drum also implied the simultaneous playing of other percussion instruments such as cymbals in situations where no single percussion instrument was scored to play alone (Bugg, 2003, p.23).

The first outstanding orchestral compositions in the eighteenth and early nineteenth century were Gluck's operas *Le Cade dupé* (1761), *La Rencontre imprévue*, *The Pilgrims of Mecca* (both 1764), and *Iphigénia en Aulide* (1774), Mozart's *Die Entführung aus dem Serail* (1782), Franz Joseph Haydn's "Military" Symphony No. 100 (1794), Gioacchino Rossini's *L' Italiana in Algeri* (1813), *Il Barbiere di Siviglia Overture* (1816), and *La Gazza Ladra* (1817), and Franz Schubert's *Des Teufels Lustschloss* (1814). Those were the most notable compositions in terms of using the bass drum, cymbals, and triangle together (Bugg, 2003, p.28).

The innovative usage of percussion started with those composers. Gluck's cymbal part in *Iphigénia en Aulide* was a seminal work. He used the cymbal not as a rhythm instrument but for a unique effect for the first time. His triangle part was also different from other orchestration examples in this period. He notated triangle as an accompaniment with strings, bassoon, and horn (Bugg, 2003, p.29).

Mozart's *Die Einführung aus dem Serail* and Haydn's Military Symphony also played an important role for percussion notation. They were both specific for the bass drummers of the period with striking one head of the drum with a beater and the other head with the rod sticks. (Bugg, 2003, p.30) "Musically, Mozart's *Die Entführung aus dem Serail* represents the musical influence of Turkish music at its height. Mozart's use of Turkish percussion in this work was essential in reflecting the political hostility between Austria and other nations in the late eighteenth century" (Bugg, 2003, p.31). Haydn's Military Symphony represents clear and simple Alla Turca form.

2.2 Beethoven Period

The popularity of Alla Turca music style continued until the early nineteenth century. "Beethoven it seems made no further call on the so-called 'Turkish Music' until 1823 (Ninth Symphony)" (Blades, 1984, p.268)

He used the percussion section only in the fourth movement. Cymbals and triangle are doubling the bass drum in the middle of the first melodic phrase. All the instruments have their line in the score until the *Prestissimo* part where the cymbals and bass drum are scored together. "By the time of Beethoven's last symphony in 1823, Turkish percussion instruments had developed into accepted members of the orchestra (Bugg, 2003, p.36)."

Beethoven is also a distinctive composer with his timpani usage. He used the timpani not just to extend the sound range but also to emphasize the main themes of the compositions. His fifth Symphony is a good example to catch the main theme directly from timpani at the beginning of the first movement. "It is the timpani whose resources were fully exploited and realized in the compositions of this musical giant. Due to Beethoven's enterprise, the kettledrum became in every musical sense a solo instrument and achieved a position of eminence in the orchestra." (Blades, 1985, p. 268).

The composers like Bach, Haydn, Mozart used conventionally tonic or dominant notes for the timpani. However Beethoven used diminished fifth in Fidelio, minor six interval in Seventh Symphony and octaves in Eighth and Ninth Symphonies. Another innovative idea of Beethoven was using third timpani in his Ninth Symphony. It was the first time in the Western orchestra. He used two timpani together in chord for the first time in the orchestra.

With Beethoven's epochal ideas, the kettle drum started to evolve to the modern timpani.

His use of fourths and fifths is considered unparalleled, and here again, we find him highly individual. In the key of B flat he arranged the drums either in fourths or fifths to suit his needs (Blades, 1985, p. 268).

Not only his tuning systems but also his ideas about orchestration and technical notation were innovative. He was reformist in timpani usage in orchestra. He used the timpani as a soloist instrument with piano in his Fifth Piano Concerto's final part and

his Violin Concerto. His timpani notation in the first movement of the Ninth symphony shows us the technical challenge of the timpani part with 16 demi-semiquavers in each bar and passing from drum to drum motion.

2.3 After Beethoven

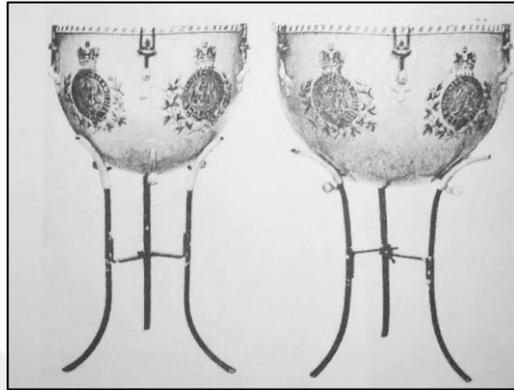


Figure 2.4: Early nineteenth century kettledrums.⁴

The limitation of tuning system caused disadvantages to the early classical composers to write more harmonic and melodic figures for the timpani.

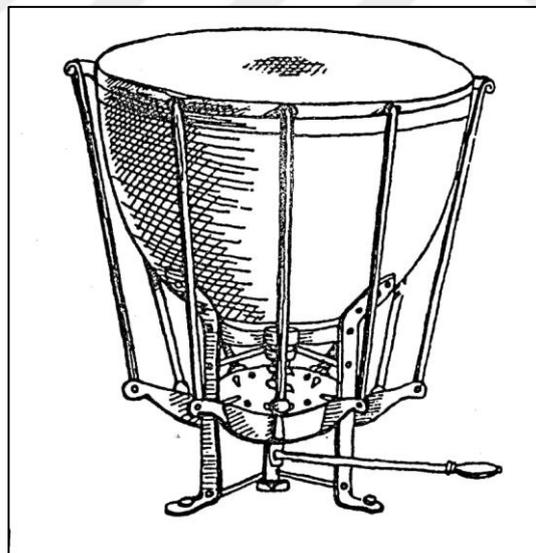


Figure 2.5: Early Kettledrums from Kastner.⁵

⁴ Reprinted from James Blades and Jeremy Montagu, *Early Percussion Instruments From the Middle Ages to the Baroque* (London: Oxford University Press, 1976:208)

⁵ Reprinted from James Blades and Jeremy Montagu, *Early Percussion Instruments From the Middle Ages to the Baroque* (London: Oxford University Press, 1976:276)

In 1827 the first mechanically tuned timpani system was introduced in France. It couldn't work successfully, but after ten years in 1837, Cornelius Ward invented the first cable tuned timpani. He was an English instrument maker. This development continued with Boracchi's single crew internal mechanism.

In 1843 a German mechanic introduced a pedal-operated machine drum. Here the principle was entirely new. Instead of stretching or releasing the full surface of the skin to alter the pitch, its vibrating area was reduced or enlarged by pressure from three internal steel rings of graduated diameters. The foot pedal was working in a series of notches operated each ring independently. Varied pressure on each ring permitted tuning in semitones, indicated by a needle (Blades, 1985, p. 278).

That was the first timpani pedal design which is close to the mechanical structure to today's instrument. In the nineteenth-century, not only the percussion instruments were technically developing but also the composers were more curious about the innovations in orchestration techniques. "Berlioz himself made demands so numerous and particular as to constitute a milestone in any history of percussion (Blades, 1985, p. 279)." He used the instrument; tambourines, tam-tams, triangles, bells, cymbals and many others as a new sound colors in the music. His usage of percussion divided into two groups as rhythmical and sound color. He opened a new way to the usage of percussion in orchestration by giving this sound color idea. In the middle of the nineteenth century, many other composers used percussion instruments efficiently in their orchestral works. The composers like Wagner, Korsakov, Glinka, Tchaikovsky, Borodin, Debussy, Humperdink, Dvorak, Mahler, Nielsen, Sibelius, Saint Saens, Brahms, Elgar, and Shostakovich can be counted in the list of composers who changed the idea and technical ability of percussion usage with their pieces. But Berlioz has a unique role in perceiving and using the percussion differently.

In his comprehensive study of the resources of the orchestra, he investigated the numerous aspects of the use of percussion, both rhythmically and to give orchestral tone color. Berlioz. In this period many pitched and non-pitched world percussion instruments are added to the orchestration. Berlioz's regard for percussion is obvious from the manner in which he so ingeniously observed these two factors- rhythm and color. (Blades, 1985, p.281)

In the second half of eighteenth-century, many other percussion instruments from different cultures were used in orchestration. A Spanish instrument called castanet is one of them. An outstanding example of this instrument usage was Carmen(1973),

which was an Opera of George Bizet. Tam-tam is another instrument that was adapted to the western orchestra from Asia in this period.

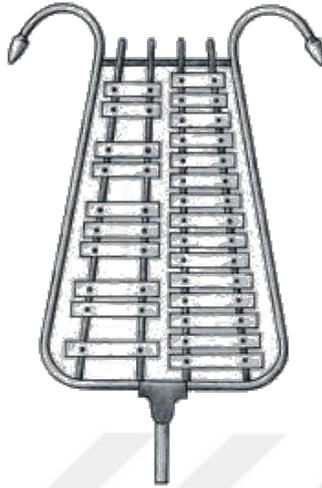


Figure 2.6: Bell lyre; early version of chromatic glockenspiel.⁶

The first chromatic keyboard percussion instrument which was used in the western classical orchestra was glockenspiel. Metallophones were the instruments that were being used in Asia for thousands of years. The first time the glockenspiel was seen in the classical orchestra was in the seventeenth century. Georg Friedrich Handel's oratorio *Saul* (1739) is the first composition which includes glockenspiel. *Die Zauberflöte* (1791) of Wolfgang Amadeus Mozart is another example from this period. Mozart used glockenspiel to characterize *Papageno's* character in his opera. Until the nineteenth century the Dutch version of the instrument has been used. It wasn't very different from the Asian versions, the distinction was the row bars they were using instead of unwieldy bells.

⁶ Retrived June 7, 2019 from <https://www.vsl.co.at/en/Glockenspiel/History>



Figure 2.7: Keyboard glockenspiel.⁷

In the first half of the nineteenth century the instrument adapted to the chromatic keyboard system. Afterward, the mallet-played instrument was created to improve the tone. Even both types were found in the orchestra. After the nineteenth century, the mallet- played glockenspiel was preferred to keyboard glockenspiel because of its brighter tone.

⁷ Retrived June 7, 2019 from <https://antiquitymusic.com/keyboard-glockenspiel>

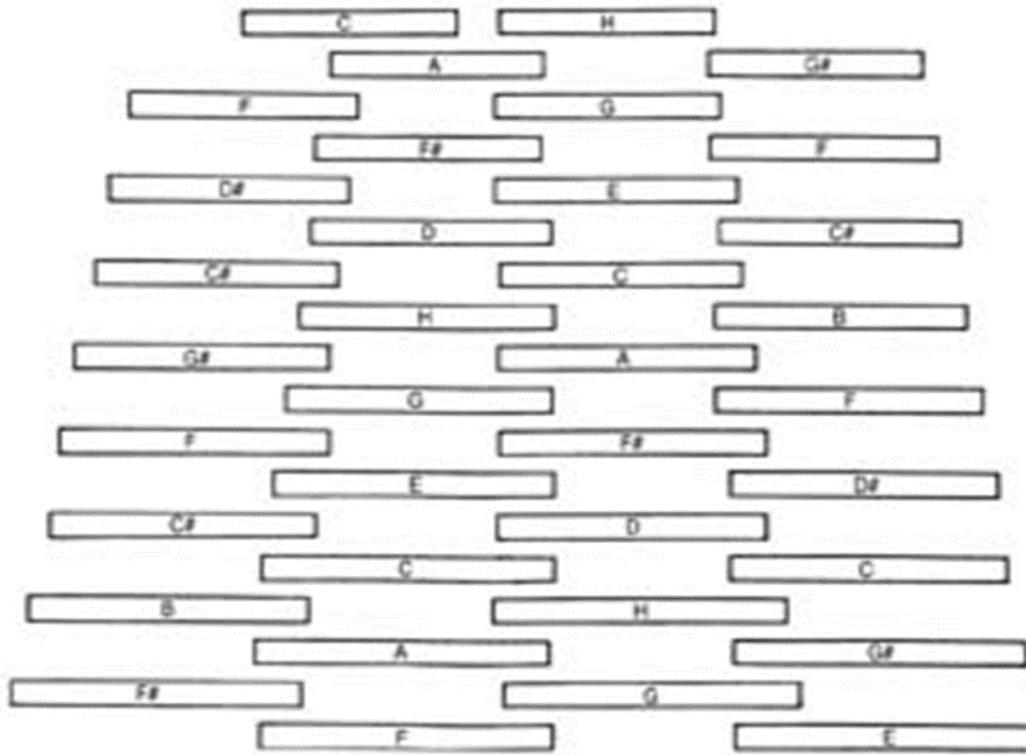


Figure 2.8: Four-rowed xylophone diagram.⁸

Another pitched chromatic percussion instrument which was used broadly was xylophone. Europe adapted xylophone that has its original roots in Africa in the sixteenth century. It was used in the western orchestra in the nineteenth century. “The French composer Camille Saint-Saëns was one of the first to use the xylophone in orchestral pieces, in his programmatic works *La Danse Macabre* (1875) and *Le Carnaval des Animaux* (1886). The instrument used was the four-rowed version. (Url-4).

⁸ Retrived June 7, 2019 from <http://rhythmdiscoverycenter.org/onlinecollection/four-row-xylophone/>

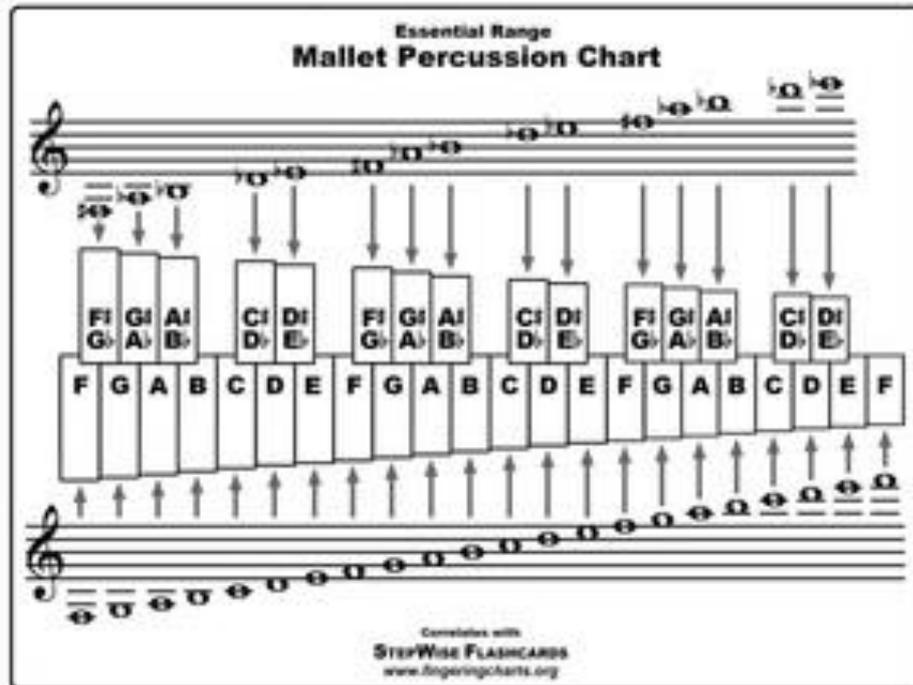


Figure 2.9: Two-row xylophone diagram.⁹

In 1886 Albert introduced a two-row chromatic xylophone as the pattern of piano keys and created the first modern chromatic xylophone.

⁹ Retrived June 7, 2019 from <https://www.stepwisepublications.com/malletxylophone.html>



3. STRAVINSKY'S LIFE AND MUSICAL DEVELOPMENT

3.1 Early Life

Igor Stravinsky was a Russian composer born on June 17, 1882 in Oranienbaum (near St. Petersburg). His works had a radical impression on musical thought during the first half of the twentieth century, and they survived as touchstone of modernism.

Stravinsky's father was of Polish ancestry, and his mother was from the Baltic provinces. His father Fyodor Stravinsky (1843-1902) was a bass singer at Mariinsky Theatre in St. Petersburg. His mother Anna Stravinsky was a successful pianist. He had three brothers.

Stravinsky had a distant relationship with his father. His older brothers had no interest in music. Roman, the oldest brother, died while Stravinsky was a boy and Yury, was a successful engineer (Oliver, 1995, p.14). They did not meet again after 1912, and he died in Leningrad in 1941 (Wenborn, 1999, p.14). Yury was his youngest brother, died from typhus in 1917. Although both his parents were musicians, neither of them recognized his musical talent. His father wanted him to pursue a legal career and rejected Stravinsky's wish to study music. Stravinsky was given only piano and music theory lessons when he was a child. He studied Latin, Greek, French, German and Church Slavonic, which laid the ground for his curiosity for the fields of linguistics, theatre and literature.

Stravinsky could not attend systematical music lessons because his father did not let him receive any harmony lessons for a long period (Oliver, 1995, p.26). Although he learned most of the harmonic and counterpoint rules by himself he began taking harmony lessons from Fyodor Akimenko and counterpoint lessons from Vassily Kalafaty, who left their mark on the composer after he became an accomplished pianist, who could play most of the solo piano repertoire.

After he graduated from Gourévitch Gymnasium in 1899, he started a four-year law degree at St. Petersburg University, after his parents urged him to. There he met

Nikolai Rimsky-Korsakov, who was the son of a successful composer and violinist (Wenborn, 1999, p.25).

At that time Rimsky-Korsakov was a member of 'the Russian Five', a group of so-called 'nationalist.' The other four members were Mily Balakirev (1837-1910), Alexander Borodin (1833-87), César Cui (1835-1918) and Modest Mussorgsky (1839-81). In 1871, Korsakov was invited as a professor to the St. Petersburg conservatory even though he had not gotten any formal music education (Wenborn, 1999, p.28).

He supported Stravinsky's wish of being a musician. Korsakov invited him to their summer house in Neckargemünd. He advised Stravinsky to continue his private harmony and counterpoint lessons next to his university education. He supported him to study in the conservatory with him (Wenborn, 1999, p.26). Maybe he saw that Stravinsky's interdisciplinary knowledge would be an incredible gift when it is combined with true musical education and Stravinsky's artistic brilliance.

After Fyodor Stravinsky's death in 1902, Stravinsky and Rimsky Korsakov became even closer, and Stravinsky sped up composing. For the next three years he took formal lessons from Korsakov which was a helpful experience for his transformation.

Korsakov mainly instructed Stravinsky about orchestration. He shared his knowledge about Russian romantic traditions with Stravinsky and discussed his new works as a mentor. He also helped him to play his first performance of his pieces (Wenborn, 1999, p.29).

3.2 Russian Period

Russian Period section covers Stravinsky's musical period which was under the effect of Russian style between 1905-1920. The first time Stravinsky's work had been heard in public was with his Sonata in F Sharp Minor. It was premiered on February 22, 1905, performed by pianist Nicholas Richter. The music was not far away from Russian romantic traditions although it was played in Evenings of Contemporary Music.

In the same year he finished his law studies at St. Petersburg University and married his cousin Catherine Nossyenko in 1906. In 1907, they had a son called Theodore. Catherine's interest in art and music made Stravinsky love her even more because he always felt alone regarding his music ambition.

Between 1905 and 1910 Stravinsky wrote his first pieces for orchestra. In 1907 Stravinsky had begun a new piece for the orchestra Scherzo Fantastique and an act for the opera “The Nightingale.” In the same year, Stravinsky planned to compose another short orchestral work called Fireworks (*feu d’artifice*) for the forthcoming marriage of Rimsky Korsakov’s daughter Nadyezhda (Wenborn, 1999, p.38). After Rimsky Korsakov died in 1908 he composed a funeral dirge; Chant funébre for Korsakov’s memorial concert but the score was lost after the Revolution in 1917. It was a touchstone work for his life before “The Firebird.” During the same year, the Scherzo Fantastique and Fireworks were premiered.

The concert was proven to be a key event in Stravinsky’s unfolding career. The orchestral virtuosity of Scherzo Fantastique and especially of Fireworks – four minutes of appropriately pyrotechnic instrumental display, the suddenly calm central section, which includes a plagiarized passage from Dukas’ The Sorcerer’s Apprentice- clearly made a favorable impression on Diaghilev, who was already filling his famous notebooks with plans for his 1910 Paris season (Wenborn, 1999, p.40-41).

It was the first time Serge Diaghilev was listening to Stravinsky’s compositions. Diaghilev was the founder of a great influential art magazine; “*Mir Iskusstva*” (The World of Art). He was also promoting a very famous exhibition of Russian painters and the most remarkable season of Russian opera, which included Fyodor Shalyapin, Mussorgsky and Boris Godunov (Oliver, 1995, p.34).

He was looking for a new talent, and after a while he gave Stravinsky the orchestration of *Les Sylphides*, which is a ballet based on two short piano pieces of Chopin.

The first turning point of Stravinsky’s career started when Diaghilev approached him with a much bigger project, the Firebird ballet. Diaghilev wanted a ballet which contained Russian folk elements from the composer Anatol Lysadov. But he said that he could not finish it within one year, so he offered it to Stravinsky. He finished the ballet in six months. The first performance was in the Paris Opera on June 25, 1910 and it was an immediate and overwhelming success with both critics and the public and Stravinsky became a major figure in the world of music overnight (Oliver, 1995, p.35). With this work, he showed his mastership regarding great orchestration.

The second turning point was his next great ballet Petrushka. After the success of “The Firebird” he decided to write an orchestral piece about a pagan rite. He shared his idea with his friend Nicholas Roerich, who was an archaeologist and a painter and he

suggested the topic “Petrushka” as a ballet. Inspired by Alexandre Benois, he found what he wanted for Petrushka, the Russian equivalent of Pierrot, Pulcinella or Punch. “Benois was an authority in Russian puppet theatre, as well as a passionate enthusiast for the rapidly vanishing folk culture of the traditional fairs” (Oliver, 1995, p.45-46). Stravinsky wrote the ballet when he was staying in Lausanne with his family because his wife Catherine was pregnant to their third child. After his son Svyatoslav Soulima was born in Lausanne, they returned to Beaulieu in the coming year. The first performance was at the Théâtre du Chatelet in Paris, and it was a triumphant success.

After the premiere of Petrushka in July 1911, he started to write his third great piece “*La Sacre du Printemps*”-The Rite of Spring. He finished the piece in 1912, but the premiere was postponed to the 1913-season. During this time he was impressed by Fokine’s *Daphnis et Chloé* scored by Ravel in Paris, Wagner’s Parsifal in Bayreuth and Schönberg’s song-cycle Pierrot Lunaire in Berlin. All affected his music in later periods. “The premiere of The Rite of Spring had acquired almost mythical status in the history of twentieth-century music” (Wenborn, 1999, p.57).

In 1914 Stravinsky’s first Opera “The Nightingale” was performed for the first time in the Paris Opera House. After he accepted to work on The Firebird as Diaghilev’s project, Stravinsky had begun to work on the opera in 1908, but he completed it after he completed his other two great ballets Petrushka and The Rite of Spring in 1914. Stylistically the work reflected Stravinsky’s meaningful approach change to composition, and this can obviously be detected when it is performed. Since the opera was overshadowed by Korsakov’s last opera ‘The Golden Cockerel’, Diaghilev suggested to review it as a ballet. But later Stravinsky preferred to produce it as symphonic poem based on the music of the second and third acts of the opera called “The Song of the Nightingale” (*Le Chant du Rossignol*).

After their daughter was born, it was discovered that Catherine had tuberculosis and was admitted to the sanatorium at Leysin, high up in the Alps. Igor and his family rented a residence nearby. There he finished ‘*Le Chant du Rossignol*’ on March 28 and began the ‘Three Pieces for String Quartet’ which he orchestrated in 1918 as a study for Pianola.

Pianolas are brought into operation by means of suction power generated by the pianolist's feet, and controlled in pitch by a perforated music roll. It is the difference in suction levels within the instrument that operates the various mechanisms, and in passing it may be noted that

vacuum is not involved, at least not in an absolute sense. The first true Pianola was completed by Edwin Scott Votey in a workshop at his home at 312, Forest Avenue East, Detroit, by the spring or summer of 1895. (Url-5)

In 1913 he decided to write his next ballet *Les Noces* 'The Wedding,' but he completed the ballet in 1923. Meanwhile, World War I began. After the Russia- Serbia war, Germany declared war on Russia, which affected all European countries.

Between 1915 and 1920, Stravinsky and his family lived in Morges, on the shore of Lake Geneva. Stravinsky had financial problems during this period. Russia went through financial issues because of the Easter Revolution, which decreased the incomes of Ballets Russes too. They could not go back to Russia because of the Revolution and homesickness revived nationalist ideas in Stravinsky.

During this period Stravinsky was influenced by Russian folk music and musical characteristics of the Russian language. "This new interest led him to write *Pribautki* (1914) for voice, woodwinds, and string choir. *Cat's Cradle Songs* (1916), *Three Tales of Children* and *Four Russian Peasant Songs or Saucers* (1917) are examples of the works based on Russian folk songs as opposed to the shorter, motivic, folk references in *Le Sacre du Printemps*" (Hee Chung, 2012 p.9).

At that same time, he wrote four piano pieces for his children called *Valse des fleurs* (1914) and *Three Easy Pieces* (1915). Another easy composition was *Five Easy Pieces for Piano Duet* which consists of an easy melody part for the first player and a difficult part for the second player.

In 1917 he wrote a cantata based on Russian village wedding tradition called *Les Noces*, which was an expansion of his short instrumental and vocal pieces. They are based on a combination of Russian folk idioms and Western popular ragtime or dance music styles. Between 1917 and 1921 Stravinsky revised the piece two times with different orchestration. In the last version he revised it as voices, percussion and four pianos. The piece achieved its final form in Paris in 1923. In 1917 Stravinsky decided to compose a theatrical chamber music piece with the writer Charles Ferdinand Ramu. They met Werner Reinhart, who financially helped them. "Stravinsky later expressed his gratitude for Reinhardt's financial assistance by dedicating the *Three Pieces for Clarinet Solo* (1918) and the *Suite from L'Histoire du Soldat* for clarinet, violin and piano (1919) to Reinhardt." (Stravinsky, I. & Craft, R. 1981, p.133).

The story was absorbed in reading Alexander Afanasyev's well-known collections of Russian tales. Because of the financial problems Stravinsky kept the orchestration small. He used a mixed-media technique in this piece. A narrator was accompanied by a small band and the music includes ragtime, tango, and other modern musical styles.

Stravinsky carefully chose each member of the small ensemble so that he had the capability to compose music that had diverse timbres, ranges, and technical abilities. The instruments that met these requirements included a treble and bass from each family. From the string family: violin and double bass; from the woodwind family: the clarinet (because it encompassed the broadest range) and the bassoon; from the brass family: trumpet and trombone; the percussion is played by a single musician, and the ensemble is led by a conductor (Stravinsky, 1936, p.113).

In the first half of 1919, Stravinsky finished the revision of the Firebird Suite and the Four Russian Songs; after that, he went to Paris for an extended concert series (Wenborn, 1999, p.83). During that time, The Pulcinella idea came to Stravinsky's mind, after Diaghilev suggested it. He asked Stravinsky to write a ballet on the *commedia dell'arte* subject based on music by Pergolesi. Stravinsky rewrote this old music style in a more modern way. He borrowed precise themes and textures but blended with modern rhythms, cadences, and harmonies.

3.3 Neo-classical Period

Stravinsky's neo-classical period was developed for nearly thirty years. This flow was a reaction against the twentieth century's innovative approaches to music.

Neoclassicism in music was a twentieth-century development, particularly popular in the period between the two World Wars, in which composers drew inspiration from music of the eighteenth century. Neoclassicism is a trend in which composers sought to return to aesthetic precepts associated with the broadly defined concept of "classicism", namely order, balance, clarity, economy, and emotional restraint. As such, neoclassicism was a reaction against the unrestrained emotionalism and perceived formlessness of late romanticism. (Url-6)

Pulcinella is the beginning of Stravinsky's second phase of his musical life, the so-called neoclassical period. This period was usually considered as his life between Puccinella in 1920 until The Rake's Progress in 1951. Since he left his country for a long time, his aesthetic also changed over time. He started to use neoclassical idioms instead of Russian features, which were part of his early style. Stravinsky's music in this period usually refers to the past European music.

Stravinsky wrote; "Pulcinella was my discovery of the past, the epiphany through which the whole of my late work became possible. It was a backward look, of course—the first of many love affairs in that direction—but it was a look in the mirror, too." (Stravinsky&Craft, 1981, p.113)

Pulcinella's premiere in Paris on May 15, 1920, was a huge success. After that Stravinsky moved to France with his family and he lived there for the next two decades. During this time two significant changes happened in Stravinsky's life. The first was his meeting with Vera de Bosset Sudeikina. She was designing and producing costumes and working with Diaghilev. Between 1920 and 1930 he traveled with Stravinsky by running her business after the death of Stravinsky's wife she married him and settled in the USA in 1940. The second change was his career development as a pianist and conductor after 1924, which provided him an opportunity to travel all around the world.

On June 8, 1920, Stravinsky and his family moved to the fishing village of Carantec in Brittany for the summer while looking for a new home in Paris. With an invitation of Couturière Coco Chanel, Stravinsky and his family stayed in her new mansion "Bel Respiro" in the Parisian suburb of Garches and offered him to become a sponsor for the new Ballets Russes production of Stravinsky's The Rite of Spring after that Stravinsky signed a business relationship with Pleyel, which was a French piano manufacturing company.

Under the terms of his contract with the company, they gave him a monthly income and provided studio space for him. In exchange, Stravinsky recomposed many of his early works for Pianola and recorded them. In May 1921, Stravinsky moved to Anglet, near Biarritz, France. After those developments Stravinsky's second composition was the comic opera Mayra. The first performance of Mayra was given on June 3, 1922. After Pulcinella, Mayra was the first piece of Stravinsky which belonged to the neoclassical period. He wrote an Octet for wind instruments directly after the premiere, which had three movements and had more neoclassical directions than Mayra (Wenborn, 1999, p. 92-96). Afterward the world premieres of his compositions such as Octet, Mavra, the 1919 Firebird Suite, the three Pieces and the Concertino for string quartet were started, and he acted more and more as a conductor.

Stravinsky's music was also well-known in the USA. On December 27, 1924, he travelled to New York for the first time.

After this long concert tour, he developed a close relationship with this country, and 15 years later he decided to move to the USA (Wenborn, 1999, p.99).

Until he moved to the USA, he wrote essential pieces such as the opera-oratorio *Oedipus Rex* (1927) and the "white" ballet *Apollon Musagète* (1928), the *Symphony of Psalms*, *Persephone*, *Jeu de Cartes* and *Concerto in E-flat*. This period was Stravinsky's rising career, so he did many tours in the USA and Europe. He revised many of his compositions and fixed his neo-classical composition style. In 1938 his first daughter Lyudmila died from Tuberculosis. After that his wife died in 1939. Before Catherine's death Stravinsky moved to the sanatorium and wrote the *Symphony* while he was spending the next few months there as a patient. After that his mother Anna died in June. Harvard invited him for a series of six public lectures for the academic year 1939-1940. "Like so many of his publications, the lectures, with the title "Poetics of Music" and, which were later issued as book, were a collaborative effort." (Wenborn, 1999, p.128)

He went to New York on September 30, 1939, for a few months but the USA became his home until he died. In 1940 he married Vera de Bossett. That year, Stravinsky also finished the *Symphony in C*. It was not easy to move out of Europe at the age of 57, but in a couple of years, Stravinsky became a member of the artist and musician community of Hollywood. "...the *Symphony in Three Movements* is the first great work of Stravinsky's American period, and came as a blast of Dionysian energy after the Apollonian restraint of the *Symphony in C*. The last work of 1945 was the beautiful *Ebony*" (Wenborn, 1999, p.130). *Concerto*, written for Woody Herman's jazz band. Stravinsky's most extended essay in jazz form, is also one of his most enduringly popular pieces. The *Symphony in C* was a great combination of the neoclassical features, and the musical structure and the *Symphony in Three Movements* successfully combines the concepts of the concerto and the symphony.

In 1946 Stravinsky became an American citizen. That helped him to obtain the copyright of his early works. During the next seven years, he revised *Petrushka*, the *Symphonies of Wind Instruments*, *Apollo*, *Oedipus Rex*, the *Symphony of Psalms*, the

Capriccio, the Concerto for Piano and Wind Instruments, Persephone, The Fairy's Kiss and the Octet.

In 1946 Lincoln Kirstein of the Ballet Society offered him to write a ballet on the Orpheus legend with the choreographer Balanchine. He finished the Mass directly after the Orpheus in 1948. In the same year he started to write his only full-length opera The Rake's Progress. He was impressed by William Hogarth's paintings and worked with W. H. Auden and Chester Kallman for the libretto. It was premiered at the Teatro la Fenice as part of the International Festival of Contemporary Music in September 1951. In the same year, Koussevitzky, Nijinsky, and Schoenberg died. This affected Stravinsky deeply.

He began to explore the music of not only Schoenberg but also of those other titans of the Second Viennese School, Alban Berg, who was most influentially of all for his future development, Anton Webern, whose complete works "Craft" was soon to embark on a groundbreaking series of recordings (Wenborn, 1999, p.156).

3.4 Serial Period

Agon was Stravinsky's last White ballet and the last traditional work, which was written in his pre-serial period. Even though it was written just six years later than The Rake's of Progress, it was very different from its synthesis of serial and non-serial techniques and its unique instrumental color.

The composition was to be one of his most celebrated sacred works, and with it begins the final phase of his creative life. Even if he had a crisis regarding his creativity phase, he achieved success with his late works (Wenborn, 1999, p.168).

The serial or so-called 12-tone compositional techniques started to rise after World War I. Serial music is based on breaking the traditional tonality rules by using more repetition of a series of tones in an irregular but fixed patterns. Stravinsky was influenced by Viennese composers Arnold Schoenberg, Alban Berg, and Anton von Webern.

In August 1957 Stravinsky started to work on Threni, which was a commission for the Venice Biennale. He finished the piece on March 21, 1958. It was the first 12 tone series piece, which had the characteristic idiom of his final period after Threni's premiere.

The composer himself complained that his late music was more discussed than performed, and there is no doubt that, for all its immediacy of texture, color, and effect, it presents a greater challenge to the listener than the works of his so-called Russian and neoclassical periods (Wenborn, 1999, p.170).

After the first performance he took on a tour in Europe and in 1959 his concert tours in Japan, Latin America, Australia, South Africa, Israel and Russia started. In the same year his first series of books called “Conversation with Igor Stravinsky” were published. The books are based on conversations between Stravinsky and Robert Craft. Another important subject was the Movements-Stravinsky’s piece for piano and orchestra in 1959. “It was another startling evolutionary jump in Stravinsky’s appropriation of serial technique to the distinctive musical language of his final years” (Wenborn, 1999, p.173).

Stravinsky’s serial compositions were mostly much shorter and denser than his tonal works. He applied this technique on all his compositions in this period except Monumentum pro-Gesualdo di Venosa. He recomposed Gesualdo’s madrigals for a small mixed ensemble in March 1960.

He continued his world tour in Cairo, Mexico and New Zealand. During this world tour he met with conductor and musicologist Robert Craft. He worked as an assistant near Stravinsky and conducted his works until his death. In March Stravinsky finished The Flood which was a biblical music drama for TV.

By far the most brilliant and varied Stravinsky score after Agon, The Flood suffered from the diffuseness demanded by the popular medium; it had to be anecdotal, picturesque and graphic – qualities, which Stravinsky had long since abandoned in stage ballets. The Flood was invigorating proof that in his 80th year Stravinsky had lost none of his creative energy (Walsh, 2001).

In 1962 Stravinsky was celebrating his 80th birthday. This year was celebrated as ‘Stravinsky Year’ throughout the world with performing his music. Besides Europe, Canada, South Africa, USA, Israel and more, he visited Russia after almost half a century again with an invitation from the Union of Soviet Composers.

In 1963 he completed the sacred ballad, Abraham and Isaac.

The inspiration for this strangely hermetic masterpiece, for baritone solo and chamber ensemble, seems to have been hearing Isaiah Berlin read biblical Hebrew one day in Oxford in 1961, and by the time Stravinsky made his first visit to Israel at the end of August 1962, the

composition was already in hand. In October 1964 he finished *The Variations*. Stravinsky was 84 when he completed the *Requiem Canticles* in August 1966 (Walsh, 2001).

Requiem Canticles was an adaptation of modern serial techniques to individual creative visions with Russian background. It wasn't his last piece before dying. He composed *The Owl and the Pussy-Cat* for soprano and piano. Orchestrating two preludes from *The Well-Tempered Clavier* by Bach was his final project but he could not complete it. In October 1969, Stravinsky moved to an apartment on Fifth Avenue in New York City since he needed medical care. He visited Geneva in between and saw his eldest son Theodore and his niece Xenia. After he came back to New York he passed away on April 6, 1971.





4. STRAVINSKY'S EARLY BALLETS AND BALLETS RUSSES

4.1 Ballets Russes and Diaghilev

At the beginning of the nineteenth century, early classical ballets were created under the influence of the Romantic Movement. Music, art, and ballet were influenced by this movement. Spirits and magic as supernatural world elements are reflected in the ballets of the time. These themes created the base of romantic ballets. Also during this period, dancing on the tips of the toes, so-called pointe work was the norm for ballerinas. Ballerinas' costumes were standardized. Mostly the romantic tutu and a calf-length, full skirt made of tulle were used.

Ballet was very popular in Russia during the latter half of the nineteenth century. There were very famous Russian choreographers and composers. Marius Petipa and Lev Ivanov took the classical at the highest level with the compositions of Tchaikovsky. The Nutcracker, The Sleeping Beauty and Swan Lake, are the most important classical ballets in its grandest form. During this period classical technique was the main purpose. Technical pointe work was combined with high extensions and complicated movements. Also, the costumes were varied in this period. The classical tutu was much shorter than the romantic tutu to see the ballerina's complicated movements and footwork.

In the first part of the twentieth century, Sergei Diaghilev started to break the strict rules of classical ballet form and story by changing the movements and costumes with Michel Fokine.

Sergei Diaghilev was a Russian Ballet producer. He brought the ballet to a serious art form by combining music and art. He established the Ballets Russes in 1909 and worked with famous dancers and choreographers like George Balanchine, Michel Fokine, Tamara Karsavina, Serge Lifar, Leonide Massine and Vaslav Nijinsky within this company until his death in 1929.

Sergei Diaghilev was born in Norgoved. Between 1866 and 1924 he studied painting in St. Petersburg. He also worked as a costume designer for theaters. He had a broad interdisciplinary art perspective. He established a connection between painting and ballet, which directed him to create a new art under the company Ballets Russes.

The first project of Ballets Russes was in Paris in 1909. He was working with famous dancers and artists. All costumes and stages were designed by the painters Alexander Benois and Léon Bakst. Ballets Russes was a revolutionary dance company which was interpreting the Russian ballet in an innovative way with the collaboration of dancers, choreographers, artist, and musicians. The company had an important place in the music and ballet history during the twentieth century. It played a significant role in the transformation of the ballet into a modern art show. The Ballets Russes performed just abroad and never staged in Russia.

The traditional art of ballet based on specific musical and choreographic structure. Composers, librettists, dancers, and costumers were designing the ballet. Polkas, mazurkas, waltzes, marches were used in the music. The costumes were also mostly the same.

Ballets Russes renovated all these components. Composers such as Stravinsky, Debussy, and Ravel composed unique music for the ballets, and the choreographers Fokine and Nijinsky were expanding the ballet techniques by using the whole body with expressive arm and hand movements. For the costumes Alexandre Benois and Leon Baks were combining the avant-garde style and traditional dresses instead of pink tutus and satin ballet shoes.

Building a relationship between dance and other areas of art, such as painting, music and modern performance, was also a novelty of Ballets Russes. Painters such as Pablo Picasso, Henri Matisse and musicians like Igor Stravinsky, Claude Debussy, Maurice Ravel, Serge Prokofiev affected each other. Music, choreographic style, costuming and stage design extended the interpretation of ballets.

The important pieces were performed in projects like *Les Sylphides* 1909, *Scheherazade* 1910, *The Firebird* 1910, *Petrushka* 1911, *L'après-midi d'un Faun* 1912, *The Rite of Spring* 1913, *Parade* 1917 and *Les Noces* 1923. The Ballets Russes built a bridge between dance and other art forms. It was an important creation for introducing the Russian arts to Western Europe music.

Stravinsky was one of the most important composers of Ballets Russes. He composed many pieces for the company's projects. "His early commissions for Diaghilev's Ballets Russes—The Firebird, Petrushka, and The Rite of Spring—put him on the international map and propelled both ballet and music into the modern age."(Joseph, 2012,p.133)

His dissonant music, a human sacrifice concept, and its bizarre movements were surprising for the audience. He used motivic development by repeating musical figures in different appearance in the composition. Subtracting or adding notes without changing the meter was one of his well-known composition techniques.

George Balanchine supported Stravinsky's music with his unfamiliar choreography in early ballets. He was an American choreographer and New York City Ballet founder. He brought the classical ballet into the neoclassical ballet form. He introduced the "plotless" ballet as a contemporary ballet form to the world. His main idea was to use movement to express the music and to touch the human emotions. Interdisciplinary ballet included classical forms, ancient stories and unconventional choreographic innovations, which created the modern ballet.

4.2 Firebird

The Firebird was one of the first milestones in Stravinsky's career. In the Firebird Stravinsky did not show his mature style yet. He applied Rimsky Korsakov's orchestral virtuosity successfully on the score. He mixed Rimsky Korsakov's orchestration discipline with his original ideas very professionally.

From this point on Stravinsky's instrumental mastery was secure and he delightedly described his discovery of the magical sonority of strings playing a glissando with the glassy sound of natural harmonics" (Oliver, 1995, p.37).

The ballet was realized on the idea of writing a ballet about Alexandre Benois's mythological Russian story. Alexandre Benois is a Russian Art historian and critic and runs common projects along with Diaghilev within the Ballet Russes company. Alexandre Benois intended to write a story on Firebird which is a character in the Russian Mythology and "the Russian Tale of Koschei the Deathless" and planned to compose it as a ballet.

The idea of the ballet was based on Russian fairy tales. The Firebird was a powerful good spirit. It throws about the beauty and protection with its beautiful feathers upon the earth. Prince Ivan Tsarevich is a hero who has to save his lover princess from the evil magician Kashchei. The Firebird saves his life when Kashchei tries to turn him into stone by bewitching everybody. First everybody dances then they sleep. Before they wake up the Firebird tells Ivan the source of Kashchei's power: an enormous egg, which keeps his soul. Ivan breaks the egg and kills Kashchei. With Kashchei's death, all bewitched creatures transform back into humans and become free. Ivan and the princess marry with a great celebration. Stravinsky used the folk melodies and his creations together like his unforgettable wedding march.

The work gave a new impulse to the Russian Ballet which was on the rise in Paris stages of the time. The script was written by Alexander Golovine and the costumes were designed by Léon Bakst. It made a great success in its premiere held in Palais Garnier stage in Paris on 25th June 1910, and this heralded the fame of Stravinsky in Paris stages. The choreography, decor and the harmony of music are still regarded as a turning point in the art of ballet by the art critics. The integrative approach within the work went beyond the theatrical roles of dance and music and the traditions. Stravinsky's integrated approach within the work is one of the most important elements that distinguishes the work from the classical Russian ballet. He used the symbolism in orchestration attaching theatrical roles in dance and music. It was also a spectacular beginning of partnership between Stravinsky and Diaghilev and the first production of the Ballets Russes which was originally composed for the company. The Firebird was more than a classical ballet. The music did not use as an accompaniment object. It has its own role by narrating the theme. Design, dance, and music were blended in harmony.

Stravinsky made three revisions on the work in 1911, 1919 and 1945 as an orchestral suite. The most common version played today is the 1919 suite.

Stravinsky broke the edged rhythmic form, and he tried to build a nervous and smooth formal construction of his later works. "Already, too, he is concerned with thematic unity and, amidst all the dazzling color and richness, with an almost austerely through manipulation of small melodic figures" (p.37). While Russian folk melodies are spread freely in another line apparent echoes of the Firebird's circle dance appears.

Constant Lambert's comment is typical of this sentiment: "*In L'Oiseau de Feu* Stravinsky applied the rejuvenating influence of Debussy's impressionism to the by now somewhat faded Russian fairy tale tradition in much the same way that one pours a glass of port into a Stilton (Myers, 2015)

4.3 Petrushka (1911)

Petrushka came into being along with Stravinsky's decision in 1910 to write a ballet on Petrushka, Diaghilev's traditional Russian puppet character. The piece was about a puppet that came to life in a magical way and was written with the idea came on the stage in the eighteenth century was known as Pulcinella in Italy and Punch in England. The most famous story of Petrushka which was mentioned in many theatre plays was Stravinsky's ballet. This work was premiered in 1911 and performed with a smaller orchestration after it was revised by Stravinsky in 1947.

Stravinsky wrote the Petrushka while he was working on another piece about the symphonic pagan ritual between 1911- 1913. Later this ritual became the main idea of *The Rite of Spring (Le Sacre du Printemps)*. At first, the ballet Petrushka was intended as a piano concerto, but impresario Diaghilev recognized its potential as music for a ballet. Petrushka is a variation on the Italian *commedia dell'arte*, but with the figures placed in a Russian setting. Stravinsky based his story on the iconic puppet Petrushka which is a traditional character of Russian puppet theatre and mostly depicted as a jester or clown. The ballet tells the story of the love and jealousy of three puppets which are brought to life by a magician. Petrushka falls in love with Ballerina and gets rejected by her. She prefers the arrogant Moor. The Moor invites Petrushka to a duel and kills Petrushka. Petrushka's ghost reappears to hunt the magician who brought him to life, because his soul was suffering from love.

Petrushka brings music, dance, and design together in a unified whole. It is one of the most popular of the Ballets Russes productions. It is usually performed today using the original drawings and choreography. Grace Robert wrote in 1946; "Although more than thirty years have elapsed since Petrushka was first performed, its position as one of the greatest ballets remains unassailed. Its perfect fusion of music, choreography, and décor and its theme—the timeless tragedy of the human spirit—unite to make its

appeal universal" (Robert, 1946, p.231). The piece is out of the traditional rules of tonality of nineteenth-century music. It is harmonically and rhythmically complex composition and based on an avant-gard type of musical scale. It breaks the established norms by using polyrhythms and polychords..

4.4 The Rite of Spring (1913)

The Rite of Spring is Stravinsky's third ballet which is based on a pagan ritual. He decided to write the piece when he was working on *Petrushka*, his second ballet, with Nikolai Roerich. He was an artist and specialist on the ancient Slavs. He talked about the "idea of a pagan ritual in prehistoric Russia where a young girl is chosen to dance herself to death as a sacrifice to the God of spring" (Palisca & Burkholder, 2006, p.928).

Putting the real ritual on stage without telling the story was the main theatrical idea of the work. Stravinsky wanted to "invoke the spirit of primitive life as a balm for the ills of modern urban society" (Palisca & Burkholder, 2006, p.928). The composer laid the ballet out as an observer and imitated the real religious activity. The Rite of Spring is important for its determined use of ostinato. For instance, in the section *Augurs of Spring (Dances of the Young Girls)* the ostinato on strings accented by eight horns. Also, in the same work in some passages more than one ostinato clash against one another. The unconventional use of rhythm, in *The Rite of Spring* is another outstanding aspect.

Stravinsky also gave the fight of defending his aim that expresses having no plot and no organization at the Rite. It means the all work is served as an imitation of a real religious activity. More than having special characters like in romantic Russian ballets, Stravinsky focused on the social aspects and social identities in a pagan rite. His anti-romantic style and shocking musical language with percussive dissonance, polyrhythm and ostinato usage changed all the atmosphere of ballet, as the audience understands till the Rite. (Unlennen, p. 147)

5. PERCUSSION USAGE OF STRAVINSKY IN HIS EARLY BALLETS

5.1 The Firebird

Stravinsky's the Firebird ballet consists of 2 acts. The first act covers most of the story and the second act contains the final part of the ballet. "Stravinsky preferred Romantic period orchestration techniques in his first ballet the Firebird. String instruments are used to express maturity and softness and the wind instruments are used to create different sorts of timbres" (Druskin, 1983,p.112). The Firebird is the first work in which Stravinsky began to use Russian folk melodies consciously and intensively and is a direct result of his education in Petersburg. Stravinsky takes and uses the material in Balakirev and Rimski-Korsakov's Russian folk music anthologies almost unchanged. Yet there are no traces of that individual attitude, which yet adds freshness to the folk melodies in Petrushka and clearly shows the marks of Russian folk music. The irregular accents and inverse rhythms of Stravinsky's music are related to the Russian language. Stravinsky himself said in an interview with Pravda newspaper during his visit to his homeland many years later that, "I have spoken Russian all my life, I think Russian and express myself in Russian. This may not be clearly seen in my music, but by nature it is hidden there"(Taruskin, 1996, p.13). All the innovations in the Firebird ballet and conscious or unconscious devotion to the Russian origins are indicative of much more dramatic changes that will come with the Petrushka ballet. Most of the percussion parts are seen at the Final part of the ballet. The most prominent percussion parts of the composition take place in the xylophone part. Bass drum and some other percussion parts were analyzed in terms of their orchestration techniques and rhythmic structures. Table 5.1 below demonstrates instrumentation and table 5.2 structure of The Firebird (1910).

Table 5.1: Instrumentation of The Firebird.

Wood winds	Brass	Percussion	Strings
2 piccolo	4 horns	4 timpani	Violins I
2 flutes	4 WagnerTubas (2 tenor,2 bass)	bass drum	Violins II
4 oboes	3 trumpets in C (Tpt. IV = Eb Bass Tpt.)	tam-tam	Violas
1 English horn	3 trombones	triangle	Cellos
1 English horn	1 Tubas	tambourine	Double basses
		glockenspiel	
3 clarinets		cymbals	
1 bass clarinet(Bb) (= Cl. IV)		xylophone	
3 bassoons (Bsn. IV = C- bsn.II)			
1 contrabassoon		celesta	
		3 harps	
		piano	

Table 5.2: The Firebird(1910) structure.

Parts	Structure
	I. Introduction
First Tableau	II. The Enchanted Garden of Koschei
	III. Appearance of the Firebird, Pursued by Prince Ivan
	IV. Dance of the Firebird
	V. Capture of the Firebird by Prince Ivan
	VI. Supplication of the Firebird
	VII. Appearance of the Thirteen Enchanted Princesses
	VIII. The Princesses' Game with the Golden Apples). Scherzo
	IX. Sudden Appearance of Prince Ivan
	X. Khorovod (Round Dance) of the Princesses
	XI. Daybreak – Prince Ivan Penetrates Koschei's Palace
	XII. Magic Carillon, Appearance of Koschei's Monster Guardians, and Capture of Prince Ivan– Arrival of Koschei the Immortal – Dialogue of Koschei and Prince Ivan Intercession of the Princesses – Appearance of the Firebird
	XIII. Dance of Koschei' Retinue, Enchanted by the Firebird
	XIV. Infernal Dance of All Koschei's Subject– Lullaby – Koschei's Awakening – Koschei's Death – Profound Darkness
	Second Tableau

“The 1919 suite in general was created for a smaller orchestra, consisting primarily of non-pitched percussion, timpani, xylophone, harp, and piano or strings. This suite was published in 1919 by J. & W. Chester.” (White, 1979, p.189).

The Firebird Suite (1919) structure:

1. Introduction – The Firebird and its dance – The Firebird's variation
2. The Princesses’ Khorovod (Rondo, round dance)
3. Infernal Dance of King Kashchei
4. Berceuse (Lullaby)
5. Finale

The image shows a page of a musical score for the Firebird Suite. The top section contains percussion parts: Cassa (Bass Drum), Tam-tam, Campanelli, Silofono, Celesta, and 3 Arpe. The bottom section contains string parts: Violini I, Violini II, Viole, Violoncelli, and Contrabassi. The tempo is marked 'Molto moderato' with a metronome marking of 108. The bass drum part shows a roll of eighth notes. The string parts show a chromatic line. The score is in 3/8 time and D major.

Figure 5.1 The Firebird, Bass drum roll and strings, The Firebird opening

The work starts with bass dominated chromatic parts of strings. The composer aimed to create a tense atmosphere in this section. Contrabasses, cellos and violas create a monophonic line while playing the same part and the only instrument played under this theme is bass drum. The bass drum plays *pianissimo* roll beneath to support the atmosphere. Stravinsky often made use of the instruments in his works to support the theatrical expression. In the Romantic era, in order to support the rhythmical disintegration in harmony or for the rhythmic structures and to expand the orchestration, bass drum was often written with cymbal. However, the use of bass drum here by Stravinsky is to emphasize the tense atmosphere which he tried to capture

with total chromatic monophonic line. This bass drum part is innovative in terms of its symbolization idea about the atmosphere.

The image shows a musical score for the Bass Drum part of Sibelius's Finlandia. The score is written for a full orchestra and includes the following parts:

- Timp.** (Timpani): A single line with a rest.
- Perc.** (Percussion): A line with a rest and the instruction "Bass Drum, using the timpani sticks" above it. The dynamic is *ppp*.
- 1 Vlns.** (Violins I): A line with the dynamic *mf espress.*
- 2 Vlns.** (Violins II): A line with the dynamic *mf*.
- Vlas.** (Violas): A line with the dynamic *mf*.
- Vci.** (Violoncello): A line with the dynamic *mf espress.*
- Db.** (Double Bass): A line with the dynamic *mf*.

The score is in 2/4 time and features a key signature of two flats (B-flat and E-flat). The bass drum part is characterized by a continuous, rhythmic roll of notes, which is described in the text as symbolizing windy and snowy weather.

Figure 5.2 Sibelius, Finlandia- Bass Drum part

Finlandia is the piece of the Finnish composer Jean Sibelius. Sibelius composed this piece in 1899 to describe the physical conditions of Finlandia in the composition.

The bass drum part is very similar to the bass drum part of the Firebird. The ostinato bass drum roll symbolizes the windy and snowy weather of the country.

The first system of the musical score includes the following parts and markings:

- Cl. I:** First Clarinet part, starting with a first ending bracket.
- Cl. b.:** Bass Clarinet part, starting with a second ending bracket.
- Fag.:** Bassoon part, marked *sempre sim.* (sempre staccato).
- Cor.:** Cor Anglais part, which is silent in this system.
- Tr-ni:** Trumpet part, marked *mf* (mezzo-forte).
- Sil.:** Snare Drum part, marked *p* (piano).

The second system of the musical score includes the following parts and markings:

- Cl. I:** First Clarinet part, marked *muta in B* (change to B-flat).
- Cl. b.:** Bass Clarinet part, marked *muta in B* (change to B-flat).
- Fag.:** Bassoon part, marked *a3* (triplets).
- Cor.:** Cor Anglais part, marked *III. IV* (third and fourth endings).
- Tr-ni:** Trumpet part, marked *senza sord.* (without mutes) and *p* (piano).
- Sil.:** Snare Drum part, continuing the rhythmic pattern.

Figure 5.3 The Firebird, Bassoon theme and the first xylophone part

Bassoon theme and xylophone together play a very asymmetric melody which refers to dance of the Firebird and monsters. This is the first solo of the xylophone which is very accurate for the orchestra percussionists. Besides the very *legato* and calm bassoon part, xylophone plays silence and *secco* syncopated line. This xylophone solo here is similar to the color and character of the clarinet's sound. Here it can be observed that two separated and contrast solos come together at the same time on bassoon and xylophone sections. They are not accompanying each other. In this xylophone part of the Firebird syncopated rhythm structure over the *legato* melody is an innovative orchestration technique of Stravinsky.

126 *Allegro*
Car. Inpt.
 127
 128
 129
 130
 131
 132
 133 *Allegro feroce*

Figure 5.4: The Firebird xylophone solo

Xylophon.
 I. II. III. IV. *TACEZ.*
 V.

IGOR STRAWINSKY.

133 *Allegro feroce.*
 134 135 136 137
 138 139 140 141 142
 143 144 145 146 *SOLO*
 (Piañti)
 147 148
 149 *Poco più sostenuto.*
 150 151 152
 153 *Poco più mosso.* *Più mosso. (Tempo I)*
 154 155 156 157 158 159 160
 161 162 163
 (Piañti torn.)
 164 *Tempo I.* *Più mosso.*
 165 166 167 168 169 170 171
 172 173 174 175 176 177 178 179 180 *Fine.*

Figure 5.5 The Firebird xylophone solo (1919 version)

The most important solos of the work are made up of xylophone parts in terms of the percussion literature. The xylophone part that we first hear in syncopation make up the Firebird themes in the work with the piccolo flute. The part that proceeds with syncopation in a rhythmic way speeds up afterward and adapts itself to the movements of the Firebird. The part which is rather technically difficult for the performer takes its place in the repertoires around the world in orchestra auditions because of its *piano* beginning and its unique rhythm in the orchestration. The same part shows itself now and again and is used to remind the Firebird. This solo is another example to Stravinsky's symbolization technique in the orchestration.

Xylophone

Alla Marcia
Xylophon u. Carillon

Xyl. u. Car

U E 8944

Figure 5.6 Kodaly, Hary Janos Suite, mvt. 6, xylophone part

Xylophone: Khachaturian, Gayne Ballet, Dance of the Rose Maidens

By Aram Khachaturian

Figure 5.7 Khachaturian, Gayne Ballet, xylophone part 1

Xylophone: Khachaturian, Gayne Ballet, Sabre Dance

Figure 5.8 Khachaturian, Gayne Ballet, xylophone part 2

Zoltan Kodaly's opera Hary Janos (1926) and Aram Khachaturian's Gayne Ballet (1939) have xylophone solos that are asked in orchestra auditions and well-known by percussionists. Even though they were composed after the Firebird, in terms of technical and musical features, the Firebird is more challenging for percussionists. Both of these solos are different from the Firebird xylophone part in terms of their linear rhythmic structures and orchestrations. They have a solo line at the xylophone and accompaniment at the other instruments groups as usual.

Figure 5.9: Infernal dance timpani stroke(Nr. 184)

After the dance parts, with the forte entry of timpani and the whole orchestra, the composer makes a sharp transition to the contrast theme. The infernal dance theme symbolizes the evil characters that exist in ballet. The thematic transition between good and evil characters are separated in characteristic lines and gave the audience the feeling of two distinct interwoven works. The *sforzando* bass drum part used here forms one of the most essential bass drum parts of the work. The thematic task given to the instruments as mentioned above is seen to be maintained consistently. The *piano* bass drum part that creates a tense atmosphere and arouses suspicion came to light

with a virtual explosion, and the character of Koschei showed himself for the first time. Performing the part with a possibly big drum and strong stroke as possible will increase the effect. While the theme of brass is performed on offbeat, bass drum part emphasizes the tone entries and increases the contrast density. After the glissando transition among the parts, with the addition of all percussion instruments, it reaches a *forte* ending. The following part starts with sounds that are suspended in the air, creating the feeling of echo of this big noise and continues with the lullaby theme of bassoon solo. All those percussion usage in this section is an example of Stravinsky's point of view about percussion instruments. He used the percussion instrument's different sound features to symbolize the characteristic ideas.

Figure 5.10: The Firebird, Percussion section(Nr. 165)

The percussion section that is placed in the middle of the work shows the syncopation theme differently by imitating the brasses. The part that involves a different composition for its era is one of the early samples of melodic use of percussion instruments rather than effective use. The difference between effective and melodic usage of percussion instruments can be observed in examples 5.9 and 5.10. In this part the hall percussion section is written as single instrument and this creates a melody. This is an innovative melodic percussion usage as an orchestration technique of Stravinsky.

Multi-Percussion | Allegretto

Figure 5.11: Shostakovich, Symphony No.15.mvt. 3, percussion section

Russian composer Dmitri Shostakovich composed his 15th Symphony in 1971. The percussion part of the third movement is a very late example of melodic usage of non-pitched percussion instruments. As an example figure 5.11, Shostakovich wrote this multi-percussion part as an one instrument line. He used the different sound features of the instruments to create a non-pitched melodic line.

5.2 Petrushka

The second ballet of Stravinsky; Petrushka consists of 4 acts. It was composed on the basis of a Russian folk song, which was based on quartet intervals. Piano was used in percussion character in the music. Although Petrushka was formed on the basis of Russian folk music as in the Firebird in terms of its basic features and most known themes, another feature of the work caused it to be dealt with in a very different way. The enormous rhythmic vividness and rhythmic intensity of the composition presented in Petrushka is much more fragmented compared to the flowing melodies of the Firebird. “This rigid and persistent rhythmic structure in the piece has a significant influence on the melodic properties of the composition built on a limited sound field. Indeed, this striking rhythmic vitality, born directly from the melody itself, seems to subdue the melody” (Taruskin, 1996, 713). Even it didn't belong to Russian folk music,

Stravinsky's usage of octatonic scales was found exotic by the audience. The polytonal chord was used not to create a weird feeling. It represented the Petrushka character and used for the first time as a base of the harmony. Stravinsky used percussion instruments more effectively in Petrushka. He used percussion in every act. The most essential percussion parts are in tambourine, glockenspiel and cymbal/bass drum parts. They were analyzed and compared with similar examples. Table 5.3 below demonstrates instrumentation and table 5.2 structure of Petrushka (1911).

Table 5.3: Instrumentation of Petrushka

Woodwinds	Brass	Percussion	Strings
2 piccolo	4 horns in F	4 timpani	Violins I
2 flutes		bass drum	Violins II
4 oboes	3 trumpets in B \flat (Tpt. II = B \flat picc. Tpt.)	tam-tam	Violas
1 English horn (= ob. IV)	3 trombones	triangle	Cellos
	2 cornets in B \flat and A	tambourine	Double basses
		glockenspiel	
3 clarinets		cymbals	
1 bass clarinet(B \flat) (= Cl. IV)		2 snare drums	
4 bassoons (Bsn. IV = C-bsn.II)	1 Tubas	Tenor drum	
1 contrabassoon(Bsn. IV = C-bsn.II)		xylophone	
		celesta	
		2 harps	
		piano	

Table 5.4: Petrushka(1911) structure

Parts	Structure
First Tableau: <i>The Shrovetide Fair</i>	<ol style="list-style-type: none"> I. Introduction II. A group of Drunken Revelers passes, dancing III. The Master of Ceremonies entertains the Crowd from his booth above IV. An Organ-Grinder appears in the Crowd with a [woman] Dancer V. The Organ-Grinder begins to play VI. The Dancer dances, beating time on the triangle VII. At the other end of the stage, a Music Box plays, another [woman] Dancer dancing around it. VIII. The first Dancer plays the triangle again IX. The Organ and Music Box stop playing; the Master of Ceremonies resumes his pitch X. The Merry Group returns XI. Two Drummers, stepping up in front of the Little Theater, attract the attention of the Crowd by their drumrolls

**Second
Tableau: *Petrushka's
Room***

XII. At the front of [i.e. from inside] the Little Theater appears the Old Magician. The Magic Trick
a-The Magician plays the flute
b-The curtain of the Little Theater opens and the Crowd sees three puppets: Petrushka (Guignol), a Moor, and a Ballerina
c-The Magician brings them to life by touching them lightly with his flute.

XIII. Russian Dance
a-Petrushka, the Moor, and the Ballerina suddenly begin to dance, to the great astonishment of the Crowd
b-Darkness, the Curtain falls

**Third Tableau: *The
Moor's Room***

I. As the Curtain rises, the door to Petrushka's room opens suddenly; a foot kicks him onstage; Petrushka falls and the door closes again behind him
II. Petrushka's curses

II. The Ballerina enters
III. The Ballerina leaves
IV. Petrushka's despair
V. Darkness. Curtain.

**Fourth Tableau: *The
Shrovetide Fair
(Toward Evening)***

I. [Introduction]
II. The Moor dances
III. Appearance of the Ballerina
IV. Dance of the Ballerina (cornet in hand)
V. Waltz (the Ballerina and the Moor)
VI. The Moor and the Ballerina prick up their ears
VII. Appearance of Petrushka
VIII. The Fight between the Moor and Petrushka. The Ballerina faints.
IX. The Moor throws Petrushka Out. Darkness. Curtain.

I. [Introduction]
II. The Wet-Nurses' Dance
III. A Peasant enters with a Bear. Everyone scatters.
IV. The Peasant plays the pipe. The Bear walks on his hind feet. The Peasant and the Bear leave.
V. The Peasant and the Bear leave.
VI. A Reveling Merchant and two Gypsy Women Enter. He irresponsibly amuses himself by throwing bank notes to the Crowd.
VII. The Gypsy Women dance. The Merchant plays the accordion.
VIII. The Merchant and the Gypsies leave
IX. Dance of the Coachmen and the Grooms
a. The Wet-Nurses dance with the Coachmen and the Grooms
X. The Mummies
a. The Devil (Mummer) induces the Crowd to frolic with him
b. Buffoonery of the Mummies (Goat and Pig)
c. The Mummies and the Maskers dance
d. The rest of the Crowd joins in the Mummies' Dance
e. The Crowd continues to dance without taking notice of the cries coming from the Little Theater.

-
- XI. The dances break off. Petrushka dashes from the Little Theater, pursued by the Moor, whom the Ballerina tries to restrain.
 - XII. The furious Moor seizes him and strikes him with his saber.
 - XIII. Petrushka falls, his head broken
 - XIV. A crowd forms around Petrushka
 - XV. He dies, still moaning.
 - XVI. A Policeman is sent to look for the Magician
 - XVII. The Magician arrives
 - XVIII. He picks up Petrushka's corpse, shaking it.
 - XIX. The Crowd disperses.
 - XX. The Magician remains alone on stage. He drags Petrushka's corpse toward the Little Theater.
 - XXI. Above the Little Theater appears the Ghost of Petrushka, menacing, thumbing his nose at the Magician.
 - XXII. The terrified Magician lets the Puppet-Petrushka drop from his hands, and exits quickly, casting frightened glances over his shoulder.
-



Figure.5.12: Petrushka chord

Harmonically, the most remarkable characteristic element is the Petrushka chord. The chord formed with C major and F sharp major triads symbolizes the Petrushka character.



Figure.5.13: Petrushka, Song of the Volochobniki theme variation 1



Figure.5.14: Petrushka, Song of the Volochobniki theme variation 2

Stravinsky made use of Russian folkloric songs very much in his work. "Song of the Volochobniki" is one of the Russian folkloric songs that we see in the work and we see them in the dance acts of Drunken revelers. The theme comes several times with different rhythmical structure as a new idea every time. Another Russian folkloric

melody that is heard with Triangle is the "Toward Evening, in Rainy Autumn". The dancing ballet character is accompanied by this triangle section. "Une Jambe de Bois" shows us the theme of dancer girl with wooden feet. The Russian dance theme of three puppets is symbolized with "A Linden Tree Is in the Field" and "Song for St. John's Eve", two different Russian melodies. Stravinsky also used orchestration techniques in this work that he used in his other two ballets. Dissonances, asymmetric rhythm patterns, and symbolized themes are frequently encountered.

The image displays a musical score for the percussion and string sections of Igor Stravinsky's *Petrushka*. The percussion part at the top includes *Piatti* (Cymbals), *Triangolo* (Triangle), and *Tamb. de Basque* (Tambourine). The string section below includes *Arpe a 2.* (Arpeggiated strings), *V. I.* (Violin I), *V. II.* (Violin II), *Viole.* (Viola), *Celli.* (Cello), and *C. B.* (Double Bass). The score is marked *(modo ordinario)* and *mf*. It features complex rhythmic patterns with time signatures of 3/4, 2/4, and 4/8. A *Stringendo.* section begins with a tempo marking of $\text{♩} = 46$. The score concludes with a boxed number 7.

Figure.5.15: Petrushka, Cymbal, triangle and tambourine part

Many percussion sections were written outside the usual methods accompanied by Song of the Volochobniki. The Cymbal, triangle and tambourine parts that we hear with Song of the Volochobniki gives the emotion as if these parts are not arranged for three separate people but for a single person, making it difficult for the performers in terms of the ensemble unity.

The image shows a musical score for the piece 'Petrushka' by Igor Stravinsky. It features six staves of music. The top two staves are for percussion: 'Piatti' (Bacch. di Tamb. mill.) and 'Tam-T.' (Bacch. di Tamb. mill.). The bottom four staves are for strings: 'V. I.', 'V. II.', 'Viols.', and 'C.B.' (Cello/Bass). The music is in 2/4 time and features a complex rhythmic pattern in the percussion section. The score includes dynamic markings such as *f* and *mf*, and a section marked *fff*. A box with the number '5' is located at the bottom left of the score.

Figure.5.16: Petrushka, Tam-tam and cymbal with the orchestration

The section that was formerly written for tam-tam and cymbal. It is almost divided into different sixteen notes in percussion which imitates the same rhythmic motion of rest of the orchestra. This percussion section is a rhythmical imitation of the dialogue between the string instruments. He used the two different sound elements of percussion section to symbolize the string parts. Writing melodic themes in percussion sections by making variations is another innovation of Stravinsky's orchestration technique.

The image shows a musical score for the piece 'Petrushka' by Igor Stravinsky, specifically the glockenspiel part (first act-carnival). It features five staves of music. The top staff is for Glockenspiel (Triangel) and the bottom staff is for Flute (Flüte). The music is in 2/4 time and features a complex rhythmic pattern. The score includes dynamic markings such as *mf* and *Meno mosso*. A box with the number '13' is located at the top left of the score, and another box with the number '17' is located at the bottom right of the score.

Figure.5.17: Petrushka, glockenspiel part(first act-carnival)

Tchaikovsky: Waltz from *Sleeping Beauty*

Nr.6 (Valse)

Allegro (Tempo di Valse)

Peter I. Tschaikowsky
op. 66

The image shows the Glockenspiel part of the Waltz from Sleeping Beauty, measures 144 to 170. It consists of four staves of music in 3/4 time, marked 'Allegro (Tempo di Valse)'. The key signature has one flat (B-flat). The notation includes various rhythmic values and dynamics such as 'p' (piano). Measure numbers 144, 152, 161, and 170 are indicated in boxes at the start of their respective staves.

Originalnotierung 1 Oktave höher / original notation 1 octave higher

Figure.5.19: Tschaikovsky, *Sleeping Beauty*, Glockenspiel part

The image shows the Glockenspiel part of the Concerto for Violin in A minor by Glazunov. It consists of ten staves of music. The tempo markings are 'Moderato. tacet al No. 31' and 'Allegro.'. The key signature has two sharps (F# and C#). The notation includes various rhythmic values, dynamics such as 'pp', 'poco p', 'colla parte', 'a tempo', 'piu animato', and 'sempre animando', and performance instructions like 'Viol. Solo.' and 'Camp.'. Measure numbers from 31 to 63 are indicated in boxes at the start of their respective staves.

Figure.5.20: Glazunov, *Concerto for Violin in A minor*, glockenspiel part

Glockenspiel

Allegro (♩ = 116)
(dans un rythme très souple)

16 Animé (♩ = 72)
Cor angl

17

18

19 En retenant (♩ = 138)
Assez animé

20 Cor I

21 Cédez un peu

22 Au mouvement (peu à peu) Cédez (♩ = 112)
Cl. I solo

23

24 Animez Au mouvement (♩ = 112)
Hh. I solo

25

26 En serrant

27

28 Au mouvement (♩ = 112) En animant beaucoup Retenu Au mouvement (♩ = 112) Peu à peu animé pour arriver à (♩ = 138) au No. 32
Hh. I solo Trp solo Cor I

29

30

31

32

33 Animé (♩ = 138)
Fl. I, II
un peu en débâcle

34

35

36

37

38

39 En animant beaucoup Très animé En retenant Au mouvement (♩ = 138)

40

41

42

43

Figure.5.21: Debussy, La Mer, mvt.2, glockenspiel part

Pyotr Ilyich Tchaikovsky and Alexander Glazunov are Russian composers. Sleeping Beauty ballet (1890) and Concerto for Violin in A minor (1905) have both well-known glockenspiel parts. They are melodic and solo lines for glockenspiel but not as much as intense and challenging with Petrushka glockenspiel part in terms of technical and orchestrational features. French composer Claude Debussy's piece *La Mer* (1905) includes a glockenspiel solo which is more advanced in terms of musical, rhythmical

and technical features. Even though Debussy and Stravinsky composed those pieces in the same period of time, their orchestration techniques and expectations from those glockenspiel parts were very different from each other.

The image displays a page of a musical score for the snare drum transition section of Stravinsky's *Petrushka*. The score is arranged in a multi-staff format. At the top, the percussion section includes Timpani (Timp.), Grand Cassa (Gr. Cassa.), Plati (Plati), Tripl. (Tripl.), Tamb. de Basque (Tamb. de Basque), and Tambourin (Tambourin). Below these are the string sections: Arpa I. (Arpa I.), V. I. (Violin I.), V. II. (Violin II.), Viols. (Viols.), Celli. (Celli.), and C. B. (Cello/Bass). The snare drum part is characterized by a dense, rhythmic pattern of eighth notes. The score includes dynamic markings such as *ff* and *secco*, and performance instructions like *Modo ordinario* and *Sul pont.* (Sul ponticello). The page number 29 is visible in the bottom left corner.

Figure.5.22: Petrushka, snare drum transition section

In *Petrushka*, snare drum was usually used classically to emphasize act transitions or traditional accompaniment in marching. He used an ostinato snare drum line at the transition. That is an example of his effective usage of percussion instruments in orchestration which is an innovation in terms of changing the point of view about the percussion instruments. This section reminds a previous example of Gioacchino Rossini's *La Gazza Ladra* opera (1817). At the beginning of the opera, two snare drum rolls were written to take attention of the audience. In *Petrushka*'s transition section, there is the same orchestration technique. Stravinsky used this orchestration method more theatrically.

Figure.5.23: Petrushka, snare drum solo with trumpet

The snare drum solo in the Dance of the ballerina was written in march characteristic and was written as a solo instrument with the trumpet. A very similar example to this snare drum part is Peter and the Wolf. Russian composer Sergei Prokofiev composed the piece as a symphonic fairy tale for children in 1936. Both snare drum solos are marching accompaniment with a small ensemble or solo melody. Prokofiev got influenced by Stravinsky when he was writing a solo snare drum with a simple melodic line.

The image displays a page of a musical score for Peter and the Wolf, specifically the Snare Drum part. The score is arranged in a system with multiple staves. The instruments and their parts are as follows:

- Tr-ba (Trumpet):** Two staves, both playing a melodic line with the instruction *ff ben tenuto, energico*.
- Cor. (Cornet):** Two staves, both playing a melodic line with the instruction *ff ben tenuto, energico*.
- Timp. (Timpani):** One staff, playing a rhythmic pattern with the instruction *ff*.
- P.ro (Percussion):** One staff, playing a rhythmic pattern with the instruction *ff*.
- Archi (Archi - Strings):** Four staves (Violin I, Violin II, Viola, and Cello/Double Bass). The Violin I and II parts are marked *arco* and *ff*. The Viola part is marked *mp* and *plizz.*. The Cello/Double Bass part is marked *mp* and *ff*.

The score is divided into two systems. The first system includes the Tr-ba, Cor., Timp., P.ro, and the beginning of the Archi part. The second system includes the Tr-ba, Cor., Timp., P.ro, and the continuation of the Archi part. A rehearsal mark **49 L'istesso tempo** is present at the beginning of the second system. The key signature is one sharp (F#) and the time signature is 2/4.

Figure.5.24: Prokofiev, Peter and the Wolf, Snare Drum part

123 Sostenuto, *pp*
Tam-Tam (Timp. stick)

124

p

one player Cymb.

Solo

mf

pp B.D. *ma marcato*

125

p

126

Solo

B.D. *ma marcato*

Figure.5.25: Petrushka, bass drum and cymbal section for one player

In the second act, the bass drum and cymbal were notated together for one player. It was traditional orchestration notation in eighteenth-century to write them together for one player. This part is an example of traditional usage of percussion in modernist rhythmic structure. Stravinsky combined traditional notation with syncopated rhythmic structure, which is an orchestrational innovation in the twentieth century.

The image shows a page of a musical score for Igor Stravinsky's 'Petrushka'. The score is arranged in a system with ten staves. From top to bottom, the staves are labeled: Cl. I., Cl. basso, Gr. Cassa, Platti, Arpa I., V. I., V. II., Violo., Celli., and C. B. The bass drum (Gr. Cassa) and cymbal (Platti) parts are written in a rhythmic, percussive style, with the cymbal part featuring a complex, syncopated pattern. The other instruments have more melodic and harmonic parts. The bass drum and cymbal parts are marked 'Senza sord.' (without mutes) at the end of the system.

Figure.5.26: Petrushka, bass drum and cymbal part

Bass drum and cymbals parts written to emphasize the brutality of The Moor character in the third act and its despair in the environment were noted in the contrast way on the other part of the orchestration. In this way, the composer aimed to symbolize the Moor character with spontaneous dance music.

РУССКАЯ.
Russischer Tanz. | Danse Russe.

Xylophon **Allegro giusto.**

33 Piano

34 Xylophon *gliss.* *ff*

35 *gliss.* *ff*

36 *f* *gliss.*

37 *f* **38** *fff*

39 **40** **41** **42** Viol Solo

43 *f* **Tempo I. (Allegro giusto)**

Poco meno (*tranquillo*) pochiss. accel. a tempo rall. **44** **45** Piano *f*

46 *f* *cresc. ed accel.* **47** *ff* *pour finir* *pour ench.*

Figure.5.27: Xylophone solo over the Russian Dance theme

With sudden glissandos and dissonant intervals, the xylophone part emphasizes the Russian Dance theme which symbolizes three puppets. The part which can be seen as one of the most challenging solos in the literature includes quite wide intervals and fast passages.

199 S.D. $\text{♩} = 188$ 3 200 2 1 201 2 Tamb. *trum trum* 202
sf thumb
 203 *trum trum* *trum trum* 1 *trum trum* 204 *trum trum* *trum*
sempre sim. 205 $\text{♩} = 88$ *trum trum* 206
 shake thumb shake thumb.

Figure.5.28: Petrushka,tambourine part

The tambourine part is one of the essential tambourine excerpts as it involves a lot of very distinctive tambourine techniques. The part which is formed by finger roll, handshake and sudden staccato beating combinations challenges the performer to find new innovative ways to play the tambourine. The technical directions for the player were added to the score in later editions. This part is innovative in terms of its technical instrument usage about tambourine.

Figure.5.29: Bizet, Carmen No.2 danse boheme, Tambourine part 1

Bizet: Carmen, "Aragonaise"

Figure.5.30: Bizet, Carmen, No.1 Aragonaise, Tambourine part 2

Tambourine

Allegro.

Figure.5.31: Dvorak, Carnival Overture, Tambourine part

French composer George Bizet's *Carmen* opera (1875) and Czech composer Antonin Leopold Dvorak's *Carnival Overture* (1891) are previous examples for tambourine repertoire. Even though they both have high technical capability, *Petrushka's* tambourine solo is distinctive between them. Its syncopated rhythms and complicated functional elements force player to find new solutions about playing.

СТРАХАТЪ И УДАРИКУЪ СВОЕИ САБЛЮИ.
Strikes Him with His Saber.

ПЕТРУШКА ПАДАЕТЪ СЪ РА-
ВНЫИЪ ЧЕРЕПОМЪ.
Petrushka Falls, His Head
Broken.

The image shows a page of a musical score for the 'Petrushka Falls' section. It features multiple staves for various instruments: Flutes (Fl. picc. I, Fl. picc. II, Fl. I, II), Oboes (Ob. I, Ob. II), Clarinets (Cl. I, Cl. II), Cor Anglais (Cor. I, II), Trumpets (Tr. I, Tr. II), Trombones (Tromb. I, II), Xylophone (Xyl.), and Percussion (Piatr., Tamb. de Basque). The score includes dynamic markings like 'ppp' and 'pp', and performance instructions such as 'Solo.', 'senza sordini', 'Tr. picc. in Re', and 'Bach. di tamb. esile.'. The percussion part includes the instruction 'Tenir le Tamb. de B. tout bas au sol et le faire tomber'.

Figure.5.32: Petrushka Falls, his head broken

In the Final part of Petrushka, tambourine fall represents the broken head of the puppet. This theatrical notation shows Stravinsky’s orchestration ideas about symbolism more directly. He imitated the Petrushka’s broken head moment with special sound effect. At this moment, Stravinsky wanted the percussionist drop the tambourine down. He used the percussion instrument new sound color element in this section. It is an obvious example of Stravinsky’s symbolization technique in orchestration and instrumentation.

5.3 The Rite of Spring

The Rite of Spring is Stravinsky’s third ballet and consists of 2 acts. The Rite of Spring, expands and intensifies the technical and aesthetic tools that were first launched in the Firebird and Petrushka. All of these features appearing in the first two ballets for the first time in the Rite of Spring were used more such as making rhythm a priority, blurring the boundaries of traditional tonality, using polytonality, polymodality and

assimilating folk melodies. In the Rite of Spring, Stravinsky returns to medieval religious music traditions that use the rhythmic component on equal terms with other musical elements. Stravinsky uses the rhythm as a structural element that makes up the whole, and this is almost similar to the way medieval composers use isorhythm to create a formal harmony. (Taruskin 1996,p.186) One of the most striking features of the Rite of Spring is the continuous change in time signatures throughout the piece. In this way, the composer adds extra pulse units to a rhythmic subtlety found in Russian folk music under Russian influence. (Griffiths, 1978, p. 66). The harmonic language in the Rite of Spring is also a direct continuation of Petrushka. Stravinsky primarily supports the three-tone chords with dominant and seventh-chords, although their functions are far from the usual roles in traditional harmony. Stravinsky's experiments with new harmonic tools such as bitonality and pandiatonicism, as well as the more free use of traditional resources used to compose music, are quite alien to listeners accustomed to traditional harmony (Walsh, 1988, p. 51). “In the path of Debussy’s s staggering impact on understanding the traditional tonal music, Stravinsky became the representative of the primitivism in music by using barber harmony and rhythmic structures on The Rite” (Eren, 2014, p.219). “According to Stravinsky's speeches with Robert Craft, the solo bassoon melody at the opening is the only folk song in the piece” (Craft, 1985, p. 151). However, the ostinatos Stravinsky used in the Rite of Spring also directly linked to Russian folk melodies. Stravinsky’s individual orchestration techniques, rhythmic structures out of the bars and numbers and using folkloric elements with polytonality and dissonances are his fundamental innovations about his music. This is a style that changed the direction of music at the beginning of the twentieth century and resulted in many revolutionary concepts that have continued to the present day. In Rite of Spring Stravinsky used the most crowded orchestration between his early ballets. Unlike other two ballets, the timpani part is important in the Rite of Spring. Also, Stravinsky used new instruments as guiro and crotales first time in this ballet. Table 5.5 below demonstrates instrumentation and table 5.6 structure and synopsis of The Rite of Spring.

Table 5.5: Instrumentation of The Rite of Spring.

Woodwinds	Brass	Percussion	Strings
1 piccolo	8 horns (F) (Hns. VII, VIII = Bb Tenor [Wagner] Tubas)	5 timpani (for two players)	two Violins I
3 flutes (Fl.III=Picc.II) 1 alto flute(G)	1 trumpet in D 4 trumpets in C (Tpt. IV = Eb Bass Tpt.)	bass drum tam-tam	Violins II Violas
4 oboes (Ob. IV= Eng. Hn. II) 1 English horn 3 clarinets (Bb and A(Cl. II = Bass Cl. II) 1 clarinet (Eb and D)	2 trombones 1 bass trombone 2 Tubas	triangle tambourine cymbals	Cellos Double basses
1 bass clarinet(Bb) (= Cl. IV) 4 bassoons (Bsn. IV = C- bsn.II) 1 contrabassoon		antique cymbals (Ab and Bb) guiro	

Table 5.6: The Rite of Spring's structure and synopsis.

Parts	Structure	Synopsis
	Introduction	Before the curtain rises, an orchestral introduction resembles, according to Stravinsky, "a swarm of spring pipes
I. Adoration of the Earth	The Augurs of Spring	Dances of the Young Girls: The celebration of spring begins in the hills. An old woman enters and begins to foretell the future
	Ritual of Abduction	Young girls arrive from the river, in single file. They begin the "Dance of the Abduction".
	Spring Rounds	The young girls dance the Khorovod, the "Spring Rounds".
	Ritual of the Rival Tribes	The people divide into two groups in opposition to each other, and begin the "Ritual of the Rival Tribes".
	Procession of the Sage	: A holy procession leads to the entry of the wise elders, headed by the Sage who brings the games to a pause and blesses the earth.
	Dance of the Earth	The people break into a passionate dance, sanctifying and becoming one with the earth.
II. The Sacrifice	Introduction	
	Mystic Circles of the Young Girls	The young girls engage in mysterious games, walking in circles.
	Glorification of the Chosen One	One of the young girls is selected by fate, being twice caught in the perpetual circle, and is honoured as the "Chosen One" with a martial dance.
	Evocation of the Ancestors	In a brief dance, the young girls invoke the ancestors.
	Ritual Action of the Ancestors	The Chosen One is entrusted to the care of the old wise men.
	Sacrificial Dance (The Chosen One)	The Chosen One dances to death in the presence of the old men, in the great "Sacrificial Dance".



Figure.5.33: The Rite of Spring, bassoon solo

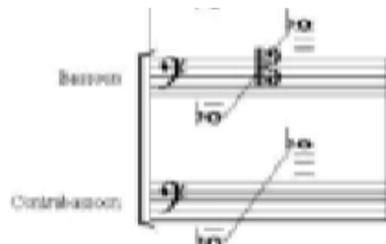


Figure.5.34: The Rite of Spring , the register of the Basson

To reconstruct the traditional singing styles of the countryman, Stravinsky went beyond the ordinary orchestration technique and wrote parts that pushed the technical capacities of the instruments forth. For example besides the timpani part, the piece which was written for bassoon was composed of the highest octave of the instrument.

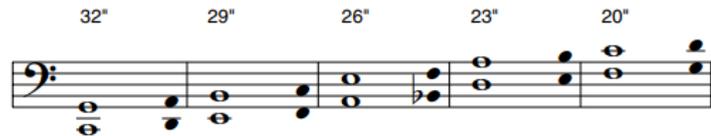


Figure.5.35: The Rite of Spring , the register of timpani



Figure.5.36: The Rite of Spring, timpani usage in H3

Moreover, it is work where the H3, the highest register of the Rite of Spring timpani, was used for the first time. The timpani sets didn't include the piccolo timpani at that time. The piccolo timpani was designed in the twentieth century to be able to play higher notes. Stravinsky's compositions led to the development of piccolo timpani. This usage was innovative in terms of its new timpani register usage.

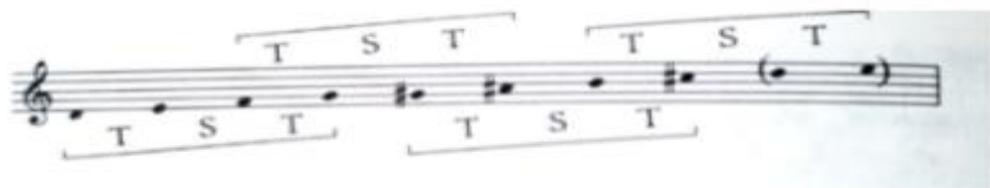


Figure.5.37: The Rite of Spring ,octatonic scale, T represents whole tone intervals and S half-tone intervals. (Taruskin, 2009)



Figure.5.38: The Rite of Spring, *Action rituelle des ancêtres I* (Taruskin, 2009)

Intense dissonance uses and sudden pitch changes represent the savage human being which the composer wanted to show. The composer had a nationalist attitude to harmonize Russian folkloric songs, using the octatonic scales. Octatonic scale is a name given to the scales that alternate between whole steps and half steps. Stravinsky used G sharp, A sharp, H, C sharp with the rest of the octatonic scale; D, E, F, G in the example.

Starting from very beginning of the work, after introduction, he uses distinct thematic blocks which have no motivic developments. In that point, the usage of quotation peak its climax. He even juxtaposes more than two different, contrasting ideas of blocks or stratificates them by putting them at the same time. (Unlenen, p.148)

Stravinsky moved the sharp transitive contrast themes forward in the Rite of Spring which he used in his first two ballets — and composed in blocks. Rather than theme development methods, he created sharp stage transitions and provided a new unity of different themes superimposing the blocks.

The fact that he did not feel the need of developing the themes might have stemmed from the fact that it already had the characteristics of emphasizing the primitive souls. The pulse feeling that dominates the whole of the work reflects the uneasiness of humans in the wild nature. The dry sound atmosphere that the composer captures with the orchestration techniques such as *staccato* and *detache* were employed to indicate the primitiveness of the environment. Stravinsky shed light to the modernist era composers along with his pursuit of new orchestral tone.

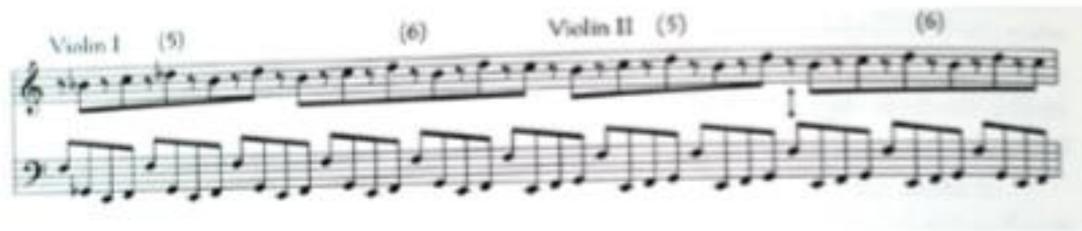


Figure.5.39: The Rite of Spring , *Action rituelle des ancêtres 2* (Taruskin, 2009)

The contrast rhythmic structures play a significant role in the atmosphere that Stravinsky designed. While the first one has a hypnotic characteristic being monotonous and consistent the other structure is made up of more irregular and asymmetrical rhythm (Toorn, 1987) “Stravinsky paved the way for the use of these two structures under a single roof which could be named as passive ostinato and active tone alteration.” (Taruskin, 2009:183). Stravinsky made use of the interposing rhythmic structures for the first time and became an inspiration for the contemporary composers. Along with the rhythmic asymmetry, the use of dissonance is one of the most remarkable characteristics that reflect the primitive life in the work.

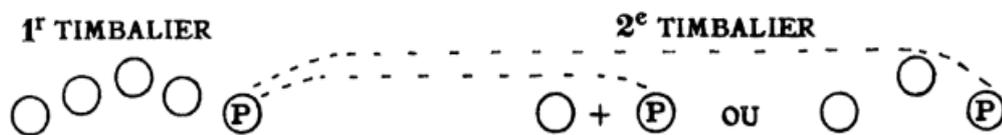


Figure.5.40: The Rite of Spring, two timpanists timpani usage shema

As the most striking part of the work in terms of percussion useage, timpani stands out. The part written for two timpanists and five timpani involves the highest timpani register ever written in those times. The innovations in timpani that started with Beethoven 9th symphony was taken to the pretty innovative phases along with the use of two set of timpani in the *Symphonie Fantastique* of Berlioz. Syncopated rhythms and unconventionally used chords underlie Stravinsky’s use of timpanies in the ballet of Rite of Spring.



Figure.5.41: The Rite of Spring, timpani and bass drum part

The stable rhythms in which two timpanies are played together emphasize the call for rite. Timpani and other percussion instruments were often used to conjure up the natural events such as thunder. Stravinsky's the way usage of the two timpanist is an innovation about percussion instrumentation.



Figure.5.42: The Rite of Spring, percussion tutti part

The tam-tam part that comes just after the timpani is merely one of Stravinsky's orchestration techniques in pursuit of richer sound color.

Figure.5.44: Hindemith, Symphonic Metamorphoses, Timpani part

in F, E, D und A.

Figure.5.45: Strauss R, Burleske, timpani part

German composer Paul Hindemith composed Symphonic Metamorphoses in 1943. The timpani part of the piece is also in the audition repertoire of timpani. Technically and rhythmically they have similarities with The Rite of Spring timpani solo. It is possible that Hindemith was influenced by Stravinsky. His melodic and rhythmic

usage in Symphonic Metamorphoses' timpani part has similar orchestral ideas with the timpani solo of the Rite of Spring. Richard Strauss Burleske (1886) is a good previous example to melodic timpani usage in orchestra. In Burleske timpani was used as a soloist melodic instrument instead of being effective or rhythmical accompaniment element.

4 G-Cassa & Piatti

DANSE DE LA TERRE

Lento 3

72 Prestissimo G.C.

p *fr* *molto*

p *molto* *ff* *molto*

73 *fr* *molto* *pp* *molto* *pp*

pp *molto*

74 *fr* *molto* *pp*

pp

75 *pp*

10 11 76 1 2 3 4 5

6 7 8 9 77 1 2 3

cresc. poco a poco

4 5 6 7 8

9 10 78

ff

Figure.5.46: The Rite of Spring, bass drum part solo

The image shows a musical score for 'The Rite of Spring'. It features three staves: Timpani (Timp.), Grand Cymbal (Gr. c.), and Strings (Arch). The Timpani part has a complex, polyrhythmic pattern. The Grand Cymbal part is marked 'p sub. sf p'. The string part starts at measure 73 and features a rhythmic pattern of eighth notes. The score is in 2/4 time and includes various dynamic markings and articulations.

Figure.5.47: The Rite of Spring bass drum and timpani with strings(Nr.73)

One of the most important percussion solos of the work is the bass drum part that is played at the end of the first part. The part that reminds the tribal bass drum and the timpani part have polyrhythmic structure. If the part that needs to be performed with strong beater and big drum is performed in a stable and energetic method, it will be more effective.

Bass Drum | Kräftig. Entschieden

The image shows the bass drum part for Mahler's Symphony No. 3, first movement. It is written in bass clef and includes various dynamic markings and articulations. The score is divided into several sections: 'Gr. Tr. Zurückhaltend.' (measures 1-2), '1 Molto riten.' (measures 3-6), 'Gr. Tr. Solo' (measures 7-8), and '2 Schwer und dumpf.' (measures 9-12). The score includes a 'Tam-tam' section and a 'sempre pp' section. The score is in 3/4 time and includes various dynamic markings and articulations.

Figure.5.48: Mahler, Symphony No.3 mvt,1, Bass Drum part

Gustav Mahler's 3. Symphonies' bass drum part is also played in the orchestral audition repertoire. Mahler composed his 3. Symphony in 1896. When we chronologically analyze the bass drum parts, it is evident that they developed technically better between the years.

The image shows a page of a musical score for 'The Rite of Spring', page 153. It features ten staves for different instruments: Flute (Fl.), Flute in C (Fl. c-a. (G)), Oboe (Ob.), Clarinet in G (C. ingl.), Bassoon (Fag.), Bassoon in C (C-fag.), Horn (Cor.), Trumpet in D (Tr-ba ploc. (D)), Trumpet in C (Tr-be (C)), and Tam-tam (T-t.). The tam-tam part is marked 'colla bach. di triangle gliss.' and 'pp'. The score includes various musical notations such as dynamics (pp, sf), articulation (accents), and performance instructions (I, II, III, IV).

Figure.5.49: The Rite of Spring, tam-tam glissando with triangle beater

Stravinsky notated the tam-tam to play with triangle beater in this section. It is an important detail to specify the material of the instrument or sticks. He was searching for a specific effect in this part. Varied timbre and sound types searching and using percussion instruments not just as a rhythmical element but also as a new sonic world is a fundamental idea of modern music. This is an example of the symbolization of the other sections on percussion parts by imitating the timbre. In this section, tam-tam glissando resembles the flute section. Stravinsky used a tam-tam with different material to produce specific sounds. This is an innovation about his instrumental usage.

The image shows a musical score for the first act of 'The Rite of Spring', specifically the 'rape Guero' section. It consists of four staves, each with a different instrument or percussion part. The top staff is for Timpani (Timp.), the second for Gong (Gr. C.), the third for Tam-tam, and the bottom for a single Guero. The music is written in 6/8 time and features complex polyrhythmic patterns. The Guero part includes a sequence of notes with accents and a 'etc. rim.' instruction. The other parts feature rhythmic patterns with accents and dynamic markings.

Figure.5.50: The Rite of Spring, rape Guero, first act

Stravinsky used the African instrument guiro for the first time in the orchestra with The Rite of Spring. He used a 4 and 2 against 3 African polyrhythm in this section. Also The Rite of Spring is one of the early examples of crotales usage in orchestra. After Hector Berlioz's *Roméo et Juliette*, Claude Debussy's *Prélude à l'après-midi d'un faune* and Maurice Ravel's *Alborada del gracioso* Stravinsky used the crotales in A-flat and B-Flat in his third ballet. Using the Guero in the orchestra for the first time was an innovation of Stravinsky about instrumentation. Using the polyrhythm as a cultural element in the orchestra is another orchestration innovation of Stravinsky.

6. FINDINGS

Stravinsky's first three ballets Firebird, Petrushka and the Rite of Spring are analyzed in terms of their innovations about percussion usage. These innovations are analyzed under three categories. They are Stravinsky's non-linear rhythmical structure usage, symbolist and melodic usage in orchestration and creative usage in instrumentation. The analysis were compared with similar or contrast percussion parts of different composers.

Stravinsky used the harmony, rhythm and instrumentation with different orchestration techniques to express his ideas. He used symbolism by applying different methods in his compositions. The Petrushka chord in Figure 5.12 and harmonizing the Russian folkloric songs by using octatonic scales in Figure 5.38 can be given as his symbolization technique by using harmony. He also applied those ideas in his percussion usage. He used varied sounds and timbres of percussion instruments to symbolise the character, atmosphere, situation, idea or the sound color of another instrument. In Figure 5.1, the Firebird bass drum roll part symbolises the stressful atmosphere of the scene at the beginning of the Firebird. In Figure 5.4, the Firebird xylophone solo reminds the theme of Firebird which is an example to the melodic symbolization of the character. That solo is technically different in terms of its syncopated rhythms and dissonant harmony. Figure 5.9 is an example of symbolization by using the different sound features of the instruments. In Figure 5.32 Stravinsky searched for an effective sound to symbolize the moment that Petrushka's head is broken and created a solution by dropping the tambourine. Figure 5.49 is an example of imitating the timbre of another instrument with percussion instruments. Stravinsky used triangle beater to play tam-tam to produce specific sounds and imitate the flute part. Symbolisation is the technique that Stravinsky and many futurist composers like Debussy and Wagner used in their composition. Stravinsky's symbolization idea led him to innovate different approaches in percussion usage. Playing the instruments with different materials, creating new interpretation techniques, symbolizing the

atmosphere and character by using the different technical ability and timbre features of the instruments are innovations of Stravinsky.

Stravinsky was also very innovative about rhythmic structures. He used syncopated rhythms and changing meters very often in his compositions. He used contrast elements together innovatively. In Figure 5.3 the Firebird's bassoon theme and the first xylophone part is an innovative orchestration technique of Stravinsky by using a syncopated rhythm structure over the *legato* melody. In Figure 5.25, the bass drum and cymbal section for one player from *Petrushka* is an example of traditional usage of percussion in modernist rhythmic structure. Stravinsky combined traditional notation with syncopated rhythmic structure, which is also an orchestrational innovation of Stravinsky. In Figure 5.43, timpani solo in *The Rite of Spring* is innovative for timpani usage. He used the timpani as a soloist instrument and wrote the melody to the timpani. The syncopated rhythms and changing meters were innovative in a melodic timpani solo. Stravinsky's orchestration and instrumentation techniques were developed in each composition. It can be observed in his first three ballets. In every ballet, orchestration techniques got richer and instrumentation was changed. He innovated many ideas and techniques when he was searching for new timbres and sound colors. In Figure 5.16, tam-tam and cymbal section in *Petrushka* is a rhythmical imitation of the dialogue between the string instruments. He used the two different sound elements of percussion section to symbolize the parts of string instruments. Melodic usage of the non-pitched percussion instruments is another innovation of Stravinsky. In Figure 5.28, the tambourine part in *Petrushka* is innovative in terms of its interpretation technique capability. Stravinsky used many tambourine techniques together and forced the percussionist to find a new technical solutions. *The Rite of Spring's* timpani register in H3 in Figure 5.36, was innovative in terms of its new timpani register usage. After his timpani part, piccolo timpani was invented. Also using the guero for the first time in the orchestra is an instrumentational innovation which was in Figure 5.50. In the same example, using polyrhythm as a cultural element in the orchestra is another innovation of Stravinsky.

7. CONCLUSION

The purpose of this study is to examine percussion usage in the first three ballets of Stravinsky and to understand the innovations he made in his works. Stravinsky has used a wide variety of intensive percussion in his works. Most of these parts are asked in the orchestral percussion auditions today in the world and taught at schools in the orchestral percussion repertoire courses. I first examined these works because these parts exist in the first three ballet. As he used many innovative orchestration techniques such as the use of dissonances, syncopated rhythms, metric fractures, Stravinsky is regarded as one of the pioneers of the modernist era. He used the percussion instrument mostly as a sound color element in his compositions. The composer continued to pursue his quest for different tone in the use of percussion instruments during the later period of his career and became a source of inspiration for the following composers in the orchestral and chamber music areas. As a contemporary of Stravinsky, Debussy played a major role in demolishing the traditional tonal understanding by meeting him and influencing each other. Stravinsky also carried a similar mission and played an important role in the transition from the Romantic period to the Modern period with his harmonic and rhythmic forms. Although the use of Russian folk music as an excerpt may seem like the effects of Korsakov, octatonic arrays and dissonance chords used to support the reference tunes. Simultaneous use of asymmetric rhythmic variations, innovative choices in the selection of soloist instruments, the melodic quest in the orchestration used to emphasize various themes are the technical features that make the composer stand out in the twentieth-century music. Innovative national Russian composer identity that started with Firebird ballet gained a new dimension with the techniques used above and led to Neo-classic understanding that formed the next period of the composer with Petrushka and The Rite of Spring. The xylophone solo that he wrote in the Fire Bird makes the use of striking bass drums and ring a very successful start. The symbolic use of the instruments reminds us of Berlioz's program of music. Considering the composers of the period, both with his thematic approaches

or with the ideas of orchestration Stravinsky can also be examined in this context as he has an extra-musical narrative expression.

In contrast to the previous ballet in *Petrushka* folkloric themes are highly included. Stravinsky, who appears with a rich and colorful orchestration, contains many themes in this work. The choice of soloistic instruments expands and allows us to hear the instruments we never heard of in the foreground so often. The composer that made use of a variety of instruments in the percussion parts shows his quest for different melodic colors more clearly. The composer who does not restrict the use of instruments in a uniformed way gives the performer the task of reflecting different musical characters together. Besides, he also allows us to enter into a quest for making different sounds from the instrument and the expansion of the technical capacity with experimental parts. As a percussionist, I think this work is one of the hardest section written for glockenspiel and xylophone. As well as it is technically challenging, personally I think that it is more important to reflect musical expressions. Likewise, for the tambourine part, it would not be wrong to say that it is one of the most challenging part for the tambourine. Performing finger roll, handshake, and staccato strokes requires the performer to produce personal solutions. The *Rite of Spring* keeps its place as the most Avangard ballet after two works. The progress of the work in a theatrical theme, but the fact that it does not carry a scenario is the first thing that stands out. While the orchestration is used much more intensively and effectively, undeveloped themes are handled more carefully due to the primitive rite idea. The contrasting themes, which are easily distinguished even they are interposed in the earlier works, appear to have overlapped and created the order of chaos. The most remarkable part in terms of percussion use is the timpani section. Even though it is not used as an obvious percussion instrument in *Petrushka*, the timpani emphasizes the theme of primitiveness with syncopated rhythms. This part has a great place in timpani literature. As it uses the highest register and because of its consistently changing meter order, it is often asked in the auditions. Another widely asked part is bass drum part. The energetic part played with strong beaters reflects the tribal environment very clearly. He used new percussion instruments, experimented new materials and techniques on the instruments and changed the register ranges some of the percussion instruments in the *Rite of Spring*. I mentioned about the musical life of Stravinsky in three main periods; Early life, Neo-Classical Period and Serial Period. Stravinsky who was influenced by different composers and different types of art

movements in every period defined himself a new route and made huge works after his three ballets. Interested in asymmetric rhythm structures and different timbres, he gave a wide coverage to percussion instruments in many of his works. *Les Noces* ballet, *The Soldier's Tale* chamber music work and *Pulcinella* ballet are some of the outstanding ones. A variety of percussion parts from other works are played in orchestra literature. It can be observed that the percussion usage of Stravinsky was developed in his later works. In his period, he was in interaction with the composers like Debussy, Wagner, Strauss. Attaching importance to percussion parts in their works, these composers, like Stravinsky, brought many innovations to the field of percussion composition. However, Stravinsky became a source of inspiration for following composers with his use of asymmetric rhythm structures and percussion ensemble. The percussion using technique and the concepts of changing rhythmic structure and orchestration in the first three ballets are very important in this development. *The Soldier's Tale*, composed in 1918, is one of the pioneers of his works written for percussion. Edgar Varese, who created the first work for percussion ensemble in 1931, was influenced by these works of Stravinsky. Hindemith composed *Kammermusik No. 3* (1925) and *Symphonic Metamorphoses* (1943) under the influence of Stravinsky's syncopated rhythms and melodic timpani usage. Henry Cowell's *Ensemble* (1925), George Antheil's *Ballet Mecanique* (1924-25) were also influenced by Stravinsky's wide percussion instrumentation and rhythmical orchestration structures. Bartok *Music for Strings, Percussion, and Celesta*, *Bartok Sonata for Two Pianos and Percussion* (1937) can also be counted as other influences of Stravinsky in terms of their folkloric element usage and percussion notation in this period. Messian used Stravinsky's rhythmic structure techniques too. He wrote short melodic lines on different metrical lengths repetitively and intersected them in different ways. The most notable names that developed the percussion ensemble repertoire after Varese are known as John Cage, Iannis Xenakis, and Karl Stockhausen. Based on my observations that I obtained during my researches, I think that Stravinsky's three ballets are the milestones in the development process of his career. They involved a variety of orchestration techniques that were used for the first time and played an important role in the development of technical use of instruments. The quest of composers for new melody accelerated the improvement of instruments and allowed them to look for new ways. During his musical life, Stravinsky produced works that could serve this process. In terms of understanding the later works of

Stravinsky and his development process, I personally think that it is very crucial to examine these three ballets. If we analyze the following examples from Antheil, Varese, and Hindemith, the rhythmical and instrumental influence of Stravinsky can be observed clearly.



REFERENCES

- Badura, Eva- Skoda** (2001). Alla Turca. In *The New Grove Dictionary of Music and Musicians*. *Oxford Music Online*. Retrieved July 30, 2019, from <https://www.oxfordmusiconline.com>
- Biography.com Editors** (2014). *Igor Fyodorovich Stravinsky Biography* from <https://www.biography.com/musician/igor-fyodorovich-stravinsky>. Retrieved 01.05.2019.
- Blades, J.** (1985). *Percussion Instruments and Their History*. London: The Bold Strummer.
- Bugg, D.** (2003). *The role of Turkish Percussion in the History and Development of the Orchestral Percussion Section*. Louisiana State University, LSU Major Papers.
- Craft, R.** (1985). *Conversations with Igor Stravinsky*, New York: Faber and Faber
- Druskin, M. S.** (1983). *Igor Stravinsky: His Personality, Works and Views*, Cambridge: Cambridge University Press.
- Eckhardt, K.** (1977). *Schlagzeuginstrumente-Pauken*. Deutsche Verlag für Musik-Leipzig.
- Eren, O.** (2014). *Kırılma Anları*. Ankara: Sevda Cenap And Müzik Vakfı Yayınları.
- Griffiths, P.** (1978). *Modern Music: A Concise History from Debussy to Boulez*, New York: Thames and Hudson.
- Hee-Chung, M.M.** (2002). *Igor Stravinsky's Three Movement from Petrushka an Analyzes Performance Practice*. Doctoral Essay, The Ohio State University.
- Hill, P.** (2000). *Stravinsky The Rite of Spring*. Cambridge: Cambridge University Press.
- Homans, J.** (2010). *Apollo's Angels: A History of Ballet*. New York: Random House.
- Joseph, C.** (2012). *Stravinsky's Ballets*. Retrieved July 30, 2019, from <https://yalebooks.yale.edu/book/9780300118728/stravinskys-ballets>.
- Joseph-Charles, M.** (2002). *Stravinsky and Balanchine. A Journey of Invention*. New Haven and London: Yale University Press.
- Montagu, J.** (2002). *Timpani&Percussion*. London: Yale University Press, New Haven and London.
- Myers C.** (2015) *The Firebird Suite*. Retrieved July 30, 2019, from <https://www.redlandssymphony.com/pieces/the-firebird-suite>.
- Oliver, M.** (1995). *Igor Stravinsky*. London: Phaidon Press.

- Palisca, C. V., & Burkholder, J. P.** (2006). *Norton Anthology of Western Music, Volume 2: Classic to Twentieth Century*. New York: W. W. Norton & Company, Inc.
- Robert, G.** (1946). *The Borzoi Book of Ballets*. New York: Alfred A. Knopf.
- Schwarm, B.** (n.d.). *The Firebird Ballet By Stravinsky*. Retrieved July 30, 2019 from <https://www.britannica.com/topic/The-Firebird>.
- Stravinsky, I. & Craft, R.** (1981). *Expositions and Developments*. California: University of California Press
- Stravinsky, I. & Craft, R.** (1981). *Memories and Commentaries*. California: University of California Press.
- Stravinsky, I.** (1936). *An Autobiography*. New York. W.W Norton&Company.
- Taruskin, R.** (1996). *Stravinsky and the Russian Traditions*. Oxford: Oxford University Press.
- Taruskin, R.** (2009). *Aristocratic Maximalism. Music in the Early Twentieth Century* New York: Oxford University Press.
- Toorn, V. & Pieter, C.** (1987). *Stravinsky and the Rite of Spring: The Beginnings of a Musical Language*. Berkeley and Los Angeles: University of California Press.
- Unlenen, Emre** (2015). Ultimate Evolution of the Ballet Music a General Analysis on the Rite of Spring a Ballet Work by Igor Stravinsky, *Anadolu University Journal of Art and Volume*, Volume:5, Issue:2, p. 126-158
- Walsh, S.** (1999). *Stravinsky, A creative Spring: Russia and France 1882-1934*. New York. Alfred A. Knopf.
- Walsh, S.** (2001). *Stravinsky, Igor (Fyodorovich)*. In *The New Grove Dictionary of Music and Musicians*. *Oxford Music Online*. Retrieved July 30, 2019, from <https://www.oxfordmusiconline.com>
- Wenborn, N.** (1999). *The Illustrated Lives of the Great Composers: Stravinsky* London: Omnibus Press.
- White, E. W.** (1979) *Stravinsky: The Composer and His Works*. Berkeley and Los Angeles: University of California.
- White, E. & Taruskin, R.** (1998). *Igor Stravinsky*. Retrieved July 30, 2019, from <https://www.britannica.com/biography/Igor-Stravinsky>.
- Yıldırım, A and Şimşek, H** (2011). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri*. Ankara: Seçkin.
- Url-1:** <<https://www.telegraph.co.uk/news/obituaries/11997024/Robert-Craft-Stravinsky-expert-obituary.html>>Retrieved 01.05.2019.
- Url-2:** <<https://www.bbc.co.uk/music/works/a79fb213-970d-428b-8982-cbde96ba060e>> Retrieved 01.05.2019.
- Url-3:** <<https://www.pbt.org/learn-and-engage/resources-audience-members/ballet-101/brief-history-ballet/#>> Retrieved 01.05.2019.
- Url-4:** <<https://www.vsl.co.at/en/Xylophone/History/>> Retrieved 07.06.2019
- Url-5:** <<http://www.pianola.org/history/history.cfm>> Retrieved 08.08.2019

Url-5: <https://www.newworldencyclopedia.org/entry/Neoclassical_Music>
Retrieved 08.08.2019





APPENDICES

APPENDIX A. Works of Igor Stravinsky (1882-1971)

- Sonata for Piano, 4 movements, unpublished, 1903-04
- Le Faune et la Bergere, Op. 2; suite of songs for voice and orchestra after three poems of Pushkin; French text by A. Komaroff, 1905-06; rearranged as suite for voice and piano
- Symphony in Eb, Op. 1; 4 movements; 1905-07
- Two Songs for voice and piano, Op. 6, 1907-08
- Scherzo fantastique, Op. 3, for large orchestra, 1907-08
- Pastorale for voice and piano (no text), 1908; arranged for voice and woodwind instruments, 1923; for violin and piano, 1933; for violin and four woodwinds, 1933
- Feux d'artifice ("fireworks"), fantasy for large orchestra, 1908
- Chant funebre for orchestra, on the death of Rumsky-Korsakoff, Op. 5, 1908
- Four Etudes for piano, Op. 7, 1908
- The Firebird, ballet in two scenes, 1909-10; rearranged as suite for piano solo and as suite for orchestra, 1911; reorchestrated, 1918-19; revised, 1945
- Two Poems of Paul Verlaine, Op. 9, for baritone and piano, 1910; arranged for baritone and orchestra, 1952-53
- Petrushka, ballet in four scenes, 1910-11; arranged for piano four hands, 1911; three movements excerpted and arranged for piano solo, 1921; new version, 1947;
- Two Poems by K. Balmont for voice and piano, 1911; arranged for voice and chamber orchestra, 1954
- The King of the Stars, cantata for men's chorus and orchestra on a poem by K. Balmont, 1911
- The Rite of Spring, ballet in two parts, 1910-13
- Three Poems from Japanese for soprano, 2 flutes, piccolo, 2 clarinets, bass clarinet, and string quartet, 1912-13
- Three Short Songs from the Recollections of Childhood for voice and piano, 1913; arranged for voice and small orchestra, 1933, 1947
- Rossignol, lyric narrative in three acts, 1908-14
- Three Pieces for string quartet, 1914
- Pribaoutki, songs for medium voice and 8 instruments, 1914
- Three Easy Pieces for piano four hands

- The Cat's Cradle Songs: 3 pieces for alto and three clarinets
- Renard, burlesque narrative to be played, sung and staged, 1915-16
- Three Stories for Children, voice and piano, 1915-16
- Five Easy Pieces for piano four hands, 1916
- Chant du Rossignol, symphonic poem for orchestra, 1917; later arranged for piano solo. (This suite is taken entirely from the second and third acts of Stravinsky's opera Rossignol.)
- Etude for Player Piano , 1917
- Unterschale, Russian peasant songs for women's unaccompanied chorus, 1914-17; arranged for accompaniment of 4 horns, 1954; for piano accompaniment, 1954
- L'Histoire du Soldat, to be recited, played, and danced; narrator, 2 speakers, clarinet, bassoon, trumpet, trombone, violin, double bass, and percussion, 1918; arranged for piano solo; arranged as suite for clarinet, violin and piano
- Rag-Time for 11 instruments: flute, clarinet, horn, cornet, trombone, cymbals, 2 violins, viola, double bass, percussion, 1918; arranged for piano solo
- Four Russian Songs for voice and piano, 1918-19
- Piano-Rag Music, 1919
- Three Pieces for Solo Clarinet, 1919
- Pulcinella, ballet in one act with 3 solo voices, after Pergolesi, 1919; suite arranged for small orchestra, 1920; revised 1949; suite arranged for violin and piano, 1925; Suite italienne for violin and piano, 1933; Suite italienne for cello and piano, 1932
- Concertino for string quartet, 1920; rearranged for piano four hands; for 12 instruments, 1952; for two pianos, 1952
- Symphonies of Wind Instruments for alto flute, 2 flutes, 2 oboes, English horn, Eb clarinet, 2 clarinets, 3 bassoons and contrabassoon, 4 horns, 3 trumpets, 2 trombones, tuba, 1920-21; revised 1947 (shortened and reorchestrated)
- The Five Fingers: 8 very easy piano pieces, 1920-21
- Suite No. 2 for small orchestra
- Mavra, opera buffa in one act, 1921-22; arranged for voice and piano, 1925
- The Wedding, choreographic scene with music, 1914-23
- Octet for Wind Instruments for flute, clarinet, 2 bassoons, 2 trumpets, 2 trombones, 1922-23; revised 1952
- Piano Concerto with orchestra of wind instruments only, 1923-24; arranged for two pianos

- Piano Sonata, 1924
- Senenade in A for piano, 1925
- Suite No. 1 for small orchestra
- Pater Noster for 4-part mixed chorus a capella, 1926
- Oedipus Rex, opera oratoria in 2 acts after Sophocles by Stravinsky and Jean Cocteau, 1926-27; Latin translation by Jean Danielou; revised 1947
- Apollo, Leader of the Muses, ballet in two tableaux for string orchestra, 1927-28; revised 1948
- The Fairy's Kiss, ballet allegory in four tableaux, inspired by the music of Tschaiikovsky, 1928; arranged for piano; orchestral suite, 1934; new version, 1949
- Capriccio for Piano and Orchestra, 1928-29; arranged for two pianos, 1930; revised for piano and orchestra, 1949
- Four Etudes for Orchestra, 1918-29
- Symphony of Psalms for chorus and orchestra (no violin, violas, or clarinets), 1930; revised 1948
- Concerto in D for violin and orchestra, 1931; arranged for violin and piano
- Duo concertante for violin and piano, 1932
- Credo for 4-part mixed chorus a capella, 1932
- Persephone, melodrama in three tableaux by André Gide for tenor, mixed chorus and orchestra, 1933-34; revised 1949
- Ave Maria for mixed chorus a capella, 1934
- Concerto for Two Pianos, 1935
- The Card Game, ballet in three plays, 1936
- Dumbarton Oaks Concerto (Eb) for chamber orchestra, 1937-38; arranged for two pianos
- Symphony in C for orchestra, 1939-40
- Tango for Piano Solo, 1940; orchestral version, 1953
- Danses concertantes for chamber orchestra, 1941-42
- Circus Polka, composed for a young elephant, orchestra, 1942. Arranged for piano, 1942
- Four Norwegian Moods, orchestra, 1941-2
- Ode, Elegiacal Chant in three parts, orchestra, 1943
- Sonata for Two Pianos, 1943-4
- Babel, cantata for male chorus, orchestra and narrator, 1944
- Ballet Scenes, orchestra, 1944
- Scherzo a la Russe, for Paul Whiteman band, revised for orchestra, 1944

- Little Canon for two tenors, 1944
- Elegy, violin or viola solo, 1944
- Symphony in Three Movements, 1942-45
- Ebony Concerto, jazz ensemble, 1945
- Concerto in D Major, string orchestra, 1946
- Orpheus, ballet in three scenes, 1947
- Mass, mixed chorus and double wind quintet, 1948
- The Rake's Progress, opera in three acts by W. H. Auden and Chester Kallman, 1948-51
- Cantata, soprano, tenor, female chorus, small ensemble, 1948
- Septet, 1952-3; also arranged for two pianos
- Three Songs from William Shakespeare, mezzo soprano, flute, clarinet, viola, 1953
- Prelude for Dance Band, 1937-53
- In Memoriam Dylan Thomas, dirge canon and song for tenor, string quartet and four trombones, 1954
- Greetings Prelude for the 80th birthday of Pierre Monteux, orchestra, 1955-56
- Canticum Sacrum, tenor and baritone soli, chorus and orchestra, 1955-56
- Agon, ballet for 12 dancers, 1954-57; arranged for two pianos
- Threni, soloists, chorus, orchestra, 1957-58
- Movements, piano and small orchestras, 1958
- Epitaphium, flute, clarinet, harp, 1959
- A Sermon, a Narrative and a Prayer, speaker, soloists, chorus, orchestra, 1960-61
- The Flood, ballet for narrator, soloists, chorus, orchestra, 1961-62
- Abraham and Isaac, baritone, orchestra, 1962-3
- Variations, orchestra, 1963-4
- Elegy for JFK, baritone, 3 clarinets, 1964
- Fanfare for a New Theater, 2 trumpets, 1964
- Introitus, male chorus, percussion, piano, harp, viola, double bass, 1965
- The Owl and the Pussy Cat, 1965
- Requiem Canticles, alto and baritone soloists, chorus, orchestra, 1965-6
- Two Sacred Songs (after Hugo Wolf), mezzo soprano, 3 clarinets, 2 horns, string quartet, 1968

(Retrieved May 1, 2019, from http://qcpages.qc.cuny.edu/hhowe/music347/Stravinsky_Works.html)

APPENDIX B. Igor Stravinsky's compositions' timpani and percussion requirements.

Table B.1: Igor Stravinsky's compositions' timpani and percussion requirements.

A Soldier's Tale	No Timpani + 1 percussion	Flat small orchestral bass drum, snare drum, piccolo snare drum, tenor drum, triangle, tambourine on stand, suspended cymbal
Agon	Timpani + 1 percussion	Castanets, xylophone, 3 tom toms
Chant du Rossignol	Timpani + 5 percussion + celeste	Tambourine, snare drum, military snare drum, orchestral bass drum, clash cymbals, tam tam, triangle, celeste
Circus Polka	Timpani + 3 percussion	Orchestral bass drum, clash cymbals, snare drum
Firebird (Complete)	Timpani 5 percussion + celeste	Clash cymbals, orchestral bass drum, xylophone, glockenspiel, tam tam, triangle, suspended cymbal, tambourine, 2 offstage bells, celeste
Fireworks	Timpani + 4 percussion + celeste	Orchestral bass drum, clash cymbals, triangle, glockenspiel, celeste
Les Noces	Timpani 6 + percussion	-: Triangle, xylophone, 2 crotales, orchestral bass drum with clash cymbals attached, clash cymbals, 2 snare drums, 2 piccolo snare drums, orchestral bass drum, suspended cymbal, tambourine
Oedipus Rex	Timpani + 2 percussion	Tambourine, snare drum, orchestral bass drum, clash cymbals, triangle
Petrushka (1911)	Timpani + 6 percussion + celeste	Xylophone, glockenspiel, tam tam, tambourine, triangle, orchestral bass drum, small orchestral bass drum with clash cymbals attached, suspended cymbal, clash cymbals, snare drum, celeste
Petrushka (1947)	Timpani+ 3 percussion + celeste	Xylophone, clash cymbals, orchestral bass drum with clash cymbals attached, snare drum, tambourine, triangle, tam tam, celeste
Ragtime	No Timpani + 1 percussion	Suspended cymbal, snare drum, small orchestral bass drum
Renard	Timpani + 2 percussion	Clash cymbals, tambourine, tabor, sleigh bells, triangle, orchestral bass drum, snare drum, cimbalom
Scherzo a la Russe	Timpani + 4 percussion	Orchestral bass drum, clash cymbals, snare drum, tambourine, triangle, xylophone

(Retrieved May 1, 2019, from <https://www.bellperc.com/blogs/repertoire/igor-stravinsky#>)



CURRICULUM VITAE

Name Surname : İrem DEKELİ
Place and Date of Birth : Ankara - Turkey, January 23, 1991
E-mail : iremdekeli@gmail.com

EDUCATIONAL INFORMATION

- 2016 – 2019 : Istanbul Technical University MIAM Performance Study- Percussion (MA)
- 2013 – 2015: Hochschule für Music Franz Liszt Weimar, Percussion Department (BA)
- 2010 – 2013: Hochschule für Musik, Theater und Medien Hannover,
Percussion Department, Associate's Degree
- 2006 – 2010: Bilkent Music Preparatory High School, Percussion Department

WORK EXPERIENCE

- February 2019 – : Anadolu University State Conservatory,
Percussion Department, Lecturer
- September 2019- : Uludağ University State Conservatory,
Percussion Department, Lecturer

SKILLS

Language

- English, German