THE ADAPTATION OF BAGLAMA TECHNIQUES INTO CLASSICAL GUITAR PERFORMANCE

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THE ADAPTATION OF BAĞLAMA TECHNIQUES INTO CLASSICAL GUITAR PERFORMANCE

SUMMARY

The aim of this thesis is to investigate the means of creating new techniques for the classical guitar by adapting specific techniques typical of the Anatolian long-necked, plucked folk lute with movable frets known as the bağlama or saz. The means of performance and notation of these new techniques are illustrated comprehensively with the related figures, tables and scores in the thesis. Many exercises, etudes and arrangements have been written to teach and improve these techniques. The scores of the arrangements where these techniques are employed has been added to the appendix. The techniques, etudes and arrangements are performed by the author of the study and featured in a DVD that accompanies the dissertation.

In the second half of the 20th century and early 21st century, developments in contemporary Western classical music naturally affected the contemporary classical guitar repertoire. One of the most significant aspects of contemporary classical music is the search for new timbres, sounds, effects, sonorities and techniques. By following this trend, the possibilities of the standardized classical music instruments have been expanded and extended techniques that can attain new timbres and effects have been created. In the contemporary classical guitar repertoire, these experiments were conducted in the second half of the 20th century and early 21st century and are still being carried on.

Within this context, this study will introduce the bağlama and illustrate how its technical possibilities have been developed in the last twenty years through the efforts of performers and academics, and more specifically how a synthesis of these techniques with guitar techniques and styles has been achieved. Via these new techniques new timbres, sounds and effects for the classical guitar have been attained. The aim of this thesis is to promulgate these techniques to composers involved in the contemporary classical guitar repertoire and advanced level guitarists.

The thesis begins with an introductory chapter that outlines the need for such a study, the objective of the thesis, the methodology and the plan. The second chapter discusses general information about the bağlama and its performance techniques. The former part includes the history and family of the bağlama, bağlama strings, makam systems, tunings and fretting systems, playing styles, notation and bağlama education. The performance techniques of the bağlama are categorized under three parts: left-hand, tezene and finger playing techniques. Due to the lack of resources on contemporary bağlama techniques, personal interviews were conducted with well-informed musicians and academics.

The third chapter provides the history of the classical guitar, a concise history of the classical guitar in Turkey and classical guitar performance techniques. Performance techniques of classical guitar are studied under four headings: Left-hand, right-hand, contemporary and the related flamenco guitar techniques.
In the fourth part of the thesis, the impact of bağlama performance techniques on compositions and arrangements made so far in the classical guitar literature are discussed. With the introduction of the classical guitar into the academic institutions of Turkey in the late 1970s, one can observe many compositions and arrangements embodying characteristics of an ‘East-West synthesis’ that make use of bağlama performance techniques. Bağlama performance techniques in these works are categorized under three headings; left hand techniques, tezene techniques and finger tapping techniques. In the light of research, the main emphasis in these works has generally been the approach to harmonization of folk melodies, adaptation of Western genres and the incorporation of folk melodies into classical guitar techniques. For this reason, a detailed analysis of the bağlama was not needed and these works benefited from bağlama performance techniques to a limited extent.

The fifth chapter explores the adaptation of bağlama techniques into classical guitar performance practice. The execution and system of notation for these techniques is explicated in detailed fashion with related figures, tables and scores. This section also includes a practical segment with exercises, études and arrangements that have been created specifically for the application of the new techniques. The scores of the arrangements -Fidayda, Anadolu,%Xoş e Hewreman and Kız Bahçende Gül Var mı?- are added to the appendix. In the conclusion, data that the thesis revealed is evaluated and some recommendations for future research are given.
ÖZET


Bu anlayıştan yola çıkarak bu tezde, klasik gitar ile aynı telli çalgılar ailesine mensup ve son yirmi yılda teknik olanakları birçok müzişyen ve akademisyen tarafından geliştirilmiş bağlama çalgısının çalışmalarını çalışmalarını incelemiş ve bu teknikler, klasik gitar teknikleriyle buluşturulup melez teknikler yaratılmıştır. Bulunan bu yeni teknikler ile klasik gitarada yeni tımlara, seslere ve efektlere ulaşılmıştır. Bu tezin yazılımasıyla, bulunan yeni tekniklerin çağdaş klasik gitar repertuarı için best ya da düzenleme yapan besteciler tarafından kullanılmması hedeflenmektedir. Ayrıca ileri düzeyde klasik gitar çalaniracların teknik düzeylerini geliştirmeleri amaciyla bu teknikleri öğrenmeleri de amaçlanmaktadır.


Üçüncü bölümde klasik gitarın tarihi, Türkiye’de klasik gitarın tarihi ve klasik gitarın çalım teknikleri anlatılmaktadır. Klasik gitarın çalım teknikleri; sol el teknikleri, sağ
el teknikler, çağdaş teknikler ve konuyla ilgili flamenko teknikleri olmak üzere dört başlıkta işlenmiştir.


Bu eksikliğin üzerine gİmek için tezin beşinci bölümünde başlama çalım tekniklerinin klasik gitar uyaranılmış işlenmiştir. Bu bölümde gösterilen yeni tekniklerin ıcrası ve notasyonları fotoğraflarla, tablolarla ve notalarla ayrıntılı bir şekilde gösterilmiştir. Yeni tekniklerin kullanımıyla gerekli edindiği açıklamalar yapılmıştır. Yeni tekniklerin kullanıldığı yerel ezgi düzenlenmeleri yapılmıştır. Düzenlemesi yapılan Fidayda, Anadolu, Xoş e Hewreman ve Kız Bahçende Gül Var mı parçalarının notaları ve kullanılan tekniklerin açıklamaları appendix kısmına eklenmiştir. Sonuç kısmında tezin ortaya çıkardığı veriler değerlendirilmiştir, çıkan sonuçlar belirtilmiş ve geleceke yapılacak araştırmalar için öneriler yapılmıştır.
1. INTRODUCTION

Anatolia (Asia Minor), the Caucasus and the Middle East have witnessed many different cultures throughout history and the variety of traditional necked lute instruments reflect these cultures, such as the bağlama, kopuz, oud, barbat, tar, bouzouki, pandura, tchongouri, dotar, setar, and tanbur. This region functioned as a meeting point of cultures from Asia, Europe and Africa. In these continents, some of the necked lute family members were the pipa, biwa, shamisen, koto, sitar, surbahar, tambura, tamburica, kobza, dutar, dombra, balalaika, dombur, mandore, mandolin, lute, vihuela, guitar and the Egyptian lutes. The shapes and playing techniques of most of these instruments\(^1\) in these three regions have influenced each other to varying levels as a consequence of the interaction between the cultures through living together, wars, trade and migrations. The relationships between the four-fret and four-string chu-shang pipa and the Persian lutes (Lo, 1999: 35) and the Asian kopuz and Anatolian bağlama exemplify the results of this interaction.

The classical guitar is one of the members of this vast necked lute family. The folk stringed instrument family also had an influence on the evolution of the guitar through similar social and economic factors. One specific example is the impact of the Moorish oud on the guitar. In 711, the Moors of North Africa conquered the Iberian Peninsula, the birthplace of the guitar and its ancestors vihuela and lute. The Moors ruled this region until 1492. Not only did the oud influence the shape of the lute, vihuela and guitar, but traces of the plectrum techniques and playing styles of the oud can be found in some of the flamenco guitar techniques such as alzapúa and other uses of the thumb.

With these interactions in mind, it can be claimed that the classical guitar's performance techniques are capable of being adapted and integration of the performance techniques and playing styles of other necked lutes is both possible and

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\(^1\) Duygulu (1998, 5) summarized the construction principles of these necked lutes as follows: “The basic production principles of these instruments are; making a resonance box by placing a cap on a tree trunk, calabash, coconut and even an animal back, then making a fretboard with a neck, and in the third step attaining a sound on the tight string which is extended from the fretboard to the trunk.”
beneficial. Mutual interaction of performance techniques could be achieved if both classical guitar and other instruments are analyzed more deeply.

By the early 21st century, the classical guitar is an internationally accepted instrument with a systemized educational approach, extensive performance techniques, related scientific research, and renowned performers and composers. Due to these facts and the guitar's popularity throughout the world, the influence of classical guitar performance techniques on the folk necked lutes is more commonly found than the influence of folk necked lute performance techniques on classical guitar. The adaptation of guitar techniques into the folk necked lutes can be found in many parts of the world. *Oud* players such as Mutlu Torun and Fatih Ahiskali have adapted guitar techniques to the *oud*. Szu-Tsang Li (1986) mentioned the influence of guitar techniques on Chinese necked lute *pipa*.

This impact is also obvious for the *bağlama* in Turkey. From the late 20th century, *bağlama* studies and performance practice have gradually become more systematic and the performance possibilities of the *bağlama* have been expanded by performers and teachers, supported by their recordings and methods. In some of the contemporary *bağlama* performances by Erol Parlak, Erdal Erzincan and İsmail Tunçbilek, the traces of guitar techniques can be found.

The adaptation of folk necked lute techniques to classical guitar performance started to gain impetus in the late 20th century. This tendency can be seen in works such as Gerald Garcia's *Winter on Yellow Mountain* and *Spring Snow*, written for Los Angeles Guitar Quartet which has many Chinese folk instrument *pipa* performance techniques; and Vladimir Slavsky’s *Dombra*, performed by Galina Vale, which incorporates techniques from the Central Asian folk instrument of the same name. As a result, these pieces include rich colors and interesting new timbral effects. Academically, little research has been done on this topic. One example is Wen-Tzu Lo’s (1999) doctoral dissertation called *A Comparative Study of the Guitar and the Chinese Lute-Pipa: An Overview of Their Origins, Construction and Techniques*.

One of the aims of writing this thesis is to contribute to the enhancement of the contemporary classical guitar repertoire that comprises of hybrid techniques from classical guitar and folk necked lutes. This runs parallel to the musical trends in the 20th century, especially in the avant-garde movement after the 1950s, which foregrounded musical parameters such as rhythm, dynamics and timbre. Composers
and guitarists are searching for new sounds, timbres and extended techniques for the contemporary classical guitar repertoire. By analyzing performance techniques and playing styles of the folk necked lutes and trying to adapt and integrate them into classical guitar performance, new paths will open in the contemporary classical guitar repertoire.

Unlike Latin America or Spain, the classical guitar is not a folk instrument in Turkey. Since the 1980s, the classical guitar has become widespread as an independent department at universities in Turkey and in this musical climate classical guitarists have launched performance careers on standard repertoire as well as creating their own music by incorporating influences from Anatolian folk music and Ottoman/Turkish art music. Although basic bağlama performance techniques such as ornaments and tezene techniques can be found in many of these ‘East-West synthesis pieces,’ close examination reveals that the composers writing in this idiom emphasize the harmonization of folk melodies and adaptation of Western styles.

Furthermore, most of the academic research in Turkey related to the topic of this thesis was concerned with the harmonization of folk melodies in classical guitar pedagogy\(^2\). The comprehensive analysis of the bağlama’s performance techniques and the possibilities of these techniques’ adaptation into classical guitar performance was mostly ignored. One of the reasons for this thesis is the lack of academic research in this field as well as the lack of bağlama performance techniques and styles in the classical guitar literature. In this thesis, the focus will be on the performance techniques of the bağlama and the adaptation and integration of these into classical guitar performance.

The dissertation consists of six chapters. The first chapter presents the introduction which includes the objective of the thesis, the method of research and the plan of the dissertation. The need for the study is also answered in this chapter.

The second chapter is about the bağlama. It includes the general information about the bağlama and bağlama performance techniques. The general information section consists of the history of the bağlama, the bağlama family, strings, makam systems, tunings and fretting systems, the playing styles, education and notation. Bağlama

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performance techniques are categorized under three titles: left-hand techniques, 

tezene techniques and finger playing techniques.

The third chapter consists of the historical background and general information about the classical guitar, a concise history of the classical guitar in Turkey, and performance techniques. Performance techniques are categorized under the left-hand, right-hand, contemporary and related flamenco guitar techniques.

The fourth chapter is about bağlama performance techniques in the classical guitar literature. In many examples of the ‘East-West synthesis pieces,’ the influence of bağlama performance techniques is found. These bağlama performance techniques are categorized under left-hand techniques, basic tezene techniques, tezene rhythmic patterns and finger tapping techniques. These performance techniques are traced in the related classical guitar pieces and analyzed.

The fifth chapter consists of the adaptation and integration of bağlama performance techniques into classical guitar performance. The adaptation and integration of bağlama performance techniques are categorized under left-hand horizontal movement ornaments, tezene rhythmic patterns, finger tapping and the pençe/şelpe techniques. The new techniques are illustrated with the figures and related exercises. The new notation systems for these techniques are given in the tables.

The sixth chapter will provide a conclusion to the study. In addition some recommendations are made for the future research.

1.1 The Objective of the Dissertation

The objective of the dissertation is to create hybrid techniques for classical guitar by adapting bağlama performance techniques and styles into classical guitar performance and to use these hybrid techniques in the arrangements of the folk melodies. Looking from a macro perspective, as the early 2000s are called the age of hybridity in all fields of human life (Tschemerokosheva, 2006: 24), the search for hybridity for classical guitar and bağlama techniques is consistent with this tendency. The objective of creating new techniques is also coherent with the tendency in the contemporary Western classical music towards new techniques, sounds and timbres.
Two further aims of this thesis are to facilitate the utilization of these hybrid techniques by composers and guitarists that compose or arrange for the contemporary classical guitar repertoire, and to teach these hybrid techniques to advanced-level classical guitar players to develop their techniques further.

1.2 The Methods of the Research

The steps that were followed to accomplish the objectives of the thesis are as follows:

- Analysis of bağlama's and classical guitar's history and performance techniques and styles through related methods, books and articles.

- Personal interviews with Erol Parlak, Irene Markoff, Erdem Şimşek, Barış Güney and Mustafa Avci about the performance techniques of the bağlama. Due to the lack of data about contemporary techniques of bağlama, the focus of the interviews were towards this topic.

- Analysis of the arrangements of folk melodies by the guitarists/composers who were influenced by bağlama performance techniques.

- Learning how to play the bağlama in Erol Parlak's music school in 2008.

- Playing the etudes and pieces in the bağlama methods both with bağlama and classical guitar.

- Transcribing the performance techniques and styles of bağlama masters by listening to their recordings or watching their performances.

- Creating hybrid techniques for classical guitar by using the performance techniques and styles of both bağlama and classical guitar.

- Arranging folk melodies for classical guitar by using the hybrid techniques.
2. BAĞLAMA

2.1 General Information about the Bağlama

The bağlama is a member of the chordophone family, which are defined by Hornbostel and Sachs (1914) as musical instruments in which one or more strings are stretched between fixed points. Hornbostel and Sachs sub-classified the chordophones. In composite chordophones, a string bearer and a resonator are organically united and cannot be separated without destroying the instrument. Under composite chordophones, they define lutes as instruments on which the plane of the strings runs parallel with the sound-table. Under lutes, necked lutes are defined as instruments which have a handle that is attached to or carved from the resonator, like a neck.

According to these sub-classifications in chordophones, the bağlama can be categorized under necked lutes of composite chordophones. Laurence Picken (1975) categorized it under necked lutes, which are plucked with fingers or plectrum. Picken defines it as a long-necked and hemipyrriform bowl or box lute (Figure 2.1).

Figure 2.1: Bağlama.
The term **bağlama** derives from the Turkish verb **bağlamak** which means to tie. It probably refers to the frets that are tied around the neck of **bağlama**. The Persian word **saz** is also used instead of the term **bağlama**. But because the word **saz** is also used in Turkey to cover all instrument families such as stringed **sazs** and percussive **sazs**; the term **bağlama** is preferred in this dissertation.

### 2.1.1 History of the **Bağlama**

The **bağlama** is one of the members of the huge necked lute family of Asia, Europe and Africa. Ancient necked lutes found in the empires of Asia Minor, the Middle East and the Caucasus, such as the Akkadian Empire, Egypt, Hittite Empire and Byzantium (Öztürk, 2010), and the Asian originated necked lutes, such as the **kopuz** are the ancestors of the **bağlama**.

One of the most influential instruments is the Asian origin **kopuz**. The term **kopuz** is used as a generic term for Asian origin necked lutes (Parlak, 2000). It is of Turkic origin and is included in Kashgari’s dictionary as **kubuz** (Picken: 1975, 263). The term **kopuz** is traced in the poems of **Yunus Emre** (1240-1321) and the stories of **Dede Korkut** (15th and 16th centuries).

The **kopuz** evolved from a bowed lute to a plucked lute. Parlak (URL-1) illustrated this evolution in a scheme (appendix A). The **kopuz** was played by poet-musicians called **ozans**. Feldman (1996: 110) informs us that in the Ottoman **Cema’at-i mutriban** document of 1525, which shows the salaries of Ottoman Court musicians, the highest paid musicians are **oud** and **kopuz** players.

**Kopuz** and its relatives are found in many different cultures. According to Duygulu (1998: 9), “**Kopuz** which we observe as such in 13th century Anatolia was afterwards transferred to and used in Europe, too. It is named as **kobza** in Hungarian, **koboz**, **kobez**, **kobzičku** in Czech; but not all of these words stand for stringed **saz** with plectrum.” Feldman (1996:119) mentioned two types of **kopuz**: **kopuz-i ozan** with three strings and **kopuz-i rumi** with five double strings. The **kopuz** has changed in the course of time. One of the most important transformations of the **kopuz** is the use of metal strings rather than strings of horse hair, gut or silk and the addition of the third string to the two string **kopuz** (Parlak, 2000: 76-77).
After the 17th century, the word *kopuz* was replaced by *bağlama* in Anatolia (Gazimihal, 1975; Parlık, 2000). Aksoy (1994), in his book about Ottoman music in European sources, traced the first use of the term *bağlama* to Blainville’s book which was published in 1767. In this book, the *bağlama* is illustrated as a five-string instrument. The *kopuz* and its continuation *bağlama* have been transformed and developed in Anatolia.

Anatolia (Asia Minor) makes up the Asian part of modern day Turkey and has been comprised of many cultures such as Turkish, Kurdish, Armenian, Greek, Circassian and Laz. Duygulu (1998, 13) mentioned the role of the *bağlama* in Anatolian cultures as follows:

“Today, almost each community living in Turkey uses *bağlama*. However, *bağlama* is not found in the traditional cultures of Laz people, Arabs, Circassians and Shafi Kurds. Especially many Turkman tribes and Alevi communities have a special connection with *bağlama.*”

The Alevi of Turkman and Kurdish origin are heterodox, Sh’ii-related communities that live in Central and Eastern Anatolia, Thrace and the Aegean regions. They play the *bağlama* in their religious ceremonial gatherings (Markoff, 1990: 143). Markoff (2009) summarized the musical forms that are played in these gatherings as follows:

“The mystical poetry of Alevi-Bektashi minstrels figures prominently in sacred rituals (*cemler*), where religious repertoire such as *devişler* and *nefesler* (mystical poetry), *düvazalar* or *düvazdeh imamlar* (hymns in praise of the twelve shi’ite imams), *mersiyeler* (laments concerning the martyrdom of Imam Huseyn at Kerbela) and *semahlar* (ritual dances of worship) is performed by ritual specialists (*zakirler*) who sing and accompany themselves on the *bağlama*.”

In Anatolia, wandering poet-musicians called *aşiks* (in love) are identified with the *bağlama*. These *aşiks* are similar to the troubadours of the middle ages except that they don’t come from aristocratic circles. *Aşiks* can be divided into two groups: Alevi *aşiks* who play *bağlama* in the *cem* and *aşiks* who sing and play epic poems and folk narratives.

2.1.2 Bağlama Family

Depending on their size, the *bağlama* family has many diverse members with different names given in various regions of Anatolia. According to Duygulu (1998: 27), “The *meydan sazi*, *oniki telli*, *çöğür*, *tambura*, *bozuk*, *cura*, *ikutelli*, *karaküzen*, *yeltepe*, *bulgari* and *rizva* (or *rüzba*) are the most well known types of the *saz*
family.” Besides these üçtelli bağlama (three string bağlama) (Özdemir and Peker, 1997; Parlak, 2000: 116-117) and balıçasaz (meaning ax saz) (Parlak, 2000: 137) are also found in Anatolia. As the bağlama became more popular in urban areas after the foundation of the Turkish Republic and Turkish Radio and Television Broadcasting (TRT) started to perform Anatolian folk songs in its ensembles, it was thought expedient to standardize the sizes of bağlamas and a seven member bağlama family was formed (Parlak, 2000). These are known from the smallest to the biggest, as the cura, tanbura kurasi, bağlama kurasi, tanbura, bağlama, divan sazi and meydancı sazi. It is seen that the bağlama is also the name of one size from this family.

2.1.3 Strings

Related to the number of strings, the members of the bağlama family have witnessed many transformations throughout the centuries. For example in Blainville’s book (Aksoy, 1994), the bağlama has five strings and the çöğür has six strings. After many changes in string number, the 20th century bağlama generally has three courses of strings. Some courses of strings are often tripled with an additional string that is one octave lower, namely bam teli. The use of courses in the necked lutes is more common in the Middle East region. According to Parlak (2000), “Using courses with two or more strings is generally peculiar to the Anatolian and Azerbaijani region. These features are rarely observed in Central Asian sazs, where a single string is used.” Nevertheless in some kinds of bağlama like üçtelli in Anatolia, three single strings are used.

2.1.4 Makam Systems, Tunings and Fretting Systems

The bağlama is one of the main instruments that accompany Anatolian folk melodies. Although the term türkü is not a generic term for all the Anatolian folk melodies (Özdemir, 2002: 84), Anatolian folk melodies are mostly named türkü, which means belonging to Turks in Turkish. The türkües are divided into two broad categories depending on their rhythms: free rhythm melodies uzun hava (long melody) and strict meter melodies kırık hava (broken melody).

Anatolian folk melodies are based on a complex modal systems called makam or ayak. Although makam is often used for Ottoman/Turkish art music theory and ayak
is used for Anatolian folk music theory, there is an ongoing debate about the terminology. The term *makam* will be preferred in this thesis. According to Markoff (1986, 85) “*Ayak* reveals the tonal framework or scale on which a melody is based. At the same time it embodies specific features of a melody type such as melodic contour, functional tones, stereotyped phrases and cadential patterns, thus resembling the concept of *seyir* (progression) in the modal practice of Turkish art music.”

According to Altuğ (1990: 112-113) the main *ayak* types are *maya, hüseyni, engin hüseyni, kerem, kesik kerem, yahyali kerem, yanik kerem, bozlak, garip, kalenderi, müstezad, misket, abdal*, and *azeri*.

The three courses of the *bağlama* are tuned in various ways depending on the regional melody type, the size of the instrument and the performer’s voice (Markoff, 1986: 88). The tuning systems are called *düzen*, which means order in Turkish. According to Parlık (2000: 88), the names of *düzens* come from proper nouns (*ružba, bozuk*), ethnic groups (*Alevi, Ayşar, Abdal*), place names (*Edirne, Kütahya, Kayseri*), names of instruments (*çöğer, kaval, zurna, bağlama*), melody names (*fidayda, misket*), *makam* names (*segah, hűseyni, acemaşiran, rast*) or the additional string attached to the *saz* (*çinteli/cinteli*).

The list of the most commonly used *düzens*, their alternative names according to the region and performer, and their open string notes are shown in Table 2.1 (Stokes: 1992; Altuğ: 1997, Parlık: 1998; Markoff: 2002; Picken: 1975, 230).

There are also other *düzen* types or names such as *kemençe, ružba, kopuz, Kayseri, tar, Kütahya, acemaşiran, Edirne, zurna, çinteli, boğma, çiftetelli, zeybek, ferayi, cura, sabahi tambur*, (Özdemir and Peker: 1997; Parlık: 1998, Picken: 1975, 230; Öztürk: 2006, 118). The names of the *düzens* may vary according to different regions, scholars or *aşiks*. The *bağlama* and *bozuk* (also known as *karadüzen*) are the most commonly used *düzens* in *bağlama* performances. Martin Stokes (1992: 92) compared *bozuk* and *bağlama düzens* as follows:

“*Karadüzen* emphasizes horizontal motion up and down the fretboard whilst *bağlama* or *aşık düzen* with its cadential tone on the middle string, emphasizes string crossing as well as horizontal movement.”
Table 2.1: The list of main tunings.

<table>
<thead>
<tr>
<th>Tuning Name</th>
<th>Open strings (top-3rd to bottom-1st)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bozuk (Karadüzen, Radyo, Saz)</td>
<td>G – D – A</td>
</tr>
<tr>
<td>Bağlama (Aşık, Alevi, Avşar, Hüseyni, Veysel)</td>
<td>E – D – A</td>
</tr>
<tr>
<td>Misket (Karanfil, Hüzam)</td>
<td>F# – D – A</td>
</tr>
<tr>
<td>Bozlak (Abdal, Çöğer)</td>
<td>G – A – A</td>
</tr>
<tr>
<td>Fidayda (Hüdayda)</td>
<td>D – D – A</td>
</tr>
<tr>
<td>Segah</td>
<td>G – B – A</td>
</tr>
<tr>
<td>Do Müstezad</td>
<td>G – C – A</td>
</tr>
<tr>
<td>Fa Müstezad (Müstezat, Kervan, Acem)</td>
<td>F – D – A</td>
</tr>
</tbody>
</table>

Today the number of bağlama frets per octave is accepted as 17\(^1\) although this number can vary depending on the regions of Anatolia. According to Akdoğu (1992: 2) before the 1930s, the number of frets was generally 12 per one octave even though there can be some slight changes depending on the region. Parlak (2000: 106) supports this argument by claiming that the instruments in the Asian and Anatolian tradition have mostly equally tempered frets. The number of frets was increased after the 1930s by the urban professional bağlama players in order to play different styles of Anatolian folk melodies (Akdoğu, 1992: 2).

The koma symbols are shown with the numbers on the flat or sharp signs. The most common komas are B flat two (\(\flat^2\)) which is in between the B natural and B flat and F sharp three (\(\sharp^3\)) which is in between the F sharp and F natural. Some other komas can be traced to some aşıklar (minstrels) such as Neşet Ertaş (Parlak, 2000: 106). In

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\(^1\) In Ottoman/Turkish art music theory a whole tone is divided into nine equal parts and each of these parts are called koma.
addition, the sounds of these komas can vary depending on the region of Anatolia. Markoff (1986: 73-74) mentioned the change of B flat two notes in different regions:

“For example I was informed by a number of reputable folk musicians that the results of their research had shown that B flat two frets of instruments in the areas of Urfa, Aydin, Uşak, Keskin, Maraş, Elbistan, Sivas and Trabzon were 3 or 4 commas flat, in other words lower than the usual B flat two of urban performance practice and slightly higher than the normal B flat.”

2.1.5 Playing Styles

The bağlama is played either with the fingers or a plectrum which is called a tezene or mızrap. According to Parlak (2001: 9), the critical moment for the use of the tezene with the kopuz is the switch to metal strings starting from the 14th century at the Ottoman Court. In Ottoman miniatures of the 16th century, the kopuz was played with a long hard plectrum (Feldman, 1996: 119). One of the other sources about the tezene is Jean-Benjamin de Laborde’s writings in 1780. Laborde wrote that the bağlama or tambura is played with a bird feather (Aksoy, 1994). Parlak (2000) claimed that the finger playing tradition was more widespread than tezene playing in Anatolia until the 20th century.

According to Parlak (2001: 9), the finger playing tradition of bağlama is still found in Alevi Bektasî communities of Middle, South and East Anatolia, Yörük Türkmen of the Teke region, and also but less so in the Barak Türkmen communities of Gaziantep’s Oğuzali region. The finger playing tradition is named as pençe, şelpe or şerpe in Anatolia. The term şelpe has become widespread. According to Parlak (2000: 110), the term şelpe derived from certme which means to flick in various Turkish dialects. Çertme transforms to şerpe and then to şelpe in time.

By the 20th century, tezene playing had become widespread and dominant over finger-playing in many regions of Anatolia. Tezene is a Turkish word. In different parts of Anatolia; the words tazane, tezgane, tarzene, tezyine or tazene could be used (Markoff, 1986; Parlak, 1998; Altuğ, 1990). Mızrap is an Arabian word meaning plectra (Picken, 1975). The terms mızrap and tezene are both used in Anatolia.

Although in the 20th century tezene playing was the dominant performance practice, from the 1990s finger playing techniques including strumming strings (pençe/şelpe),

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2 The term tezene will be preferred in this thesis.
string plucking (tel çekme) and finger tapping (parmak vurma), were rediscovered and developed by bağlama performers such as Hasret Gültekin, Erol Parlak, Erdal Erzincan. In 1998 Erol Parlak wrote a doctoral thesis entitled ‘Finger Playing (without tezene) Tradition and Performance Techniques in Turkey.’ This thesis was published in 2000. In 2001 Erol Parlak published the first finger playing method.

2.1.6 Education

Until the 1970s, the bağlama was taught by the usta-çurak (master-apprentice) relationship. The apprentice watched the performance of his/her master and tried to learn all the details of bağlama performance and styles, and the folk melodies. Starting from the 1970s, institutions such as conservatories, dernekş (associations), and dershanes (private music schools) that offered bağlama tuition began to be founded in urban centers such as İstanbul, Ankara and İzmir. In 1976, academic education in the bağlama started at the Istanbul Turkish Music State Conservatory, which was then affiliated to the Istanbul Technical University in 1982. Nida Tüfekçi and Arif Sağ were the first bağlama instructors at this institution. The first bağlama method was published by Güray Taptık in 1973. At the conservatories, dernekş and dershanes; the traditional master-apprentice relationship model was transformed into the teacher-student relationship model (Stokes, 1992: 101; Erzincan, 2008: 272).

2.1.7 Notation

Because of the predominance of master-apprentice instruction in the bağlama tradition, the written literature wasn’t developed until the 1990s. At the institutions stated above and in the bağlama methods, the melodies that were transcribed in the collections after the foundation of Turkish Republic, were used for bağlama instruction. One of the cultural policies of the Turkish Republic regarding music proposed by Ziya Gökalp (1923) was to collect folk melodies in Turkey and harmonize them in the Western classical music styles. Until 1957, almost 10000 folk melodies were collected by the Istanbul Municipal Conservatory and the Ankara State Conservatory.

But the process of collection is problematic in their scientific quality (Öztürk, 2006). According to Stokes (1992: 65), the local characteristics of vocal/instrumental styles and improvisational structure in the performance, both of which gave folk music its
unique and special character, were eliminated. In addition to this, these scores were not transcribed for bağlama (Markoff, 1986: 25):

"These notations are often representations of the vocal line of singing with instrumental accompaniment and lack the full dimensions of the instrumental part. For that matter, notations of purely instrumental genres are also lacking in exactness of detail that would constitute a true representation of the original performance."

With few exceptions such as Erol Parlak's, Erdal Erzincan's and Arif Sağ's notations, the notations of these collected melodies are still the main sources used for bağlama education. Bağlama instructors sometimes add ornaments to the melody in the scores, but the assimilation of ornaments is generally left to the student by watching the performance of his/her master and imitating the style of the performance.

Bağlama instructors also use some symbols for the tezene movements. The general tendency is to use arrows for the down and up strokes. But the directions of the arrows are different from Western music notation arrows. The arrows show the direction of tezene whereas in the Western music notation the arrows show the direction of the notes that are played.

In bağlama scores there are differences in the use of arrows. Some scholars change the length of the arrows and don't include all the notes on the staff that sound on the bağlama. The main alternative and preference for this thesis, is the use of a standard length of the downward and upward arrows. All the notes that sound are displayed on the staff. The downward arrow means that the tezene will be played downward and vice versa. The string numbers, fingerings and the preferred tuning are also indicated on the staff (Figure 2.2).

Figure 2.2: The preferred bağlama notation in the thesis.

This notational perspective will be accepted throughout the thesis and all the pitches that are played will be shown in the bağlama notations except for the figures taken
from the methods. The string numbers and fingerings will be added if found necessary.

Some bağlama method authors (Ekici, 2006; Durul, 2007) use different symbols instead of arrows, such as ( ▼ ) symbol for the downward stroke and ( ▼ ) symbol for the upward stroke.

Some bağlama instructors such as Erol Parmak, Erdal Erzincan, and Arif Sağ prefer to write all the details of the playing style in bağlama scores. Parmak’s Neşet Ertaş transcriptions (2006: 257-302) are important in terms of showing all the details of Neşet Ertaş’s playing. Parmak also wrote the bass pitches of the wound strings (bam teți) which are rarely found in bağlama scores. Parmak (2001) invented a notation system for the finger-playing technique and used those symbols together with the all pitches indicated on the staff. In the method of Arif Sağ and Erdal Erzincan (2009), different finger-playing symbols are used.

2.2 Bağlama Performance Techniques

Bağlama performance techniques can be analyzed according to three broad categories: left-hand techniques, tezene techniques including basic tezene techniques and tezene rhythmic patterns and finger playing techniques (pence/șelpe, string plucking and finger tapping)\(^3\).

2.2.1 Left-hand Techniques

The left-hand techniques are categorized under ornaments, kisturma, vibrato and glissando.

2.2.1.1 Ornaments

As is the case of most string instruments, ornaments are common and essential in bağlama playing. Because of the monophonic nature of Anatolian folk music, the development happened in the way of playing the melodies over time\(^4\). At this point,

\(^3\) In addition to the knowledge of these techniques; modes/scales, tunings, performance conventions, stock phrases and expressive idioms styling are of big importance in playing bağlama (Markoff, 1986: 156).

\(^4\) Because of the performance practices of the bağlama, the drone strings are used and in bağlama düşeni (bağlama tuning) one can hear semblances of chords and definitely the use of parallel fourths and fifths. Therefore, when an Anatolian folk melody is played on the bağlama, a kind of polyphony is often created which is totally different from the polyphony in Western classical music. Some scholars called this random polyphony (Özdemir, 1999: 25).
the ornamental devices have become a fundamental element for playing a melody on the *bağlama*. Most of these ornaments are similar to those of other necked lutes. The ornaments are categorized as *vurma*, *çekme*, the slur combinations, and the left-hand horizontal movement ornaments.

2.2.1.1a *Vurma*

*Vurma* means to strike in Turkish. In *vurmas*, one of the fingers of the left-hand strikes any fret of the *bağlama* and creates a note without using the right-hand. *Vurmas* are the same as the guitar technique called the hammer-on. When *vurmas* are used for melodic embellishment, they are generally called *çarpmas*, which means to hit in Turkish. There is no consensus about the notation of *vurmas*. The symbol (\(V\)), a curved line that combines the related notes or the grace notes can be used.

In the horizontal movement of the left-hand, especially in scales, *vurmas* or *çarpmas* are often used between the scale notes. They are also used repeatedly on a single note in the free-introductory parts (*açış*) of folk songs. Markoff (1986: 129) associated this feature with the *ribattuta* ornament of 16\(^{th}\) century Western European art music conventions.

2.2.1.1b *Çekme*

*Çekme* means to pull in Turkish. The left-hand finger that is already on the fretboard pulls the string in order to create a sound. It is similar to the guitar technique called the pull-off. There is no consensus about the notation of *çekmes*. The symbol (\(\wedge\)), a curved line that combines the related notes or the grace notes can be used.

If *çekmes* are done with the left-hand thumb, they can be referred to as *atma*, *boğma* or *sarma* (Markoff, 1986).

2.2.1.1c Slur Combinations

There are many types of ornaments originated from the combination of *vurma* and *çekme*. Some *bağlama* method authors described these by making analogies with the Western classical music ornamentation terms such as mordent and *grupetto* (Altuğ, 1999: 111; Arafat, 2008: 277). The *glissando* and *bağlama* slurs can also be combined. One of the commonly used ornaments is the trill. Most musicians in Turkey used the English term ‘trill.’ It is played by making fast continuous *vurmas* and *çekmes* between two adjacent notes. The number of these *vurmas* and *çekmes*
can be changed according to the piece, region and choice of the performer. It is
generally shown with the abbreviation (pr) written on the note.

The slur combinations can be shown with grace notes. Grace notes are smaller in size
than the note they precede and are placed on the left side of the note with a curved
line tied to the main note. There is a small line crossing the note's stem (\). 

In Figure 2.3, the note E is first played on the first string. Immediately after the E is
heard, a vurma is made to the note F and then G with the second and fourth finger
respectively.

![Figure 2.3: A slur combination example with two vurmas.]

In Figure 2.4, çekme is added to Figure 2.3.

![Figure 2.4: A slur combination example with a çekme and two vurmas.]

2.2.1.1d Left-Hand Horizontal Movement Ornaments

In bağlama playing, especially with the bozk recording, it is common to play melodies
on the 1st string. This motion results in a horizontal movement of the left-hand
fingers. This feature is very different from guitar melody playing in which vertical
movements are much more common. The first finger achieves a significant emphasis
on this horizontal movement and it is mostly the preferred finger in bağlama. The
other fingers are used especially in executing ornamental devices such as çarpmas or
trills. In some tunings like bağlama düzeni, vertical movements are also often used
together with horizontal movements.

The ornaments are often played in the horizontally moving descending scales. The
left-hand and right-hand should be coordinated in order to play these scales. In
Figure 2.5, the çarpma is played after each degree of the scale.
Figure 2.5: A descending scale with čarpmas.

The čarpmas are also played with dotted rhythms (Figure 2.6).

Figure 2.6: A descending scale in dotted rhythms with čarpmas.

The čarpmas can sometimes be doubled (Figure 2.7).

Figure 2.7: A descending scale with two čarpmas.

This pattern is also played without čarpmas. Tezene or fingers play each note (Figure 2.8).

Figure 2.8: A descending scale without čarpmas.

The following motive is also common in descending scales with čarpmas (Figure 2.9).

Figure 2.9: A descending scale pattern with čarpmas.

A similar motive is executed with a leap of a third (Figure 2.10).
Figure 2.10: A descending scale pattern with a leap of a third çarpma.

One other descending scale pattern is with the vurma and çekme together (Figure 2.11).

Figure 2.11: A descending scale pattern with vurma and çekme.

The following patterns consist of vurma and çekme combinations (Figures 2.12, 2.13 and 2.14).

Figure 2.12: A pattern with vurma and çekme combinations.

Figure 2.13: A pattern with vurma and çekme combinations.

Figure 2.14: A pattern with vurma and çekme combinations.
All of the patterns shown above could be played with tezene or fingers for each note instead of using vurma or çekme depending on the melody, region and the choice of the performer.

2.2.1.2 Kisturma

It means to pinch in Turkish. Because there are double or triple courses, the second or third finger of the left-hand can be put on different frets on different strings of the related course. In the kisturma technique, while the first finger presses one fret on all the strings of the related course (conventional playing), the second or third finger presses the note on the bottom or the middle and bottom strings of the related course, one fret or two frets on the right, creating a minor or major second interval. Sağ and Erzincan (2009: 19) use the abbreviation (ks) placed above the related pitches on the staff.

2.2.1.3 Vibrato

The left-hand finger presses a fret and makes a vertical movement in a rapid or slow manner. Bağlama vibrato is similar to the electric guitar vibrato. There is no specific sign for the vibrato.

2.2.1.4 Glissando

The left-hand finger slides up or down to another fret. When the left-hand finger reaches that fret, the right-hand finger can pluck the string again. The bağlama glissando is similar to the classical guitar glissando. There is no specific sign that bağlama performers use for glissandos. Parlak (2001: 121, 129) and Sağ and Erzincan (2009: 19) use the conventional Western glissando line.

2.2.2 Tezene Techniques

Tezene is the term for bağlama plectrum. Tezene techniques are categorized under the basic tezene techniques and the tezene rhythmic patterns.

2.2.2.1 Basic Tezene Techniques

The tezene is played with a down and up stroke as in oud or electric guitar plectrum playing. Basic tezene techniques are categorized under the down stroke, up stroke,
single course stroke, two-course stroke, three-course stroke, continuous stroke, arpeggiated down stroke and the arpeggiated up stroke (Parlak, 2010).

2.2.2.1a Down Stroke

In the down stroke, the tezene is played in a downward direction on one course, two courses or three courses. A down stroke on a single string is shown in Figure 2.15.

![Figure 2.15: A down stroke.](image)

2.2.2.1b Up Stroke

In the up stroke, the tezene is played in an upward direction on one course, two courses or three courses. An up stroke on a single string is shown in Figure 2.16.

![Figure 2.16: An up stroke.](image)

Melodies played on the baqlama are mostly executed using alternate down and up strokes but there are exceptions. For example, in a rhythmic pattern that consists of three notes, two up strokes may follow a down stroke or a down stroke may be followed by a down and up stroke (Figure 2.17 and 2.18).

![Figure 2.17: A down stroke and two upstrokes.](image)

![Figure 2.18: Two down strokes and an up stroke.](image)

2.2.2.1c Single Course Stroke

In the single course stroke, the tezene is played with a down or up stroke on a single course (Figure 2.19).
2.2.2.1d Two-Course Stroke

In the two-course stroke, the tezene is played with a down or up stroke on two courses (Figure 2.20).

2.2.2.1e Three-Course Stroke

In the three-course stroke, the tezene is played with a down or up stroke on three courses (Figure 2.21).

2.2.2.1f Continuous Strokes

One of the other techniques of tezene playing is the continuous down and up strokes. This creates a kind of bağlama tremolo. The tremolo is created by continuous down and up strokes on a single course, two courses or three-courses (Figure 2.22).

2.2.2.1g Arpeggiated Down Stroke

In the arpeggiated down stroke, tezene is played downwards in a rapid arpeggio on two or three courses. There is no specific arrow for this stroke. In Figure 2.23, the resulting pitches of the arpeggio down stroke are shown.
2.2.2.1h Arpeggiated Up Stroke

In the arpeggiated up stroke, *tezene* is played upwards in a rapid arpeggio on two or three courses. There is no specific arrow for this stroke. In Figure 2.24, the resulting pitches of the arpeggio up stroke are shown.

2.2.2.2 Tezene Rhythmic Patterns

*Tezene* techniques include various rhythmic patterns depending on the Anatolian folk melody styles and the performers’ styles. These patterns characterize some of the folk songs of some regions of Anatolia. These *tezene* rhythmic patterns are usually called regional styles (*yöresel tavırlar*), although there is an ongoing debate about the use of the term ‘regional styles’.

Although these *tezene* rhythmic patterns are broadly found in the folk songs of those regions, they are not available for all the folk songs of that region. According to Parlak (2000: 74) and Erzincan (2008: 273), the classification of regional styles was invented by urban musicians, especially those working at TRT (Turkish Radio and Television). Because the radio artists have the responsibility of playing folk song examples from every region of Turkey in the TRT ensemble called *Yurttan Sesler*, they made classifications according to the regions.

Parlak (2000: 74) illustrated his argument with examples from the Yozgat and Konya styles. He put forward that the Yozgat *tezene* rhythmic pattern cannot be found in all the folk songs in and around the Yozgat city. Besides, that specific *tezene* rhythmic pattern is found in many folk songs of Anatolia besides Yozgat. Secondly, the standardized Konya *tezene* rhythmic pattern is applied to regional folk songs of
Konya by some of urban performers although this pattern does not exist in these melodies.

According to Öztürk (2000: 7), the tavur (style) of playing and singing, includes every specialities of traditional performance. In terms of bağlama performance, it predicates all techniques used for performance of the melody and folk song which is being played. Öztürk (2000: 7) also called attention to the role of individual performers on bağlama styles.

"Especially the rhythmic embellishment and stroke patterns performed with the hand holding tezene, have become indispensable elements of bağlama performances of melodies and folk songs. In other words, performance features having an 'individual' nature gradually becomes 'regional'."

As a result of these arguments, the term 'tezene rhythmic pattern' will be preferred instead of 'regional styles' throughout this thesis. There are many terms for the various tezene rhythmic patterns that are used in Anatolian folk melodies such as tarama, çürpma, düzi, sikme, ezme, kazıma, firıldak, okşama, syırtma, dokuma, uçleme, çiftleme, masallama, takma, hoplatma, sizlatma, serpm etc (Parlak, 2000: 74; Markoff, 1987: 139; Öztürk, 2000; Ekici, 2006: 200). For some of the terms there is no consensus among the scholars. The most commonly used terms will be used in the following categorization.

In this chapter the common tezene rhythmic patterns will be analyzed. In these patterns the main tezene rhythmic patterns will be introduced. In the performance of Anatolian folk melodies with the bağlama, many variations of the main tezene rhythmic patterns are made. These variations will be omitted in this part.

The main tezene rhythmic patterns are categorized under the headings takma tezene, çürpma and çiftleme, çiftlemeli takma (Konya), tarama (Yozgat), syırtma, hoplatma and serpm.

2.2.2.2a Takma Tezene

In the takma tezene, after the down or up tezene stroke the tezene rests on the adjacent string and then continues its downward or upward motion. Some of the main takma tezene rhythmic patterns are as follows:
The individual notes of the up strokes can be doubled on some occasions of *takma tezene* pattern. The *takma tezene* technique is found especially in Anatolian folk pieces in Ankara and other places in Central and Eastern Anatolia. It is also the characteristic *tezene* rhythmic pattern of *fidayda* which is a popular Anatolian folk dance. The *fidayda* tuning which is D, D, A from top to bottom, is mostly used in these pieces. The *takma tezene* rhythmic pattern in *fidayda* is as follows:

In many of the pieces, while the *takma tezene* is played in a continuous manner, the melody is generally played with the left-hand on the second string. The first and the third strokes give the tonic (*karar*) pitch of the scale while the second stroke generally plays the melody with the ornaments. The first beat can be a rest in some patterns and can be given by knocking on the soundboard with the right-hand middle finger.

In the downbeats of *takma tezene* and in many other *tezene* rhythmic patterns, the ‘m’ or ‘a’ finger of the right hand knocks the soundboard of the *bağlama* at the same time as the down stroke. This technique is similar to the flamenco guitar *golpe* (see 3.3.4.3). Depending on the region and performer, the ‘m’, ‘a’ or both can be knocked on the soundboard (*Şimşek*, 2009). *Bağlama* performers generally don’t use a symbol for this. However, Sağ and Erzincan (2009: 18) illustrate the technique with the use of the letter (x) above the related notes.

One variation of *takma tezene* technique is traced in Ali Ekber Çiçek’s *Haydar Haydar* piece. Çiçek plays initially two upward strokes, followed by a downward stroke and a *çekme* (pull-off) (Markoff, 1986: 305) (Figure 2.27).
2.2.2.2b Çirpma and Çifitleme

The çirpma technique is executed by a rapid up-down-up stroke of a tezene on one course after a down stroke on all three courses (Figure 2.28).

The çifitleme technique is similar to the çirpma. An upstroke tezene follows the çirpma pattern (Figure 2.29).

The individual notes can be played on two or three courses on some occurrences of çirpma and çifitleme patterns. The çirpma and çifitleme techniques are generally found in the zeybek folk dance. These tezene rhythmic patterns are also called zeybek tavri (zeybek style). The term zeybek comes from the name of the bandit groups that lived in Western Anatolia between the late 18th century and the first quarter of the 20th century (Öztürk, 2006: 27). The zeybek is a folk dance found mostly in Western Anatolia. Depending on the regions, the folk instruments such as davul-zurna, klarnet, bağlama, cura, parmak curasi, kopuz, iki telli, tanbura, saz, sipsi, kaval, kemane and keman can accompany zeybek songs (Öztürk, 2006: 136).
The çurpma and çifileme are both played with a tezene or the right-hand fingers, depending on the region it is played. In the Teke region of Anatolia, finger playing techniques are common for bağlama performers. Therefore zeybeks are mostly played with the right-hand fingers. Erol Parlak transcribed this in his method (2001). The right-hand fingers in the çifileme tezene rhythmic pattern are shown in Figure 2.30.

![Figure 2.30: Çifileme tezene rhythmic pattern in Erol Parlak’s notation.](image)

The symbols that Erol Parlak uses in this rhythmic figure are defined in Table 2.2 (Parlak, 2000: 17-18).

<table>
<thead>
<tr>
<th>Notation Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Symbol 1]</td>
<td>Downward rasgueado with e, a, m and i fingers, together with a knocking on the soundboard</td>
</tr>
<tr>
<td>![Symbol 2]</td>
<td>Upward stroke with “i”</td>
</tr>
<tr>
<td>![Symbol 3]</td>
<td>Upward stroke with “m”</td>
</tr>
<tr>
<td>![Symbol 4]</td>
<td>Upward stroke with “a”</td>
</tr>
</tbody>
</table>

2.2.2.2c Hoplatma

The hoplatma pattern is similar to the çurpma and çifileme pattern. The rapid up-down-up stroke of a tezene is executed as a down-up-down stroke. In this sense hoplatma can be defined as a ‘reverse çurpma’ or ‘reverse çifileme’ (Figures 2.31 and 2.32).

![Figure 2.31: Hoplatma pattern as a reverse çurpma.](image)
The *hoplatma* technique is mostly used in folk songs of Silifke or Mut, which are towns of Mersin in Southern Anatolia. Therefore it is called the Silifke/Mut *tavri* (Silifke/Mut style) by some scholars.

Ekici (2006: 271) wrote the notation of a folk melody called *Yayla Yolları*. Ekici played the melody on the first string in *bozuk* tuning with the *hoplatma* pattern (Figure 2.33).

![Figure 2.33: Yayla Yolları, measure 8-12.](image)

**2.2.2.2d Serpme**

The *serpme* pattern is a variation of *hoplatma* pattern with a *takma tezene*. The first three notes are played as in a downward *takma tezene*. This is followed by a *hoplatma* pattern as in a reverse *çifileme* (Figure 2.34).

![Figure 2.34: Serpme pattern.](image)

The *serpme* is generally found in the folk music and dance form *Karşılama*. Therefore it is called the *karşılama tavri* (*karşılama* style) by some scholars. The Turkish term *karşılama* is the noun version of the verb *karşılamak* (to greet). It is generally played in Thrace (*Trakya*, European side of Turkey) and the Blacksea region (*karadeniz*, Northern Anatolia) (Öztürk, 2006: 134).

**2.2.2.2e Çifilemeli Takma**

The *çifilemeli takma* can be defined as a combination of the *çifileme* and *takma tezene* techniques. The last upstrokes are different from the *çifileme* technique. The first of the last two upstrokes is played on the bottom two courses. The *tezene* then
rests on the third course as in a *takma tezene* and then completes the upstroke (Figure 2.35).

![Figure 2.35: Ciftlemeli takma pattern.](image)

The term *ciftlemeli takma* is used by Öztürk (2000: 8). The *ciftlemeli takma* is found in many folk pieces in Konya. Therefore it is called the *Konya tavri* (Konya style) by some scholars.

Ekici (2008: 247) wrote the notation for his arrangement of *Konya Divan Ayağı*, based on the *ciftlemeli takma* pattern in *bozuk* tuning. Figure 2.36 is based on Ekici’s notes, except the arrows and the second and third voices which were added by the author of this thesis.

![Figure 2.36: Konya Divan Ayağı, measure 1.](image)

### 2.2.2.2f *Siyurma*

In the *siyurma* pattern, an upward triplet arpeggio that follows a downward stroke is characteristic. This upward motion is executed as in a *takma tezene* by pulling up the *tezene* across the courses in the manner of a rest stroke (Figure 2.37).

![Figure 2.37: Siyurma pattern.](image)

The *siyurma* pattern is mostly used in *Alevi semah* and *deviş* pieces. Therefore it can be named *aşık tavri* (*aşık* style).
2.2.2.2g Tarama

The tarama is mostly used as an ornament in specific folk melody patterns. These folk melodies are called Yozgat Sürmelisi. Yozgat is a city in Central Anatolia. The tarama is played with the rapid down and up strokes (tremolo) for each of the two adjacent notes on the same string and the number of these strokes is not stable. In Figure 2.38, the 32\textsuperscript{nd} notes in the second beat are tarama patterns.

![Figure 2.38: Tarama pattern.](image)

2.2.3 Finger-playing Techniques

The finger-playing technique is one of the main bağlama techniques together with the tezene playing. After the 1980s it was developed by bağlama performers such as Hasret Gültekin, Erol Parlak, Erdal Erzincan etc. In 1998 Erol Parlak wrote a doctoral thesis entitled “Finger-playing (without tezene) Tradition and Performance Techniques in Turkey.” Erol Parlak’s method (Parlak, 2001) is the first bağlama finger-playing method published in Turkey. In 2009, Arif Sağ and Erdal Erzincan published a method that included finger-playing techniques. The finger-playing techniques are divided into three categories: Strumming all strings (pençe/selpe), string plucking (tel çekme) and finger tapping (parmak vurma).

2.2.3.1 Pençe/selpe Techniques

Pençe/selpe is the term for strumming all the strings. There are traditional and contemporary pençe/selpe techniques.

2.2.3.1a Traditional Pençe/selpe Techniques

There are two main types of traditional pençe/selpe technique: downwards and upwards. Parlak (2001) divides downwards pençe/selpe into two categories:

i) Strumming all strings downwards with the four fingers of the right-hand except the thumb.
a. The four fingers of the right-hand strum the strings at the same time.

b. The four fingers of the right-hand strum the strings one after another starting with the ‘e’ finger, then ‘a’, ‘m’ and ‘i’ fingers. Sağ and Erzincan (2009: 169) called this technique *tarama pence*.

ii) Strumming all strings downwards with the right-hand index finger.

In addition to these downward strumming types, Parlak that (2001: 50) mentioned the bağlama performers in Eastern Anatolia and *Teke Yörükleri* (The yörüks of the Teke region) knock on the soundboard of the bağlama with the ‘m’ and ‘i’ fingers one after another during the downward strumming. This creates a percussive effect together with the strings that are strummed. *Teke Yörükleri* call this technique *fiske, fiska, tska* or *tokatlama*.

 Sağ and Erzincan (2009: 17) mentioned a downward *pence/šelpe* using the ‘e’, ‘a’ and ‘m’ fingers and the *tezene* at the same time.

Parlak (2001) divides upwards *pence/šelpe* into five categories:

i) Strumming all strings upwards with the four fingers of the right-hand except the thumb. In this type, although the upward *pence/šelpe* is mainly executed by the ‘i’ finger; the ‘m’, ‘a’ and ‘e’ fingers also lightly touch the strings.

ii) Strumming all strings upwards with the right-hand ‘i’ finger. This technique is named in the Teke region as *tekli* (*tek* means one. *Tekli* means with one).

iii) Strumming all strings upwards with the right-hand ‘m’ finger. This is the other type of *tekli* technique in Teke region.

iv) Strumming all strings upwards with the right-hand ‘i’ and ‘m’ fingers one after another. This is named *ikili* (*iki* means two. *İkili* means with two) or *iki parmak* (two fingers) in the Teke region.

v) Strumming all strings upwards with the right-hand thumb and ‘i’ finger at the same time.
2.2.3.1b Contemporary Pence/selpe Techniques

Since the 1990s, the pence/selpe technique has been developed by bağlama performers such as Hasret Gültekin, Erol Parlak, Erdal Erzincan and Arif Sağ. Parlak (2001) mentioned nine contemporary pence/selpe techniques:

i) Playing all strings upwards with the right-hand ‘e’ and ‘a’ fingers one after another in a continuous manner with the palm facing upward. According to Parlak (2001: 23), the bağlama performer Hasret Gültekin developed this technique.

ii) Preparing the right-hand parallel to the soundboard of the bağlama and playing all strings upwards with the right-hand ‘i’, ‘m’, ‘a’ and ‘e’ fingers consecutively in a continuous manner with the palm facing the soundboard. The fingers should not be curved.

iii) There are two kinds of finger tremolo:

a. Pushing downward on one course lightly with the right-hand ‘i’ finger and playing it with downward and upward motions in a rapid manner.

b. Preparing the right-hand parallel to the fretboard of the bağlama and closing the fingers except the thumb. The thumb plays one or more strings with downward and upward motions in a rapid manner.

iv) Preparing the right-hand vertical to the fretboard of the bağlama. Pushing down the strings with the ‘i’, ‘m’ and ‘a’ fingers and rubbing the strings downwards and upwards. This rubbing technique is also executed by the ‘i’ finger alone. Sometimes the right-hand can be parallel to the bağlama fretboard when the technique is executed.

v) Strumming all strings upwards with the ‘a’, ‘m’ and ‘i’ fingers one after another. The fingers are curved from the large and middle joints while strumming.
vi) Preparing the right-hand parallel to the bağlama fretboard. The ‘e’ finger and the thumb strum downwards in a row and then the thumb and the ‘e’ finger strum upwards consecutively. This technique is executed in a rapid continuous manner and each stroke should be equal in time and in accent. According to Parlak (2001: 66), the bağlama performer Erdal Erzinçan adopted this technique from the guitar.

There are two variations of this technique. In the first one, the ‘e’ and the ‘i’ fingers strum downwards and then the thumb and the ‘i’ finger strum upwards in a row. In the second one, the ‘i’ finger and the thumb strum downwards and then the thumb and the ‘i’ finger strum upwards one after another. These techniques are executed in a rapid continuous manner and each stroke should be equal in time and in accent.

One similar technique is seen in dutar players from Tajikistan (Parlak, 2000: 206). This technique is executed by strumming the ‘i’ finger downwards and then strumming the thumb, ‘i’ and ‘e’ fingers upwards consecutively.

vii) Strumming the ‘i’ finger downwards and then strumming the thumb and the ‘i’ finger upwards one after another in triplets. This technique is executed in a rapid continuous manner and each stroke should be equal in time and in accent. This technique is also available in flamenco guitar but with the use of middle finger and the thumb.

viii) Strumming all strings downwards with the ‘i’, ‘m’, ‘a’ and ‘e’ fingers one after another.

ix) Strumming all strings downwards with the ‘i’, ‘m’ and ‘a’ fingers and then upwards with the ‘a’, ‘m’ and ‘i’ fingers one after another. This technique is executed in a rapid continuous manner and each stroke should be equal in time and in accent. One variation of this technique is strumming all strings downwards with the ‘a’, ‘m’ and ‘i’ fingers and then upwards with the ‘i’, ‘m’ and ‘a’ fingers one after another.
2.2.3.2 String Plucking

In this technique, the strings of baḡlama are plucked by the right-hand fingers. According to Parlak (2001: 26) for the bottom and middle strings the ‘i’ finger and for the top string the thumb is generally used. This technique is developed by using the right-hand ‘m’, ‘a’ and ‘e’ fingers. In addition to this, two or three strings can be plucked at the same time. This baḡlama technique is similar to the classical guitar free stroke technique except that it is played without the nails. However, starting from the late 1990s, string plucking with the finger nails became widespread with the performances of Erkan Oğur (Şimşek, 2009).

One other technique is the guitar pizzicato technique by putting the right-hand’s palm on the bridge and plucking the strings. Parlak (2001: 54) called this technique kapali (closed) or mute. Sağ and Erzinçan (2009: 19) called this technique kapama (to close).

2.2.3.3 Finger Tapping

The finger tapping technique is a traditional üç telli baḡlama (three stringed baḡlama) style of the Türkmen Yörüks of the Teke region. It is executed by doing hammer-ons and pull-offs with the right-hand ‘i’ or ‘m’ fingers to the fret which are perfect fifth apart from the open string (Parlak, 2001: 11).

In its contemporary form, the right-hand and the left-hand’s fingers execute hammer-ons (vurma) and pull-offs (çekme) on the fretboard. There are four main types of baḡlama tapping techniques: right-hand tapping hammer-ons, right-hand tapping pull-offs and left-hand slurs that consist of left-hand hammer-ons and left-hand pull-offs. The left-hand slurs have two functions. The first one is the completion of the tapping pattern that was started by the right-hand. The second function of the left-hand is independent playing without the help of a right-hand tapping or plucking.

Erol Parlak developed this technique and used the ‘i’, ‘m’, ‘a’ and ‘e’ fingers for right-hand tapping hammer-ons and pull-offs. In addition to this, two or more fingers of either the right-hand or the left-hand can execute hammer-ons and pull-offs.

Erol Parlak (2001: 17) used the following notation for tapping (Table 2.3):
<table>
<thead>
<tr>
<th>Notation Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Left-hand hammer-on</td>
</tr>
<tr>
<td>∧</td>
<td>Left-hand pull-off</td>
</tr>
<tr>
<td>⃧</td>
<td>Right-hand tapping hammer-on with the “i” finger</td>
</tr>
<tr>
<td>⃨</td>
<td>Right-hand tapping pull-off with the “i” finger</td>
</tr>
</tbody>
</table>
3. CLASSICAL GUITAR

3.1 Historical Background and General Information about the Classical Guitar

The classical guitar is categorized under necked box lutes of composite chordophones according to Hornbostel and Sachs (1914). In its standard form, it has six strings and it has a box-shaped resonator with incurved sides and a flat back (Figure 3.1). The guitar’s tuning is accepted worldwide as E A D G B E from 6th string to the 1st, perfect fourth intervals except the major third between the 3rd and 2nd strings.

![Figure 3.1: Classical guitar.](image)

There are different views about the derivation of the term guitar. Some scholars claimed that it is derived from the Ancient Greek instrument *kithara*. Summerfield (2002, 11) and Kasha (1968, 4) claimed that the old Spanish term *guitarra* was derived from the term *chartar* which means four (char) strings (tar) in Persian\(^1\). In

\(^1\) Kasha (1968: 4) also claimed that the earliest Greek *kithara* had four strings and the term *kithara* also derived from the Persian term *chartar*.
the 16th century, the guitar was called *guitarra* in Spain, *chitarra* in Italy, *guiterre* in France and *gittern* in England (Tyler and Sparks, 2002: 3).

The classical guitar is a member of the vast necked lute family that originated in Asia, Europe and Africa continents. The classical guitar evolved in the Western boundary of this region, the Iberian Peninsula. Some of the early antecedents of the guitar are listed by Graham Wade as follows (2001: 13):

"Thus the history of lute/guitar type plucked chordophones goes back hundreds of years. Among ancestors of the established instrument forms known today can be included lyres and harps (mentioned in the old Testament), the long-necked lutes of Mesopotamia, various kinds of stringed instruments depicted in both ancient Babylonian and Egyptian art, and the Hittite stone carvings of three thousand years ago found at Alaca Höyük, in Turkey."

There are two sources that brought some types of necked lutes to the Iberian Peninsula: the Roman Empire from the North and the Moors from the South. According to Kasha (1968, 9) and Summerfield (2002, 12), Romans brought necked lutes to the Iberian Peninsula during their colonization era. The Moorish presence in the Iberian Peninsula between 711-1492 had a strong cultural influence in Spain. Jahnel (2000: 22) listed the necked lutes of the 8th and 9th century Spain as follows:

"In the 8th and 9th centuries in Spain the existence of different lute types can be accepted with certainty. Not only the various Sassanian short-necked lutes and the Arabic al′ ud, but also the narrow rebab and the long-necked tambur types entered Spain and Southern Italy and spread rapidly."

These instruments have influenced the evolution of the 14th and 15th century necked-lute instruments in the Iberian Peninsula such as the lute, the vihuela and the guitar.

In the Middle Ages one piece of significant evidence about the ancestors of the guitar was found in the miniatures of the *Cantigas de Santa Maria* manuscript in 13th century. In these miniatures, there were two kinds of guitars: *la guitarras morisca* (the Moorish guitar) and *la guitarras Latina* (Latin guitar). Summerfield (2002, 12) described *la guitarras Latina* as follows: "The guitarras Latina had a flat back as has the modern guitar, and the soundboard had one hole over which the strings passed. It was used for playing chords and was a forerunner of the vihuela."

In the 15th and 16th centuries, the lute and vihuela were very influential in the construction and the repertoire of the guitar. The lute is a necked lute with a pear-shaped resonator and with six strings (one single and five courses), generally tuned in G C F A D G from 6th string to the 1st (Grout and Palisca, 1996: 221; Serrano and
Whitehead, 2008: 9), which is very close to the modern guitar’s tuning except for the major third interval between the fourth and third string. Additional strings or courses were inserted in time and different kinds of lutes such as the theorbo and archlute have emerged. In the Renaissance era (ca. 1450-1600), the lute had its golden age. Some of the famous lutenists of the era were John Dowland, Francis Cutting, John Johnson, Thomas Robinson, Robert Dowland, Melchiori de Barberiis, Antonio Rotta, and Francesco da Milano.

The first collection of pieces for the lute is Francesco Spinacino’s *In Tabulatura de Lauto* published in 1507. Until the end of the 18th century; the lute and guitar were notated in tablature systems (Wade, 2001: 18). In the various tablature systems, the notes are indicated by the numbers or letters which show the fret number that the note will be played. These numbers or letters are placed on four to six-lined staves, each line indicating a string. The rhythms are shown above the staff by note values. The lutes popularity declined in the 18th century. One of the important reasons was the invention and popularity of the pianoforte.

The vihuela was also named *vihuela de mano* which means that it is played with the fingers. Other types of vihuelas were *vihuela de penola* (played with a plectrum) and *vihuela de arco* (played with a bow). The *vihuela de mano* has six courses of strings. It’s tuning was same as the lute, G C F A D G² from 6th string to the 1st. In the 16th century, the vihuela was considered a separate instrument from the guitar (Tyler and Sparks, 2002: 3):

“The still larger, six-course, lower-range, figure-8-shaped Spanish vihuela de mano, and its Italian counterpart, the *viola da mano*, were not considered guitars. Indeed, as will be seen, all available evidence from the sixteenth century indicates that the guitar had its own separate and distinct character, function, tunings, and repertory, and that sixteenth-century players, theorists, and composers regarded the vihuela not as a guitar but as a figure-8-shaped Spanish equivalent of the lute.”

According to Summerfield (2002, 12), the vihuela and lute had ten or eleven frets. Some of the famous vihuelists of the era were Luis Milán, Alonso Mudarra, Luis de Narváez, Enriquez de Valderrabano, Diego Pisador, Miguel de Fuenllana, Francesco de Milano, Scipione Cerreto and Esteban Daza. Some of these vihuelists’ pieces

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2 These pitches were not standard in those times. For example vihuelist Luis Milan claimed that the top string should be tuned “as high as it will go” (Noad, 1974: 12).
were also published. Luis Milán wrote a vihuela method called "Libro de música de vihuela de mano intitulado El maestro" in 1536.

The four-course guitar was a small (about one-third the size of a modern Classical guitar), figure-8-shaped, treble-range instrument (Tyler and Sparks, 2002: 3). It was tuned as G C E A or F C E A from 4th course to the 1st course according to Juan Bermudo (1555). In the books of Alonso Mudarra, Miguel de Fuenllana and Melchiore de Barberii, the four-course guitar scores were available. Noad (2002, 4) argued that the four-course guitar was less sophisticated than the vihuela and used as an accompaniment to dances with strumming techniques (rasgueado). But Tyler and Sparks (2002: 12) mentioned that in France, the four-course guitar flourished more than other countries:

"And not only was there far more of it, but the French repertory was considerably more varied, comprising fantasias, intabulations of vocal music, songs to the guitar, and dance music, all composed in a style that involved a much greater degree of ornamental passagework than is found in the Spanish sources."

The four-course guitar was played by the guitarists such as Simon Gorlier, Guillaume Morlaye, Gregor Brayssing, and Adrien le Roy. According to Tyler (URL-2), the four-course guitar continued to be used for playing popular music throughout the 17th and 18th centuries.

In the Baroque era (ca. 1600-1750), the five-course guitar, which is also called 'Baroque guitar' or 'Spanish guitar,' was widely played and the vihuela's popularity has declined. According to Tyler (URL-3), despite the five-course guitar-like instruments were being played from the end of the 15th century, they become popular in the Baroque era. In Juan Carlos Amat's Guitarra Española de cinco ordenes in 1596, the five-course guitar was tuned as A D G B E, the tuning of the modern guitar from 5th string to the 1st (Turnbull, 1974: 13). Some of the famous Baroque guitarists were Joan Carles Amat, Luis de Briceno, Giovanni Paolo Foscarini, Francesco Corbetta, Giovanni Battista Granata, Robert de Visee, Gaspar Sanz, Francisco Guerau, François Campion, François le Coq, Remy Médard, Angelo Michele Bartolotti, and Santiago de Murcia.

Wade (2001: 35) described two different styles for the Baroque guitar as follows:
"As always the guitar was torn between two aspects of its technique, the **rasgueado** strumming style, suitable for song accompaniment and relatively easy to learn and the playing of interweaving lines (known as **pizzicate** or **punteado**), which demanded more sophisticated musical skills."

More than a hundred Italian, French and Spanish volumes were published in the three playing styles of the Baroque period between 1600-1750: plucked style, strummed style and the mixed style (Bordas and Arriaga, 1991-1992: 83). According to Andia (URL-4), the need for the fifth string is due to the prevalence of the rasgueado technique: “Because one needed well a new instrument better adapted to the new writing in chords which was essential gradually in Baroque esthetics under the influence of musicians like Caccini or Peri.” The mixed style was developed especially by composers such as Giovanni Paolo Foscarini, Francesco Corbetta, Gaspar Sanz and Robert de Visee and many genres of Baroque music such as suites, various dance forms, *toccatas*, *passacaglias* were composed for the Baroque guitar.

A notation system called **alfabeto** was used for guitar in the late 16th and 17th centuries. In this system the chords were shown by the letters or symbols and they were placed above the melody notes. This system was the predecessor of the chord symbols of the 20th century popular music notation system. In the 17th century, there were over 250 Italian sources of vocal music with guitar **alfabeto** accompaniment (Tyler and Sparks, 2007: 49). The frets of the lutes, vihuelas and four-course and five-course guitars were made of gut and tied around the fretboard. There are different views about the numbers of the frets³.

The second half of the 18th century can be seen as a transition period to the six-string modern guitar. Wade's research (2001: 63-64) on the different guitar types between 1750-1815 shows that there were five-course, six-course, seven-course and six string guitars. According to Turnbull and Sparks (URL-5), the earliest known six-course guitar is Francisco Sanguino’s, which was made in 1759, and the luthiers in Marseilles and Naples were making six single string guitars by 1785. Some of the well-known guitarists of the era were Padre Basilio and Federico Moretti. The teacher of Dionisio Aguado, Pedro Basilio was one of the first to play the classical

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³ According to Turnbull (1991: 15), “the guitar had about eight for plucked music and as few as four if it was simply a case of strumming chords.” The four-course guitar has eight to ten gut frets according to Tyler (URL-2), and four to eight frets according to Summerfield (2002, 12).
guitar with finger nails (Tyler and Sparks, 2002: 231). Dionisio Aguado praised Moretti’s skill as follows (Wade, 2001: 71): “Don Federico Moretti was the first to begin to write guitar music in a manner in which two parts were separated, one part for the melodic line, the other for the accompaniment.”

In this period Italian composer and cellist Luigi Boccherini (1743-1805) is important for his compositions for the guitar. He adapted several of his quintets by including the guitar. It was in this period that the tablature system was slowly abandoned from guitar scores and staff notation became widespread (Sparks, 2002: 14).

According to Summerfield (2002: 14), “The years 1800 to 1980 were to see a gradual development of the instrument in three main areas. These were the guitarist’s technique, the guitar’s repertory and the construction of the instrument.”

The first half of the 19th century can be analyzed as the guitar’s golden age with a generation of composer guitarists including Fernando Sor (1778-1839), Mauro Giuliani (1781-1829), Ferdinando Carulli (1770-1841), Dionisio Aguado (1784-1849), and Matteo Carcassi (1792-1853). Although this period can be regarded as the romantic era, the style of these composer guitarists was mostly classical (Noad, 1976: 6). These guitarists have influenced the history of classical guitar with their compositions, performances and guitar methods.

Giuliani for example, composed many concertos, etudes, sonatas, variations and dances for the guitar and most of them are still in the repertory of many guitarists in the early 21st century. Sor, not only composed many important pieces for classical guitar, but also composed symphonies, ballets and operas. Aguado’s Escuela de Guitarra published in 1825 was a significant guitar method which included instructions about playing with the fingernails in contrast to Sor’s playing style without nails. Carulli composed more than 400 pieces for guitar and his guitar method op. 27 is still used in modern conservatories. Carcassi’s 25 melodic and progressive etudes op. 60 are significant pedagogic pieces. Some other guitarists from the first half of the 19th century were Francesco Molino (1775-1847), Anton Diabelli (1781-1858), Nicolo Paganini (1782-1840), Luigi Legnani (1790-1877), Johann Kaspar Mertz (1806-1856), Simon Molitor (1766-1848), and Giulio Regondi (1822-1872).
In the second half of the 19th century, Spanish luthier Antonio de Torres (1817-1892) gave the guitar its modern shape with its "specific structure, string length, fan-strutting beneath the front of the instrument, overall proportions, types of wood used, quality of tone etc." (Wade, 2001: 94). There were also different kinds of less popular guitars such as lyre guitar, doppelpitarre (double-necked), guitar with seven or eight strings and decacorde (10-string guitar) in this period (Randel, 2003: 371; URL-6). The guitar's golden age couldn't last in the second half of the 19th century. One of the main reasons was the popularity of pianoforte with its higher volume and larger octave range. According to Summerfield (2002: 11), other reasons were the lack of compositions written for the guitar by the great composers of the period, the lack of volume of the 19th century small-bodied guitars and the prejudices against guitar due to its use in folk music.

The important guitarists of the era were Napoleon Coste (1806-1883), Julian Arcas (1832-1882), José Ferrer (1835-1916), and Francesco Tarrega (1852-1909). Tarrega is an important figure for classical guitar history because of his compositions, transcriptions, and methods. According to Noad (2002: 4), "It was really thanks to Francisco Tarrega that public interest was again awakened." He expanded the classical guitar repertoire with many transcriptions from Chopin, Beethoven, Mendelssohn etc. His technical instructions about the left-hand and right-hand techniques, his development of the rest stroke technique, his use of foot stool and decision to rest the guitar on the left thigh strongly influenced the next generations. He advocated playing without finger nails like Fernando Sor. He was also a very important teacher. Some of his students were Emilio Pujol, Miguel Llobet, Maria Rita Brondi, and Daniel Fortea (Noad, 1986: 12).

In the 20th century, the most influential figure of the classical guitar history was Andres Segovia (1893-1987). As Tarrega had done previously, Segovia expanded the repertoire with his transcriptions of several composers' pieces. Unlike Tarrega, Segovia asked important composers such as Federico Moreno Torroba, Manuel Ponce, Heitor Villa Lobos, Joaquin Turina, Mario Castelnuovo-Tedesco, Joaquin Rodrigo to compose for the classical guitar and many pieces entered the repertoire. Segovia played his recitals worldwide and made the classical guitar popular all around the world. Segovia was also an important teacher. Segovia's pupils such as Karl Scheit, Abel Carlevaro, Ida Presti, Alexandre Lagoya, Narciso Yepes, John
Williams, and Alirio Diaz formed a significant guitarist generation. Segovia made several recordings starting from 1927. Segovia also criticized Tarrega's perspective of not using finger nails and he advocated the combination of nail and flesh to play the guitar. Segovia had also an impact on the strings of the classical guitar. In 1947, Danish luthier Albert Augustine copyrighted the use of nylon strings with the support of Andres Segovia instead of gut treble strings (Wade, 2001: 132).

Tarraga's pupil Emilio Pujol (1886-1980) was also an important guitarist in expanding the repertoire. He has researched many 16th and 17th century vihuela and lute pieces and arranged, performed and published pieces by Milan, Narvaez, Mudarra, Pisador, Fuenllana, Valderrabano, Besard, Sanz, de Visee, Corbetter, Roncalli, Santiago de Murcia, J. S. Bach etc (Wade, 2001: 114). Some of the other important guitarists and composers of the first half of the 20th century were Miguel Llobet (1878-1938), Agustin Barrios Mangoré (1885-1944), Regino Sainz de la Maza (1896-1981), and Joaquin Rodrigo (1901-1999). Barrios was one of the first classical guitarist that make commercial recordings starting from 1913 (Wade, 2001: 111).

John Williams (b.1941), Manuel Barrueco (b.1952), Pepe Romero (b.1944), and Julian Bream (b.1933) were some of the eminent performers of the late 20th and early 21st centuries. Julian Breams' performance of Benjamin Britten's "Nocturnal After John Dowland" in 1964 and his album '20th Century Guitar Music' by contemporary composers in 1966 were examples of the significant turning points for the contemporary classical guitar repertoire which make use of various timbres, effects, colors, complicated rhythms, a vast array of dynamic markings, extended techniques, new notation system, various scordatura's etc. Many contemporary pieces were written for Bream.

The importance of composer guitarists continued in the late 20th and early 21st centuries with important figures such as Leo Brouwer (b.1939), Dusan Bogdanovic (b.1955), Nikita Koshkin (b.1956), Sergio Assad (b.1952), Paulo Bellinati (b.1950), Carlo Domeniconi (b.1947), Roland Dyens (b.1955) and Andrew York (b.1958). Some of the famous non-guitarist composers of the classical Western music that composed pieces for the classical guitar in the 20th century are Elliott Carter, Michael Tippett, Darius Milhaud, Benjamin Britten, Luciano Berio, Ernst Krenek, Maurice
Ohana, Goffredo Petrassi, Alberto Ginastera, Peter Maxwell Davies, Toru Takemitsu, Brian Ferneyhough, Giacinto Scelsi and William Walton.

By the early 21st century, the classical guitar became very popular throughout the world. There are many festivals, competitions, recitals, masterclasses, methods, scores, guitar duos, trios, quartets, orchestras etc. The number of compositions for the classical guitar by non-guitarist or guitarist composers has increased drastically. The teaching has become systematic and many good performers have been educated through this system. Developments in classical guitar making have resulted in guitars with more volume and better sound.

3.2 A Concise History of the Classical Guitar in Turkey

Until the end of the 1970s, there existed no academic institutions in Turkey with a classical guitar department. Therefore the historical approach can be divided into two periods: a pre-conservatory period before 1977 and the academic period after 1977. In the pre-conservatory period, some teachers were giving classical guitar lessons privately. One of these teachers was Andrea Paleologos (1911-1997), who was active in classical guitar education in Turkey until 1964. He was also one of the few performers to give classical guitar recitals in Turkey between 1931 and 1942. Some of his students were Can Aybars, Mario Parodi, Ziya Aydintan, Sava Palasis, Savas Çekirge, Misak Torosyan, Mutlu Torun, Raffi Arslanyan, Harun Batrbaygil (Kanneci, 2001: 18). These players started to give recitals and teach and the classical guitar became more known in Turkey.

Ziya Aydintan was the first to form a guitar orchestra and write a classical guitar method in Turkey. Other guitarists of the pre-conservatory period were İrkin Akktüze, Yüksel Koptagel, İhsan Turnagöl. Yüksel Koptagel published his compositions in 1958 in Germany and those pieces were one of the first compositions for classical guitar in Turkey (Kanneci, 2001: 19).

The academic period started with the opening of a classical guitar department at Mimar Sinan University State Conservatory in 1977. Well-known Italian guitarist Carlo Domeniconi was the teacher in this department for two years. After Domeniconi, Ertan Birol became the teacher. The first student who graduated from
this department was Erdem Sökmen who founded the classical guitar department at the Istanbul University State Conservatory in 1985.

Ahmet Kanneci founded the classical guitar department at Hacettepe University in 1985, Bilkent University in 1986, Anadolu University in 1990. Bekir KüşükKay in 1985, Yıldız Elmas in 1983 founded the departments at Gazi University and Marmara University respectively. During the 1980s, the few recitals were played mostly by Ahmet Kanneci and Bekir KüşükKay.

After the 1980s classical guitar competitions in Turkey motivated many guitarists to compose their own compositions. The first one was organized in 1983, called ‘National Guitar Music Composition Contest.’

Since the 1980s, classical guitarists have launched performance careers on standard repertoire as well as creating their own music by incorporating influences from Anatolian folk music and Ottoman/Turkish art music. These pieces fall into two categories: harmonization of folk melodies and compositions with East-West characteristics. Some of the guitarist composers and non-guitarist composers that created pieces in these categories are Bekir KüşükKay, Hasan Cihat Örter, Doğan Canku, Ahmet Kanneci, Melih Güzel, Kağan Korad, Kürşad Terci, Erkan Oğur, Ricardo Moyano, Carlo Domeniconi, Cem Duruöz, Mesut Özgen, Ceyhun Şaklar, Safa Yępem, Gilbert Biberian, Kemal Belevi, Cem Kütçümen, Nejat Başeğmezler, Ertuğrul Bayraktar, Ertuğ Korkmaz, Turgay Erdener, İstemihan Tavıloğlu and Onur Türkmen.

By the early 21st century, many festivals, competitions, recitals, masterclasses, have been organized in Turkey. In Bilkent University’s “2. Turkey Guitar Meeting” in 2007, 11 universities were represented by their teachers and students. The levels of classical guitar education and performance have reached international standards and the number of compositions and arrangements made for classical guitar is increasing year after year.

3.3 Performance Techniques

Classical guitar performance techniques are categorized under left-hand, right-hand and contemporary guitar techniques. In this chapter some flamenco guitar techniques will also be discussed. This is because the impact of oud techniques on some of the
flamenco guitar techniques is an example of a folk instrument’s influence on a Western instrument and also because there are similarities in some of the flamenco guitar techniques with bağlama performance techniques.

3.3.1 Left-hand Techniques

The left-hand fingers are named with numbers; 1 for the index, 2 for the middle, 3 for the ring and 4 for the little finger. The left-hand thumb is not given a number due to its position under the fretboard. The left-hand techniques are categorized under ornaments, glissando, vibrato and the bar technique.

3.3.1.1 Ornaments

The guitar ornaments are categorized under the ascending slurs, descending slurs, slur combinations and the cross-string ornaments.

3.3.1.1a Ascending slurs

An ascending slur is played by strongly striking one of the left-hand fingers onto the fret in order to produce a note without the right-hand plucking. Because the motion of striking is like hammering a nail, it is also called hammer-on. The ascending slurs are shown by a curved line placed under two or more different notes, the first is the plucked note and the other(s) are the note(s) produced by the slur (Figure 3.2).

![Figure 3.2: Ascending slur example.](image)

3.3.1.1b Descending slurs

A descending slur is executed by pulling down one of the left-hand fingers which is already depressing a string, into the adjacent string, causing to vibration of the open string or the fret that a left-hand finger is already pressing. The pulled off left-hand finger fulfills the function of plucking. It is notated by a curved line placed under two or more different notes, the first is the plucked note that is pulled and the other(s) are the note(s) achieved by pulling off the string (Figure 3.3).

![Figure 3.3: Descending slur example.](image)
3.3.1.1c Slur Combinations

There are many types of ornaments originated from the combination of ascending and descending slurs. Most of these ornaments emerged from the keyboard or lute music of the Baroque era. Some of these are the trill, *mordent*, *appoggiatura*, *gruppetto*. Each of these ornaments has a specific symbol. Some of the ornament types from J. S. Bach's table of embellishments from the *Klavierbuechlein* are as follows (Bach, 1994: 16):

![Trill, Mordent, Turn, etc.](image)

**Figure 3.4:** Some ornament types from J. S. Bach's table.

The most commonly used slur combination in classical guitar is the trill. When the ascending and descending slurs are played on the two adjacent notes one after another, one or more times, the ornament type that is generated is called a trill. It is shown by the abbreviation *tr* or the symbol that is shown above. The number of slurs in a trill changes according to the tempo, performer, the style of the piece, the meter etc. Although other ornaments are also used in many pieces (for example the *mordent* is a popular ornament), the symbols or the titles of the Baroque era are not generally used by the composers in the 20th and 21st century guitar notation. Instead, these ornaments are shown by the note values.

The slur combinations can be shown with grace notes. Grace notes are smaller in size than the note they precede and they are placed on the left side of the note with a curved line tied to the main note. There is a small line crossing the note's stem (*q*). In Figure 3.5, two examples of the slur combinations were shown with grace notes.

![Grace Notes](image)

**Figure 3.5:** The slur combination examples.
3.3.1.1d Cross-string Ornaments

When the trills, mordents, turns and other kinds of ornaments are played on two adjacent strings with an arpeggio technique rather than on one string with the ascending or descending slurs, the ornament type is called a cross-string ornament. The notes of the cross-string ornaments sound simultaneously. Figure 3.6 shows two kinds of cross-string ornaments with a trill, the first without the bass and the second with the bass.

![Figure 3.6: Cross-string ornament examples.](image)

According to Isbin (1999, 41), “Cross-string fingerings are most commonly used for Baroque ornaments that call for extra clarity and articulation, dynamic control, and/or lyricism.”

3.3.1.2 Glissando

The French term glissando means ‘to slide,’ derived from the verb glisser. In this technique, a pressed note is plucked and a left-hand finger slides down or up to the desired fret. When the left-hand finger reaches that fret, the right-hand finger can pluck the string again. It is shown by a line that combines the two notes (Figure 3.7).

![Figure 3.7: Glissando example.](image)

Sometimes the abbreviations for glissando (gliss.) can be inserted above the line. A glissando in electric guitar is called a ‘slide.’ Sometimes classical guitarists use the term ‘slide’ instead of glissando.

3.3.1.3 Vibrato

In the vibrato technique, the left-hand finger presses a fret and makes a horizontal movement (parallel to the strings) to the left and right in a rapid or slow manner while remaining on the fret and without releasing the pressure. This technique is
important for the articulation of the melody. It is used to emphasize some of the
individual notes of the melody. It increases the sustain period of the note. Although
vibrato is sometimes shown with the abbreviation vib. or some other symbols,
composers generally don't indicate it with letters or symbols and leave it to the
interpretation of the guitarist. The vibrato technique is also a way for obtaining
microtones (see 3.3.3.2f). In electric guitar, the vibrato movements are perpendicular
to the strings in contrast to the classical guitar vibrato's horizontal movement.

3.3.1.4 The Bar (fr. Barré)

The bar is executed by placing the left-hand's first finger across the required number
of strings in a straight or curved manner on a selected fret. The bar serves the
function of a nut. It is very common to play chords with the bar technique which are
sometimes called "bar chords." The bar is generally shown with a Roman numeral
placed above the notes indicating the fret number that the bar is placed⁴ (Figure 3.8).

![Figure 3.8: The bar example.](image)

3.3.1.5 The Snare Drum Effect

By crossing the two adjacent bass strings and holding them with the left-hand
fingers, one can achieve a sound similar with the snare drum. Francesco Tarrega
crossed 5th and 6th strings and use this effect in his piece Gran Jota. In the notation of
the piece, the Italian word tamburo was used which means drum. Tarrega used a
plus-like sign for a notehead (Figure 3.9).

![Figure 3.9: Notation for the snare drum effect.](image)

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⁴ Sometimes the roman numerals are written next to the letters 'B' or 'C'.
3.3.2 Right-hand Techniques

After several debates and experiments throughout the 19th and 20th centuries, it is generally accepted that the classical guitar is played by striking the strings with a combination of right-hand nails and fingertips. The shape of the nails and the angle of the fingers to the strings changes depending on the preference of the guitarist. The right-hand fingers are named after the first letters of the Spanish words: ‘p’ (pulgar meaning the thumb), ‘i’ (indice meaning the index finger), ‘m’ (medio meaning the middle finger) and ‘a’ (anular meaning the ring finger). Although in classical guitar literature the little finger (‘c’ from chico which means little, ‘e’ from meñique which means tiny, or ‘x’) hasn’t been used extensively, the little finger has a significant role in the flamenco guitar strumming techniques.

Melodies and scales are generally played by alternating two fingers (‘i’, ‘m’; ‘i’, ‘a’ or ‘m’, ‘a’). Various alternations of three or four fingers (for example ‘i’, ‘m’, ‘a’; ‘p’, ‘m’, ‘i’ or ‘p’, ‘a’, ‘m’, ‘i’) are also used on some occasions such as fast scale passages. The thumb (p) can either be played independently or alternating with the ‘i’, ‘m’ or ‘a’ fingers.

The right-hand techniques are categorized under the plucking techniques, arpeggio, tremolo, strummed techniques, harmonics, pizzicato, staccato, tambora and tone production techniques.

3.3.2.1 Plucking Techniques

There are two main plucked techniques, the free stroke and the rest stroke. The free stroke is generally used in chord plucking and arpeggios. Both of them are used when playing melodies or scales. Sometimes the rest stroke is more advantageous for more volume and speed than the free stroke. These plucking styles also create different tone qualities. According to Sharon Isbin, the performer’s choice of the stroke kind depends on the projection, articulation, phrasing, rhythm, color and musical character (Isbin, 1999: 39).

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5 The letter (e) for the little finger is preferred for this thesis.

6 Charles Postlewate wrote an article entitled "Extending right-hand technique to include the little finger" in which he discussed the history of the little finger use in classical guitar literature and he provided exercises to integrate it with the other fingers (Postlewate: 2002). Safa Yeprem also advocated the use of the little finger in classical guitar and he wrote etudes for this purpose (Yeprem: 2003).
3.3.2.1a The Free Stroke

The free stroke is also called *tirando*, meaning 'pulling' in Spanish. The free stroke is executed by plucking a string upward toward the palm with the ‘i’, ‘m’ or ‘a’ fingers individually or in specific combinations. The thumb plucks the string downward. After the right-hand finger plucks the string, there is no contact with an adjacent string.

3.3.2.1b The Rest Stroke

The rest stroke is also called *apoyando*, meaning ‘resting’ in Spanish. The rest stroke is played by resting a right-hand finger on the upper or lower adjacent string after plucking a string. If the string is played *apoyando* with the thumb, the thumb rests on the lower adjacent string. If the string is played with ‘i’, ‘m’ or ‘a’ fingers, the fingers rest on the upper adjacent string.

3.3.2.2 Arpeggio

The term arpeggio derives from the Italian word *arpeggiare* which means to play the harp. The arpeggio is generally played with the free stroke technique. The exceptions are when the thumb and ‘a’ finger accent a desired note with a rest stroke during an arpeggio. It is executed by playing each note of any chord one after another on different strings. During an arpeggio, individual notes might include more than one note. Many arpeggio patterns are possible on the guitar. One of the best examples of an arpeggio pattern is Heitor Villa Lobos' arpeggio study "Etude No.1." This etude is based on an arpeggio pattern that covers all the strings of the guitar (Figure 3.10).

![Allegro non troppo](image)

*Figure 3.10: Villa Lobos' Etude No.1 introduction part.*

3.3.2.3 Tremolo

In bowed string instruments the tremolo is executed by repeatedly playing a single note for the duration of a specific note value. In classical guitar, the tremolo technique is executed by playing a single note three times on the same string with the ‘a’, ‘m’ and ‘i’ fingers consecutively with the free stroke technique after a bass note
is played with the thumb. The tremolo technique provides the effect of a sustained upper voice. Although the most commonly used tremolo pattern is executed by the consecutive fingering ‘p’, ‘a’, ‘m’ and ‘i’, there can be different variations of this pattern. Francesco Tarrega’s piece *Recuerdos de la Alhambra* is one of the most famous tremolo piece of the classical guitar literature with the standard ‘p’, ‘a’, ‘m’, ‘i’ pattern (Figure 3.11).

![Andante](image)

**Figure 3.11:** Francesco Tarrega’s *Recuerdos de la Alhambra* introduction part.

The flamenco guitar tremolo generally consists of five notes and the most common pattern is ‘p’, ‘i’, ‘a’, ‘m’, ‘i’.

### 3.3.2.4 Strumming Techniques

There are various strumming patterns with the right-hand for the classical guitar. The most common is a downward stroke played with the thumb or index finger from 6th string to the 1st in a rapid manner. It is generally shown by an upward arrow together with the letter of the related right-hand finger (Figure 3.12).

![Downward stroke](image)

**Figure 3.12:** Downward stroke example.

If this downward stroke is played with the thumb like a fast downward arpeggio, it is called an arpeggiated down stroke. It is shown by a different kind of arrow (Figure 3.13).

![Arpeggiated down stroke](image)

**Figure 3.13:** An arpeggiated down stroke.
The classical guitar strumming techniques are strongly influenced by the flamenco rasgueado techniques and many of these rasgueado patterns have been used in the classical guitar literature, especially in the works of the Spanish composers such as Joaquín Turina, Manuel de Falla, Joaquin Rodrigo etc. One famous example is the arrangement of Manuel de Falla's Dance of the Miller, which contains flamenco rasgueado patterns. In Figure 3.14, the triplet rasgueado pattern is used. The right-hand finger choice is left to the performer in this score.

![Figure 3.14: Rasgueado patterns in Dance of the Miller.](image)

The rasgueado technique is also used in the contemporary classical guitar repertoire as a way of sustaining the chords and as an effect. For example Tristan Murail used the technique extensively in his piece Tellur. In the contemporary classical guitar repertoire the rasgueado can be also played on one string. According to Andia (URL-7), “The rasgueado on one string can be executed on any string on the condition that neighboring strings are damped by the left hand.”

3.3.2.5 Harmonics

Harmonics are the overtones that are produced by dividing a string in specific ratios. There are two ways to produce harmonics.

3.3.2.5a Natural Harmonics

Natural harmonics are executed by leaning one of the left-hand fingers on the related fret and touching the string lightly. This is followed by the plucking of the string and lifting the left-hand finger. It is important that the left-hand finger should touch onto the fret wire rather than the conventional part of the string between frets. It is generally shown with the abbreviation harm. written on top of a diamond note-head at the pitch of the resulting note, together with the position number written in roman or standard numerals and sometimes the string number (Figure 3.15).
Sometimes the symbol ‘o’ is placed on top of a note to indicate the harmonics.

3.3.2.5b Artificial Harmonics

It is possible to produce harmonics anywhere on the string by generating a ratio of the natural harmonics from particular frets with the help of the left and right fingers. One left-hand finger presses a fret and the right-hand index finger touches onto the fret wire on the same string generally 5, 7, 9 or 12 frets above the pressed fret. While the right hand ‘i’ finger is still in place, the right-hand thumb or the ‘a’ finger plucks the string. Artificial harmonics are shown with the abbreviation *harm. with the right-hand, art. harm.* or just *r.h* (right-hand) written on top of a diamond note head, together with the position number written in roman or standard numerals and sometimes the string number (Figure 3.16).

![Figure 3.16: Artificial harmonic example.](image)

3.3.2.6 Pizzicato

The Italian word *pizzicato* means plucked. The *pizzicato* technique is executed by resting the side of the right-hand’s palm above the saddle and muting the strings. This is followed by plucking the string generally with the thumb. The other fingers (‘i’, ‘m’ or ‘a’) can also be used. The plucked notes sound muted and thus sustain less than the non-*pizzicato* notes. *Pizzicato* is shown with the abbreviation *pizz.* (Figure 3.17).

![Figure 3.17: Pizzicato technique example.](image)
The *pizzicato* types, Bartók *pizzicato* and the surface *pizzicato* are used in the contemporary guitar repertoire (see 3.3.3.1 and 3.3.3.2e respectively).

### 3.3.2.7 Staccato

The Italian word *staccato* means detached or untied. *Staccato* results in very short length notes. The note is played and stopped immediately by the right-hand or the left-hand. The staccato techniques can also be applied to damping notes. The staccato symbol is a dot that is placed above or below the note (Figure 3.18).

![Figure 3.18: Staccato technique example.](image)

The two styles of *staccato* are as follows:

#### 3.3.2.7a The Right-hand Staccato

The right-hand *staccato* is executed in various ways. One method is to alternate the fingers: after one of the fingers (except the thumb) plucks a string, the other finger stops the ringing string immediately by touching it and remaining on it. When the note is played with the thumb, the thumb plucks the note and immediately stops the ringing string itself by resting on it. When two or more strings are plucked, they are stopped by immediately lowering the right-hand fingers onto the related strings. In order to stop all the strings after a chord is played with a strumming technique, the right-hands palm touch the strings and stops them by remaining on them immediately after the chord is played.

#### 3.3.2.7b The Left-hand Staccato

The left-hand staccato is executed in two ways. The first is to pluck a pressed note and then release the left-hand fingers pressure until the note stops while keeping the finger on the string. The other way is to use the unused left-hand fingers to stop the vibrating string by leaning onto it, touching it and remaining on it. In flamenco guitar, the left-hand *staccato* is named *apagado* which means muted in Spanish. It is executed by the fourth finger, generally after a chord is played. The fourth finger stops all the strings by touching them immediately after a chord is played and remaining on them.
3.3.2.8 Tambora

The term *tambora* came from the Spanish word *tambor*, meaning a drum. As the term describes, this is a percussive technique. It is executed by hitting the side of the thumb of the right-hand onto the bridge or onto the strings just near to the bridge. Generally a chord is placed by the left-hand when the *tambora* technique is played. The abbreviation *tamb.* placed above or below the related notes and the crossed note head is sometimes used (Figure 3.19).

![Tambora](image)

*Figure 3.19: Tambora technique example.*

3.3.2.9 Tone Production Techniques

The classical guitar is a rich instrument in terms of the range of timbres. It’s seen as a ‘small orchestra’ by many musicians. According to Schneider (1985: 99), Fernando Ferandièrè is one of the first to describe the potential of the guitar to imitate instruments such as flutes, trumpets, oboes in 1799.

The location of the plucking right-hand finger on the soundboard is decisive for tone production. Generally the right-hand plucks the strings above the rosette next to the hole. It may move closer to the bridge (*sul ponticello*) in order to create brighter and metallic tones or move over the fretboard (*sul tasto*) to create softer sounds. Contemporary composers and guitarists are especially likely to indicate the region they want, above the staff with the terms *sul ponticello* or *sul tasto*.

The choice of flesh or nail playing with the thumb also effects the tone production. Some composers and guitarists also indicate this choice in their notation. The choice of free-stroke or rest-stroke also change tone color, but it is not generally mentioned by the composers and guitarists. The string preference is also significantly alters the timbre.

3.3.3 Contemporary Techniques

In the second half of the 20th and early 21st century, parallel with trends in avant-garde music; new timbres, sounds and effects were being explored by the composers/guitarists. The classical guitar has a rich palette of colors and range of
timber. This characteristic allows the invention of many new techniques for the classical guitar. These contemporary techniques are categorized under the percussive techniques, techniques to obtain microtones, the use of an apparatus, tapping techniques, multiphonics and the prepared guitar.

3.3.3.1 The Percussive Techniques

The classical guitar is rich in percussive effects due to its box-shaped resonator. The guitarists and composers of the 20th and 21st centuries have used this advantage and created various new percussive techniques. Any part of the guitar can be used for percussive effects. There is no standard method of showing percussive techniques in notation. Each composer or guitarist creates symbols and writes instructions.

A percussive effect can be either played independently with the right-hand and the left-hand like playing a percussive instrument or with the right-hand simultaneously with the notes executed by the left-hand fingers. Paulo Bellinati’s percussive section in his piece Jongo for two guitars is an example of the former type: Both hands are used to slap the strings, fretboard and the several parts of the body. Each note on the staff refers to the parts of the guitar that will be slapped (Figure 3.20).

![Figure 3.20: Paulo Bellinati, Jongo, the beginning of the percussive section.](image)

For the latter type, Roland Dyens’ jazz arrangement of A Night in Tunisia includes right-hand percussive effects on the soundboard while the left-hand is playing notes with the slurs (Figure 3.21).
Contemporary guitarists/composers use the snare drum effect that was mentioned in 3.3.1.5 in their pieces as a percussive effect. For example Nikita Koshkin used this effect in *The Prince’s Toys, Doll with Blinking Eyes* and *Grand Puppet’s Parade* movements. Sometimes instead of holding the string, the snare drum effect is achieved by pushing the 2nd or the 5th strings off the edge of the fretboard behind the 1st and 6th strings respectively and fixed there.

A special type of *pizzicato* named ‘Bartók pizzicato’ can be categorized under the percussive techniques. The term came from the Hungarian composer Béla Bartók’s last name. Bartók used this technique for bowed string instruments. In this technique the right-hand plucks the string very strongly in order to produce a *forte-fortissimo (fff)* snapping sound. A percussive sound is generated from the strings bouncing across the frets. It is generally shown with a symbol together with the abbreviation *Bartók Pizz*. This technique is similar to the bass guitar’s slap technique (Figure 3.22).

![Bartók pizz. symbol](image)

**Figure 3.22:** Bartók *pizzicato* technique example.

As an example, Nikita Koshkin played a muted Bartók *pizzicato* on the 6th string to create an effect in his piece *The Prince’s Toys, Mechanical Monkey*.

### 3.3.3.2 The Techniques to Obtain Microtones

Throughout the 20th and 21st century, microtonal music has achieved a significant place in contemporary classical Western music. The term *microtone* is used for an interval less than a half tone. Microtonal music refers to pieces that use microtones in
contemporary Western classical music repertoire. In addition to this, it also encompasses music that uses intervals other than the equally-tempered 12 notes of an octave. Furthermore, in the makam-based music of the Middle East, the microtones are essential elements of the music. On conventional guitar fretboards, the frets are a half tone apart to provide notes for the equal temperament system. Thus new techniques to obtain microtones were needed. To date, many guitarists/composers have tried various techniques to achieve microtones on classical guitar.

3.3.3.2a Bending

Microtones can be achieved by bending the strings with the left hand fingers. When a string is bent, the pitch gets higher like a glissando on a fretless instrument. For example, Ricardo Moyano in his arrangement of Aşık Veysel’s Kara Toprak and Hasan Cihat Örter in Çökturmė used string bending in order to obtain microtones of the related makam. Maurice Ohana in his Tiento, Yoshihisa Taira in his Monodrame III also used the bending technique.

3.3.3.2b Tuning of a String

Microtones can be achieved by tuning an open string to a specific microtone. All the frets on the re-tuned string will be different from the other strings and frets. For example, in Two Miniatures, a piece for two guitars by Tolga Tüzün, one of the guitars has been tuned a quarter tone higher than the other guitar. Brian Ferneyhough also tuned some of the open strings in quarter tones in his piece Kurze Schatten II (Figure 3.23).

![scordatura:](image)

**Figure 3.23**: Brian Ferneyhough, Kurze Schatten II, tuning required.

A string's tuning can also be changed in the course of the performance. The performer plucks the string and then turns the related tuning peg and thus achieves microtones. Lo (1999: 97) called this technique scordatura-glissando. This technique was used in pieces such as Turgut Poğuç’s Makine Bozuluyor mu?, Tristan Murail’s Tellur, Carlo Domeniconi’s Circus Music, The Ural Magic Voice and the Don Cossacks.
3.3.3.2c Plucking Behind the Fretting Finger

When a hammer-on is executed on the fretboard with the left-hand finger, it causes two different vibrations on the string that is played, one is on the right part of the string which is heard strongly and the other one is on the left part of the string which is heard softly. Schneider (1985: 126) named these notes *bi-tones*.

Plucking behind the fretting finger creates many microtones. In order to achieve this, one of the left hand fingers presses on a fret and then, the right hand plucks the string between the pressed fret and the nut. This technique was used in pieces such as Ceyhun Şaklar’s *Imitations of Anatolia, No.3*, Carlo Domeniconi’s *Sindbad*, Gilbert Biberian’s *Sonata*. In Figure 3.24, Şaklar used the 4th string. He wrote the fret numbers above the notes. The right-hand plucks the string between the pressed fret and the nut.

![Figure 3.24: Ceyhun Şaklar, Imitations of Anatolia, No.3, introduction.](image)

Playing the strings on the headstock is also included in this method. When the strings above the nut are vibrated, microtones are achieved. The guitarists/composers use these strings as an effect. This was used in pieces such as Alberto Ginastera’s *Sonata*, Jaime M. Zenamon’s *Casablanca*, Nikita Koshkin’s *The Prince’s Toys, Tin Soldiers*. In Figure 3.25, Zenamon wants the notes played behind the bridge.

![Figure 3.25: Jaime M. Zenamon, Casablanca, measure 9.](image)

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3.3.3.2d Using a Device for *Glissando*

Electric guitar slides, pencils or even pestles can be used to achieve microtones by playing *glissando* technique on the classical guitar. These tools are touched gently on a string and allow obtaining microtones when *glissandi* are made. For example, Mustafa Tınç has used a pestle to play microtones in his piece for two guitars entitled *It Takes Two*.

3.3.3.2e Surface *Pizzicato*

The left-hand fingers and sometimes fingernails touch the string gently without pressing the fret. When the related string is plucked, an effect is created. When the fingers are moved along the fretboard, microtonal effects are created as in a fretless *glissando*. Gilbert Biberian named this technique *surface pizzicato* and notates it with triangular note-heads (Schneider, 1985: 123). Paulo Bellinati in *Lun Duo*, Tristan Murail in *Tellur*, Maurizio Pisati in his transcription of Salvatore Sciarrino's *Addio A Trachtis*, Leo Brouwer in *La Espiral Eterna* and Gilbert Biberian in *Prisms II* used this technique to achieve microtones. In Figure 3.26, Brouwer used the letter (x) next to the notes to indicate the surface *pizzicato* technique.

![Figure 3.26: Excerpt from Leo Brouwer's *La Espiral Eterna.*](image)

3.3.3.2f Horizontal Vibrato

After a fret is pressed by a left-hand finger, a microtone can be achieved by moving the pressed finger to the left or right as in a horizontal vibrato without releasing the pressure. The pitch gets higher when the finger moves to the left and lower when it moves to the right. According to Lo (1999: 94), “The amplitude of the pitch fluctuation ranges from less than a quartertone on lower frets to a potential of more than a semitone on the twelfth fret.”

Besides these solutions to obtain microtones on standard guitars, the guitarists/luthiers have also strived to change the fretting systems of the classical guitar's fretboard. To date; fretless guitars, guitars with the fretlets (little frets) on their fretboard, guitars with interchangeable fingerboards, guitars with the fine-
tunable precision fretboards and the author's design 'adjustable microtonal guitar' have been tried and used.

3.3.3.3 Use of a Device

Various devices have been used to create different effects on the guitar. These can be bows, electronic ventilators, pencils, pestles etc. For example the Turkish composer Mustafa Tinç used a pestle rubbed on the strings to obtain sound effects as in an electronic music in his piece *It Takes Two*. Michael Quell uses a violin bow for his piece *Enigma* to achieve sustained notes and new timbres. The Bolivian composer Jaime Zenamon used an electric hand fan and achieved a continuous tremolo by making the fan's propeller hit to the strings in his piece *Casablanca*. This effect is similar to the e-bow\(^7\) effect used for electric guitars (Figure 3.27).

![Figure 3.27: Jaime M. Zenamon, *Casablanca*, measures 176-185.](image)

3.3.3.4 Tapping

Although tapping means to make ascending and descending slurs with the right-hand, a tapping pattern is created with the combination of the right-hand and left-hand's slurs. The tapping technique was first used on a electric guitar in the 1950s by Jimmie Webster. Two methods (one-handed/ordinary and two-handed) have been used in electric guitar. The electric guitar tapping was developed by guitarists such as Emmett Chapman, Stanley Jordan, Eddie Van Halen, Dave Celentano. In acoustic

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\(^7\) E-bow (electronic or energy bow) is an electronic device that vibrates the strings in a continuous motion via the electromagnetic field that is created by the device.
guitar especially after 2000, some players such as Andy McKee, Antoine Dufour often used the tapping technique in combination with some percussive effects.

Tapping is not a common technique in classical guitar due to the presence of the nylon strings. It is more difficult to sound the notes by tapping on nylon strings than steel strings. Nevertheless the technique is used by some of the composers and guitarists such as Roland Dyens, Andrew York, Nikita Koshkin, Ceyhun Şaklar, Tristan Mualr, and Leo Brouwer. In classical guitar the tapping pull-off is generally executed upwards parallel to the fretboard in contrast to the electric guitars downward tapping pull-off. There is no standard notation for the tapping technique.

3.3.3.5 Multiphonics

Creating multiphonics was especially developed for the woodwind instruments in 20th century contemporary classical music. According to Schneider (1985: 136), “multiphonics occur when, through the use of unusual performance techniques certain partials normally present in a tone are made to stand out or by changing embouchure or fingerings, new partials are created.” Multiphonics are generated like the natural harmonics from specific points of the fretboard especially on bass strings. For example, by playing a harmonic on the 6th string by leaning one of the left-hand fingers over the 6th fret wire or a little left to the 3rd fret wire, multiphonics are achieved.

3.3.3.6 Prepared Guitar

John Cage was the inventor of the prepared piano in which many objects are inserted on or between the strings in search for new sounds and effects. The classical guitar is also an appropriate instrument for this kind of preparation with its six strings. For example Turkish composer Mustafa Tinç inserted a piece of paper between the strings above the rosette in his piece It takes two. The performer plays some notes with the presence of this paper. Composers generally provide a detailed description for the preparations. Dusan Bogdanovic also prepared the guitar in his Gamelitarr Music by combining the 6th - 5th and 4th - 3rd strings by a staple.
3.3.3.7 Other Contemporary Techniques

Many contemporary guitarist/composers find new techniques and name them differently. The left-hand or right-hand finger nails or a plectrum can be grated across the bass strings and create an effect. This technique was used in pieces such as Carlo Domeniconi’s Circus Music, Duck Race and The Yogi Who Disappears Through the Key Hole movements, Paulo Bellinati’s Lun Duo, Nikita Koshkin’s The Prince’s Toys, Doll with Blinking Eyes and Grand Puppet’s Parade movements, Leo Brouwer’s La Espiral Eterna.

The palm of the hand is used to brush all strings and results in an effect. Paulo Bellinati called this technique esfregato. Rafael Andia used the pad of the right hand thumb to create a similar effect. Andia named this technique rasgueado without nail.

Rafael Andia played a technique that he called Elytron Noise (URL- 8). He described this technique as follows:

"This is a very high buzzing that one can obtain by pushing the 6th string off the edge of the fret board between the 5 and VIII frets with the first finger of the left hand, and by a standard playing of the right hand. With the other three fingers on the following frets we have three quite perceptible supplementary pitches."

3.3.4 Related Flamenco Guitar Techniques

3.3.4.1 Rasgueado

The word rasgueado derived from the verb rasguear which means to strum in Spanish. In flamenco guitar the role of the right-hand is different from the classical guitar right-hand due to the importance of the strumming patterns. The rhythmic patterns of the flamenco forms are called compás (meaning measure) and are executed by many patterns of rasgueados. The basic rasgueado pattern is executed by striking the strings with the back of the fingernails by the ‘e’, ‘a’, ‘m’ and ‘i’ fingers downwards one after another (Figure 3.28).

![Figure 3.28: The basic rasgueado pattern.](image)
There are various rasgueado patterns with two or more strokes. In the classical guitar literature, there are many examples of flamenco guitar rasgueados (see 3.3.2.4 strumming techniques).

3.3.4.2 The Thumb and Alzapúa Technique

The position and the playing style of the thumb in flamenco guitar is different from the classical guitar's in terms of the playing style which is rest stroke and the position of the wrist which is more vertical than the classical guitar's linear position. The strong rest stroke use of the thumb has emerged due to the need to be heard with the singing, clapping, foot-tapping elements of the flamenco music (Tennant, 1995: 42).

The thumb style of flamenco guitar has its roots in the Moorish oud, a bowl-shaped fretless necked folk lute. The oud is played with the plectrum in down and up strokes. Parallel with this, the flamenco guitar's alzapúa technique is executed by the thumb's downward and upward strokes. Therefore the back of the nail is used in the upward strokes. The term alzapúa derived from the word alzar which means to lift and púa which means plectrum in Spanish (Martin, 1978: 79). In alzapúa, the thumb plays downward and upward strokes in one or more strings together with a golpe (see 3.3.4.3 golpe) (Figure 3.29).

![Figure 3.29: An alzapúa pattern.](image)

3.3.4.3 Golpe

The word golpe means to hit in Spanish. It is usually executed by the 'a' finger, which hits the area below the soundhole. It is generally shown with a square, placed above the staff. The golpe can be executed without any notes or simultaneously with a downward stroke with the 'i' finger (Figure 3.30).
The area of the flamenco guitar on which the *golpe* is played, is covered with a special material called *golpeador* to protect the wood from any damage that can be caused by the fingernail. The *golpe* is generally used on the strong accents of the *compás* at the same time as a chord or a note.

Another type of *golpe* is played on the side of the fretboard above the *tasto* region. When a chord is played, the right-hand ‘i’ or ‘m’ fingers first hits this location and produces a percussive sound. After this, it continues its downward stroke by playing the strings. It can also be executed with the thumb of the right-hand with an upward stroke in the same manner. In classical guitar, the *golpe* is not used except for some pieces in the contemporary repertoire. This is probably due to the lack of *golpeador* on classical guitar. The *golpe* styles of the flamenco guitar are also found in similar manners in *bağlama* performance techniques.

3.3.4.4 *Arrastre*

The word *arrastre* means to pull in Spanish. *Arrastre* is a rapid arpeggio technique. The arpeggio starts with the ‘p’, ‘i’, ‘m’ and ‘a’ downward arpeggio and then an upward arpeggio across all the strings is achieved by dragging the ‘a’ finger up (Figure 3.31).

*Arrastre* has also variations which use upward arpeggio with the ‘i’ finger after the ‘a’ finger.
4. **BAĞLAMA TECHNIQUES IN THE CLASSICAL GUITAR LITERATURE**

Starting from the late 1970s, the classical guitar repertoire in Turkey began to include new pieces that can be categorized as ‘East-West synthesis pieces.’ These pieces are divided into two categories, pieces involving the harmonization of folk melodies and compositions with Western, and Anatolian folk music and Ottoman/Turkish art music characteristics. These categories are in line with the cultural policies of the Turkish Republic since 1923.

According to Ziya Gökalp (Behar, 1985: 1225), who was an influential figure regarding cultural policies, the new national music should be formed from the synthesis of folk music and Western music by collecting folk songs and harmonizing them in Western styles. Many composers such as the Turkish Five \(^1\) composed pieces from this perspective. Therefore it is a natural consequence that the cultural policies are reflected in the classical guitar repertoire in Turkey.

Although the focus is on the harmonization approach and the adaptation of Western styles in the ‘East-West synthesis pieces’ of the classical guitar repertoire, the influences of bağlama performance techniques are found due to the prevalence of bağlama in Anatolian folk music. But few bağlama techniques are used in these pieces. Bağlama ornaments and the basic tezene techniques are the most commonly used techniques. In a few pieces some of the tezene rhythmic patterns are found. Some contemporary bağlama techniques such as finger tapping can also be found especially in the pieces of the early 21\(^{st}\) century.

4.1 **Left-hand Techniques**

Bağlama ornaments have been used in the classical guitar repertoire. The other bağlama left-hand technique, kstrma, can’t be used in classical guitar due to the lack of courses. The bağlama vibrato is similar to the electric guitar vibrato’s vertical

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\(^1\) The composers Ferit Alnar, Necil Kazım Akses, Ulvi Cemal Erkin, Cemal Reşit Rey and Ahmet Adnan Saygun were known as ‘Turkish Five.’
motion and is not preferred on the classical guitar. The *bağlama glissando* is the same as the classical guitar *glissando*.

The characteristic *bağlama* ornaments, *vurma*, *çekme* and the slur combinations are the most commonly used *bağlama* performance techniques in classical guitar literature. Because many combinations of these ornaments have been utilized on the classical guitar since the Renaissance era, it is difficult to differentiate *bağlama* ornaments from classical guitar ornaments. But the left-hand horizontal movement ornaments are characteristic of *bağlama* playing and have been applied to the classical guitar.

When the half-tone or whole-tone *vurma* is used as a melodic embellishment, it is called a *çarpma* and this is very characteristic *bağlama* ornament especially in ascending or descending scales (see 2.2.1.1d). In these scales, the movement of the left-hand is generally horizontal while the guitar’s is vertical.

One example is from Behzat Cem Günenç’s *Çay Elinden Öteye* arrangement for three guitars. Günenç used many *çarpmas* in the ascending and descending scales that are played by the first and third guitars (Figure 4.1).

![Figure 4.1: Behzat Cem Günenç’s Çay Elinden Öteye arrangement, measures 141-150.](image-url)
The idea that çarpmas could be played as cross-string ornaments on any of the two adjacent strings is used by Bekir KütçüKay. In his Anatolian Suite’s fourth movement Halay, by playing çarpmas in this way, Bekir KütçüKay created minor second intervals sounding in each beat (Figure 4.2).

**Figure 4.2:** Bekir KütçüKay, Anatolian Suite, Fourth Movement Halay, measures 1-6.

In Carlo Domeniconi’s variations on Aşık Veya’s Ulun İnce Bir Yoldayım, especially in the 3rd, 5th variations and the final section, many ornaments are used. Some of these are very characteristic of the performance of Anatolian folk melodies. Domeniconi sometimes uses cross-string ornaments. In Figure 4.3, çarpma and çekme are used in the cross-string ornaments in the second and third measures and these types of ornament are common in bağlama playing.

**Figure 4.3:** Carlo Domeniconi’s Ulun İnce Bir Yoldayım arrangement, 3rd variation, measures 1-3.

In Cem Duruöz’s Sart Gelin arrangement, a çarpma idea is applied to two strings. Duruöz doesn’t use hammer-ons on the 32nd notes (Figure 4.4).

**Figure 4.4:** Excerpt from Cem Duruöz’s Sart Gelin arrangement, measure 8.

The bağlama çekme ornament is similar to the classical guitar’s descending slur. One exception can be the larger intervals such as the augmented seconds used in the Anatolian folk melodies as ornaments. Kağan Korad and Cihat Aşkin’s Ferahi Zeybeği arrangement includes this kind of çekme. In Figure 4.5, on the 7th beat of the first guitar, there is a çekme with the augmented second interval:
In the classical guitar repertoire, many bağlama slur combinations especially trills are used. For example, in the introduction part of Ricardo Moyano’s arrangement of Aşık Veysel Şatıroğlu’s Kara Toprak (Black Earth), many bağlama slur combinations including long trills, chromatic vurmas and çekmes are employed (Figure 4.6).

The trills can also be played as cross string ornaments on two adjacent strings. The minor second trills are played on two adjacent strings in Zekierye Kaptan’s Haydar Haydar arrangement (Figure 4.7).

In Zekierye Kaptan’s Haydar Haydar arrangement, the other important point is the çekme ornament in the first beat that is executed after playing the open 4th string. This ‘late çekme’ is also a characteristic bağlama ornamentation (Figure 4.7).
Many bağlama slur combinations were used by Ertuğrul Bayraktar in his Ham Meyva arrangement (Figure 4.8).

Figure 4.8: Excerpt from Ertuğrul Bayraktar's Ham Meyva arrangement.

Dotted rhythms with vurma are very characteristic of bağlama playing. Ertuğ Korkmaz used these kinds of ornaments in his Yalan Dünya arrangement. He used both glissando and vurma in Figure 4.9.

Figure 4.9: Excerpt from Ertuğ Korkmaz's Yalan Dünya arrangement.

In Mutlu Torun’s İzmir Zeybegi arrangement, a combination of glissando and vurma is played. This is found in the first two beats of the 3rd measure (Figure 4.10).

Figure 4.10: Mutlu Torun’s İzmir Zeybegi arrangement, the first two beats of measure 3.

4.2 Tezene Techniques

4.2.1 Basic Tezene Techniques

Basic tezene techniques that include down and up strokes, and continuous strokes have been used by guitarists in their pieces.

Tezene down and up strokes are commonly used in the repertoire with techniques similar to classical guitar strumming techniques and flamenco guitar rasgueado patterns. In Ricardo Moyano’s arrangement of Aşık Veysel Şatiroğlu’s Kara Toprak, Moyano uses down and up strokes on all strings, playing the melody from the bass 5th and 6th strings and use other strings as drones (Figure 4.11).
This approach is the reversed version of bağılama playing style in which the melody is played in bozuk tuning on the 1st course while the plectrum or finger strokes all three courses, sounding the drones.

In Mutlu Torun’s İzmir Zeybeiği arrangement, the individual up stroke is used. In Figure 4.12, up strokes are on the last 16th notes and they should be played with accents.

Down and up strokes together with vurma or çekme ornaments are very characteristic of bağılama performance. In Bekir Kıcıkay’s Arıç arrangement for classical guitar and voice, down strokes are followed by an ascending slur on second measure’s last three beats (Figure 4.13).

In Gilbert Biberian’s arrangement of Ali Ekber Çiček’s Haydar Haydar, many down and up strokes together with vurmas and çekmes are seen (Figures 4.14 and 4.15).
In Figure 4.15 in the last 8th note, instead of using an ‘i’ stroke, Biberian chose to use the ‘m’ finger for the up stroke. This choice is rarely found in the guitar repertoire.

Biberian used different symbols for down and up strokes instead of conventional use of arrows. His notation is shown in Table 4.1.

<table>
<thead>
<tr>
<th>Notation Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \wedge )</td>
<td>Down stroke with the ‘i’ finger.</td>
</tr>
<tr>
<td>( \vee )</td>
<td>Up stroke with the ‘i’ finger.</td>
</tr>
<tr>
<td>( \dot{\vee} )</td>
<td>Up stroke with the ‘i’ finger.</td>
</tr>
<tr>
<td>( m \vee )</td>
<td>Up stroke with the ‘m’ finger.</td>
</tr>
</tbody>
</table>

Bağlama continuous strokes are also found in the repertoire. For example, continuous down and up strokes are executed with continuous flamenco rasgueados (see 3.3.4.1) with ‘e’, ‘a’, ‘m’ and ‘i’ fingers on the 5th beat, in Kağan Korad and Cihat Aşkun’s Ferahi Zeybeği arrangement (Figure 4.16).

Figure 4.15: Gilbert Biberian’s Haydar Haydar arrangement, measure 27.

Table 4.1: Gilbert Biberian’s symbols for down and up strokes.

Figure 4.16: Kağan Korad and Cihat Aşkun’s Ferahi Zeybeği arrangement, measure 37.
Knocking on the soundboard can also be found in the repertoire. In Ertuğrul Bayraktar’s *Halay* piece, knocking on the classical guitar soundboard is played by using the flamenco technique *golpe*. In measures 34 and 35, the *golpe* is executed with all the chords (Figure 4.17).

![Figure 4.17: Ertuğrul Bayraktar’s *Halay* piece, measures 34-35.](image)

### 4.2.2 *Tezene* Rhythmic Patterns

Although there are many *tezene* rhythmic patterns that could be adapted to the classical guitar, few of them have been used in the ‘East-West’ synthesis classical guitar pieces until 2010.

In Anatolian *zeybek* pieces, *tezene* rhythmic patterns such as *çurpma* and *çifteleme* are generally used. Some of the *zeybek* pieces in the classical guitar literature that are analyzed for this thesis are shown in Table 4.2.

<table>
<thead>
<tr>
<th>Arranger</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kağan Korad and Cihat Aşkin</td>
<td><em>Ferahı Zeybeği</em></td>
</tr>
<tr>
<td>Mutlu Torun</td>
<td><em>İzmir Zeybeği, Yağcılar Zeybeği</em></td>
</tr>
<tr>
<td>Bekir Kütükay</td>
<td><em>Arduç tandır Kuyuların Kovası</em></td>
</tr>
<tr>
<td>Melih Güzel</td>
<td><em>Yörük Efe, Tavas Zeybeği, Ankara Zeybeği</em></td>
</tr>
<tr>
<td>Hasan Cihat Örter</td>
<td><em>Çökeftime</em></td>
</tr>
<tr>
<td>Sefa Yeprem</td>
<td><em>İzmir’in Kavakları</em></td>
</tr>
</tbody>
</table>

*Çurpma* or *çifteleme* patterns are rarely used in these pieces. One example is found in Mutlu Torun’s *İzmir Zeybeği* arrangement. At the end of the third measure, a
çifileme-like passage is used with a vurma and the triplet rasgueado with ‘m’ and ‘i’ fingers (Figure 4.18).

![Figure 4.18: Mutlu Torun’s İzmir Zeybeği arrangement, 8th and 9th beats, measure 3.](image)

In Mutlu Torun’s Yağcilar Zeybeği arrangement, a çifileme-like passage is also played with a flamenco rasgueado on the first and second beats of measure 1 (Figure 4.19).

![Figure 4.19: Excerpt from Mutlu Torun’s Yağcilar Zeybeği arrangement, measure 1.](image)

The other example is from Hasan Cihat Örter’s Çökartme arrangement. Örter used the çifileme pattern on the 1st and 2nd beats (Figure 4.20).

![Figure 4.20: Excerpt from Hasan Cihat Örter’s Çökartme arrangement.](image)

In Bekir Kütükay’s arrangement of Neşet Ertaş’s Züluf Dökülmüş Yüze, a styurma pattern is used on the 3rd and 4th beats of the first measure. The upward triplet is executed with the ‘a’ finger as in a flamenco arrastre (Figure 4.21).

![Figure 4.21: Bekir Kütükay’s arrangement of Neşet Ertaş’s Züluf Dökülmüş Yüze, measure 1.](image)

In Hasan Cihat Örter’s arrangement of Ali Ekber Çiçek’s Haydar Haydar, a styurma pattern is also used. Örter used a flamenco arrastre for the upward triplet (Figure 4.22).
In Hasan Cihat Örter’s *Ankara Misket* arrangement, he imitated a *takma tezene* pattern by using descending slurs (Figure 4.23).

![Figure 4.23: Hasan Cihat Örter’s *Ankara Misket* arrangement, measures 1-3.](image)

### 4.3 Finger Playing Techniques

Some of the traditional and contemporary *pence/šelpe* techniques are similar to flamenco *rasgueado* patterns and are found in the classical guitar literature as classical guitar strumming techniques or flamenco *rasgueado* patterns. Some of the examples were already shown in parts 4.2.1 and 4.2.2 of this chapter. Therefore they won’t be analyzed in this part. *Bağlama* string plucking techniques are similar to the classical guitar free stroke technique. *Bağlama* finger tapping can be found in the classical guitar repertoire in its basic forms. Therefore, they will be analyzed in this part.

#### 4.3.1 Finger Tapping

Starting from the 1980s, finger tapping techniques became widespread in *bağlama* playing and were developed by *bağlama* performers and academicians. The first *bağlama* method that has a detailed section in finger tapping was written by Erol Parlak in 2001. Especially in the early 21st century, classical guitarists started to be influenced by this development in the *bağlama* and some integrated these techniques and their variations either into their arrangements or compositions. But this influence is limited. In most of the examples, the electric guitar’s monophonic tapping techniques had more influence on the classical guitarists than *bağlama* tapping techniques. Besides, due to the lack of standard tapping notation for the classical guitar, each composer/arranger has found unique ways to indicate tapping.
One example is Hasan Cihat Örter’s *Alli Turnam* arrangement. Örter used tapping on the 4th string and the tapping style is similar to the monophonic electric guitar tapping (Figure 4.24).

![Tapping with 'i'](image)

**Figure 4.24:** Excerpt from Hasan Cihat Örter’s *Alli Turnam* arrangement.

One other example is Ceyhun Şaklar’s *Folk Fantasy*. The piece starts with a melody that uses tapping (Figure 4.25).

![Tapping with 'i'](image)

**Figure 4.25:** Ceyhun Şaklar’s *Folk Fantasy*, measures 1-2.

In this excerpt, Şaklar used some abbreviations and numbers to indicate the tapping technique. In Table 4.3, Şaklar’s descriptions are shown.

<table>
<thead>
<tr>
<th>Notation Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>L.L.H (11-13)</td>
<td>Legato left-hand. The finger that is on the 11th fret executes a pull-off through the finger that played the previous note and remained on the 13th fret.</td>
</tr>
<tr>
<td>T.L.H 10 (13)</td>
<td>Tap left-hand. While a left-hand finger taps on the 10th fret, the finger that played the previous note remains on the 13th fret.</td>
</tr>
<tr>
<td>T.R.H 17 (13)</td>
<td>Tap right-hand. While the finger that played the previous note remained on the 13th fret, the ‘i’ or ‘m’ fingers of the right-hand make a tapping on the 17th fret.</td>
</tr>
<tr>
<td>L.R.H (17-13)</td>
<td>Legato right-hand. The right-hand finger that is on the 17th fret makes a legato pull-off through the left-hand finger which played the previous note and remained on the 13th fret.</td>
</tr>
</tbody>
</table>

In 2008, Ceyhun Şaklar composed *koncertant fantazi* for two guitars and orchestra. In this piece in addition to the notation that he used above, he wrote ‘tapping’ above some patterns and describes this at the beginning of his score as follows:
“Tapping: The notes on which ‘i’ is written, are played by tapping the right-hand finger ‘i’ on the pitch that is shown. The other notes are played with the normal left-hand legatos.”

In Figure 4.26, one of these patterns is shown.

Figure 4.26: Ceyhun Şaklar’s Koncertant Fantazi, measure 282.

Şaklar’s uses of tapping techniques are in the monophonic electric guitar tapping style. He prefers single string tapping.

In 2008, Mustafa Tinç composed It Takes Two for two guitars. In contrast to the previous examples, this piece was influenced by bağlama finger tapping techniques. It is based on a theme and variations form and the last variation is based on tapping techniques. The composer took some ideas from the author of this thesis and used the notation and techniques that are presented in chapter 5 (Figure 4.27).

Tinç uses a tapping glissando in measure 223. In measure 236, he uses a right-hand tapping hammer-on and left-hand hammer-on at the same time. In measure 237, he uses right-hand tapping pull-offs and creates major 3rd intervals.
Figure 4.27: Mustafa丙's *It Takes Two*, measures 221-237.
5. THE ADAPTATION OF BAĞLAMA TECHNIQUES INTO CLASSICAL GUITAR PERFORMANCE

In this chapter, suitable bağlama performance techniques will be adapted to the classical guitar to give ‘hybrid’ classical guitar techniques. Not all the bağlama performance techniques will be adapted for several reasons. Most of the bağlama ornaments and basic tezene techniques have already been applied to the classical guitar and these techniques were analyzed in chapter 4. Some of these will be omitted but some of them such as left-hand horizontal movement ornaments will be developed in this chapter. In Figure 5.1, some of the bağlama and classical guitar ornaments and strumming techniques are compared.

![Diagram of classical guitar and bağlama techniques]

Figure 5.1: The comparison of bağlama and classical guitar techniques.

Some bağlama techniques such as glissando, string plucking, and some pense/selpe techniques are similar to the classical and flamenco guitar techniques. Therefore these techniques have been omitted. Furthermore, some bağlama techniques cannot be adapted to the classical guitar due to the technical differences. For instance, the kastırma technique is executed using the courses and therefore cannot be applied to the single string classical guitar.

5.1 Left-hand Techniques

In this part, the focus will be on the adaptation of left-hand horizontal movement ornaments which were analyzed in 2.2.1.1d. This characteristic bağlama technique is rarely used in the classical guitar literature and is suitable to adapt. The adaptation of this technique will serve as a pedagogic tool for scale and ornament exercises of the classical guitarist.
5.1.1 Left-hand Horizontal Movement Ornaments

The horizontal movement of the left-hand will be applied to descending scales with characteristic bağılama ornaments. In the exercises below, the notes can also be played individually with the ‘i’ and ‘m’ fingers without slurs. In this case, the performance style will be closer to the necked lutes such as the bouzouki or tar.

In Figure 5.2, the descending scale with çarpmas are applied to the guitar in its simplest form. The first finger moves horizontally and the second or third fingers play the hammer-on.

![Figure 5.2: Descending scales with hammer-ons (CD 1, track 1).](image)

Various intervals can be added to this pattern and new études can be created. In Figure 5.3, the diatonic third intervals are added.

![Figure 5.3: A descending scale with third intervals and hammer-ons (CD 1, track 2).](image)

Diatonic sixth intervals can be added to this pattern (Figure 5.4).

![Figure 5.4: A descending scale with sixth intervals and hammer-ons (CD 1, track 3).](image)

The octave bass line can be added to this pattern (Figure 5.5).

![Figure 5.5: A descending scale with octave basses and hammer-ons (CD 1, track 4).](image)
Glissandos can also be applied to these descending scales with the octaves (Figure 5.6).

Figure 5.6: Descending scales with octaves and glissandos (CD 1, track 5).

Dotted rhythm carpmas are very characteristic of Anatolian folk melodies. It can be applied to Figure 5.2 (Figure 5.7).

Figure 5.7: Descending scales with dotted rhythm hammer-ons (CD 1, track 6).

Dotted rhythm carpmas can also be applied to Figures 5.3, 5.4, 5.5 and 5.6 (Figures 5.8 and 5.9).

Figure 5.8: Descending scales with third, sixth and octave intervals (CD 1, track 7).

Figure 5.9: Descending scales with octaves and glissandos (CD 1, track 8).
Two consecutive çarpmas in the descending scales are a characteristic bağlama ornament. It can be applied to Figure 5.2 (Figure 5.10).

![Figure 5.10: Descending scales with two consecutive hammer-ons (CD 1, track 9).](image)

Two consecutive çarpmas can also be applied to Figures 5.3, 5.4, 5.5 and 5.6 (Figures 5.11 and 5.12).

![Figure 5.11: Descending scales with third, sixth and octave intervals and two consecutive hammer-ons (CD 1, track 10).](image)

![Figure 5.12: A descending scale with octaves and glissandos (CD 1, track 11).](image)

The ornament pattern with a çarpma and a leap of third is characteristic of bağlama descending scales. In Figure 5.13, it is adapted to all the strings.

![Figure 5.13: Descending scales with a hammer-on and a leap of third (CD 1, track 12).](image)

This ornament pattern can be applied to Figures 5.3, 5.4, 5.5 and 5.6 (Figures 5.14 and 5.15).
Figure 5.14: Descending scales with third, sixth and octave intervals and a hammer-on and leap of third ornament pattern (CD 1, track 13).

Figure 5.15: A descending scale with octaves and *glissandos* (CD 1, track 14).

One other *bağlama* ornament pattern is the third interval *çarpma* and a second interval movement (Figure 5.16).

Figure 5.16: Descending scales with a third interval hammer-on and a second interval movement (CD 1, track 15).

This ornament pattern can be applied to Figures 5.3, 5.4 and 5.6 (Figures 5.17 and 5.18). It cannot be applied to the octave pattern due to the technical difficulty of the hammer-ons.

Figure 5.17: Descending scales with third and sixth intervals and a leap of third hammer-on and second interval movement (CD 1, track 16).
Figure 5.18: A descending scale with octaves and *glissandos* (CD 1, track 17).

The following patterns with various *bağlama* ornaments are applied to the classical guitar (Figure 5.19).

Figure 5.19: A pattern with slur combinations (CD 1, track 18).

This pattern can also be played with sixth and octave intervals, and *glissandos* (Figures 5.20, 5.21 and 5.22).

Figure 5.20: A pattern with slur combinations in sixth intervals (CD 1, track 19).

Figure 5.21: A pattern with slur combinations in octaves (CD 1, track 20).

Figure 5.22: A pattern with *glissandos* (CD 1, track 21).

Another pattern is adapted in Figure 5.23.
This pattern can be played with *glissandos* (Figure 5.24).

Another pattern is adapted in Figure 5.25.

This pattern can be played with *glissandos* (Figure 5.26).

### 5.2 Tezene Techniques

In chapter 4, it was seen that many basic *tezene* techniques such as down and up strokes and continuous strokes are used in classical guitar literature with the classical guitar strumming or flamenco *rasgueado* techniques. On the other hand, *tezene* rhythmic patterns are rarely seen in the pieces. Therefore the focus in this part will be on the adaptation of *tezene* rhythmic patterns into classical guitar performance.
5.2.1 Tezene Rhythmic Patterns

In this part, takma tezene, çirpma, çifileme, hoplatma, çifilemeli takma and styrtma patterns are adapted to the classical guitar. Serpme is a pattern with an arpeggio. Tarama is mostly used as an ornament in specific folk melody patterns. Therefore serpme and tarama have been omitted.

5.2.1.1 Takma Tezene

The main pattern can be played with the classical guitar arpeggio technique. Two consecutive ‘i’ or ‘m’ fingers for the upward arpeggio is used to imitate the resting tezene upstrokes. The upward arpeggio should be played with rest strokes (Figure 5.27).

![Figure 5.27: A takma tezene pattern on the classical guitar (CD 2, track 1).](image)

In bağlama performance, the individual notes of the upward stroke can be doubled on some occurrences of takma tezene pattern. This idea can be adapted to the classical guitar and several upstroke types can be created. In Figure 5.28, two-string upstrokes are played.

![Figure 5.28: A takma tezene pattern with two-string upstrokes (CD 2, track 2).](image)

Two-string upstrokes can be played on all strings (Figure 5.29).

![Figure 5.29: A takma tezene pattern with two-string upstrokes (CD 2, track 3).](image)

This idea can be developed to play chords. In Figure 5.30, the upward stroke covers three and four strings.
Figure 5.30: A *takma tezene* pattern with three and four-string upstrokes (CD 2, track 4).

The three-string upstrokes can be played on all strings (Figure 5.31).

Figure 5.31: A *takma tezene* pattern with three-string upstrokes (CD 2, track 5).

The four-string upstrokes can be played on all strings. In this exercise the ‘a’ finger is also used (Figure 5.32).

Figure 5.32: A *takma tezene* pattern with four-string upstrokes (CD 2, track 6).

In order to imitate the *fidayda* tuning which is D, D, A from 3rd string to the 1st string, the guitar’s 4th string can be tuned to E and 3rd to A. In this tuning, the *takma tezene* pattern is written for guitar in Figure 5.33.

Figure 5.33: A *takma tezene* pattern with *scordatura* tuning (CD 2, track 7).

As it is mentioned in 2.2.2.2a, the melodies can be played on second strokes (first upstroke) of *takma tezene* patterns. When these melodies are played with ornaments, the result is interesting for the classical guitar and rarely used. This approach can be applied to the guitar. In Figure 5.34, the melody is played on the 3rd string during a continuous *takma tezene* pattern. There are trills in the melody and these trills are played while the ‘i’ finger plucks the 4th string. The important point is the simultaneous pull-off on the 3rd string and plucking of the 4th string.
Figure 5.34: A *takma tezene* pattern with the melody (CD 2, track 8).

In Figure 5.34, the notes can be added to the 4th string to create intervals of a third (Figure 5.35).

Figure 5.35: A *takma tezene* pattern with the melody (CD 2, track 9).

Two-string upward strokes can be applied to Figure 5.35 (Figure 5.36).

Figure 5.36: A *takma tezene* pattern with the melody (CD 2, track 10).

This approach can be developed with other kinds of ornaments. In Figure 5.37, the ornament is a double hammer-on. The second hammer-on is played at the same time with the plucking of the 4th string with the ‘i’ finger.

Figure 5.37: A *takma tezene* pattern with the melody (CD 2, track 11).

In Figure 5.37, the notes can be added to the 4th string to create intervals of a sixth (Figure 5.38).
Figure 5.38: A *takma tezene* pattern with the melody (CD 2, track 12).

Two-string upward strokes can be applied to Figure 5.38 (Figure 5.39).

Figure 5.39: *A takma tezene* pattern with the melody (CD 2, track 13).

The notes on the 4th string can also change on the last upstroke in Figure 5.39 (Figure 5.40).

Figure 5.40: *A takma tezene* pattern with the melody (CD 2, track 14).

In Figure 5.41, the ornament is a pull-off. The pull-off is played at the same time as the plucking of the 4th string with the ‘i’ finger.

Figure 5.41: *A takma tezene* pattern with the melody (CD 2, track 15).

In Figure 5.41, the notes can be added to the 4th string to create intervals of a third (Figure 5.42).
Two-string upward strokes can be applied to Figure 5.42 (Figure 5.43).

The notes on the 4th string can also change in the last upstroke in Figure 5.43 (Figure 5.44).

In Figure 5.45, the ornament is a pull-off, hammer-on and a pull-off. The hammer-on is played at the same time as the plucking of the 4th string with the ‘i’ finger.

In Figure 5.45, notes can be added to the 4th string to create intervals of a third (Figure 5.46).
Two-string upward strokes can be applied to Figure 5.46 (Figure 5.47).

The notes on the 4th string can also change in the last upstroke in Figure 5.47 (Figure 5.48).

In Figure 5.49, the melody of the folk song *Fidayda* is played with techniques similar to the exercises above. In the first two beats, there are three pull-offs. On the second beat, the hammer-on is played at the same time as the bass. Then the upward arpeggio comes across the first note of the pull-off. The trills on the 3rd and 4th beats are normally played with microtones on *baglama*. Here, minor second intervals are preferred.

Figure 5.49: The *Fidayda* melody with a *takma tezene* pattern (CD 2, track 23).
In Figure 5.49, the notes can be added to the 4th string to create intervals of a third (Figure 5.50).

![Figure 5.50: The Fidayda melody with a takma tezene pattern (CD 2, track 24).](image)

Two-string upward strokes can be applied to Figure 5.50 (Figure 5.51).

![Figure 5.51: The Fidayda melody with a takma tezene pattern (CD 2, track 25).](image)

These techniques can also be applied to Neşet Ertaş's Gel Yamma piece. In Figure 5.52, the main theme is introduced on the 3rd string.

![Figure 5.52: Gel Yamma main theme (CD 2, track 26).](image)

In Figure 5.53, some intervals are added to the 4th string.
The main theme and other themes are illustrated in Figure 5.54.

Figure 5.54: Gel Yanına themes (CD 2, track 28).

5.2.1.2 Çırpma and Çıtılème

The main çırpma pattern is adapted to the guitar in Figure 5.55. After the down stroke with the ‘i’ finger, the 32\textsuperscript{nd} notes are played with the ‘a’ and ‘m’ fingers in free stroke.
The main çifileme pattern is adapted to the guitar similar to the çirpma pattern in Figure 5.56.

The çifileme rhythmic pattern can be applied to the conventional classical guitar tremolo. The resulting tremolo is entitled 'çifileme tremolo.' In Figure 5.57, the classical guitar tremolo and the çifileme tremolo are shown.

Figure 5.57: Comparison of the classical guitar tremolo and the çifileme tremolo (CD 2, track 31).

Figure 5.58 is an exercise for the çifileme tremolo technique played on open strings.

Figure 5.58: A çifileme tremolo exercise (CD 2, track 32).

In bağlama playing, there are also note changes during the çifileme pattern as seen in an excerpt from Erol Parlak's arrangement of Kocaoğlan Zeybeği (Figure 5.59).
Figure 5.59: Excerpt from Kocaoğlan Zeybeği.

In Figure 5.60, the note changes in the last note of the pattern. In addition to this change, minor second trills are added to the note.

Figure 5.60: A çiftleme tremolo exercise (CD 2, track 33).

The change of the note in the çiftleme tremolo could also happen before the last 16th note or in the last two notes of the pattern (Figure 5.61).

Figure 5.61: A çiftleme tremolo exercise (CD 2, track 34).

The change of the note in çiftleme tremolo could also happen on the 64th notes (Figure 5.62).

Figure 5.62: A çiftleme tremolo exercise (CD 2, track 35).

A çarpma ornament is used for the last two notes in Figure 5.63.

Figure 5.63: A çiftleme tremolo exercise (CD 2, track 36).

In Figure 5.64, one of the 64th notes is changed.
In Figure 5.65, notes with çarpma ornaments are changed.

In Figure 5.66, notes with dotted çarpma ornaments are used.

In Figure 5.67, a çarpma and a leap of a third ornament is used.

In Figure 5.68, a third interval çarpma and a trill ornament is used.

In bağlama playing, individual notes can be played on two or three courses in some occurrences of the çarpma and çifileme patterns. In Figure 5.69, individual notes of the çarpma pattern are played on more than one string.
Figure 5.69: Çarpma patterns on the classical guitar (CD 2, track 42).

In Figure 5.70, individual notes of the çifileme pattern are played on more than one string.

Figure 5.70: Çifileme patterns on the classical guitar (CD 2, track 43).

This idea can be applied to the classical guitar tremolo (Figure 5.71).

Figure 5.71: Classical guitar tremolos with up strokes (CD 2, track 44).

Figure 5.72 illustrates çifileme tremolos produced on more than one string. These patterns are called ‘two-string çifileme tremolo,’ ‘three-string çifileme tremolo,’ ‘four-string çifileme tremolo’ and ‘five-string çifileme tremolo.’

Figure 5.72: Çifileme tremolos with up strokes (CD 2, track 45).

In Figure 5.73, Figure 5.60 is converted into a two-string çifileme tremolo.
Figure 5.73: A two-string çifileme tremolo exercise (CD 2, track 46).

In Figure 5.74, Figure 5.62 is converted into a two-string çifileme tremolo.

Figure 5.74: A two-string çifileme tremolo exercise (CD 2, track 47).

In Figure 5.75, the pattern of Figure 5.63 is converted into a two-string çifileme tremolo.

Figure 5.75: A two-string çifileme tremolo exercise (CD 2, track 48).

In Figure 5.76, the pattern of Figure 5.64 is converted into a two-string çifileme tremolo.
Figure 5.76: A two-string çiftleme tremolo exercise (CD 2, track 49).

In Figure 5.77, Figure 5.66 is converted into a two-string çiftleme tremolo.

Figure 5.77: A two-string çiftleme tremolo exercise (CD 2, track 50).

In Figure 5.78, Figure 5.67 is converted into a two-string çiftleme tremolo.

Figure 5.78: A two-string çiftleme tremolo exercise (CD 2, track 51).

In Figure 5.79, Figure 5.68 is converted into a two-string çiftleme tremolo.
Figure 5.79: A two-string çifileme tremolo exercise (CD 2, track 52).

In Figure 5.80, two strings are added to Figure 5.60, creating a three-string çifileme tremolo.

Figure 5.80: A three-string çifileme tremolo exercise (CD 2, track 53).

In Figure 5.81, the pattern of Figure 5.63 is converted into a three-string çifileme tremolo.

Figure 5.81: A three-string çifileme tremolo exercise (CD 2, track 54).

In Figure 5.82, the pattern of Figure 5.66 is converted into a three-string çifileme tremolo.
5.2.1.3 *Hoplatma*

The *hoplatma* pattern is similar to the *çarpma* and *çifileme* patterns. The difference is the *tezene* directions. Therefore, it is adapted to the guitar with strokes on more than one string. In Figure 5.83, the *hoplatma* pattern is applied to the classical guitar in two forms, the use of the ‘i’ finger and the use of the ‘i’ and ‘m’ fingers.

In Figure 5.84, the *hoplatma* pattern is applied to two strings with note changes and trills. If the thumb is anchored on the 3\(^{rd}\) string, it will be easier to play the strokes.

In Figure 5.85, the *hoplatma* pattern is applied to two strings with two *çarpmas*. If the right-hand thumb rests on the 3\(^{rd}\) string, it will be easier to play the strokes.
Figure 5.85: A _hoplatma_ pattern exercise (CD 2, track 58).

In Figure 5.86, a third voice is added to Figure 5.85. If the right-hand thumb rests on the 4\textsuperscript{th} string, it will be easier to play the strokes.

Figure 5.86: A _hoplatma_ pattern exercise (CD 2, track 59).

In Figure 5.87, the _hoplatma_ pattern is applied to three strings with two dotted _çarpma_. If the right-hand thumb rests on the 4\textsuperscript{th} string, it will be easier to play the strokes.

Figure 5.87: A _hoplatma_ pattern exercise (CD 2, track 60).

In Figure 5.88, the _hoplatma_ pattern is applied to two strings with a _çarpma_ and a leap of third ornament. If the right-hand thumb rests on the 3\textsuperscript{rd} string, it will be easier to play the strokes.
In Figure 5.89, the hoplatma pattern is applied to two strings with a third interval çarpma and a trill ornament. If the right-hand thumb rests on the 3rd string, it will be easier to play the strokes.

5.2.1.4 Çifileme Takma

The çifileme Takma is similar to the çifileme pattern except for last two up strokes. In Figure 5.90, the 'i' finger plays E rest stroke and then plays C.

In Figure 5.91, the last up stroke consists of two, three, and four notes.

In Figure 5.92, the çifilemeli takma pattern is applied to two strings. The 'i' up stroke rests on the 3rd string and then plays the 3rd and other strings.
The çifilemi takma pattern can be applied to the çifileme tremolo. In Figure 5.93, the ‘i’ finger rests on the 2nd string after playing B on the first beat and then plays the up stroke on the 2nd and 3rd strings.

In Figure 5.94, one of the 64th notes of Figure 5.93 is changed.

In Figure 5.95, the ‘i’ finger rests on the 3rd string after playing the up stroke on the 1st and 2nd strings on the first beat and then plays another up stroke on the 3rd and 4th strings.

In Figure 5.96, one of the 64th notes of Figure 5.95 is changed.
The idea to play a rest stroke with the ‘i’ finger in the pattern can be applied to the classical guitar tremolo. In Figure 5.97, the ‘i’ finger rests on the 2\textsuperscript{nd} string after playing the 1\textsuperscript{st} string and then plays the 2\textsuperscript{nd} string. This tremolo is called ‘5-note çifilemeli takma tremolo.’

Figure 5.97: The 5-note çifilemeli takma tremolo (CD 2, track 70).

The çifilemeli takma tremolo pattern can also be played with six or seven notes (Figure 5.98).

Figure 5.98: Types of çifilemeli takma tremolo (CD 2, track 71).

Figure 5.99 is an exercise for a 5-note çifilemeli takma tremolo.

Figure 5.99: A 5-note çifilemeli takma tremolo exercise (CD 2, track 72).

Figure 5.100 is an exercise for a 5-note çifilemeli takma tremolo with intervals of a third.
Figure 5.100: A 5-note çifilemeli takma tremolo exercise (CD 2, track 73).

Figure 5.101 is an exercise for a 6-note çifilemeli takma tremolo.

Figure 5.101: A 6-note çifilemeli takma tremolo exercise (CD 2, track 74).

Figure 5.102 is an exercise for a 6-note çifilemeli takma tremolo.

Figure 5.102: A 6-note çifilemeli takma tremolo exercise (CD 2, track 75).

Figure 5.103 is an exercise for a 7-note çifilemeli takma tremolo.

Figure 5.103: A 7-note çifilemeli takma tremolo exercise (CD 2, track 76).

Figure 5.104 is an exercise for a 7-note çifilemeli takma tremolo.

Figure 5.104: A 7-note çifilemeli takma tremolo exercise (CD 2, track 77).

5.2.1.5 Styurma

The styurma pattern can be applied to the classical guitar as in Figure 5.105. The ‘i’ finger plays upward arpeggios in three different rhythms.
Figure 5.105: Syurtma patterns on the classical guitar (CD 2, track 78).

Figure 5.106 is a syurtma pattern exercise without the first down stroke. The upward arpeggio is a triplet.

Figure 5.106: A syurtma pattern exercise (CD 2, track 79).

Figure 5.107 is a syurtma pattern exercise with the first down stroke. The upward arpeggio is a triplet.

Figure 5.107: A syurtma pattern exercise (CD 2, track 80).

Figure 5.108 is a syurtma pattern exercise with the first down stroke. The upward arpeggio is in four 64th notes.

Figure 5.108: A syurtma pattern exercise (CD 2, track 81).

A çarpma ornament can be added to Figure 5.108 (Figure 5.109).
A dotted çarpmə ornament can be added to Figure 5.108 (Figure 5.110).

Figure 5.109: A syurıma pattern exercise (CD 2, track 82).

Figure 5.110: A syurıma pattern exercise (CD 2, track 83).

5.3 Finger Playing Techniques

In this part the main focus will be on the adaptation of pençe/ʃelpe techniques and bağlama finger tapping techniques. Some of the pençe/ʃelpe techniques are similar to flamenco rasgueado techniques. Therefore these will be omitted. Those differing from the rasgueado techniques will be developed in this section. Bağlama string plucking techniques are similar to classical guitar plucking techniques; therefore these will not be adapted to the classical guitar.

5.3.1 Pençe/Şelpe Techniques

Some of the traditional and contemporary pençe/ʃelpe techniques will be adapted to the classical guitar in this part.

5.3.1.1 Traditional Pençe/Şelpe Techniques

Bağlama rasgueado, fiske and the ikili techniques will be adapted from the traditional pençe/ʃelpe techniques.
5.3.1.1a Bağlama Rasgueado

In bağlama finger playing, one of the basic down stroke technique is with the ‘e’, ‘a’, ‘m’ and ‘i’ fingers in a row. This is similar to the flamenco rasgueado with one exception. In flamenco, the fingers play the down strokes individually. Each stroke is clearly heard. But in bağlama rasgueado, the strokes aren’t separated. The strokes run into each other more. It is shown with an arrow and the (B.R) abbreviation (Figure 5.111).

![Figure 5.111: The notation of bağlama rasgueado (CD 3, track 1).](image)

5.3.1.1b Fiske

The bağlama performers in Eastern Anatolia and the Teke Yörukleri (The yöük of the Teke region) knock on the soundboard of the bağlama with the ‘m’ and ‘i’ finger one after another during the downward strumming. This idea can be applied to the classical guitar. Due to the lack of a protective cover around the rosette on the standard classical guitar, the knocks aren’t executed on this area. Instead, they are executed on the side of the fretboard above the tasto region similar to the flamenco golpe. First, the ‘m’ finger knocks the side of the fretboard as shown in Figure 5.112.

![Figure 5.112: The ‘m’ finger knocks the side of the fretboard.](image)

Then the ‘m’ finger continues its movement and strikes the 6th string (Figure 5.113).
Figure 5.113: The ‘m’ finger strikes the 6th string.

Then the same movements are applied to the ‘i’ finger (Figures 5.114 and 5.115).

Figure 5.114: The ‘i’ finger knocks the side of the fretboard.

Figure 5.115: The ‘i’ finger strikes the 6th string.

In Figure 5.116, the notation of classical guitar *fiske* on the 6th string is shown. Arrows with a box are used to indicate the classical guitar *fiske*. The fingering is written inside the box.
The classical guitar *fiske* can also be played on two or more strings. In Figure 5.117, it is played on two and three strings.

### 5.3.1.1c *Ikili*

The *ikili* is a type of up stroke that is executed with the ‘i’ and ‘m’ fingers consecutively. The ‘i’ finger plays an up stroke in 32\(^{nd}\) notes. After this stroke, the ‘m’ finger plays an up stroke (Figure 5.118).

The *ikili* can be played on three strings or more. Figure 5.119 is an exercise of *ikili* strokes on three strings. If the right-hand thumb rests on the 4\(^{th}\) string, it will be easier to play the strokes.

Figure 5.119 is an exercise of *ikili* strokes on four strings. If the right-hand thumb rests on the 5\(^{th}\) string, it will be easier to play the strokes.
5.3.1.2 Contemporary Pence/Selepe Techniques

5.3.1.2a Ea Arpeggiated Up Stroke

This technique is played with the ‘e’ and ‘a’ fingers on the tasto region. The palm of the right-hand faces to the left. The arpeggio is played with the right side of the flesh and nail. The preparation of the ea arpeggiated up stroke is illustrated in Figure 5.121.

Figure 5.121: Preparation of the ea arpeggiated up stroke.

The arpeggio starts with the ‘e’ finger on the 1st string (Figure 5.122).

Figure 5.122: The arpeggio starts with the ‘e’ finger.
After the 3\textsuperscript{rd} string, the ‘a’ finger starts its arpeggio from the 1\textsuperscript{st} string while the ‘e’ finger continues its way from the 4\textsuperscript{th} string (Figure 5.123).

![Figure 5.123: The ‘a’ finger starts its arpeggio.](image)

The ‘e’ finger finishes its arpeggio and the ‘a’ finger reaches the 4\textsuperscript{th} string (Figure 5.124).

![Figure 5.124: The ‘e’ finger completes its arpeggio.](image)

Then the ‘a’ finger also completes its arpeggio (Figure 5.125).

![Figure 5.125: The ‘a’ finger completes its arpeggio.](image)

The notation is shown in two ways: with an arrow, or with the resulting pitches and the finger movements. In Figure 5.126, both notations are shown.
In bağlama finger playing techniques, the ea arpeggiated up stroke is also used in sýurhma patterns. The down and up strokes follow the ea arpeggiated up stroke (Figure 5.127).

Figure 5.127: The sýurhma pattern with the ea arpeggiated up stroke (CD 3, track 8).

Figure 5.128 is an exercise for this pattern.

Figure 5.128: A sýurhma pattern with the ea arpeggiated up stroke exercise (CD 3, track 9).

5.3.1.2b Imae Arpeggiated Up Stroke

In this technique, the right-hand faces the soundboard. The arpeggio is played with the finger tips. The preparation of the imae arpeggiated up stroke is illustrated in Figure 5.129.
The arpeggio starts with the 'i' finger on the 1st string (Figure 5.130).

After the 3rd string, the 'm' finger starts its arpeggio from the 1st string while the 'i' finger continues its way from the 4th string (Figure 5.131).

The 'i' finger finishes its arpeggio, the 'm' finger reaches the 4th string and the 'a' finger starts its arpeggio (Figure 5.132).
Figure 5.132: The ‘i’ finger completes its arpeggio.

The ‘m’ finger finishes its arpeggio, the ‘a’ finger reaches the 4th string and the ‘e’ finger starts its arpeggio (Figure 5.133).

Figure 5.133: The ‘m’ finger completes its arpeggio.

The ‘a’ finger finishes its arpeggio and the ‘e’ finger reaches the 4th string (Figure 5.134).

Figure 5.134: The ‘a’ finger completes its arpeggio.

The notation is shown in two ways: With an arrow, or with the resulting pitches and the finger movements. In Figure 5.135, both notations are shown.
Figure 5.135: The imae arpeggiated up stroke (CD 3, track 10).

Figure 5.136 is an exercise for the imae arpeggiated up stroke.

Figure 5.136: An imae arpeggiated up stroke exercise (CD 3, track 11).

Because the arpeggio is long, some notes can be changed. In Figure 5.137, the note on the 1st string is changed. When the ‘a’ finger starts its arpeggio, the note changes.

Figure 5.137: An imae arpeggiated up stroke exercise (CD 3, track 12).

5.3.1.2c Eami Arpeggiated Up Stroke

This technique is played with the ‘e’, ‘a’, ‘m’ and ‘i’ fingers along the rosette in a continuous manner. It is a variation of the flamenco arrastre. The difference is the continuous arpeggios of the ‘e’, ‘a’, ‘m’ and ‘i’ fingers. The arpeggio is played with the finger nails. The preparation of the eami arpeggiated up stroke is illustrated in Figure 5.138.

Figure 5.138: Preparation of the eami arpeggiated up stroke.
The arpeggio starts with the ‘e’ finger on the 1st finger (Figure 5.139).

![Image](image1.png)

**Figure 5.139**: The arpeggio starts with the ‘e’ finger.

After the 3rd string, the ‘a’ finger starts its arpeggio from the 1st string while the ‘e’ finger continues its way from the 4th string (Figure 5.140).

![Image](image2.png)

**Figure 5.140**: The ‘a’ finger starts its arpeggio.

The ‘e’ finger finishes its arpeggio, the ‘a’ finger reaches the 4th string and the ‘m’ finger starts its arpeggio (Figure 5.141).

![Image](image3.png)

**Figure 5.141**: The ‘e’ finger completes its arpeggio.

The ‘a’ finger finishes its arpeggio, the ‘m’ finger reaches the 4th string and the ‘i’ finger starts its arpeggio (Figure 5.142).
Figure 5.142: The 'a' finger completes its arpeggio.

The 'm' finger finishes its arpeggio and the 'i' finger reaches the 4th string (Figure 5.143).

Figure 5.143: The 'm' finger completes its arpeggio.

The notation is shown in two ways: With an arrow, or with the resulting pitches and the finger movements. In Figure 5.144, both notations are shown.

Figure 5.144: The eami arpeggiated up stroke (CD 3, track 13).

Figure 5.145 is an exercise for the eami arpeggiated up stroke. Eami arpeggiated up strokes last for one beat. After each eami arpeggiated up stroke, a down stroke with the 'i' is played.
Figure 5.145: An eami arpeggiated up stroke exercise (CD 3, track 14).

Because the arpeggio is long, some notes can be changed. In Figure 5.146, the note on the 1st string is changed. When the ‘m’ finger starts its arpeggio, the note changes.

Figure 5.146: An eami arpeggiated up stroke exercise (CD 3, track 15).

5.3.1.2d Imae Down Stroke

This technique is executed by strumming all strings downwards with the ‘i’, ‘m’, ‘a’ and ‘e’ fingers one after another. This is like a reverse flamenco rasgueado. The imae down stroke is notated the arrows (Figure 5.147).

Figure 5.147: The imae down stroke (CD 3, track 16).

Figure 5.148 is an exercise for the imae down stroke.

Figure 5.148: An imae down stroke exercise (CD 3, track 17).

5.3.1.2e Ami Up Stroke

In bağlama playing, up strokes with the ‘a’, ‘m’ and ‘i’ fingers are commonly used. The classical guitar ami up stroke is notated with arrows (Figure 5.149).
Figures 5.150 and 5.151 are exercises for the ami up stroke. If the right-hand thumb rests on the 4th string, it will be easier to play the strokes.

Figure 5.150: An ami up stroke exercise (CD 3, track 19).

Figure 5.151: An ami up stroke exercise (CD 3, track 20).

5.3.1.2f Imaami Stroke

This technique is executed by strumming all the strings downwards with the ‘i’, ‘m’, and ‘a’ fingers and then upwards with the ‘a’, ‘m’, ‘i’ fingers one after another. The imaami stroke is notated with arrows (Figure 5.152).

Figure 5.152: The imaami stroke (CD 3, track 21).

Figure 5.153 is an exercise for the imaami stroke.
5.3.1.2g Amiima Stroke

This technique is executed by strumming all strings upwards with the ‘a’, ‘m’, and ‘i’ fingers and then downwards with the ‘i’, ‘m’, ‘a’ fingers one after another. The amiima stroke is notated with arrows (Figure 5.154).

Figure 5.154: The amiima stroke (CD 3, track 23).

Figure 5.155 is an exercise for the amiima stroke.

5.3.2 Finger Tapping

The adaptation and integration of bağlama tapping techniques into classical guitar performance offers many advantages for guitar playing:

1. Creating harmonic intervals in octaves, which are not attainable in conventional playing (Figure 5.156).
2. Creating new polyphonic tapping techniques.

3. Creating fast passages with large interval changes which are not attainable with conventional right-hand techniques (Figure 5.157).

There are four main types of tapping techniques: right-hand tapping hammer-ons, right-hand tapping pull-offs, and the left-hand slurs that consist of the left-hand hammer-ons and left-hand pull-offs. Although at the beginning it seems difficult to get enough volume by tapping on nylon strings of the classical guitar, it is possible to learn the technique through exercises in this thesis.

The left-hand slurs have two functions. The first is the completion of the tapping pattern that was started by the right-hand. The second function of the left-hand is independent playing without the help of a right-hand tapping or plucking. The advantage of this technique is that while the left-hand plays the slurs independently, the right-hand can play techniques such as tapping, percussive effects, and down and up strokes.
5.3.2.1 Notation

There is no standard tapping notation for the classical guitar. For this reason a new tapping notation for the classical guitar will be introduced that uses Erol Parlak’s notation (Table 2.3) as a model and adapts it to the classical guitar terminology.

For classical guitar notation, the main symbols for tapping hammer-ons and pull-offs illustrated in Table 2.3 are used with small changes. The right-hand finger letters and left-hand finger numbers used for classical guitar are inserted on top of these symbols depending on the finger that is employed. Table 5.1 shows notation symbols for the right-hand of the classical guitar.

<table>
<thead>
<tr>
<th>Notation Symbol</th>
<th>Definition</th>
<th>Notation Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>$i$</td>
<td>Right-hand tapping hammer-on with the ‘i’ finger</td>
<td>$j$</td>
<td>Right-hand tapping pull-off with the ‘i’ finger</td>
</tr>
<tr>
<td>$m$</td>
<td>Right-hand tapping hammer-on with the ‘m’ finger</td>
<td>$m$</td>
<td>Right-hand tapping pull-off with the ‘m’ finger</td>
</tr>
<tr>
<td>$a$</td>
<td>Right-hand tapping hammer-on with the ‘a’ finger</td>
<td>$a$</td>
<td>Right-hand tapping pull-off with the ‘a’ finger</td>
</tr>
<tr>
<td>$e$</td>
<td>Right-hand tapping hammer-on with the ‘e’ finger</td>
<td>$e$</td>
<td>Right-hand tapping pull-off with the ‘e’ finger</td>
</tr>
<tr>
<td>$m$</td>
<td>Right-hand tapping hammer-on with the ‘i’ and ‘m’ fingers at the same time</td>
<td>$m$</td>
<td>Right-hand tapping pull-off with the ‘i’ and ‘m’ fingers at the same time</td>
</tr>
<tr>
<td>$a$</td>
<td>Right-hand tapping hammer-on with the ‘i’, ‘m’ and ‘a’ fingers at the same time</td>
<td>$a$</td>
<td>Right-hand tapping pull-off with the ‘i’, ‘m’ and ‘a’ fingers at the same time</td>
</tr>
</tbody>
</table>

This notation can also be applied to left-hand slurs (Table 5.2).
Table 5.2: Classical guitar notation for left-hand hammer-ons and pull-offs.

<table>
<thead>
<tr>
<th>Notation Symbol</th>
<th>Definition</th>
<th>Notation Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ( \checkmark )</td>
<td>Left-hand hammer-on with the 1\textsuperscript{st} finger</td>
<td>1 ( \checkmark )</td>
<td>Left-hand pull-off with the 1\textsuperscript{st} finger</td>
</tr>
<tr>
<td>2 ( \checkmark )</td>
<td>Left-hand hammer-on with the 2\textsuperscript{nd} finger</td>
<td>2 ( \checkmark )</td>
<td>Left-hand pull-off with the 2\textsuperscript{nd} finger</td>
</tr>
<tr>
<td>3 ( \checkmark )</td>
<td>Left-hand hammer-on with the 3\textsuperscript{rd} finger</td>
<td>3 ( \checkmark )</td>
<td>Left-hand pull-off with the 3\textsuperscript{rd} finger</td>
</tr>
<tr>
<td>4 ( \checkmark )</td>
<td>Left-hand hammer-on with the 4\textsuperscript{th} finger</td>
<td>4 ( \checkmark )</td>
<td>Left-hand pull-off with the 4\textsuperscript{th} finger</td>
</tr>
<tr>
<td>( \checkmark ) ( \checkmark )</td>
<td>Left-hand hammer-on with the 1\textsuperscript{st} and 2\textsuperscript{nd} fingers at the same time</td>
<td>( \checkmark ) ( \checkmark )</td>
<td>Left-hand pull-off with the 1\textsuperscript{st} and 2\textsuperscript{nd} fingers at the same time</td>
</tr>
<tr>
<td>3 ( \checkmark )</td>
<td>Left-hand hammer-on with the 1\textsuperscript{st}, 2\textsuperscript{nd} and 3\textsuperscript{rd} fingers at the same time</td>
<td>3 ( \checkmark )</td>
<td>Left-hand pull-off with the 1\textsuperscript{st}, 2\textsuperscript{nd} and 3\textsuperscript{rd} fingers at the same time</td>
</tr>
</tbody>
</table>

In addition to the symbols shown in Tables 5.2 and 5.3, conventional slur marks (\( \rightarrow \)) can also be used.

5.3.2.2 The Position and the Technique

The position of the right-hand in tapping hammer-on and pull-off techniques on the classical guitar fretboard is shown in Figures 5.158 and 5.159.

Figure 5.158 and 5.159: The right-hand position for the tapping.

The wrist of the right arm is straight and the hand is not closed. The right-hand thumb lies at the side of the fretboard not curved and functions to give support to the right-hand. For the most part, the thumb is placed one fret to the right of the fret that
is tapped. Figure 5.160 illustrates the right-hand tapping hammer-on with the ‘i’ finger.

![Image](image1)

**Figure 5.160**: The right-hand tapping hammer-on with the ‘i’ finger.

In bağlama tapping, hammer-ons are stoked vertically. Due to the fact that the classical guitar is played with right-hand nails; hammer-ons can’t be played vertically. The tapping finger is curved from the first joint.

Figure 5.161 illustrates the right-hand tapping pull-off with the ‘i’ finger.

![Image](image2)

**Figure 5.161**: The right-hand tapping pull-off with the ‘i’ finger.

Right-hand tapping pull-offs are executed as rest strokes. The finger rests on the adjacent string. The direction of the right-hand tapping pull-off of a single note is upward as in bağlama which is the opposite direction of an electric guitar tapping pull-off. One exception is used to achieve two or more notes. In this case, the direction of tapping pull-offs can be downwards. In Figure 5.162, both directions are used. The symbols for the directions are shown with an arrow.

![Image](image3)

**Figure 5.162**: Right-hand tapping pull-offs in both directions (CD 3, track 27).
5.3.2.3 Right-hand Tapping

This section offers introductory exercises to develop basic right-hand tapping hammer-ons and pull-offs on the classical guitar. Figures 5.163 to 5.166 are the beginner short exercises for the right-hand tapping hammer-on and pull-off.

![Figure 5.163: Right-hand tapping hammer-ons and pull-offs with the 'i' finger (CD 3, track 28).](image)

![Figure 5.164: Right-hand tapping hammer-ons and pull-offs with the 'm' finger (CD 3, track 29).](image)

![Figure 5.165: Right-hand tapping hammer-ons and pull-offs with the 'a' finger (CD 3, track 30).](image)

![Figure 5.166: Right-hand tapping hammer-ons and pull-offs with the 'e' finger (CD 3, track 31).](image)

In Figure 5.167, the right-hand starts to move along the fretboard. The purpose of this exercise is to strengthen right-hand fingers for tapping. It is played with all four fingers separately and hammer-ons should be stroked strongly.
Figure 5.167: An exercise for the right-hand tapping hammer-on and pull-off (CD 3, track 32).

In Figure 5.168 in addition to the right-hand tapping, the left-hand starts to move along the fretboard.

Figure 5.168: An exercise for the right-hand tapping hammer-on and pull-off (CD 3, track 33).

5.3.2.3a Avoiding Bi-tones

When a hammer-on is executed on the classical guitar fretboard, it causes two different vibrations on the string that is played, one is on the right part of the string which is heard strongly and the other one is on the left part of the string which is heard softly. This double sound is called bi-tones. The volume of the left part increases as its length increases. For this reason, it is usual that when the frets after the 7th are played with a hammer-on, the left part is heard more and this creates dissonant sounds. For example, when a hammer-on is played on the 1st string at the 12th fret; in addition to the E note that is vibrating in the right part of the string, F is also heard in a lower volume vibrating in the left part, creating a minor second interval (Figure 5.169).
In order to avoid this, the vibrating left part can be decreased by pressing a left-hand finger to the frets next to the fret that is tapped. For example, when a right-hand tapping hammer-on is played on the 1st string at the 12th fret, if one of the fingers of the left-hand is pressed on the 1st string at the 10th fret before the tapping, there will be no vibration on the left part and therefore the note F is avoided. The fret that is pressed by a left-hand finger in advance is shown in parenthesis to the left of the note that will be tapped. In Figure 5.170, this is illustrated for each string. The important point is to prepare a left-hand finger before tapping on each string.

Figure 5.171 is the revised version of Figure 5.167 to avoid bi-tones. It is played with the ‘i’, ‘m’, ‘a’ and ‘e’ fingers.

Figure 5.171: Revised version of Figure 5.167 to avoid bi-tones (CD 3, track 36).
5.3.2.4 Right-hand Tapping with Bass Notes

Differing from the bağlama and the electric guitar, bass notes can be added to right-hand tapping. The right-hand thumb plays a bass note at the same time as the right-hand tapping. This technique is shown in Figures 5.172 and 5.173.

![Figure 5.172: Preparation for right-hand tapping with a bass note.](image)

![Figure 5.173: Execution of the right-hand tapping with a bass note.](image)

This technique is notated in Figure 5.174.

![Figure 5.174: Notation of the right-hand tapping with a bass note (CD 3, track 37).](image)

In Figure 5.175, the open strings change while the tapping pattern is repeated.

![Figure 5.175: An exercise for right-hand tapping with bass notes (CD 3, track 38).](image)
In Figure 5.175 measure 5, one exception to the usual upward motion of a single note tapping pull-off is seen. If the tapping pull-off in this measure is played in an upward direction, the open B note would stop. Therefore, the tapping pull-off is directed downwards so that the sound of the note B will be sustained for two full beats.

In Figure 5.176, the bass note starts to move along the fretboard, creating an E phrygian scale while tapping is steady on B and E.

![Figure 5.176: An exercise for right-hand tapping with bass notes (CD 3, track 39).](image)

In Figures 5.177 and 5.178, both the bass note and tapping move along the fretboard. The exercise in Figure 5.177 is played first with the ‘m’ finger and then with the ‘a’ finger.

![Figure 5.177: An exercise for right-hand tapping with bass notes (CD 3, track 40).](image)

In Figure 5.178, in addition to bass notes, the tapping occurs with the ‘m’ and ‘i’ fingers on the first and second strings. Fast passages are possible if the tapping finger is substituted by another one, after one pattern on one string is played.
Figure 5.179: An exercise for right-hand tapping with bass notes (CD 3, track 42).

In Figure 5.180, in addition to the use of the ‘m’ and ‘i’ fingers in the right-hand, the bass notes start to change.

Figure 5.180: An exercise for right-hand tapping with bass notes (CD 3, track 43).

Figure 5.181 is an exercise for right-hand tapping with bass notes.

Figure 5.181: An exercise for right-hand tapping with bass notes (CD 3, track 44).

5.3.2.5 Independent Left-hand Slurs

So far, the left-hand slurs have been used to complete tapping patterns started by the right-hand. The other function of the left-hand is independent playing without the
help of right-hand tapping or plucking. This playing technique is generally used for the bağlama.

In Figure 5.182, while the right-hand tapping is played on the first string, the left-hand begins to play independently on other strings.

![Figure 5.182: An exercise for independent left-hand slurs (CD 3, track 45).](image)

In measure 1, it is important to note that the left-hand pull-off symbol ( Mockito ) shows which finger is pulled off (the 3rd finger in this case) in order to create the note which is shown below the pull-off symbol on the staff with its fingering on the open B string.

Independent left-hand slurs can also be played at the same time as right-hand tapping and create harmonic intervals. Figure 5.183 shows harmonic intervals played by left-hand slurs and right-hand hammer-ons at the same time.

![Figure 5.183: Independent left-hand slurs and right-hand tapping hammer-ons (CD 3, track 46).](image)

In Figure 5.184, left-hand slurs start alone without any right-hand movement and on top of this line, tapping hammer-on notes create a melody line starting from measure 3.
In Figure 5.185, the right-hand thumb plays the 6th string at the same time as the left-hand hammer-on and right-hand tapping hammer-on.

**5.3.2.6 Two and Three-Finger Right-hand Tapping**

Until this point, only one finger of the right-hand has been used for tapping. But it is also possible to use two and three fingers simultaneously in tapping. The right-hand tapping of the 'i' and 'm' fingers at the same time on the 1st and 2nd strings is performed in Figures 5.186 and 5.187.
Figure 5.186: The right-hand tapping hammer-on of the ‘i’ and ‘m’ fingers at the same time on the 1\textsuperscript{st} and 2\textsuperscript{nd} strings.

Figure 5.187: The right-hand tapping pull-off with the ‘m’ finger.

The notation is illustrated in Figure 5.188.

![Notation](image)

Figure 5.188: Notation for the two-finger tapping (CD 3, track 49).

In Figure 5.188, the ‘i’ and ‘m’ finger tapping is played at the same time on the 1\textsuperscript{st} and 2\textsuperscript{nd} strings. Because the strings are adjacent, the rest stroke pull-off would stop the 2\textsuperscript{nd} string. Therefore after the hammer-on is played with two fingers, the ‘m’ finger pulls the strings in an upward direction in a strumming fashion and doesn’t perform a rest stroke in order not to stop the 2\textsuperscript{nd} string.

In Figure 5.189, the ‘i’ and ‘m’ finger tapping is played at the same time on the 1\textsuperscript{st} and 2\textsuperscript{nd} strings in a chromatic movement.
Figure 5.189: An exercise for the two-finger tapping (CD 3, track 50).

Figure 5.189 can be applied to the 2\textsuperscript{nd} and 3\textsuperscript{rd}, 3\textsuperscript{rd} and 4\textsuperscript{th}, 4\textsuperscript{th} and 5\textsuperscript{th}, and 5\textsuperscript{th} and 6\textsuperscript{th} strings with the 'i' and 'm' fingers.

The right-hand tapping of the 'i' and 'm' fingers at the same time on the 1\textsuperscript{st} and 3\textsuperscript{rd} strings is performed as in Figures 5.190 and 5.191.

Figure 5.190: The right-hand tapping hammer-on of the 'i' and 'm' fingers at the same time on the 1\textsuperscript{st} and 3\textsuperscript{rd} strings.

Figure 5.191: The right-hand tapping pull-off with the 'i' and 'm' fingers.

The notation of the Figures 5.190 and 5.191 is illustrated in Figure 5.192.

Figure 5.192: Notation for the two-finger tapping (CD 3, track 51).
The right-hand tapping of the 'i' and 'a' fingers at the same time on the 1st and 3rd strings is performed as in Figures 5.193 and 5.194.

Figure 5.193: The right-hand tapping hammer-on of the 'i' and 'a' fingers at the same time on the 1st and 3rd strings.

Figure 5.194: The right-hand tapping pull-off with the 'i' and 'a' fingers.

The notation of the Figures 5.193 and 5.194 is illustrated in Figure 5.195.

Figure 5.195: Notation for the two-finger tapping (CD 3, track 52).

In Figure 5.196, the tapping is on the 1st and 3rd strings. It can be played both with the 'i' and 'm' fingers or 'i' and 'a' fingers. Because the strings are not adjacent to one another, the rest stroke technique is applied to the pull-off.
Figure 5.196: An exercise for the two-finger tapping (CD 3, track 53).

Figure 5.196 can be applied to the 2nd and 4th, 3rd and 5th, and 4th and 6th strings both with the ‘i’ and ‘m’ fingers and ‘i’ and ‘a’ fingers.

The tapping of the ‘i’ and ‘m’ of the right-hand at the same time on the 1st and 4th strings is performed as in Figures 5.197 and 5.198.

Figure 5.197: The right-hand tapping hammer-on of the ‘i’ and ‘m’ fingers at the same time on the 1st and 4th strings.

Figure 5.198: The right-hand tapping pull-off with the ‘i’ and ‘m’ fingers.

The notation of the Figures 5.197 and 5.198 is illustrated in Figure 5.199.

Figure 5.199: Notation for the two-finger tapping (CD 3, track 54).
In Figure 5.200, the tapping is on the 1\textsuperscript{st} and 4\textsuperscript{th} strings. It can be played both with the ‘i’ and ‘m’ fingers or ‘i’ and ‘a’ fingers. The rest stroke is applied to the pull-off.

![Figure 5.200](image)

\textbf{Figure 5.200:} An exercise for the two-finger tapping (CD 3, track 55).

Figure 5.200 can also be applied to the 2\textsuperscript{nd} and 5\textsuperscript{th}, and 3\textsuperscript{rd} and 6\textsuperscript{th} strings both with the ‘i’ and ‘m’ fingers and ‘i’ and ‘a’ fingers.

The tapping of the ‘i’ and ‘m’ of the right-hand at the same time on the 1\textsuperscript{st} and 5\textsuperscript{th} strings is performed as in Figures 5.201 and 5.202.

![Figure 5.201](image)

\textbf{Figure 5.201:} The right-hand tapping hammer-on of the ‘i’ and ‘m’ fingers at the same time on the 1\textsuperscript{st} and 5\textsuperscript{th} strings.

![Figure 5.202](image)

\textbf{Figure 5.202:} The right-hand tapping pull-off with the ‘i’ and ‘m’ fingers.

The notation of the Figures 5.201 and 5.202 is illustrated in Figure 5.203.
Figure 5.203: Notation for the two-finger tapping (CD 3, track 56).

In Figure 5.204, the tapping is on the 1st and 5th strings. It can be played both with the 'i' and 'm' fingers or 'i' and 'a' fingers. The rest stroke is applied to the pull-off.

Figure 5.204: An exercise for the two-finger tapping (CD 3, track 57).

Figure 5.204 can also be applied to the 2nd and 6th strings both with the 'i' and 'm' fingers, and 'i' and 'a' fingers.

The tapping of the 'i' and 'a' of the right-hand at the same time on the 1st and 6th strings is performed as in Figures 5.205 and 5.206.

Figure 5.205: The right-hand tapping hammer-on of the 'i' and 'a' fingers at the same time on the 1st and 6th strings.
**Figure 5.206:** The right-hand tapping pull-off with the ‘i’ and ‘a’ fingers.

The notation of the Figures 5.205 and 5.206 is illustrated in Figure 5.207.

![Notation for the two-finger tapping](image)

**Figure 5.207:** Notation for the two-finger tapping (CD 3, track 58).

In Figure 5.208, the tapping is on the 1st and 6th strings. It can be played both with the ‘i’ and ‘m’ fingers, or ‘i’ and ‘a’ fingers. The thumb should be placed carefully at the side of the fretboard because of the pull-off movement of the ‘i’ finger.

![An exercise for the two-finger tapping](image)

**Figure 5.208:** An exercise for the two-finger tapping (CD 3, track 59).

In addition to right-hand two-finger tapping, three-finger tapping is also possible on the classical guitar. Tapping the ‘i’, ‘m’ and ‘a’ fingers at the same time on the 6th, 5th and 4th strings is performed as in Figures 5.209 and 5.210.
Figure 5.209: The right-hand tapping hammer-on of the 'i', 'm' and 'a' fingers at the same time on the 6th, 5th and 4th strings.

Figure 5.210: The right-hand tapping pull-off with the 'a' finger.

Because the strings are adjacent to one another, a rest stroke pull off of the 'm' and 'a' fingers at the same time will stop the vibration of the 6th and 5th strings. Therefore after the hammer-on is played with three fingers, the 'a' finger pulls the strings in an upward direction in a strumming fashion and doesn't perform a rest stroke so as not to stop the 6th and 5th strings.

The notation of the Figures 5.209 and 5.210 is illustrated in Figure 5.211.

Figure 5.211: Notation for the three-finger tapping (CD 3, track 60).

Figure 5.212 is a chromatic exercise with the tapping of the 'i', 'm' and 'a' fingers of the right-hand at the same time on the 6th, 5th and 4th strings, and tapping pull-off with the 'a' finger.
Figure 5.212: An exercise for the three-finger tapping (CD 3, track 61).

One special situation in tapping is the use of the right-hand thumb on two adjacent bass strings. The side of the thumb is used to hit the strings. Because of the position of the thumb, a pull-off is not possible. This technique also creates a percussive effect which emerges from the strings and the fretboard. This technique is shown in Figure 5.213.

Figure 5.213: The right-hand tapping hammer-on of the thumb on the 5th and 6th strings.

The notation of this technique is illustrated in Figure 5.214.

Figure 5.214: Notation for the right-hand tapping with the thumb (CD 3, track 62).

In Figure 5.215, the thumb of the right-hand taps 5th and 6th strings strongly and creates a percussive effect in addition to the two notes produced.

Figure 5.215: An exercise for right-hand tapping with the thumb (CD 3, track 63).
5.3.2.7 Tapping Chords

By using right-hand tapping and left-hand slurs, chords can be produced. There are two ways to produce a chord with these techniques.

5.3.2.7a Tapping Chords with Hammer-ons

Any chord can be produced by right-hand tapping and left-hand slurs. For example, an E minor chord is constructed as seen in Figures 5.216 and 5.217.

![Image](image_url)

**Figure 5.216:** Preparation for the left and right-hand hammer-on with the 2\(^{nd}\), 3\(^{rd}\) and ‘m’ fingers at the same time on the 5\(^{th}\), 4\(^{th}\) and 1\(^{st}\) strings.

![Image](image_url)

**Figure 5.217:** Execution of the left and right-hand hammer-on with the 2\(^{nd}\), 3\(^{rd}\) and ‘m’ fingers at the same time on the 5\(^{th}\), 4\(^{th}\) and 1\(^{st}\) strings.

The notation of this chord is illustrated in Figure 5.218.

![Notation](image_url)

**Figure 5.218:** Notation for the left and right-hand hammer-on with the 2\(^{nd}\), 3\(^{rd}\) and ‘m’ fingers (CD 3, track 64).

Five chords which can’t be produced in conventional playing are illustrated in Figure 5.219.
Figure 5.219: Chords built by the left and right-hand hammer-ons (CD 3, track 65).

Rhythmic variations are also possible with chords constructed by tapping and slurs (Figure 5.220).

Figure 5.220: An exercise for tapping chords with hammer-ons (CD 3, track 66).

5.3.2.7b Tapping Chords with Strumming

Any chord could be produced by strumming upwards or downwards with a right-hand finger after a tapping hammer-on is played. Therefore these chords always occur on upbeats. For example in Figures 5.221, 5.222 and 5.223, after the tapping hammer-on is played on the third string, a G major chord is constructed by playing a tapping pull-off in a downward or upward direction.

Figure 5.221: The tapping hammer-on of the ‘m’ finger on the 3rd string.
Figure 5.222: The ‘m’ finger plays a downward pull-off.

Figure 5.223: The ‘m’ finger plays an upward pull-off.

The notation of Figures 5.221, 5.222 and 5.223 is illustrated in Figure 5.224.

Figure 5.224: Notation for the tapping chords by strumming (CD 3, track 67).

In Figures 5.225 and 5.226, the chords are played with this technique.

Figure 5.225: An exercise for tapping chords by strumming (CD 3, track 68).

Figure 5.226: An exercise for tapping chords by strumming (CD 3, track 69).
5.3.2.8 Tapping *Glissando*

In classical guitar performance practice, it is very difficult to play chromatic movements on the same string successively with right-hand tapping hammer-ons. Therefore the right-hand slides after right-hand tapping hammer-ons can be used to produce more notes. The symbol for this technique is a conventional *glissando* line (—) attached to the right of the note on which the *glissando* starts. In Figures 5.227, 5.228 and 5.229, the 'i' finger is tapped to B on the 5th string and then slides to C on the same string and then slides back to B.

![Image](image.png)

*Figure 5.227:* The tapping hammer-on of the 'i' finger to B on the 6th string.

![Image](image.png)

*Figure 5.228:* The tapping *glissando* with the 'i' finger to C on the 6th string.

![Image](image.png)

*Figure 5.229:* The tapping *glissando* with the 'i' finger back to B on the 6th string.
In Figure 5.230, different tapping \textit{glissandos} are shown on the 6\textsuperscript{th} string.

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{figure5.230}
\caption{An exercise for tapping \textit{glissandos} (CD 3, track 70).}
\end{figure}

In Figure 5.231, left-hand slurs are combined with tapping \textit{glissandos}.

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{figure5.231}
\caption{An exercise for tapping \textit{glissandos} (CD 3, track 71).}
\end{figure}

When two strings are tuned to the same pitch, two-finger right-hand \textit{glissandos} are much more effective due to the increase in volume. In Figure 5.232, because the 6\textsuperscript{th} string is tuned to D, the 4\textsuperscript{th} and 6\textsuperscript{th} strings are an octave apart.

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{figure5.232}
\caption{Two string tapping \textit{glissandos} (CD 3, track 72).}
\end{figure}

5.3.2.9 Etudes

In the first four measures of the author’s arrangement \textit{Kiz Bahçende Gül Var Mi?}, two-finger tapping hammer-ons, pull-offs, slides, eami arpeggiated up strokes, ea arpeggiated up strokes, \textit{bağlama rasgueados} and the ornaments are used (Figure 5.233).
Figure 5.233: Excerpt from author’s arrangement of *Kız Bahçende Gül Var Mı?*, measures 1-4 (CD 3, track 73).

In this Figure, the *scordatura* tuning produces D on the 6th and 4th strings and G on the 5th and 3rd strings. Most of the tapping hammer-ons, pull-offs and slides occur on these strings and they create parallel octaves. By utilizing this technique, the volume problem associated with tappings is solved.

In Figure 5.234, many tapping techniques mentioned above are used.

Figure 5.234: Etude with tapping techniques (CD 3, track 74).

Figure 5.235 is the guitar arrangement of Erdal Erzincan’s arrangement of *Deriko*. It includes various tapping techniques.
Figure 5.235: Arrangement of Deriko by the author (CD 3, track 75).
6. CONCLUSION AND RECOMMENDATIONS

The outputs of this thesis are the exercises and etudes to learn the hybrid techniques and the arrangements that make use of the hybrid techniques. In order to create the hybrid techniques, the historical background and performance techniques of the bağlama and classical guitar are analyzed in detail. Apart from this, the bağlama performance techniques in the classical guitar literature are examined.

In the arrangements of folk melodies and compositions with Anatolian and Western characteristics, the basic bağlama performance techniques such as the ornaments and basic tezene techniques are available. On the other hand, performance techniques such as the ornaments in the horizontal movement of the left-hand, the tezene rhythmic patterns, some of the traditional and contemporary selpe/pence techniques and the finger tapping techniques are rarely or not found. In the ‘East-West synthesis pieces’ of the repertoire, the harmonization approaches and the adaptation of Western styles and forms are more emphasized than the adaptation of bağlama performance techniques. Nonetheless, some of the techniques found in the repertoire such as the ornaments and tezene rhythmic patterns gave ideas that were developed in chapter five.

There are many shared techniques between the bağlama and classical guitar. The left-hand techniques such as hammer-ons, pull-offs, trills and glissandos and the right-hand techniques such as the basic strumming techniques, arpeggios, staccato and finger plucking are very close in both instruments. In addition to this, the basic flamenco guitar technique, rasgueado and its different patterns are the same as some of the traditional and contemporary selpe/pence techniques. The flamenco rasgueado patterns are also often used in the classical guitar repertoire.

As a result, these common techniques are omitted in chapter five. The bağlama techniques that are selected for adaptation are the ornaments in the horizontal movement of the left-hand, the tezene rhythmic patterns, some of the traditional and contemporary selpe/pence techniques and the finger tapping techniques.
On the classical guitar, the horizontal movement of the left-hand in ascending or descending scales is rarely found. The preference for scale fingering is across the fretboard. In the adaptation process, some intervals are added to these scales to make them polyphonic. The scales are also played with the *glissando* technique. The adaptation of the *bağlama* ornaments in the horizontal movement of the left-hand serves as a pedagogic tool. Guitarists face many new techniques in the contemporary guitar repertoire. It is advantageous for these players to learn unconventional techniques. The movement of the left-hand and the ornaments will develop the performer’s technical ability.

Five of the *tezene* rhythmic patterns are adapted to classical guitar. These patterns resulted in various strumming techniques, the development of the classical guitar tremolo technique and many new slur combinations. In *takma tezene* pattern, the up strokes in the arpeggio are introduced. Besides, many *bağlama* ornaments are played independently during a continuous arpeggio pattern. This feature is rarely used in the repertoire. For this technique, *scordatura* tuning is preferred. Some intervals are also added to these arpeggios. The main themes of the folk melodies, *Gel Yanına* and *Fidayda*, are arranged with these techniques.

The *çifileme* pattern is first adapted to the classical guitar tremolo technique and the tremolo type called ‘*çifileme* tremolo’ is created. The exercises to develop this tremolo are written with various *bağlama* ornaments. Besides, new strumming techniques are created by adapting the *çürpma* and *çifileme* patterns. By adapting the *hoplatma* pattern, the aim is to develop ‘i’ finger use. The pattern is played with the *bağlama* ornaments in the exercises.

The adaptation of the *çifilemeli takma* pattern results in an unusual execution of the rest-stroke with the ‘i’ finger. In addition to this, the tremolo type called ‘*çifilemeli takma* tremolo’ is created. The exercises to develop this tremolo are written with various *bağlama* ornaments. Lastly the *sürtma* pattern is adapted. It makes use of the ‘i’ finger in a technique similar to the flamenco *arrastre*.

The traditional and contemporary *şelpə/pence* techniques on classical guitar result in various strumming patterns. These patterns can also be used in flamenco guitar. The three arpeggiated up stroke types create an effect similar to the harp arpeggio. The *fiske* technique is a percussive technique that can be included in contemporary percussive guitar techniques.
The adaptation of bağlama finger tapping techniques offers many advantages for the classical guitar. Firstly by using this technique some intervals, which are not attainable in conventional playing, are achieved. Secondly, the available monophonic tapping techniques are converted to polyphonic types, which are not found in the classical guitar repertoire. Lastly, many fast passages, which can’t be played with the conventional plucking techniques, can be played by using tapping techniques.

There is no consensus about the notation of tapping. This thesis offers a notation system for the tapping technique. The methods used to avoid volume and bi-tones problems of the classical guitar tapping are also mentioned. The addition of the bass notes, two and three-finger right-hand tapping and tapping chords provide polyphonic tapping patterns for the guitar. Many exercises and the arrangement of Deriko are presented to develop these techniques.

At the beginning, the techniques may seem difficult to the guitarist due to their originality and the rarity in the repertoire. However, the techniques can be played without any difficulty if the exercises in this thesis are done properly. Beginner level guitarists aren’t encouraged to perform these techniques before learning all the main performance techniques. The execution of these techniques improves the technical level of the advanced guitarists.

These hybrid techniques have been used in five arrangements made by the author: Anonymous Anatolian folk music Kız Bahçende Gül Var Mı for solo and two guitars, anonymous Anatolian folk music Fidayda for 8-string adjustable microtonal guitar, Erdal Erzincan’s Anadolu for solo guitar and Kamkars Ensemble’s Xos e Hewreman for two guitars. The recommended approach is to use scordatura tuning for each of these arrangements. The use of open strings, the similarity to some bağlama tunings and new sound possibilities are some of the reasons for using scordatura.

In the arrangement of Kız Bahçende Gül Var Mı, the introduction comprises of various tapping techniques, ornaments and şelpe/pence techniques such as the bağlama rasgueado and the eami and ea arpeggio up strokes. In other parts, the techniques such as the independent left-hand hammer-ons with the knocking on the soundboard and the ami up strokes are also used. The Fidayda arrangement makes use of many bağlama ornaments and tapping patterns together with percussive effects and independent left-hand slurs. The arrangement of Anadolu includes various strumming patterns, tapping and ornaments. Tapping techniques,
independent left-hand slurs and imae arpeggio up strokes are used in the arrangement of *Xoş e Hewreman*.

These arrangements prove that the use of hybrid techniques create new colors and timbral effects for the classical guitar. The execution of these techniques brings a new approach to the arrangements of folk melodies.

Some recommendations for future research are as follows:

- By analyzing the folk necked lutes in detail, hybrid techniques can be created for the classical guitar. Guitarists and composers in different countries can apply this approach. For Turkey, the necked lutes such as the *oud, tanbur, tar, bouzouki, pandura, tchongouri, dotar* and *setar* can be analyzed with a similar approach and hybrid techniques can be created as in this thesis.

- The hybrid techniques that are presented in this thesis can be developed further. New exercises and etudes can be written and new combinations of techniques can be created.

- Composers or guitarists that arrange Anatolian folk melodies can use the hybrid techniques in their arrangements. These techniques offer possibilities for new timbres. The ornaments and *pençe/selpe* techniques can be used in playing the melodies. The arrangements can be based on specific *tezene* rhythmic patterns or tapping techniques.

- Composers or guitarists can use the hybrid techniques in their compositions. For creating effects, they can use the techniques such as the *pençe/selpe* and tapping techniques. The melodies can be played with the *tezene* rhythmic patterns and tapping techniques.

- The exercises and etudes in this thesis can be used as a pedagogic tool. The graduate programs of classical guitar departments can use these techniques for their students. Advanced-level guitarists can improve their techniques by practicing the exercises and performing the arrangements.

- In the recitals that feature pieces from the contemporary classical guitar repertoire, the arrangements that are made for this thesis can be performed.
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APPENDICES

APPENDIX A: EROL PARLAK’S SCHEME
APPENDIX B: SCORES OF THE ARRANGEMENTS
APPENDIX C: GLOSSARY
APPENDIX D: VIDEOS (DVD)
Figure A.1: Erol Parlak’s scheme.
APPENDIX B: SCORES OF THE ARRANGEMENTS

Fidayda

Anonymous Anatolian Folk Music

Arrangement for 8-String Adjustable Microtonal Guitar: Tolgahan Çoğulu

Figure B.1: Fidayda arrangement for adjustable microtonal guitar (CD 4, track 1).
Figure B.1 (continued): *Fidayda* arrangement for adjustable microtonal guitar (CD 4, track 1).
Figure B.1 (continued): *Fidayda* arrangement for adjustable microtonal guitar (CD 4, track 1).
Figure B.1 (continued): *Fidayda* arrangement for adjustable microtonal guitar (CD 4, track 1).
Figure B.1 (continued): *Fidayda* arrangement for adjustable microtonal guitar (CD 4, track 1).
Anadolu

Music: Erdal Erzincan
Guitar Arrangement: Tolgahan Çoğulu

* Tune the B string up 3 semitones to obtain B flat two. Play F sharp three on this string.

* Zip up the 2nd string by touching the related finger on the 3rd string.

* Pull the 1st string with the 4th finger from anywhere.

Figure B.2: Anadolu arrangement for solo guitar (CD 4, track 2).
Figure B.2 (continued): Anadolu arrangement for solo guitar (CD 4, track 2).
Figure B.2 (continued): Anadolu arrangement for solo guitar (CD 4, track 2).
Figure B.2 (continued): Anadolu arrangement for solo guitar (CD 4, track 2).
Figure B.2 (continued): Anadolu arrangement for solo guitar (CD 4, track 2).
Figure B.3: Kız Bahçende Gül Var Mi arrangement for solo guitar.
Figure B.3 (continued): *Kız Bahçende Gül Var* Mi arrangement for solo guitar.
Figure B.3 (continued): Kız Bahçende Gül Var Mt arrangement for solo guitar.
Figure B.3 (continued): *Kız Bahçende Gül* Var Mi arrangement for solo guitar.
Figure B.3 (continued): *Kız Bahçende Gül Var Mi* arrangement for solo guitar.
Figure B.4: *Kız Bahçende Gül Var Mi* arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül Var* *Mi* arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): Kız Bahçende Gül Var Mi arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül* Var Mi arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül Var Mı* arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül Var Mı* arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül Var Mi* arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül Var* Mt arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): Kız Bahçende Gül Var Mi arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül Var* *Mt* arrangement for two guitars (CD 4, track 3).
Figure B.4 (continued): *Kız Bahçende Gül Var* 
*Mü* arrangement for two guitars (CD 4, track 3).
Gradually bend the 6th string up while playing and create a buzzing effect cresendo poco a poco until measure 8.

Simile bars 5-12 hit the apparatus onto the 12 fret.

Figure B.5: Xoş e Hewreman arrangement (CD 4, track 4).
Figure B.5 (continued): Xos e Hewreman arrangement (CD 4, track 4).
Figure B.5 (continued): Xoṣ e Hewreman arrangement (CD 4, track 4).
Figure B.5 (continued): Xoş e Hewreman arrangement (CD 4, track 4).
damp the 1st and 3rd strings
with the a finger and the thumb
and use the i finger for
rapid down and up strokes

ad libitum

Figure B.5 (continued): Xosé Hewreman arrangement (CD 4, track 4).
Figure B.5 (continued): Xos e Hewreman arrangement (CD 4, track 4).
pick up the apparatus

Figure B.5 (continued): Xoş e Hewreman arrangement (CD 4, track 4).
Figure B.5 (continued): Xoş e Hewremen arrangement (CD 4, track 4).
Figure B.5 (continued): Xosé Hewreman arrangement (CD 4, track 4).
Figure B.5 (continued): Xoş e Hewreman arrangement (CD 4, track 4).
Golpe next to the bridge

Figure B.5 (continued): Xosé Hewremen arrangement (CD 4, track 4).
Figure B.5 (continued): Xos e Hewreman arrangement (CD 4, track 4).
Figure B.5 (continued): Xosé Hewreman arrangement (CD 4, track 4).
APPENDIX C: GLOSSARY

Alevi: Heterodox, Shiia-related communities of Anatolia.

Alzapúa: A flamenco guitar thumb technique.

Anatolia: The Asian part of modern day Turkey, Asia Minor.

Apoyando: The classical guitar rest-stroke.

Arrastre: A flamenco guitar right-hand technique.

Aşık: The Anatolian poet-musicians who play the bağlama.

Ayak: A generic term for melodic modes.

Bağlama: An Anatolian long-necked, plucked folk lute with movable frets.

Bağlama Düzeni: One of the main tunings of the bağlama.

Bağlama Rasgueado: A pençe/şelpe technique adapted to the classical guitar.

Bi-tones: A double sound produced by a hammer-on.

Bozuk Düzen: One of the main tunings of the bağlama.

Chordophone: Musical instruments in which one or more strings are stretched between fixed points.

Composite Chordophone: Chordophones, in which a string bearer and a resonator are organically united and cannot be separated without destroying the instrument.

Çarpma: A bağlama hammer-on played as a melodic embellishment.

Çekme: A bağlama pull-off.

Çırpm: One of the tezene rhythmic patterns.

Çiftleme: One of the tezene rhythmic patterns.

Çiftleme Tremolo: A tezene rhythmic pattern adapted to the classical guitar tremolo.

Çiftlemeli Takma: One of the tezene rhythmic patterns.

Çiftlemeli Takma Tremolo: A tezene rhythmic pattern adapted to the classical guitar tremolo.

Düzen: Tuning.
Fidayda: An Anatolian folk tune.

Fiske: A traditional pençe/şelp technique.

Golpe: The flamenco guitar right-hand percussive techniques.

Hammer-on: The classical guitar ascending slur.

Hoplatma: One of the tezene rhythmic patterns.

İkili: A traditional pençe/şelp technique.

Kistirma: A bağlama left-hand technique.

Koma: In Ottoman/Turkish art music theory a whole tone is divided into nine equal parts and each of these parts are called koma.

Kopuz: A necked lute of Asian origin or a generic term for Asian originated necked lutes.

Makam: The complex modal system used in Ottoman/Turkish art music and Anatolian folk music.

Mızrap: The bağlama plectrum.

Necked Lute: Instruments, which have a handle attached to or carved from the resonator, like a neck.

Ozan: Asian poet-musicians.

Parmak Vurma: Bağlama tapping.

Pençe: A bağlama finger playing technique.

Pull-off: The classical guitar descending slur.

Rasgueado: The flamenco guitar right-hand strumming technique.

Saz: A term for the bağlama or an Anatolian instrument family.

Serpme: One of the tezene rhythmic patterns.

Siyırtma: One of the tezene rhythmic patterns.

Slur: A classical guitar left-hand technique.

Şelp: A bağlama finger playing technique.

Takma Tezene: One of the tezene rhythmic patterns.

Tapping: An electric guitar and bağlama technique played with both hands.
**Tarama:** One of the tezene rhythmic patterns.

**Tavir:** A term that covers tezene techniques, personal styles, and regional styles of performance.

**Tel Çekme:** Bağlama plucking.

**Tezene:** The bağlama plectrum.

**Tirando:** The classical guitar free stroke.

**Türkü:** A term for Anatolian folk songs.

**Vurma:** The bağlama hammer-on.

**Zeybek:** A folk dance found mostly in Western Anatolia.
CURRICULUM VITAE

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Lecture Recitals:
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- North Hunterdon Regional High School, New Jersey, "Folk Music of Turkey," 31 October 2008

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