ABSTRACT

Title of dissertation: The Oud Across Arabic Culture
(*Bilād al-Shām, Iraq, and Egypt*)

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This study is a compilation and compendium of information on the *oud*,[1] the most important instrument in Arabic classical music. It has grown out of my own long-time involvement in studying and playing the *oud*, and in particular out of my interest in the lack of sources and knowledge available to the vast majority of *oud* players and researchers, as well as for the readers. My own path started from an intensive study of the *oud*, which included exposure to several treaties; some housed in museums around the globe, and some only available in the Arabic language.

The study combines archival research (including Arabic poetry and pre-Islamic Era and medieval treaties), symbolism, new archaeological discoveries, field interviews, and analysis of existing scholarship, and draws on my professional performance experience for detailed stylistic analysis of the *oud*'s performance practice and its historical development.

The study consists of participant observation, personal performance, and interviews conducted in person, via telephone, and/or via e-mail, according to the choice of the performers. The performers have been selected from networks of musicians who

[1] Sometimes spelled *ud* or *'ud*. Please see Appendix 1 for Arabic alphabet and pronunciations.

perform regularly at lounges, concert halls, and private events. These performers have been chosen according to their musical knowledge, technical skill, experience, and activity in Arabic music and *oud* performance.

Chapter one deals with the purpose of this study and the methods of investigation, as well as giving a brief overview of the history of the *oud.* In addition, there will be an introduction to the Arabic musical system (*māqām*), which is primarily based on the mechanics and sound production of the *oud*.

Chapter two deals with the *oud* in Arabic sources: the first source is Arabic poetry in the pre-Islamic Era. The second source is Arabic poetry in the medieval era, in which I found a significant number of poets who allude to the *oud*, providing accurate descriptions of the player, singers, and the scenes within the contexts of *oud* performance. The third source is the Arab scholars' intensive treatises with meticulous accounts of the instrument's apparatii, including descriptions and measurements of the parts, strings, and tuning.

While chapter three deals with the classification, the development of the *oud*, , chapter four deals with topics such as: the symbolism of the *oud* and its relation to cosmology, astronomy, mathematics and anatomy. In most of the pertinent Arabic writings, philosophers mention a significant correlation between the *oud* and the other sciences.

Chapter five deals with recreating the performance practice of the *oud*. A case study of the *oud* performers focuses on their style, technique, training, and personal experiences. Topics such as improvisation and ornamentation, the *oud* in the Arabic musical ensemble, the social uses and functions, and gender in musical performance

practices will be included in detailed analysis. Other important topics will be analyzed such as traditional vs. modern technique, and the repertoire of the *oud*. Specifically, in regard to technique, the study outline the style of the music, the role of the *oud* in Arabic ensembles, the function of the *oud* in music composition, and the form of the ensembles in Arabic performance and practice.

The *Oud* Across Arabic Culture

(Bilād al-Shām, Iraq, and Egypt)

العود عبر الحضارة العربية

By

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Dissertation submitted to the Faculty of the Graduate School of the
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Preface

The *oud* (عود) is the supreme classical Arabic instrument and one of the oldest chordophones in the Arab region. It is likely to have originated in Southern Mesopotamia (*bilad ma bayn a-nahrain* بلاد ما بين النهرين)[1]. The instrument dates back to approximately 3000 BCE, at which point works of archaeological evidence show us the *oud* on decorative functional items such as vases and cylindrical seals.[2] The popularity of the *oud* spread throughout the Middle East, the Mediterranean, the Northern and Western African regions, and Spain, as well as into Central Asia, and it is the most widely played chordophone in these areas. According to Henry George Farmer, most modern Western chordophones, including the lute, guitar, and mandolin, are descendants of the *oud*.[3] It has existed in its "modern" shape for over five hundred years. It is characterized by a round-backed body with one big hole in the middle of the face, called *shamsiyā* (شمسية)[4] and two small holes called *gamariyā* (قمريه).[5] The function of these holes is to increase the volume of the instrument. The *oud* is a fretless instrument, allowing the musicians to produce quarter-tones, bends and sliding notes, and to apply vibrato. According to music treatises written by al-Fārābi (d. 950 A.D.), the *oud* should have eight, ten, or twelve strings tuned in pairs.

Upon further explication of the significance of the *oud*, application of its technique and practice constitutes the basis of musical theory and composition for Arabic music as a whole. Remarkably, many of the Arab scholars-philosophers since the ninth century provided intensive descriptions and analyses within treatises, and connected the *oud* with other forms of arts and

[1] Mesopotamia, an ancient Greek term meaning "the land between rivers".
[2] A cylinder seal is a cylinder engraved with a 'picture story', used in ancient times to roll an impression onto a two-dimensional surface, generally wet clay. Cylinder seals were invented around 3500 BC in the Near East, at the contemporary site of Uruk in southern Mesopotamia.
Andrew Robinson. *The Story of Writing*. London: Thames and Hudson, 1995, p. 70.
[3] Henry George Farmer. A History of Arabian Music. London: Luzac & Company, Ltd, 1929, p. 89.
[4] *shamsia*: from *shams* شمس which means the sun in Arabic.
[5] *gamaria*: singular *gamar* قمر which means the moon in Arabic.

sciences, including astronomy, cosmology, anatomy, and mathematics. In short, the *oud*, as an ancient and living instrument, is considered the preferred choice for professional musicians and *oud* players because of the unique execution of melody from its strings.

At an early age, I studied Western classical violin. During this time, I also learned Arabic music technique, which is different from Western styles. In addition, I played the *oud,* like most Arab musicians, to understand the Arabic musical system (*māqām* مقام) and to be able to sing, especially the Arabic classical repertoire. At various times, I joined several musical groups and traditional ensembles. In addition, I established my own group (s) that gave me the chance to develop my knowledge of performance practice for large audiences. These performances were a priceless opportunity to learn, enriching my experience and my musical growth.

DEDICATION

To all my family:

My mother Turkiya, my father Shehadeh,

my four brothers, my five sisters,

my wife Christina, my daughter Savana, my son Ramses, and my son Alexander al-Kindi

ACKNOWLEDGEMENT

I want to thank Dr. J. Lawrence Witzleben for his support and investment of time and effort, Dr. Alaa Elgibali, Dr. David Salness, Dr. Karl Signell, and Dr. Munir Beken for their time. I want to thank the department of Ethnomusicology, School of Music at the University of Maryland, College Park, for the opportunity of having me as teacher assistance for three years. Also, I want to thank the *oud* players: Raḥim al-Ḥaj (Iraq), ʻAdel Salāmeh (Palestine-France), Issā Boũlos (Palestine-USA), and Sohiel Yoũnis (Lebanon-USA and Canada), and the *oud* maker Fādi Mattā (Lebanon) and Urāyeb Awād (Iraq).

Finally, special thanks to my wife Christina Campo-Abdoun for her encouragement, support and loving care were always instrumental in my research, my daughter Savana and my son Ramses for listening to my *oud* playing and humming along with me, and to my brother Mousa Shehadeh Abdoun.

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I: 1 Purpose of the study and Related Scholarship on the *Oud*:

This study has grown out of my own long-time involvement studying and playing *oud*, and from my awareness of the shortage of resources and knowledge available to *oud* players, researchers, and scholars. My own path began from an intensive study of the *oud* that included exposure to several Arabic treatises, some located in museums around the world, and others only available to readers of Arabic. [1] However, I found that many scholars, Western as well as Arab, published erroneous information about the *oud*, probably from lack a misunderstanding of Arabic. For instance, some scholar mistakenly translated al-Fārābi's The Great Book of Music كتاب الموسيقى الكبير to *Kitāb al-Musiqi al-Kabir* as *al-Mũsiqā* in Arabic means "music" while *al-Musiqi* means "musician", so the translation would be "The Great Book of Musicians." Also, many researchers translate the book of al-Kindi *al-Kitāb al-'Adām fi Talif al-Lohoũn* الكتاب الاعظم في تاليف اللحون to *Kitāb al-'Adm fi Talif al-Lohoũn*, in which *al-'Adām* الاعظم means the Great while *al-'Adhm* العظم means bones; so the meaning in this case would be "The Great Book of Bones." Also, I found that Henry George Farmer, in his book *The History of Arabian Music* divided the schools of Arabic music from the first century to the eleventh century AH into three school of thought: the old Arabian school, the Greek school, and the systematized school. Strangely, he added al-Kindi to the Greek school, while he added Isḥaq al- Māũseli to the old Arabian school. It is important to note that al-Kindi and al-Māũseli were living in the same period and their musical systems were thought to be similar regarding the intervals. Another mistake regarding the tuning of the *oud* appears in the British musicologist Kathleen

[1] The British Library's collection of Arabic manuscripts is world-famous. It is one of the largest in Europe or North America, comprising almost 15,000 works in 14,000 volumes. The manuscripts range in date from the early eighth century C.E. to the nineteenth century. (http://www.bl.uk).

Schlesinger's writing, where she claims that the second (*mithlāth*) and third (*māthnā*) strings of the *oud* were tuned a fifth apart while all Arabic sources of music demonstrate that the *oud* must be tuned a fourth apart.[2]

Over the years, the *oud* has been omitted, for the most part, from theoretical and scholarship studies. Overall, very few of the studies about Arabic music have dealt specifically with the musical system (*māqām*) and its association with the *oud*. Those comprehensive studies that do discuss the instruments do not go any farther than discussing generalities. Moreover, the large body of analytical studies, which cover material about Arabic music hardly discuss the musical aesthetics, performance, development, the use and function, and the tuning system.

Among the many scholarly studies on Arabic music was Henry George Farmer, who discovered and translated many Arabic treatises on music. He wrote books and articals regarding Arabic music and the *oud* such as "The Lute Scale of Avicenna," "An Old Moorish Lute Tutor," and "The Structure of the Arabian and Persian Lute in the Middle Ages." Nevertheless, he did not examine these treatises instead: most of his writings were historical rather than analytical. For example, ibn al- Taḥḥān described the measurements of the *oud* as 180 cm (more than five feet) and the width as 72 cm.

Owen Wright wrote an article about the *oud* player Ishāq al-Māũseli tuning system as "Ibn al-Mũnājim and the Early Arabian Modes," in which he misteknley considered the *bāmm* to be the first note of the ten notes of al- Māũṣeli equivalent to zero, the *māthnā,* according to ibn

[2] Kathlen Schliesinger (1862–1953). *The Instruments of the Modern Orchestra and Early Records of the Precursor of the Violin Family*. London, W. Reeves, 1910, p. 24.

al-Mũnājim. In addition, Wright remarkes that all the interprerations of these *mājāi* (course-modes) are generalized abstractions which "not only convey no information about the melodic character of the music, but whith their tacit assumption of an orderly series of equally important notes anchorded to a stable tonic, may be even misleading."[3] However, I will be examining Ibn al-Mũnājim's treatise in detail and clarify his method, which is known as *mājāi*.

Moreover, C. Sachs, S. Marcus, J. Racy, Amnon Shiloah, and Touma were among of the scholars who mentioned the *oud* briefly, but without any farther details about the measurements, tuning system, performance, technique aspect, and development of the instrument. However, I consider the book "*Music Performance Practice in the Early Abbasid Era 320-932*," by George Sawa, as one of the most comprehensive studies regarding the performance of the *oud* in Arabic musical practice.

This study is directed primarily to ethnomusicologists, whom I hope will find interest in my research. Rather than studying one culture's music in depth, the focus here is on one instrument and its remarkable development as the preferred principle instrument in Arab/ Middle Eastern culture. My own work with the *oud* for many years can be seen in hindsight as a course in the field of ethnomusicology, although certainly this was not my conscious intent during much of that period of my life.

At an early age, I studied Western violin. During this time, I also focused on learning Arabic music technique, which is different from Western classical music in many regards;

[3] Own Wright. Ibn al-Mũnājim and the Early Arabian Modes." In the *Gaplin Soceity Journal*, Vol. 19 (Apr., 1966), p. 41.

specifically tuning, improvisations, ornamentations, and performance practices. Therefore, my attention to studying the *oud* was originally for understanding the Arabic musical system (*māqām* مقام), and to be able to sing the Arabic classical repertoire. At various points in time, I joined several musical groups and traditional ensembles such as the Royal Jordanian Troup, Jordanian Radio and TV Group, and Jordanian Musicians Union Ensemble). In addition, I established my own groups (*Yarmoũk* University Arabic Ensemble, *al-Fhais* Group, Amman Players Ensemble, etc.) which offered me the chance to develop my knowledge of performance practices for reaching large audiences, in some cases, around seven thousand people. These performances were a priceless opportunity to learn, enriching my experience, and allowing my musical growth.

The first motivation for this study is to examine how the *oud*, as an ancient and living chordophone which has been passed from culture to culture throughout the world, and how it has endured as a timeless musical vehicle for the expression of history and oral tradition, religion, mythology, and musical development. The second motivation is the desire to share with musicians and scholars some of my own ideas and discoveries about the *oud*.

Throughout, I will be answering questions that deal with the *oud* and its importance in Arabic culture, writings, and performance practice. Some of these questions are:

Is there any meaning of the term *oud* besides "a piece of wood?"
Why did Arab philosophers give the *oud* so much attention in their writings?
What is the symbolism of the *oud* and its strings?
Was the *oud* ever a fretted instrument?
How can we classify the *oud*?
How did the *oud* develop over time?

What are the uses and functions of the *oud*?

Who is the intended audience for the *oud* performances?

I: 2 Method of Investigation

This study combines archival research (Arabic poetry from the pre-Islamic Era, medieval poetry, and Arabic treatises), symbolism, new archaeological discoveries, analysis of existing scholarship- professional performance experience- and detailed stylistic analysis of the *oud* s performance practice and its historical development. In addition, the study includes investigation of musical transcription of music for the *oud*, technique, tuning, playing style, current perspectives on the *oud*, and aesthetics of *oud* performance.

The methodology used in this study consists of participant observation, personal performance, and interviews conducted in person, via telephone, and/or via e-mail, according to the choice of the subject, as well as audio and digital video recordings of performances made with the consent of the subjects. The interviews consist of informal question and answer sessions conducted with reputable *oud* performers and *oud* makers. The subjects have been selected from networks of musicians who perform regularly at lounges, concert halls, and private events. These subjects have been chosen according to their musical knowledge, technical skill, experience, and activity in Arabic music and *oud* performance. Additional results were obtained through examination of historical writings, visual representations of the instrument, and observations.

Interview questions focus on the phenomenological experiences of Arabic music and *oud* performance. Questions may include the following:

Describe for me your first encounter with the *oud*.

What are some of your learning and performance experiences with the *oud*?

Could you describe for me what "tradition" means to you in terms of *oud* performance?

What method did you use for learning the *oud*?

What style do you play?

Have you ever played with an ensemble? If yes, what was the role of the *oud* within that ensemble?

When you compose your music and/or improvise, do you write these compositions? If yes, what system do you use?

Who is your audience?

If you did not grow up playing the *oud*, what attracted you to it?

What is it that you value most about the *oud* as an instrument?

I: 4 The Structure of the Study:

I will organize my research into five chapters. Chapter one deals with the purpose of this study and the methods of investigation, as well as giving a brief overview of the history of the *oud.* In addition, there will be an introduction to the Arabic musical system (*māqām*), which is primarily based on the mechanics and sound production of the *oud*. Throughout the years of my study and practice of the *oud*, I have found that studying this instrument is necessary and beneficial because of, what I believe is a shortage of resources in regards to its study and practice. In addition to scholarly research on pertinent music literature and Arabic treatises, my methods of research will include writing ethnographies, music analysis, and conducting interviews with professional *oud* players and makers in person and through other communication formats.

Chapter two deals with the *oud* in Arabic sources: the first source is Arabic poetry in the pre-Islamic era, especially the work of al-'Ashā.[4] Different names for the *oud* and descriptions of *oud* performance were mentioned in al-'Ashā's poetry. The second source is Arabic poetry in the medieval era, in which I found a significant number of poets who allude to the *oud*, providing accurate descriptions of the player, singers, and the scenes within the contexts of *oud* performance. The third source is the Arab scholars' intensive treatises with meticulous accounts of the instrument's apparatii, including descriptions and measurements of the parts, strings, and tuning. These scholars include al-Fārābi, al-Kindi, ibn Sinā, al-Armāwi al-Bāghdādi, ibn al-Mũnājim, al-Lādiqi, and Ikhwān al-Ṣāfā, etc. Finally, I will present analyses of illustrations and diagrams of the *oud* as found in sculptures, cylindrical seals, and several treatises. The illustrations and subsequent discussion address the shape of the *oud*, the length of the short-necked and longnecked *oud*, the development of the holes on the face of the instrument, the direction in which the instrument is pointed while playing, diagrams of varied instrumental ensembles, and other unique features. Some of these illustrations appear in al-Fārābi's *kitāb al-mũsiqā al-kabir* (Great Book of Music), also in al-Armāwi's book the *al-adwār*, *Māqāmat al-hāriri*, etc.

Chapter three will focus on the classifications and the development of the *oud*. The first classification of musical instruments occurred much earlier. Al-Fārābi, in his book *the Great Book of Music*, was the first to mention the classifications of musical instruments. He classified the instruments into three groups based on morphological characteristics and sound production; the first being string instruments; plucked stringed instruments (*oud* and *tanbũr*). These are

[4] *al-'Ashā* was known as *sinagāt al-Arab*), who was traveling across the Arab peninsula performing on the *sanj* (chordophone instrument; some believes it was idiophone instrument) accompanying singing his poetry.

divided into subcategories: open-stringed instruments (zithers: *ma'azif* and harp: *jānk*), and stopped (bowed) stringed instruments (*rabāb*). A second classification is wind instruments (flute type: *mizmār, sũnray* and *double mizmār*). The third categories are the instruments that produce sound by vibrating themselves such as *kasāt* (finger-cymbals), and instruments that produce sound by a vibrating membrane such as *dāff* (frame drums) and *tābl* (double-headed drums). All of these categories fit into the ancient classification system constructed by al-Fārābi, which underlines the importance of the *oud*, as indicated by it being mentioned first and extensively described as an instrument beyond all other instruments.

Furthermore, I will discuss the development of the *oud*, in reference to its physical, mechanical, and technical characteristics. Specifically, these developments entail the change of material of each part of the *oud*, the size and measurements of the apparatii, the strings and frets, right-handed technique, the tuning, the bridge and the neck of the instrument, as well as the type and name of the *oud*, as mentioned within ancient-historical Arabic writings.

Chapter four will deal with the symbolism of the *oud* and its relation to cosmology, astronomy, mathematics and anatomy. In most of the pertinent Arabic writings, philosophers mention a significant correlation between the *oud* and the other sciences. For instance, *al-Fārābi* says that the best *oud* had twelve strings, "the body of man is divided into three hundred and sixty veins …, and so, the best *oud*s are furnished with twelve strings, each one having thirty threads. Since 12x30=360, the strings are in complete sympathy with the physical constitution of man …and if a man holds the *oud*, and plays it with his hand, the 360 veins in his body are

touched and are in sympathy with the notes of the *oud*."[5] Another example regarding the strings of the *oud* is that the fourth string (*bāmm*) was black, the symbol of melancholy; the third (*mithlāth*), white for phlegm; the second (*māthnā*), red, for blood; and the highest (*zir*), yellow, for bile. Ziryāb (abu l-Ḥāsān 'Ali ibn Nāfie' c.789-857) added a second red string in the middle of the *oud*, and it symbolized the soul.[6]

Chapter five will deal with recreating the performance practice of the *oud*. Case studies of the *oud* performers will focuse on their style, technique, training, and personal experiences. These areas will be obtained mostly through participant observation and interviews with *oud* performers. Interview questions will focus on the phenomenological experiences of Arabic music and *oud* performance.

Topics such as improvisation and ornamentation, the *oud* in the Arabic musical ensemble (*al-tākht al-Arābi*), the social uses and functions, and gender in musical performance practices will be included in detailed analysis. Other important topics will be analyzed such as traditional vs. modern technique, and the repertoire of the *oud*. Specifically, in regard to technique, I will outline the style of the music, the role of the *oud* in Arabic ensembles, the function of the *oud* in music composition, and the form of the ensembles. Additionally, I will discuss the mutual influences of other musics on the performance and practice of the *oud*.

[5] Henry George Farmer. *The Structure of the Arabian and Persian Lute in the Middle Ages*. Journal of the Royal Asiatic Society of Great Britain and Ireland, No. 1, Jan., 1939, p. 51.
[6] J. Ribera, *Music in Ancient Spain and Arabia* (transl. by E. Hague from La musica de las cantigas), Stanford: Stanford University Press, 1929, p. 103.

One primary goal of this dissertation is to provide a comprehensive study of the history, technique, mechanics, performance practices, and ethnographic data on the *oud*. My intentions are to highlight the significance of the *oud* through time and across Arab culture as a principle instrument for performance and composition within the Arabic music system. This study is a culmination of years of practice, performance, and ethnographic study. By illuminating the developments and current performance practices, my ultimate goal is to add to the current collection of resources for scholarly study on the *oud*.

I: 5 History and Background:

Music can only be created and thrive in a society that is ready for it. Ancient societies who embraced music, singing, and dancing also embraced other arts such as architecture, sculpture, engraving, and drawing. It is noteworthy that some historians and ethnomusicologists believe that the *oud* appeared in ancient Egypt more than 3500 years ago (the modern Egyptian state began about the year 1600 BCE). A long-necked *oud* was dated back to 1300 BCE and a piece believed to be its plectrum made of wood**,** attached to a rope on the *oud*, was found in the cemetery of "goods" on the temples of a pharaoh. One indication of Egyptian society's interest in music is the fact that they honored it by designating a god of music named *Hathor*.[7]

[7] Abdel Halim Nour el-Din. *al-mũsiqā wal-ghina fi mesr al-gadima* (The Music and Dance in Ancient Eygpt). Cairo, Egypt. P.4-5.

Three Musicians from the funerary Tomb of Nakht, Thebes (ca. 1450 BC).
The main instrument was the harp, followed by norva (long nick Lute) and Flute.

Many researchers investigated the origin of the *oud* according to their knowledge and/or the evidence they had. For instance, the scholar Kathlen Schliensinger believed that the *oud* originated in Persia and that Arabs took it from there by the end of sixth century. [8] In 1927, the German scholar Benzinger believed that the *oud* first appeared in Egypt. [9] Sachs,[10] Reese,[11] Farmer,[12] Rimmer,[13] Turnbull,[14] and Collon[15] were opposed to this idea, and they believed that the Egyptians took the *oud* from Mesopotamia. While Sachs thought, the *oud* was Sumerian, [16] The German musicologist Stauder believed that the *oud* may have been found earlier in Aryan civilization. [17]

[8] Kathlen Schliesinger. *The Instruments of the Modern Orchestra and Early Records of the Precursor of the Violin Family*, p. 491.
[9] Sobḥi Anwar Rashid. *Tarikh al-Oud*. Damascus, Dār Ala' ed-Din, 1999, p.19.
[10] Court Sacks. *The History of Musical Instruments*. New York 1940, p. 102.
[11] Gusatv Reese. *Music in the Middle Ages*. London 1965, p.7.
[12] Henry George Farmer. *The Music of Ancient Egypt*. The New Oxford History of Music I: Ancient and Oriental Music, London 1966, p. 2731.
[13] Joan Rimmer. *Ancient Musical Instruments of Western Asia in the British Museum*. London 1969.
[14] H. Turnbull. "The origin of the Long Necked Lute." In *Galpin Society Journal*, No. 25, 1972, pp. 58-66.
[15] Kilmer Collon. "The Lute in Ancient Mesopotamia." Music and Civilisation, The British Musem Yearbook 4, 1980.pp. 13-23.
[16] Sacks. *The History of Musical Instruments*, 1940, p 102.
[17] Sobhi Anwar Rashid. *Tarikh al-Oud*. P.19.

A similar instrument found in Iran and attributed to the second century BCE resembles the *oud* in rough outline; the strings and their attachments on the two instruments are not distinguishable. [18] Iraqi musicologist Sobḥi Rashid, through comparative study of a set of effects and cylinder seal, believes that the *oud* was found in archaeological sites of different provinces in Iraq, that the first appearance of the instrument was in Mesopotamia during the Akkadian Empire era (2370-2083 BCE), and that the *oud* first appeared in Iran in the fifteenth century BCE.[19] Rashid attributes the invention of the *oud* to Akkadian and Semantic tribes who emigrated from the Arabian Peninsula to Iraq. The Babylonian documents show two types of lute: one with a very long neck and a small sounding-box, and the other with a short neck and a rectangular sounding-box.

The name of the *oud* in Akkadian languages (Babylonian and Assyrian) was *Inu;* in Sumerian civilization (3100-1700 BC), the name was *Gu-De*. This name was preceded by a sign referring to the wood or other material the instrument was made of to distinguish between different types of instruments.[20] *Inu* and *Gu-De*. meant "wood source of sound,", "talking sticks," and "instrument that produces sound."[21]

[18] Sachs, Curt. *The History of Musical Instruments*, p. 251-257.
[19] Sobḥi Anwar Rashid. *Tarihk al-Mũsiqā al-Arabyā* (History of Arabic Music). Germany, 2000. p. 181.
[20] Ibid, p. 153.
[21] Ibid, p. 154.

Babylonian Lute, c. 1800 BC
Terracotta, (Louvre)

Lute and small rectangular Lyre, cylinder seal.
Fourteenth century BC (Louvre)

Although I have great respect for *orientalist*[22] Dr. Henry George Farmer's contribution to Arabic music, I disagree with his belief that *ibn Sũrāij* (d. 726) and *Ma'abād* (d. 743) were the first to introduce the *oud* to Mecca, around 685 AD.[23] I found that this particular term for the *oud* was not known or used in any civilization until it was used in pre-Islamic era poetry.

According to Curt Sachs, "music histories written before the nineteenth century usually start with an account of the mythological invention of the earliest instruments."[24] Myth has since been replaced by history, and the invention of instruments is no longer attributed to gods and heroes. Still, people search to find out which instruments were invented first.[25] In this context, the definition of myth is "a story that is usually of unknown origin and at least partially traditional, that ostensibly relates historical events usually of such character as to serve to explain

[22] Since the nineteenth century, "orientalist" has been the traditional term for a scholar of Oriental studies; however the use in English of "orientalism" to describe academic "oriental studies" is rare. In 1978, the Arab-American scholar Edward Said published his influential and controversial book, orientalism; he used the term to describe a pervasive Western tradition, both academic and artistic, of prejudiced outsider interpretations of the East. Edward Said, orientalism. New York: Vintage Books, 1979.
[23] Henry George Farmer. *The Music of Islam. New Oxford History of Music,* V1. 1957, p.428.
[24] Curt Sachs. *The History of Musical Instruments*, p. 25.
[25] ibid, p. 25.

some practice, belief, institution, or natural phenomenon, and that is especially associated with religious rites and beliefs."[26]

Since the ninth century, at least six authors have credited *Lameck* (Leimck-لامك) with the invention of the *oud*; al-Mũfaddāl ibn Salāmā mentioned to Hishām ibn al-Kālbi (d. 819-21)[27] that the first person who made the *oud* and played it was the son of Qabil, the son of *Adam*, called Lameck.[28]

لامك بن متوشاح بن محويل بن عياد بن اخنوخ بن قايين بن آدم عليه السلام

> "Lameck had a long life; and as he had no children he married fifty wives and took two hundred concubines. He had two girls, Sila and Yamm. Afterwards, a boy was born to him ten years before he died. Nevertheless, the boy died when he was five years old, then Lameck grieved sorely for him. Therefore, he took him, hung him on a tree, and said: 'His form will not depart from my eyes until falls in pieces or die'. Then his flesh began to fall from his bones until only the thigh remained, with the leg, foot and toes. Therefore, he took a piece of wood, split it, made it thin, and began to arrange one piece on another. Then he made a sound chest to represent the thigh, a neck to represent the leg, a peg-box the same size as the foot, and pegs like the toes; then he attached strings like the sinews. Then he began to

[26] *Webster's Third new International Dictionary*. Editor: Merriam-Webster. Millions of Products, 2003.
[27] He is Hishab ibn Mohammad ibn al-Sa'eb ibn Bishr ibn Omar al-Kalbi, he was born in al-Kofa and died around 819-21 AD, he wrote about 150 books. Hisham al-Kalbi. *Ktiab al-Asnam.* Edited by Ahmad Zaki Basha. Cairo, Dar al-Kotom al-Mesrya, 1924.
[28] Ibn Khũrdādbāh, Nadeem al-Mũtamid bi-Allah. *Kitāb al-laḥow was al-malāhi* (The Book of Pleasure and its Musical Instruments). Beirut: Dār al-Mashriq, 1969, p. 35. Also, Ledyn Library (Or. 651, fols. 79).
There are two men in the Bible named Lamech (pronounced Leimck):
1) Lamech was a descendant of Cain, and the first man mentioned in the Bible as having two wives, Adah and Zilla (Gen. 4:18-24). By Adah he had two sons, Jabal and Jubal. By Zilla he had a son, Tubal-Cain, and a daughter, Naamah. 2) Lamech was the son of Methuselah (the son of Enoch, Jared, Mahalalel, Kenan, Enos, Seth, and Adam) and the father of Noah. Noah was born when Lamech was 182. On the birth of Noah, Lamech said "Out of the very ground that the Lord has put under a curse, this one shall bring us relief from our work and the toil of our hands" (Gen 5:29). This was a prediction of the coming flood, and the restoration of the earth by Noah. Lamech had other children and died at the age of 777. The name Lamech means "strong youth." Some believe that Lameck was born around 3282 BCE.
M. Eliade, *The Forge and the Crucible: The Origins and Structure of Alchemy*. University of Chicago Press, 1962. 97–104.

play on it and weep and lament, until he became blind…what he made was called *oud* because it was made from a piece of wood."[29]

Myth and symbolism have been associated with musical instruments by many cultures; for example, the lute in Dutch culture was for many centuries one of the most important instruments, and has often been considered a sensual instrument, both in its shape and sound. It has also been described in gendered terms, and there are several references comparing the lute's construction to the figure of a woman's body.[30] In fact, modern Dutch society defines the word *luit*, or lute, "as a vulgar reference to a woman's sexuality."[31] The curvature and pear-shaped body of the lute portray the hips of a woman. Some have made even stronger comparisons such as the sound hole, which in Dutch culture leads to the translation of the word *luit* as a reference to vagina.[32]

The word "*oud"* عود in Arabic means wood, but in our case: the word "*oud*" means a flexible stick.[33] The etymology of the word has occasioned numerous commentaries, among them Farmer's alluring thesis that the Arabs adopted the term to differentiate the *oud*, with its wooden sound-box, from a similar musical instrument found in the Arabian peninsula, called *barbat* or *gambus,* whose belly is covered with skin. [34]

[29] Abi Talib al-Mũfadāl ibn Salamā (9th century). *Kitāb al-Malahi* (copy of unpublished manuscripts, 44 pages), plate no. 16-19.
[30] Carla Zecher. "The Gendering of the Lute in Sixteenth-Century French Love Poetry." In the *Renaissance Quarterly* 53, no. 3 (Autumn 2000), 769-791.
[31] Henry M. Luttikhuizen. *A Moral Compass: Seventeenth and Eighteenth-Century Painting in the Netherlands.* New York: Rizzoli International Publications, Inc., 1999, 72.
[32] Carla Zecher, "The Gendering of the Lute in Sixteenth-Century French Love Poetry." In the *Renaissance Quarterly* 53, no. 3 (Autumn 2000), p. 72.
[33] Sachs, Curt. *The History of Musical Instruments*, p. 253.
[34] Larry Hilarian. "The gambus (lutes) of the Malay world: its origins and significance in zapin Music." Paper presented at the *UNESCO Regional Expert Symposium on Arts Education in Asia*, Hong Kong, 2004.

I would like to offer two theories about the name "*oud"*; First, I argue that the name "*oud"* may be drived from the Arabic word which means "*come back",* in reference to the mythical story, mentioned earlier, of *Lameck* and his son. In Arabic, for instance, one can say to some one who is leaving or has already left, "*oud"* عود or عد (come back) to express the emotional feeling of nostalgia. It is important to indicate that the word "*oud* عد*"* was also used in the Assyrian language of the Kingdom of Ūgarit (1450 to 1200 BC), the kingdom that gave humanity the first alphabet in the world.[35] The archaeological excavations in recent discoveries in Syria have proved that the first musical notation system was found in the Epic of Ugarit, and that there were musical instruments similar to the *oud.* These were widely used in religious ceremonies and even in ceremonial purposes related to the various social contexts. This is not surprising, for the peoples of that region have long been moving from one place to another, either because of trade or because of conquest. Because of this, I believe these nations shared various types of arts, music, and sciences. Therefore, the meaning "come back" carries a deeper meaning than "a flexible-stick" for a musical instrument that has been considered the most important of all Arabic instruments through the centuries.

The second possibility, is that the *oud* was an instrument was made of flexible sticks from the *oud tree* (scientific name Aquilaria SPP), which is aromatic, picturesque, and requires intensive cultivation in the production of perfume and incense.[36] The *oud* in Arabic is every

[35] Qasim al-Shawāf. *Aqdām mūsigā ma'roufa fi al-alām* (The Oldest Music Known in the World). Syria: Damascus, Dār aṭlas, 1999. P.123.

[36] Aquilaria SSP species from the family of Thymelaeceae are the main source of gaharu, which has been classified as one of the most highly valuable, non-timber products in the world market. Its distinctive fragrance has been valued in many cultures and it is widely used in religious ceremonies, medication, incense, and perfume and toiletry products. Due to its aromatic properties, Aquilaria has been widely used for thousand of years in Middle East, China, Japan, India and Indochina, notably in religious purposes by Buddhists, Hindus and Muslims either in the form of essential oil or incense sticks.

stage of the flexible wood; heavy wet or dry. Aisha (the Prophet Mũḥāmmād's wife) said, "I used to perfume Allah's Messenger with the best scent available - the *oud*- till I saw the shine of the scent on his head and beard."[37] When, ibn al-Abbās (the cousin of the Prophet) anoited his body with perfume of the *oud*, and walked along the road, people said, "ibn al-Abbās is walking, or the musk" (referring to the "*oud"*).

During the Umayyad and later Abbasid Era, the *oud* was mentioned by many philosophers and considered the basis for the writing and interpretation of the Arabic musical system. Also they tied the instrument to other sciences such as: mathematics, astronomy, cosmology, and anatomy. Al-Kindi, was the first one to name the notes using the alphabet system which is similar to the system used by the Europeans in the tenth century; about one century after al-Kindi. Al-kindi, al-Mãũseli, al-Fārābi, al-Armāwi al-Bāghdādi, al-Lādigi, and many other Arab writers have adapted their musical systems by devising the method of finger positions on the strings of the *oud*. Despite the excavated "string" musical instruments similar to the *oud*, which were found in many ancient cultures, the name *oud* first appeared in Arab culture, and it is still the most important instrument in Arabic musical practice.

When the Arabs conquered southern Spain (*Andalusia*الاندلس), the *oud* had great significance and opened prospects for inventing musical instruments such as the lute, and the guitar. Even Shakespeare attributed to the lute the power to transport the listener into a kind of

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Ahmad J. bin Jaapar. "Extraction of Gaharu Essential Oil Using Ultrasonic," (unpublished thesis). University of Malaysia, Pahang, 2008, p. 5-15.

[37] Saḥiḥ al-Bũkhāri. The English Translation of *Saḥiḥ Al Bũkhāri with the Arabic Text* (9 vols.) Vol 7, H5928.

ecstasy.[38] Over its long history, a truly enormous repertoire was created for the lute. American scholar Arthur Ness has estimated that 25,000 compositions survive for the Renaissance lute.[39]

Farmer stated that the Arabs admitted that no people had a greater liking for musical instruments than they did; certainly, no other people ever wrote so enthusiastically about them.[40] In sum, I argue that because of the interest of Arab writers, especially Arab philosophers, the *oud* was linked to various sciences in order to find a way out of the prohibition of music (*sama*' السماع) and to find an outlet for its reception by the Muslim society which had prohibited music and *sama'*. Al-Shafei' said that music and singing are a hated falsehood, and if some one deals in them, he will be considered a fool.[41] For this reason, I have found it difficult to find documentation on the subjects of studies involving music between the period that from the beginning of Islam (610 AD) to the emergence of the Arab philosopher al-Kindi (b. 801- d. 873).

I: 6 Brief Introduction to the Arabic Musical System (*the Māqām*المقام):

There is no doubt that when we talk about the *oud*, we must talk about the Arabic musical system *al-māqām* (prular: *māqāmat*) المقام since they are inextricably linked to each other. The *oud* was and still the basis of the interpretation of the Arabic musical system. However, the Arabic tone system is not tempered; the size of an interval can change while performing the *māqām,* giving rise to a particular characteristic coloring of a tone level and simultaneously

[38] The Lute Society: (http://www.lutesoc.co.uk).
[39] Ibid.
[40] Henry George Farmer. *The Music of Islam*, p. 442.
[41] Hamed Mũḥāmmād al-Ghazāli. *Kitāb Iḥia' Uloũm al-Din*, "*Adab al-Sama' wal-Wajd"*. Beirut, Dār al-Ma'refā. p. 1121. [He is Abdullah Mũḥāmmād Ibn Idris Al Shafi'I (767-820 AD), a prominent Imam who was a descendant from the Hashimi family of Quraysh tribe, which Prophet Mũḥāmmād came from.]

eliciting a specific emotional mood in the Arab listeners.[42] Al-Fārābi writes in his book *Iḥaṣa' al-ũloũm* احصاء العلوم (Classifications of Sciences):

> "…And so for the science of music it comprises, in short, the investigation of the virtues kinds of melodies, what they are composed of, what they are composed for, how they are composed, and what form must necessarily assume so that the performance of them becomes more impressive and effective." [43]

The *māqām* in Arabic music is a collection of musical sounds between sound and its frequency (reply جواب), following from one pitch to another until the eighth tone, which is the repetition of the first tone.[44] What distinguishes each *māqām* from the other *māqāms* (*māqāmat*) is the different dimensions (distance between sounds) between each degree of the *māqām*. The Arabic *māqām* consists primarily of a collection of tetrachords (*jins, ajnās* جنس) combined. The first (base) *jins* is considered the principal of the *māqām* and it is called "basis" *jins al-farea'* جنس الفرع, the second *jins* is called "the original" *jins al-āṣl* جنس الاصل.

Moreover, each principal *māqām* has a *gammāz* غماز (dimple), which is considered the common tone. The *gammāz* appears to be the starting point and conversion for other *ajnās*. Often used as the starting point of the *jins alfrea'*, it is ranked second in importance after the *al-garār* القرار (tonic note) in the melodic path.

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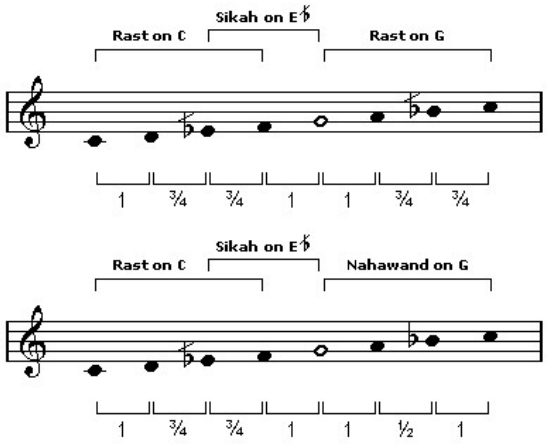
[42] Touma, Habib Hassan. *The Music of the Arabs.* Portland, Oregon: Amadeus Press, 1996, p.38-45
[43] Al-Fārābi. *Ihsa' al-ulum* (Classifications of Sciences). , *Dār al-hilal*, Beirut. 1996. P. 60-62.
[44] Scholars at the Arab Music Congress (1932) produced a list of 119 modes for Arabic music. D'Erlanger (1949) categorized these modes by absolute pitch level, and its intervallic structure (by genre, i.e., tetrachord, pentachord, etc.). The Congrès du Caire (Congress of Arab Music) مؤتمر الموسيقى العربية الأول . Mũtāmār al mūsiqā al arabiyā), unpulished document, Cairo, (March 14-April 3), 1932.

The Arabic musical system consists of a number of *māqāms* with more than two hundred and fifty forms, but there are nine basic and commonly used *māqāms*. The *māqāms* exchange places with each other to produce different *māqāms*, and these are as follows: *rāst, bāyāti, ajām, nāhāwānd, kũrd, ḥijāz, sikāh, sābā,* and *nāwā athār*. Each *māqām* settles at one degree of the musical scale, for instance, the tonic قرار of *māqām rāst* is C (ascending: the third and the fifth are quarter-tone) and (descending: the third is quartertone and the seventh B ♭). For each of nine *māqāms* derivatives of the branches and factions arise from changing the second *jins* to serve as the principle *māqām* of other, or from pursue the degrees from each other. Here is the foundation on which to build melodies consisting of a sequence of seven tones. When we add the eighth tone, called *diwān* ديوان, each *māqām's* special arrangement can be distinguished, one from another.

The modes of *māqām* feature more tones than are present in the Western musical system, including notably smaller intervals that are sometimes called microtones (half-flats and half-sharps). Arab melodies frequently use the augmented second interval, an interval larger than those of most Western melodies. The sound of Arab music is richly melodic and offers opportunity for subtle nuance and creative variation. In sum, *māqām* can be described as composition rules. They are definite scales, which are governed by certain rules. An *māqām* has no intrinsic (allegorical) value and is not bound to certain times of the day or year, as is the related Indian raga.[45]

[45] Seifed-Din Abdoun. *The Oud: the King of Arabic Instruments*. Arabila Production, Jordan, 1996, p. 73.



māqām rast

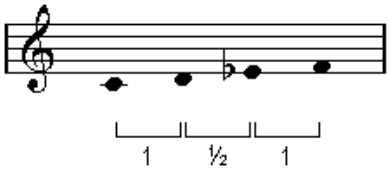
Many Arabs writers, who describe the *māqām* as mode, indicate the relationship between it and other sciences. For instance, Al-Fārābi and al-Ladiqi described the appropriate time of day for a specific *māqām* to be played. [46] The following diagram shows the appropriate *māqām* for the twelve parts of the day:

Arabic	Pronunciations	Time of the day	Māqām
الصبح الكاذب	*Al-sobeḥ*	The first hour of the day	*Rāhāwi*
البكور: الصبح الصدق	*Al-bakoũr*	Before sun rising	*Hũsāini*
الغداة	*Al-ghadāt*	When the rising sun	*Rāst*
الضحى	*Al-dhoḥā*	Rising sun	*Boslik*
الهجيرة:نصف النهار	*Al-hogairā*	Noon	*Zankolā*
وقت الظهر	*Noon prayer*	Noon Prayer	*Ūshāq*
الطفول: بين الصلاتين	*Al-tofoũl*	Between two prayers	*Hijāzi*
وقت العصر	*Al-'Asr*	Al-Assr prayer	*Irāq*
الغروب	*Al-groũb*	Late evening	*Asfāhān*
المغرب	*Al-Magreb*	Al-Magreb prayer	*Nāwā*
الغلس	*Al-galās*	After al-Isha'e prayer	*Bozrok*
التنوير	*Al-tanweer*	Between al-Isha'e and fajr prayer	*Zirafkānd*

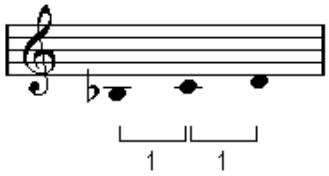
[46] These descriptions were found by Ibn Sinā (*Kitāb kinz al-tohāf*), al-Ṣafadi (*Risālā fi al-mũsiqā*), and al-Safagsi (*Ganoũn al-asfeya' fi ilm nagamāt al-adhākeya'*), etc.

The process of analyzing the *māqām* means clarifying the *ajnās* (singular: *jins*) and *oqdud* (singular: *'aqd* عقد) the structure of each *māqām*. The *jins* for example, consists of four tones/degrees and sometimes three degrees. Nevertheless, the *'aqd* consists of five tones/degrees. When analyzing the *māqām* we find that each *māqām* consists of two primary *jins* that are the foundations and the structure of the *māqām*. In addition, the *māqām* consists primarily of other subsidiary *ajnās* involved in constructing the *māqām*. We note the composition of these *ajnās* in connection with each other so the last tone/degree of the first *jins;* will be the first or the beginning of the second *jins.* Other *ajnās* compositions are separated from each other by one interval. However, some *māqāms* do not have a quarter-tone like *māqām ajam*, *nahawand*, *hijaz*, etc. In short, the *jins* is considered the basis of Arabic *māqām* and therefore of Arabic music; however, there are nine *ajnās* in Arabic music:

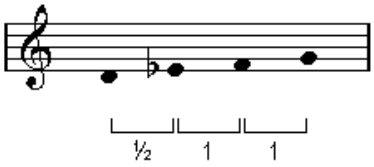
Nāhāwānd: 1, ½, 1 (C D Eb F)



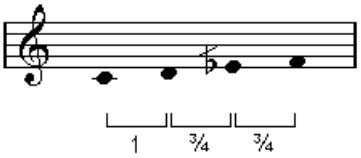
Ajām: 1, 1, ½ (Bb C D Eb)



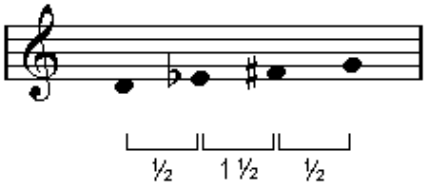
Kũrd: ½, 1, 1 (D Eb F G)



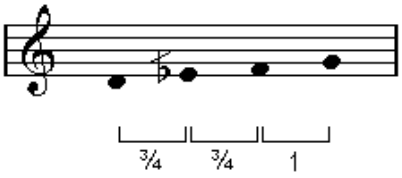
Rāst: 1, ¾, ¾ (C D E½b F)



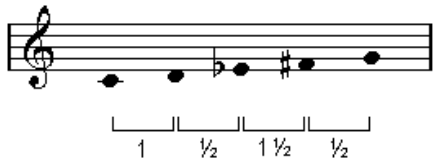
Hijāz: ½, 1½, ½ (D Eb F# G)



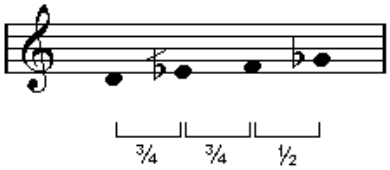
Bayāti: ¾, ¾, 1 (D E½b F G)



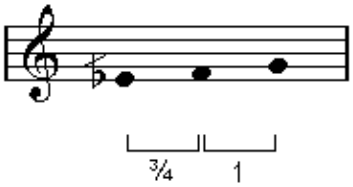
Nāwā athār: 1, ½, 1½, ½ (C D Eb F# G)



Ṣābā: ¾, ¾, ½ (D E½b F Gb)



Sikāh: ¾, 1 (E½b F G)



According to al-Lādiqi (who was alive in 1483 AD), the dimensional Arabic Music used among ancient Arabs had nine dimensions to which five more were later added during the fifteenth century based on the *oud's* tuning. The nine dimensions are: البعد البقية *albagiā wal-fadhlā* (residue), البعد المجنب *al-mũjānāb* (after the set-aside: above), البعد الطنيني *al-tānini* (whole tone), بعد ذي الاربع *thi al-arba'e* (fourth), ذي الخمس *thi al-khāms* (fifth), ذي الكل *thi al-koũl* (perfect), ذي الكل والربع *thi al-kũl wal-roba'e* (perfect *diwan* and fourth), ذي الكل والخمس *thi al-kol wal-khāms* (perfect diwan and fifth), and ذي الكل مرتين *thi al-koũl maratien* (two octaves). The five dimensions are: ذي الكل مرتين والربع *thi al-koũl maratien wal-roba'e* (two diwan and fourth), ذي الكل مرتين والخمس *thi al-kol maratien wal-khāms* (two diwan and fifth), بعد أ ه *boa'd A H* (the percentage of the whole and the fifth of the ninth third the whole 32/27), and البعد بالكل ثلاث مرات *al-boa'ed bil-koũl thalath marāt* (three octaves).[47]

[47] Mũḥāmmād ibn Abd al-Hamid al-Lādiqi. *Al-Risālāh al-Fathya fi al-Mũsiqā* . Edited by Hashim Mohammad al-Rajab. Kwiet. Al-Silsilah al-Turathya, 1986. pp. 67-96.

Ikwān al-Ṣafā (the Brethren of Purity) descried *al-ghinā'* (singing or music) as "composed of harmonious melodies, melody composed of well-ordered notes, notes are measured sounds, sound is a shock produced in the air following a collection of bodies against each other."[48] Even though the Arabic musical system is based on melody, the Arabs knew of the principle and the practice of harmony. They have advance in their horizontal *harmonia* as much as Western European music has developed in its vertical harmony.[49] They permitted devices known as the *tarkibāt* تركيبات, the simultaneous striking of the fourth, fifth, or octave (*diwān* ديوان) with other notes, but this was the only an infrequent decoration of the melody. Yet, as Helmholtz said of this suggestion, "the Europeans of those days could teach the Orientals-Arabs- nothing that they did not know better themselves, except some rudiments of harmony which they did not want."[50] The *māqāmat* (plural of *māqām*) were named according to one of the following:[51]

1. Designate an important note in the scale (*jahārkāh*: fourth position, *rāst, and nāwā*).
2. Or a city (*asfāhān*, or *nāhāwānd*).
3. A landscape (*ḥijaz* or *irāq*).
4. A person (*kũrd*).

II. The *Oud* in Arabic Sources and Social Context:

II: 1 Arabic Poetry شعر (*shi'er*) Pre-Islamic Era (The Ignorance Era عصر الجاهلية):

Rosenthal said in his book *The Mugaddimah of ibn Khaldoun: An Introduction to History*, that "the Arabs did not know anything except poetry, because at that time, they

[48] Amnon Shiloah. *Music in the World of Islam; A Socio-Cultural Study*. Wayne State University Press. Detroit, 1995, p. 110.
[49] Henry George Farmer. "What is Arabic Music?" Oriental Studies: Mainly Musical. London, 1953, pp. 53-8.
[50] H G Farmer. *The Music of Islam*, p. 464.
[51] Seifed-Din Shehadeh Abdoun, *The Oud: the King of Musical Instruments*, p.57.

practiced no science and knew no craft. The desert attitude was their dominant trait."[52] However, Rosenthal's statement is not consistent with facts and historical documents from that time relating to music and musical performance, which clearly show the existence of a thriving musical life during the pre-Islamic Era.

However, before searching for music in Arabic poetry during the pre-Islamic Era, we should know the meaning of the word *al-jahilyā* الجاهلية (ignorance) and identify the period, examining not only the musical heritage but also its different forms and substance. The period of Ignorance is a pre-Islamic Era because it was the age of foolishness in a linguistic sense, the era of hysteria, dynamism, strength, and invasions in the social sphere, and the era of the worship of idols. David Nicolle said that the relationships between Arabian tribes "was as volatile as those between neighboring states…political tension between the pre-Islamic tribes often reflected interference by the Roman and Sassanian empires."[53]

The *Al-jahilyā* Era, in the eyes of writers and historians, preceded Islam by approximately three hundred years, and identification of this date does not mean that the Arabs were in ignorance before the Islamic Era of scientific development and civilization. The religion of the Arabian Peninsula, especially in the south, was in its essence "a planetary astral system in which the cult of the moon-god prevailed. ...The north of Arabian *al-lla't* (اللات), who figured in the Qur'ān, may have been another name for the sun-goddess."[54] Therefore, pre-Islamic religious music is almost negligible. Secular music during that period was more important.

[52] F. Rosenthal. *The Mũgaddimah of ibn Khaldoũn: An Introduction to History*, (3 vols), Princeton, 1967, pp. 401-2.
[53] David Nicolle. *Historical Atlas of the Islamic World.* London: Mercury Books, 2004, p. 12.
[54] Philip Khuri. *History of the Arabs.* London: Macmillan and Co., Limited, 1949, p. 60.

If we look at the scientific and intellectual life in the pre-Islamic Era, we find science and arts markets such as the *sũg ũkāz* سوق عكاظ (Ūkāz market), which was the greatest place in Arab history, and which was the place where poets gathered to recite and sing their poetry. It was here that the famous *mu'allaqāt* (The Suspended Odes)[55] were recited or sung.[56] In addition to scientific knowledge, the Arabs of that era had the greatest impact on the Arab scientific and intellectual renaissance. In addition, we find music in pre-Islamic Era at the councils of kings and princes and in symposiums of writers and poets.

Arabic poetry possessed high social prestige everywhere. Jalalũddin Al-Sũyāti (1445–1505) stated in his book the *al-muzhir* (linguistics): "when there appeared a poet in a family of the Arabs, the other tribes round about would gather together to that family and wish them joy in their good luck. Feast would be got ready; the women of the tribes would join together in bands, playing upon their *oud*, as they were wont to do at bridals…for a poet was a defense to the honor of them all, a weapon to ward off insult from glorious deeds and establishing their fame forever."[57]

Arabic poetry depends on the special measurements called *ũroũd* عروض or *bũḥoũr* بحور, which are based on symbols and metaphor, and were transmitted by oral tradition until the arrival of al-Khalil ibn Ahmād,[58] who invented the *al-ũroud* system. Arabic poetry includes fifteen *bāḥr* (prular: *bũḥoũr*),[59] which are the base for classical Arabic poetry (see chart below):

[55] Al-Mua'laqat: is the title of a group of seven short and long qasida (Arabic poems) that have come down from the time per- Islamic Era. Each mua'alaqa (pl. Mũa'alaqāt) contains 126 pieces of verse. Each is considered the best work of these pre-Islamic poets.
[56] *Encyclopedia of Islam, i, A Dictionary of the Geography: Ethnology and Biography of the Muhammadan People.* London: Leyyden, 1908, p. 403
[57] H. G. Farmer. *A History of Arabian Music to the XIIIth Century*. London: Luzac and Co., 1929, pp. 9-10.
[58] Mahmoũd Ali al-Sammān. *Al-Oroud al-Gadimāh; Awzān al-She'er al-Arābi wa-Qawāfyāh*. Cairo: Dār al-Ma'arif, 1986, p 35.
[59] Ibid, p, 31 (Al-Akhfash, the student of ibn al-Aḥmād added the sixteenth bahr that called al-mutadark).

Name	Pronunciation	Symbols	
الوافر	*Al-Wafir*	مفاعلتُن مفاعلتن فعول	*Mufa'elaton mufa'elaton fa'ul*
الهزج	*Al-Hazaj*	مفاعيلن مفاعيلن	*Mafa'elon mafa'elon*
الكامل	*Al-Kamil*	متفاعلن متفاعلن متفاعل	*Mutafae'lun mutafa'elun mutafae'l*
الرجز	*Al-Rajz*	مستفعلن مستفعلن مستفعل	*Mustafe'lun Mustafe'lun mustafe'lu*
الرمل	*Al-Raml*	فاعلاتن فاعلاتن فاعلات	*Fae'latun fae'latun fae'lato*
المتقارب	*Al-Mutagareb*	فعولن فعولن فعولن فعولُ	*Fa'ulun fa'ulun fa'ulon fa'ul*
المتدارك	*Al-Mutadarak*	فعِلن فعِلن فعِلن فعِلُ	*Fa'lon Fa'lon Fa'lon fa'elo*
الطويل	*Al-Tawil*	فعولن مفاعيل فعولن مفاعِـلُ	*Fae'latun mafa'elo fae'latun mafa'elo*
البسيط	*Al-Basit*	مستفعلن فاعلن مستفعل فعِلُ	*Mustafe'lun fa'lon mustafe'lun fa'elo*
الخفيف	*Al-Khafif*	فاعلاتن مستفعلن فاعلاتُ	*Fae'latun mustafe'lun fae'lato*
المديد	*Al-Madid*	فاعلاتن فاعلن فاعلاتُ	*Fae'latun fa'lon fae'lato*
المنسرح	*Al-Munsareh*	مستفعلن مفعولاتُ مفتعلُ	*Mustafe'lun mafũlato mũfta'lo*
المضارع	*Al-Mudhare'e*	مفاعيلُ فاعلاتُ	*Mafa'elo fae'lato*
المقتضب	*Al-Mugtadhab*	فاعلاتُ مفتعلُ	*Fae'lato mũfta'lo*
المجتث	*Al-Mugtath*	مستفعلن فاعلاتُ	*Mustafe'lun fae'lato*
السريع	*Al-Sari'*	مستفعلن مستفعلن فاعل	*Mustafe'lun Mustafe'lun fa'lo*

The following is an example of how the *uroud* system works; *baḥr al-Ḥazāj*, which is one of the singing *baḥr*; it is a measurement مفاعيلن مفاعيلن (*mafae'lon mafae'lon*), so the indication of these measurements is as follows: ب – – – ب – – – / ب – – – ب – – –

The appropriate type of poetry had to be used with the Arabic *māqām* (mode). Al-Armāwi al-Bāghdādi gave a very unique description of the character of these *māqāmat* (modes); *māqām rahāwi* (weeping), *zirafkānd* (grief), *bozrok* (cowardice), *asfahān* (slumber), *nāwā* (bravery), *bũslok* (strength), *hijāz* (humility), *hũsaini* (peace), and *rāst* (unspecified!).

Mahmoũd al-Sammān stated that:

> "Song is compounded from melodies, and melody is compounded from notes that arise from beats and rhythms. And the origin of all of them is movement and rest, just as all the poems are compounded from hemistiches, and hemistiches are compounded from *mafaiel* (poem rhythmic

system), and the *mafa'iel* are compounded from *awtād* and *fawāsil*. And the origin of all of them is move and quiescent letters."[60]

Yemen was one of the most important sources of science, literature and musical arts, and the center for its influence was in the Arabian Peninsula. Many aspect of southern Arabian civilization were very distinctive.[61] The ancient Arabs considered singers of *Hadrāmout* and *Shebā* superior beings, and the kings of *Shebā* were kind to musicians and encouraged their art form.

The source of music and singing among Arabs is neither in the rhythmic templates nor in the Arabic language, but in the impact of some of the movements that are the foundation of music in the whole world. Bedouins sang spontaneously according to the rhythm of the long walk in the endless desert.[62] However, for pre-Islamic music, the music was not more than a naive type of intoning carried by the singer, depending on his/her taste or emotion, The advantage of the singer in the beauty of his/her voice presented his/her feeling, so each singer sang in a tone or *māqām*. The musical instruments that were deployed in the pre-Islamic Era vary according to the text of poetry by great poets during that period of history. I found that al-'Asha mentioned more than thirteen musical instruments in his poetry during his time. However, the focus in this section will be on the *oud* as represented in the works of Umrũ' al-Qais, Bishr ibn Abi al-Asādi, al-'Ashā, Lābid ibn Rae'a al-Amiri al-Hadhli, and Bishr ibn Abi Amro al-Bakri.

[60] Ibid, p. 54.
[61] Ibid, p. 16
[62] Simon Jargy. *Al-Mũsiqā al-Arabyā* (Arabic Music). Beirut: Al-Mansourāt al-Arabyā, 1977, p. 81.

Ūmrū' al-Qais (496-544) is considered the best poet in Arab history for his contributions and ideas. In fact, some argue that the Qura'an borrowed some quotations from his poem. For example:

Ūmrũ' al-Qais/Qurān	Pronunciations	Translation
قتل الإنسان ما أكفره	*gotila el-insano mā akfārah*	Woe to man! What hath made him reject Allah?[63]
اقتربت الساعة وانشق القمر	*igtārābato el-sa'āto wa-inshāq al-qamār*	The Hour (of Judgment) is nigh, and the moon is cleft asunder.[64]
(1) إِذَا زُلْزِلتِ الْأَرْضُ زِلْزَالهَا (2) وَأَخْرَجَتِ الْأَرْضُ أَثْقَالهَا	*ithā zũlzilāto al-ardũ zilzalahā* *wa akhrajato al-adũ athgālahā*	1.When the earth is shaken to her (utmost) convulsion, 2. And the earth throws up her burdens (from within).[65]

In the following verse, al-Qais referred to the *ghaniā* (songstress) playing on the *Kirān* (*oud*), and he paid her money to sing and play her instrument with emotion and versatility. I believe that al-Qais was the first to mention the *kirān* in Arabic poetry.

وإن أُمسِ مكروباً فيا ربَّ قينةٍ مُنَعَّمَـةٍ أعملتُهـا بـِكِـرانِ [66]

When I become troubled in the evening, many a delicate singing

Girl have I made to play on *a kirān*

Bishr ibn Abi Khāzim al-Asadi (d.598) described the *mizhār* played by a songstress. Her beauty was like that of a beautiful doll. My assumption is that during that period, the performers were interested in their appearance in the performance:

[63] The Holy Qura'an. Noor Foundation International, Inc.; seventh edition, *Ṣurāt Abasa* No. 80 (He Frowned!), 2005, verse No. 17.
[64] The Holy Qura'an, *Ṣurāt al-Qamar* No. 54 (The Moon), verse No. 1.
[65] The Holy Qura'an, *Ṣurāt al-Zilzal* No. 99 (The Earthquake), verse No. 1 and 2.
[66] Ūmrũ al-Qais. *Diwān Ūmrũ al-Qais*. Edited by Abdul Rahman al-Mastawi. Beirut: Dār el-Marefāh Publishing and Distributing, 2004. p. 185.

الواهبُ البيضَ الكواعبَ كالدُّمى

حــوراً بأيديهــا المزاهــرُ تعزفُ [67]

The beautiful songstress like dolls

Spirit into their own hands by playing the *mizhār* (*oud*)

In this, Dolce al-ʻAshā (d. 629) described the singer singing and teasing the audience during her performance. Her voice becomes gradually louder with the tune of the *mizhār* in unison.

وصَدوحٍ إذا يُهيجُها الشر ـبُ ترقَّتْ في مِزهَرٍ مندوفِ [68]

Other verses by al-ʻAashā:

وشاهِدُنا الوردُ والياســميــ ـنُ والمُســمِعاتُ بقُصّابهــا

ومـزْهَــرُنــا مُعمَــلٌ دائمٌ فــأيُّ الثلاثــةِ أزرى بهــا

ترى الصّنجَ يبكي لهُ شجوَهُ مخافةَ أنْ سوفَ يُدعى بها [69]

And we saw the roses and jasmine

And the songstress with the *qasābā* (*nāy*)

And the *mizhār* (*oud*) paying permanently

In which one of the three (instruments) to be blamed

You see the *sānjs* crying from nostalgia

Fearing it will be invited

[67] Boshr ibn Abi Khazim al-Asādi. *Diwān al-Asādi.* Edited by Majeed Tarad. Beirut: Dar al-Kitāb al-Arabi, 1994, p. 110.
[68] Al-ʻAashā, *Diwān al-ʻAashā.* Edited by Mūḥāmmad Husain. Cairo: Māktābāt al-Adāb, 1950, p. 315.
[69] ibid, p. 173.

Al-‘Aashā described a group of musicians performing on the *oud, nāy,* and *sānj*. The verse suggested that the *oud* was to be played accompanied by other musical instruments as an ensemble, along with singing.

Another verse by al-‘Aashā:

لتبكني قينـــةٌ ومِزهرُهـــا ولتبكني قهـــوةٌ وشـــاربُها [70]

And to make me cry with her *mizhar*

And let it make me cry, the coffee and its consumer

Al-‘Aashā also mentioned two musical instruments in the following verse; the *sānj* , which appeared to be a chordophone whose strings he described, and the *barbat*: He described the use of right hand plucking the strings. Also, he mentioned the audience in the event referring to their “drunkenness.” I assume the performance took place in a *ḥanah* حانة (bar). The function of the *oud* is for pleasure:

ومُسْـــمِعتانِ وصنّاجـةٌ تُقلِّبُ بالكـــفِّ أوتارَهـا

وبَرْبطُنـا مُعْمَـــلٌ دائمٌ فقد كادَ يغلبُ إسكارَها [71]

And the musicians and the *sānj* player

Play with hands on their string instruments

Our *barbāt* plays continuously

It almost overcomes the drunkenness

[70] Ibid, p. 219.
[71] Ibid, p. 319.

Two other musical instruments mentioned by al-'Aashā in his poem are the *mũstajib* (*oud*) and the *sānj*. The verse suggested that the function of the long performance was for enjoyment and pleasure:

وَمُستجيبٍ تخالُ الصنَّجَ يسمعُهُ
إذا تُرجِّــعُ فيــهِ القينــةُ الفُضُــلُ
من كلِّ ذلكَ يومٌ قد لهوتُ بــهِ
وفي التجاربِ طولُ اللهوِ والغزلُ [72]

And the *māstajib* you thought you heard *sānj*
While a ragged songstress responded to it
From all this a day I enjoyed
And experienced long pleasure and love

In the following poem, al-'Aashā mentioned four musical instruments performing together as a group; *mustaq*, *wan*, *barbat*, and *sanj*. He said, the sound of *mustag*,[73] the music of *wan*,[74] composed *barbat*,[75] *a*nd the sound of *sanj* when in rapture:

And a *mũstajib*, and a *wān* and *barbāt*
Which a *sānj* answers when it resounds

وَمُسْتَقٌّ سينين، وونّ، وبَرْبَطٌ يجاربُــهُ صَنْــجٌ إذا ما ترنَّمــا [76]

[72] Ibid, p. 59.
[73] *Mizmār*: flute type instrument
[74] *Wān*: chordophone instrument similar to *tāmboũr* and the closest to the *oud*.
[75] *Tāmboũr*: musical instrument similar to the *oud* with one string and wooden sound box.
[76] al-'Aashā. p. 293.

Al-A'asha described a very skilled singer playing the *atāb* (*oud*). Therefore, the singer caressed his *oud* with passion and poignant grief, and turned it over with his palm. The voice of the singer was a combination of sharp, thin and deep rough sounds in unison with his instrument. We find that the poet and the host of the performance gathered around the performance of the singer and his *oud*. It is important to mention that the four-stringed *oud* was used during al-'Ashā's time including what he described as the *zir* string (the fourth sting on the *oud*). The verse suggested that music was performed in the home of wealthy people:

ولقد أغـــدو على نَدمانِهـــا وغدا عندي عليهـا واصطبحْ
ومُغَـــنٍّ كلمـــا قيـــلَ لـهُ أسمِعِ الشَّربَ فغنَّى وصدحْ
وثنى الكفَّ على ذي عَتَبٍ يَصِلُ الصوتَ بذي زيرٍ أبحْ
في شـبابٍ كمصابيحِ الدُّجى ظاهرُ النعمـــةِ فيهمْ والفرحْ [77]

In this verse the poet combined four varied musical instruments and their sounds were distributed as follows: the *alon* (*oud*) hitting its tendons, the *nāy* over its melody, the *barbāt* in hoarseness and sadness, and the rhythm of the *sānj*, which is grief.

من قهوةٍ باتت بفارسَ صفوةٍ تـدعُ الفتى ملكاً يميـلُ مُصرَّعا
بالجلسـان، وطيبٍ أردانُـــهُ بالونٍّ يضربُ لي، يكرُّ الإصبعا
والنايِ نرم، وبربطٍ ذي بحةٍ والصنجُ يبكي شجوَهُ أن يوضعا [78]

Of coffee has become brave elite

Let the boy king tend his death

[77] Ibid, p. 243.
[78] This poem is by al-A'asha but was found in *kitāb Ibn Gotaiba. Al-Shi'r wa-Sho'ara'*. p.Vol. I, p. 257.

A good companion friend

Plays the *alon* with his fingers

The beautiful melody of the *nāy*, and the sadness of *barbāt*

And the grief of *sānj*

Labid ibn Rabi'a al-Ameri (d. 661) depicts the long legs and chest of a person in rhetorical innovation with the chest (*sādr* صدر العود) of the *kiran* (*Oud*).

صَعْلٌ كسافلةِ القناةِ وظيفةٌ وكأنَّ جؤجؤَهُ صفيحُ كِرانِ [79]

Al-Ameri described the singer, playing the *kirān* and the *mowāttār*, with kindness and creativity. We found that the use of the *ibhām* ابهام (thumb) was to pluck the strings at al-Ameri's time.

بسماعِ صادحةٍ، وجذبِ كرينةٍ بمُوتَّرٍ تأتالُهُ إبهامُها [80]

For a morning draught of pure wine and the attraction of a

Songstress with *an mũwāttār* to which her thumb adjusts

Tamim ibn Mogbil al-Ameri described how he used to go to a singing lounge and listen to a long-necked, beautiful singer playing her *oud* while the audience gathered around her drinking with joy. He heard a tender, tortured voice. It appears that the singer was dancing, while the movement of her dress and legs were in quick harmony with the strings of the *oud.* It is an amazing picture of such a performance that includes singing, playing, and dancing:

[79] Labid ibn Rabe'a al-Ameri. *Diwān Labid ibn Rabe'a al-Ameri*. Edited by Ihsan Abbas. Kiewit, al-Turath al-Arabi, 1962. p. 148.
[80] Ibid, 314.

وغناءِ مســمعةٍ جررْتُ لصوتِهــا

ثوبــي، ولــدَّةُ شــاربٍ وفضــالِ

صدحَتْ لنا جيداءُ تركضُ ساقُها

عنــد الشروب مجامعَ الخلخــالِ

فضلاً تُنازعُها المحابضُ صوتَهـا

بــأجشَّ لا قطــعٍ ولا مِصْحــالِ [81]

Saeda ibn Joyah al-Hadhli said his religion came to him as if his chest stretched like the string of the *shāre'* شرع (the old *oud*). Therefore, he described his chest from the tune of the *oud* for the worries and grief he suffers.

وعاودني ديني فبتُّ كأنما خلالَ ضلوعِ الصدرِ شرعٌ ممدَّدُ

Also, al-Hadhli described his nostalgia for the ancient *shāre'* (*oud*) and its melody;

وبكْرٌ كلمَّا مُسَّتْ أصاتَتْ ترنُّمَ نَغْمِ ذي الشرعِ العتيقِ [82]

Bũshr ibn abi Amro al-Bikri described two performers; the songstress singing and the other playing the *ma'tab* (*oud*). It was said that he had two endeavors (*garyā* جاريه); one was singing and other was playing on the *ma'tab*.

وتبيتُ داجنةً تجاوب مثلها خوداً منعمةً، وتضربُ معتبا [83]

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[81] ibid, p. 189.
[82] Khowaelid ibn Khālid Abu Do'aib al-Hadhli. *Diwān al-Hadhli'*, Vol. 1, Lebanon, 1998, p. 94.
[83] Abũ al-Abbas al-Mũfaddal ibn Mũhāmmād al-Dibbi. *Diwān al-Mũfdlyiāt*. Beirut: Mātba'at al-Yasũe'en, 1995, p.554. [poem by Bũshr ibn abi Amro al-Bikri].

The following selected poems are dedicated to a unique type of discourse about the *oud*, which was conducted within the medieval era of Arab culture with the focus on the time of Umāyyād and ‘Abbāsid. I will shorten this part of the study on poetry translation from that era, as I believe it will be sufficient for the purpose of our subject.

Poem by abũ Abd Allāh ibn Sharāf al-Qayrawāni (d. 1067):

سَقَى اللّهُ أَرْضاً أَنْبَتَتْ عُودَكِ الَّذِي زَكَتْ مِنْهُ أَغْصانٌ وَطابَتْ مَغارِس
فَغَنَّى عَلَيْـهِ الطَّيْرُ وَالْـعُودُ أَخْـضَرُ وَغَنَّى عَلَيْـهِ الْغِيـدُ وَالْعُودُ يـابِس [84]

May Allah bless the land that made your *oud* sprout
From which branches grew and groves were fragrant
When the *oud* was green birds sang on it
When the *oud* became dry, maidens sang on it

Poem by Abu Mohammad Abd Allah ibn As’ad al-Yafi’e:

وَطُنْبُورٍ مَلِيحِ الشَّكْلِ يَحْكِي بِنَغْمَتِـهِ الْفَصِيحَةِ عَنْدَلِيبـاً
رَوَى لَمَّا رَوَى نَغْماً فِصاحـا حَواها فِي تَقَلُّبِهـا قَضِيباً
كَذا مَنْ عـاشَرَ الْعُلَماءَ طِفْلا يَكُونُ إذا نَشا شَيْخاً أَدِيباً [85]

A beautiful *tanbũr*, which imitates
In its eloquent melody, a nightingale
When it sings, it transmits eloquent tunes
Which it has encompassed in its swaying to and for as a twig
The same goes for whoever associates with scholars as a child

[84] Abũ Abd Allāh ibn. *Sharāf al-Qayrawāni, Diwān ibn Sharāf al-Qayrawāni*. Edited by Hasan Hasan Dhikri, Cairo: Maktabāt al-Kulliyyat al-Azhariyyā, 1983, p. 68 .
[85] Abũ Mũḥammad Abd Allāh ibn As’ad al-Yafi’i. *Mir’at al-Janān wa-Ibrāt al-Yaqthān fi Ma’rifāt ma Yu’tabār min Ḥawādith al-Zamān* مراة الجنان وعبرة اليقظان في معرفة ما يعتبر من حوادث الزمان (copy of manuscript), pp.652-3.

That person will grow up to be an educated person

Poem by Aḥmād ibn Abd al-Wahhāb al-Nũwayri (1703-1792):

لا تَحْسُبِ ٱلْعُودَ إنْ غَنَّتْكَ شادِنةٌ جاءَتْكَ بِٱلطَّيْفِ فِيهِ نَغْمَةُ ٱلْوَتَرِ
وَإِنَّما ٱلطَّيْرُ أَلْقَتْ عِنْدَهُ خَبَراً فَعَذَّبُوهُ فَنَمَّ ٱلْعُودُ بِٱلْخَبَرِ [86]

When a singer sang for you playing on the *oud*

Do not think that the sounds of the strings come from the *oud*

Rather the birds entrusted some information with it

Then it was tortured, and the *oud* revealed the news

Poem by Ṣafi al-Din al-Ḥilli (1277-1351):

عُودٌ حَوَتْ فِي الْأَرْضِ أَعْوادُهُ كُلَّ الْمَعانِي وَهْوَ رَطْبٌ قَدِيمْ
فَحازَ شَدْوَ الْوُرْقِ فِي سَجْعِهِ وَرِقَّةَ الْماءِ وَلُطْفَ النَّسِيمْ [87]

An *oud*, whose branches contained in the past, when it was moist

All the meanings when it was old

It gathered the song of the doves cooing

The murmur of the water and the excitement of the breeze

Also, al-Ḥilli said:

وَعُودٍ بِهِ عادَ السُّرورُ لِأَنَّهُ حَوَى اللَّهْوَ قِدْمًا وَهْوَ رَيَّانُ ناعِمٌ
يُغَرِّبُ فِي تَغْرِيدِهِ فَكَأَنَّهُ يُعِيدُ لَنا ما لَقَّنَتْهُ الْحَمائِمُ [88]

An *oud*, by way of which happiness was restored because of

[86] Aḥmād ibn Abd al-Wahhāb al-Nũwayri, *Nihayāt al-Orab fi funān al-Arāb*. Cairo: al-Maktabā al-Arabiyyā, 1964: V, 123.
[87] Ṣafi al-Din al-Hilli. *Diwān Safi al-Din al-Hilli*. Beirut: Dār Ṣāder. 1956. p. 270.
[88] ibd, p. 269.

Absorbed music when it was verdant and tender

It makes weep when it sings, as though it

Repeats to us what the doves have murmured in its ear

Poem by Abd Allāh Ibn al-Mũ'tāzz (861-909):

وَمُخْطَفَةٍ غُصْنِيَّةٍ رَشَئِيَّةٍ تَرَى الْعَيْنُ فِيها كُلَّ شَيْءٍ تَمَنَّتْ
أَسِيلَةِ مَجْرَى الدَّمْعِ خَوْدٍ غَرِيرَةٍ كَأَنَّ بِخَدَيْها شُمُوساً تَجَلَّتْ
كَأَنَّ القُمارِي وَالْبَلابِلَ غَرَّدَتْ لَدَى الْعُودِ فِي أَصْواتِها حِينَ غَنَّتْ [89]

A slender woman as a stunner and vigorous

The eye can see in her all that it wishes

An inexperienced beautiful woman with smooth cheeks

As though suns glow reflected in her beauty

It is as though birds and nightingales

The *oud* in her voice when she sang

Poem by A1i ibn Abi 1-Hũsāyn (d. 1039):

كَأَنَّ عُودَكَ صَبٌّ يَشْتَكِي أَلَمَ الْـ ـبَلْوى وَأَلْفاظُهُ تَرْجِيعُ أَوْتارِ [90]

As though your *oud* is a passionate lover complaining

The pain of tribulation and the sound as if its repetitions of strings

Poem by Māhmoũd ibn al-Ḥassān Kũshājim (d. 930):

جاءَتْ بِعُودٍ كَأَنَّ نَغْمَتَهُ صَوْتُ فَتاةٍ تَشْكُو فِراقَ فَتًى [91]

[89] Abd Allāh Ibn al-Mũ'tazz. *Diwān Shir ibn al-Mũ'tazz: San'at abi Bakr Muhammad ibn Yaḥya al-Suli*. Edited by Yunus Aḥmad Samarra'i. Beirut: Alam al-Kutub li-l-Tiba'a wa-1-Nashr wa-l-Tawzi', 1997: III, p. 475.
[90] Mũḥāmmād ibn al-Hasan ibn al-Kattāni. *Kitāb al-Tashbihat min Asha'ar ahl al-Andalũs*. Edited by Ihsan Abbas. Beirut: Dār al-Thaqafã, 1967, p. 430. The poem by *A1i ibn Abi 1-Husayn* (d. 1039).

She brought an *oud* whose melody was

Like the sound of a maiden suffering from separation from her beloved

Also, Kũshājim said:

وَتَحْمِلُ عُودًا فَصِيحَ الْجَوابِ يُحاكِي اللُّحُونَ بِأَشْكالِها
لَهُ عُنُقٌ مِثْلَ ساقِ الْفَتاةِ وَدَسْتانُهُ مِثْلَ خَلَخالِها
فَظَلَّتْ تُطارِحُ أَوْتارَها بِأَهْزاجِها وَبِأَرْمالِها [92]

And she carries an *oud*, eloquent in retort

Imitating melodies in their appearance

Has a neck is like a girl's leg

And its frets are like her anklet

And she converses with the strings

With her singing and modes

Also, Kũshājim alluded to the Arabic musical theory of affinities between the strings of the *oud* and the four elements of the cosmos (earth for the *bāmm*, water for the *mithlāth*, air for the *māthnā*, and fire for the *zir*):

فَلِلنّارِ مِنْهُ الزِّيرُ وَالْأَرْضُ بَمُّهُ وَلِلرِّيحِ مَثْناهُ وَلِلْماءِ مَثْلَثُهْ
وَكُلُّ امْرِئٍ تَشْتَاقُهُ مِنْهُ نَغْمَةٌ عَلَى حَسَبِ الطَّبْعِ الَّذِي مِنْهُ يَبْعَثُهْ [93]

The *zir* corresponds to fire, the *bāmm* to earth

The *māthnā* to air and the *mithlāth* to water

The *oud* has a tune for every one you long for

[91] Māḥmoũd ibn al-Hassan Kũshājim. *Diwān Kũshājim.* Edited by Abd el-Wahid Sha'an . Beirut: Maktabat al-Hanji, 1997, p. 51.
[92] ibd, 150.
[93] ibid, p. 88.

According to the nature, the *oud* evokes it with

Also, Kũshājim said:

شَدَتْ فَجَلَتْ أسْماعَنـــا بِمُخَفَّفٍ يُـحَدِّثُهـــا عَنْ سِـرِّهِ وَتُـحَدِّثُـــهْ
مُشـــاكِلَةٌ أَوْتَـارَهُ فِـي طِباعِهـــا عَناصِرُ مِنْها أَلَّـفَ الْخَلْقَ مُحْدِثُـهْ
فَلِلنّـارِ مِنْـهُ الزِّيـــرُ وَالْأَرْضُ بَمُّـهُ وَلِلرِّيـــحِ مَثْنـاهُ ولِلْمـــاءِ مَثْلَثُـــهْ [94]

She played [*the oud*] and filled our ears with ecstasy

It told her his secret, and she told it hers

Corresponding to its strings is her natures

Elements from which creation was put together by its creator

The *zir* corresponds to fire, the *bam* to earth[95]

The *māthnā* to air and the *mithlāth* to water

Also, Kũshājim said:

هٰذا وَمُحْسِنَةٍ بِالْعُـودِ عاشِقُهـا بِذلِكَ الطِّيبِ فِي الْأَحْيـانِ مَسْرُورُ
إذا تَثَنَّتْ وَغَنَّتْ خِلْتَ قامَتَها غُصْنًـا عَلَيْهِ قُبَيْلَ الصُّبْحِ شُـحْرُورُ [96]

Beautiful songstress with an *oud* as if it's her lover

Happy with this goodness in times of pleasure

When she sways and sings, imagine her beauty!

As a flexible-twig, on which before dawn a blackbird sits

[94] ibd, p. 57.
[95] *zir* is the fourth sting of the *Oud* (the heights string), and the *bam* is the first string (the lower).
[96] Sinan Antoon. *The Poetics of the Obscene: Ibn al-Hajjaj and Sukhf*. Ph.D. Dissertation, Dept. of Near Eastern Languages and Civilizations, Harvard University, 2006, p. 135.

إذا احْتَضَنَتْ عُودَها عابَثَ وَناغَتْــهُ أَحْسَنُ أنْ يُعْرِبـا

تُدَغْدِغُ فِـي مَـهْلٍ بَطْنَــهُ فَيُسْمِعُنا مُضْحِكًا مُعْجِبا [97]

When she cradled her *oud*, he was playful

She whispered to it gently to behave

She tickled its belly lightly

Her voice emitted amusement and admiration

Poem by Ibn Abi Hajalā (d. 1356):

وَفَتـاةٍ قَدْ راضَتِ الْـعُودَ حَتَّى راحَ بَعْدَ الْجِمـاحِ وَهْوَ ذَلِيلٌ

خافَ مِنْ عَرْكِ أُذْنِهِ إذْ عَصاها فَلِهٰذا كَمـا تَقُولُ يَقُـولُ [98]

A girl who pleased her *oud* until after being recalcitrant

And kept engaging with her submissively

He feared she would twist its ears if it were rejected

And thus repeated what she said

Poem by Abũ Hilal al-Askāri (920-1005):

[97] Shihab Ed-Din ibn Ahmad ibn Abal-Wahab Al-Nuwayri, *Nihayat al-Erab fi finoun al-Arab*, V. Egypt, 1925, p. 124.

[98] Ahmad ibn al-Qasim ibn abi Hajala, *Diwān al-Ṣababa.* Beirut: Dār wa-maktabāt al-hilal, 1999, p. 236-237.

وَلَنـــا مِزْهَرٌ كَمِثْلِ فَطِيـــمٍ ... فِي يَدِ مُطْرِبٍ كَأُمِّ الْفَطِيـــمِ

وَسَمُوا صَدْرَهُ بِعـاجٍ وَذَيْلٍ ... فَزَهَتْهُ مَحـــاسِنُ التَّوْسِيـــمِ

مِثْلَ أَرْضٍ تَحَبَّرَتْ بِأَقـاحٍ ... أَوْ سَمـاءٍ تَكَلَّلَتْ بِنُـجُـومِ

ذُو مَلاوٍ سُودِ الْفُرُوعِ وَحُمْرٍ ... مِثْلَ أَطْرافِ فَرْحَةٍ وَنَعِيـــمِ

وَدَساتِينَ لا تَجُولُ عَلَيْـــهِ ... كَخَلاخِيـلِ مـارِدٍ وَظَلُـومِ

أَحْمَرُ الزِّيرِ أَسْوَدُ الْبَمِّ أَحْوَى ... هَلْ رَأَيْتُمْ جَداوِلَ التَّقْوِيـمِ؟

[99]

And we have *mizhār* [*oud*] like a weaned baby

In the hand of a songstress, like the mother of infant

They adorned its chest with ivory and decoration

And made it beautiful and shining

Like a land decorated with chrysanthemums

Or a sky culminated with stars

Possessor of *mālāwi* [pegs-box], black and red

Like the fingertips in joy and festivity

And frets on none of which it settles

As the anklets of a giant who acts unjustly

Its *zir* [high string] black, its *bāmm* [low string] red

Have you seen the tables of the calendar?

Poem by Shihabed-Din ibn Abd al-Wahhāb Al-Nuwayri (d. 1333):

[99] Abu Hilal al-Askāri, *Diwān al-Ma'ani*. Edited by Aḥmad Ḥassān Basj. Beirut: Dār al-Kotūb al-Ilmyāh: 1994, I. p. 328.

غَنَّتْ فَأَخْفَتْ صَوْتَها فِي عُودِها فَكَأَنَّما الصَّوْتانِ صَوْتُ الْعُودِ
غَيْداءُ تأْمُرُ عُودَها فيُطِيعُها أَبَداً وَيَتْبَعُها اتِّباعَ وَدُودِ [100]

She sang hiding her voice in her *oud*

As though the two voices were the *oud' s* tune

A beautiful girl, commanding her *oud* and it obeys

Always, and follows her happily

Poem by Aḥmād ibn Mũḥammed Al-Maqqāri (1591-1632):

وَلاعِبَةِ الْوِشاحِ كَغُصْنِ بانٍ لَها أَثَرٌ بِتَقْطِيعِ الْقُلُوبِ
إذا سَوَّتْ طَرِيقَ الْعُودِ نَقْراً وَغَنَّتْ فِي مُحِبٍّ أَوْ حَبِيبِ [101]

A women playing with a scarf like a branch of bamboo

She tears our hearts apart

When she plays a tune on the *oud*

And sings to a lover or beloved

Poem by Bashar ibn-Bũrd (676-748):

جرى اللؤلؤُ المكنونُ فوقَ لسانِها لزوّارِها من مزهرٍ ويراعِ
إذا قلَّبتْ أطرافُها العودَ زلزلتْ قلوباً دعاها للصبابةِ داعِ [102]

[100] Al-Nũwayri, Shihab Ed-Din ibn Aḥmad ibn Abal-Wahab. *Nihayat al-Erab fi Finoun al-Arāb, Turāthnā;* V. Egypt: Cairo, al-Mu'ssasā al-Misriya al-'Ammā li-l-Ta'lif wa-l-Tarjamāh w-l-Tiba'a wa-l-Nashr, 1964, p. 613.
[101] Al-Maqqāri, *Nafh al-tib min Ghusn al-Andalũs al-Ratib*. Edited by Iḥsan Abbās. Beirut: Dār Ṣadir, 1968, p. 445.
[102] Bashār ibn-Bũrd. *Diwān Bashār ibn Bũrd.* Edited by Mũḥāmmād al-Taher ibn A'shoũr. Cairo, 1966: Vol. VI, p.99.

Were hidden pearls over her tongue

For her visitors from the *mizhār* [*oud*] and *yara'a* [*nāy*]

If she turned the edge of the *oud*, she moved

Hearts were invited to ecstasy

Also, ibn-Bũrd said:

شغلتني المدام والقصف عنها بقراع الطنبور والاوتار
واستماعي الغناء من كل خود ذات دل بطرفها السحار
فدعوني فذاك أشهى وأحلى من سؤال التراب والاحجار [103]

The drinking and music took me away from her

By the tune of *tanboũr* and strings [*ouds*]

And listening to singing from all directions

During the nights of joy

Then leave me alone because the singing is delicious and beautiful

From questioning the soil and stone

By examining the examples of Arabic poetry given above, one can find that eleven different names of the *oud* were being used during the pre-Islamic Era including:

- *kirān* كيران chordophone similar to the *oud* with a wooden belly
- *mizhār* مزهر wooden-bellied *oud* plucked with the thumb
- *barbāt* بربط chordophone similar to the *oud*
- *mũstajib* مستجب the *oud*
- *mũstāq* مستق chordophone similar to the *oud* with a bass sound
- *alon* الون chordophone

[103] Ibid, p. 284.

- *mowātār* موتر the *oud* with one string
- *shāre'* شرع the *oud,* also the string of the *oud*
- *ma'tab* معتب the *oud*
- *tāmboũr* طنبور chordophone similar to the *oud* with one string
- *ṣānj* صنج chordophone with one string, also described as a cymbal

In addition, one can note that only a few names of the *oud* were used in Arabic poetry during the Medieval Era such as *oud*, *mizhār*, and *tanboũr*. However, I believe that Arab poets had some knowledge of the *oud* and its parts such as the names of the strings (e.g. *zir*).

II: 3 Arab-Muslim Historical Writings:

II: 3: 1 Al-Kindi

The Arab philosophers were interested in the knowledge of music and wrote many treatises concerning rhythm, melody, and musical instruments. It is fair to say that some Arab philosophers and scientists have left a musical legacy on science and theories of music. We find that abũ Yoũsef ibn Isḥaq al-Kindi (801-873) known as "the philosopher of the Arabs" was the first to use the Arabic alphabetical method to explain musical notation. Al-Kindi and other writers who follow his method used the alphabet أ ب ج د ه و ز ح ط ي... ل ك a b g d wa z h ta ya …L k) to express the musical symbol characters on the neck of the *oud* to identify each tone by linking certain fingers to certain *distān* دستان (frets) and alphabetical characters. In this section of this study, I will focus on the writing that concerns the *oud* as the principal musical instrument of Arabic music.

One of the most important treatises was *kitāb al-mũsawatāt al-watariā min dhat al-watār al-waḥid ila dhat al-asharāt awtār* كتاب المصوتات الوتريه من ذات الوتر الواحد الى ذات العشرة اوتار (Book of sounding strings instruments of one string to ten strings). The treatise dealt with the eight rhythmic modes used in al-Kindi's time; *thaqil awāl, thaqil thāni, makhũri, khafif thaqil, rāmel, khafif rāmel, khafif khafif*, and *hāzj*. The treatise made a connection between the four-stringed *oud* and the ecliptic arcs, zodiac, positions of the stars, seasons, days, elements, ages, winds, humors, and colors. Each string of the *oud* is associated with the expression of particular emotions and feelings. Al-Kindi said:

> "…the most necessary thing for the musician is that he should employ in each time of the day, what resembles that time from the rhythms, like his employing at the beginning of the day the glorious, generous, and liberal rhythms, and they are the *thaqil awal* and *thaqil thani* rhythms. And in the middle of the day and at the time of the strength of the soul, the venturesome and glorious rhythms, and they are *makhũri* and what resembles that. And at the end of the day, in the stillness, the joyful and merry rhythms, and as for the times of sleep and lying down of the soul, the sad rhythm, and it is the *thaqil al-mũmtād*."[104]

Al-Kindi, together with Isḥaq al-Māũseli and ikhwān al-Ṣāfā (Brethren of Purity), belongs to the "*oudiest* school" also known as the old school of the *oud*. He is also known for his encyclopedic knowledge and his many treatises, seven of which are in the field of music. According to *kitāb tarikh al-ḥokama'a*,[105] al-Kindi wrote six treatises on music while *kitāb al-fahrāst*[106] mentioned seven treatises on music. Meanwhile, *Ouoũn al-anba'a*[107] mentioned eight treatises of which:

[104] Al-Kindi. *kitāb al-Mũsawatāt al-Watariā min dhat al-Wātār al-Waḥid ila dhat al-Asharāt Awtār*. Edited by Zakaria Yousef. Baghdad, 1962, p. 78-79.
[105] Al-Qifti. *Tarikh al-Ḥokama'a* (copy of manuscript).
[106] Ibn al-Nadeem. *Kitāb al-Fahrast* (copy of manuscript).
[107] Ibn abi osba'aih. *Ououn al-Anba'a* (copy of manuscript).

Risālāh fi ajzā' khũbaryiah fi al-mũsiqā رساله في اجزاء خبرية في الموسيقى (Treatise Concerning Concise Information on Music) dealt with the eight rhythmic modes and affiliations between the four strings of the *oud* and feelings. [108] *Risālāh fi khũbr ta'alif al-alḥān* رساله في خبر تأليف الالحان (Treatise Concerning the Knowledge on the Composition of Melodies) dealt with the fourth, fifth, and the *diwān* (octave) on the *oud*, the places of the notes, the kind of *ajnās* (tetrachords), and the notes in use within one *diwān* and within two *diwān*s (sigl. *diwān*). [109] *Mũkhtasār al-mũsiqā fi ta'alif al-naghām wa sũna'ato al-oud* مختصر الموسيقى في تأليف النغم وصنعة العود (Compendium of Music Concerning Compositions of Melody and the Building the *oud*), dealt with the composition of melody, and the construction of the *oud*, including its length and depth among other things. [110]

Al-Risālāh al-ũdhmā fi al-tale'af رسالته الكبرى في التأليف (The Great Book on Compositions)[111] dealt with the four strings of the *oud*, tuning, and the number of tunes in a performance. Al-Kindi said the tunes are seven: the first one is *mũtlāq al-bāmm*, the second *sābābāt al-bāmm*, the third *wũṣṭā* al-bam (it is minor) and *bonşor* al-bam (major) and both (the *wũṣṭā* and the *bonṣor* are on the same *distān*), etc. Also, the *Risālāh* dealt with the affiliations between the four strings of the *oud* and cosmology.

The first dimensions in al-Kindi's *Risālāh fi al-luhoũn wa-naghām* were on making the *oud*; these were allocated by al-Kindi and not only determined the sizes of parts and the general

[108] Al-Kindi, *Risālāh fi Ajzā' Khũbaryiah fi al-Mũsiqā*. Berlin: The National Book Library, MS. We. 1240, fols. 31V.-35V.
[109] Al-Kindi, *Risālāh fi khũbr Ta'alif al-Alḥān.* British Museum, MS. Or. 2361, fols. 165-8.
[110] Al-Kindi, *Mũkhtasār al-Mũsiqā fi Ta'alif al-Naghām wa Sũna'ato al-Oud*. Berlin: The National Book Library, MS. We. 1240, fols. 5530.
[111] Al-Kindi. *Al-Risālāh al-Ūdhmā fi al-Tale'af* . Berlin: The National Book Library, MS. We. 1240, fols. 22-24V.

shape of the instrument, but also explained the importance of the relationship existing between the parts of the instrument. Also, he explained the importance between the parts of the *oud* and the *dāsātin* distances. He stated that the depth is seven fingers and a half, half the width and a quarter of the length.[112] As he said, the neck should be one third of the length.[113] Furthermore, he stated that the secret to making the *oud* more efficient and accurate isthe *oud*s differences in size, depth, width, shape, thickness, and measurements. These are clear indications that al-Kindi delineated related to this complex physical instrument.

In the second dimension, al-Kindi described the material of the strings and the thickness of each one in its unique physical structure. Also, he described how to tune the strings to cope with the physical structure of the gut for the clarity of the tone compared to other materials.

In the third dimension, he dealt with the position of tones and the numbers of *dāsātins*. He pointed to the possibility of adding the fifth string (bottom of the *zir*) and tuning it a fourth a part. Thus, the fifth string would symbolize the astronomic element and the relationship to the philosopher's theory of cosmology.

II: 3: 2 Al-Fārābi:

The second renowned philosopher who wrote about Arabic music, especially the *oud*, was Al-Fārābi (872-950). Despite the large number of books by al-Fārābi in all sciences,

[112] Isba' (pl. asabie') equal 2.25 cm and isba' madmoum is equal 4.50 cm.
[113] Al-Kindi. Al-Risālāh al-udhma fi al-taleaf, p

including music, the only surviving book is *The Great Book of Music*,[114] which has been translated into the French by Baron D'erlanger in two parts, the first of which appeared in 1930 and the second in 1935.

The *Great Book of Music* is considered one of the most comprehensive books on Arabic music, delving into all aspects of Arabic music in theory and in practice. The book, which is a huge manuscript, won international fame in the community concerned with the study of music. Baron Carra de Vaux said that *the Great Book of Music* is not only the greatest work on the theory of Oriental music, but the greatest work, which has been written up to al-Fārābi's time. He was certainly in advance of the Greeks.[115]

This book is divided into two parts; part one dealt with the first principle of musical science, definition of music, musical classification, musical genres, origin of music and musical instruments, music education, music theory, and music experiences. The second part of the book dealt with *tawāfiq* توافق (harmony), *ajnās*, *diwān*, and a description and methods for tuning of the *oud*.

In his description of the *oud*, al-Fārābi accurately describes the exact location of the fingering, which produces the desired tone when provided with a moveable *distān*, The most commonly used *dāsātin* during al-Fārābi's era as he mentioned, were four; they were placed on the neck of the *oud*, so that the fingers could reach them as easily as possible. The first *distān* is

[114] Abi Nassr Mũḥāmmad al-Fārābi. *Kitāb al-Mũsiqā al-Kabir* (The Great Book of Music). Edited by Gatass Abdel Malk Khashabā. Cairo: Dār al-Kitāb al-Arābi, 1967.
[115] Baron Carra de Vaux, in R. d'Erlanger, *La Musique Arabe, Tome I, al-Fārābi*. Livers i et ii, Paris, 1930, pp. vii-xi.

that of *sābābeh* (the index finger), the second, of *wũṣṭā* (the middle finger), the third is *bonṣor* (the ring finger), and the fourth *distān* is *khonṣor* (the little finger). According to al-Fārābi's, the sections generally used on each string of the *oud* are equal in number to the commonly used *dāsātin*. Also, he provided the *dāsātin* of the *oud* that combined the basic diatonic arrangement of *ajnās* with additional *dāsātin* suited for playing two newly introduced neutral (microtonal) *ajnās* based on the limma and comma subdivisions of the whole-tone. Appendex 2 represents the distance between the *dāsātin* on the neck of the *oud* based on al-Fārābi's description of the instrument.[116]

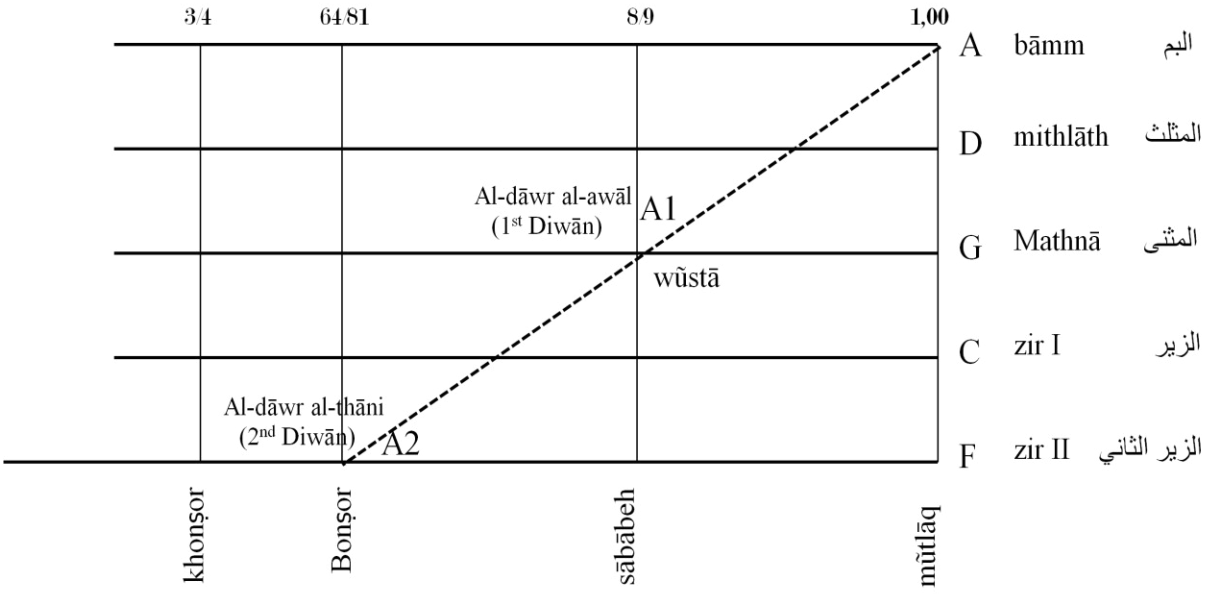
In *The Great Book of Music*, al-Fārābi described how different methods can be applied to the tuning of the *oud*: nine simple and six complexes. In addition, he compared the tuning of other musical instruments such as the *tamboũr bagdadi*, *tamboũr khũrasāni*, *rabāb*, *mizmār*, and *nāy* to the tuning technique of the *oud*.

Al-Fārābi discussed the importance of adding a fifth and sixth string to the *oud* to produce two *diwāns* ديوانين (two octaves). He said, let us tune in the old compatibility tuning…if we tune the bottom as *mũtlāq al-bāmm* (open string: A), the first *diwān* (first octave) would be *sābābāt al-māthnā* (A1), and *al-diwān al-thāni* (second octave: A2) would be *bonṣor al-khāmis* (*bonṣor al-zir al-thāni*).[117] The result produces two *diwāns* (see the following chart).

[116] KMK, p. 131.
[117] KMK, p. 123-125.

First and second *Diwan* (Octave) on the *Oud al-Farabi*

by Seifed-Din Shehadeh Abdoun



II: 3: 3 Others:

Another writer who discussed the *oud* in his writing was ibn Sinā – Avicenna (980-1037).[118] These are some of his ideas: "and there is something fixed above the *distān* of *sābābeh* (first finger) another *distān* which is named the *zai'd* (surplus) *distān*. Next to the *sābābeh distān* is the *wũṣṭā distān* (second finger), which is sometimes placed in deferent places. The first *distān* of these is named the old *sābābeh distān*, *wũṣṭā* is named the Persian second finger *distān*, and the third is named the *Zalzalian* second *wũṣṭā*. As for the old *wũṣṭā*, it is tied near to the quarter of what is between the *sābābeh* and *bonṣor distān* (third finger). The *Zalzalian wũṣṭā distān* is tied and it is approximately upon three-quarters of what is between them."[119]

[118] Ibn Sina, *Kitāb Māfatiḥ al-Ūloũm*. British Mus., MS. Or. 2361, fols. 157-161IV.
[119] Ibn Sina, *Kitāb al-nājāt*. Bodleian MS. March 161, fols. 1-9. Also, *Moa'alafāt ibn Sinā*. George Qanawati. Cairo, 1950.

In his *kitāb al-najāt* كتاب النجاة (Book of the Delivery) he devoted the last two sections of the book to the mathematical sciences that dealt with the science of music, the definition of the *māqām* and music, the *ajnās*, the definition of *iqa'a* (rhythm), and musical instruments including the *oud*. [120] However, the fretting of the *oud* was different from that in previous writings. He called the Pythagorean third (294 cents) the old Persian second finger *distān*. Farmer said: "His system of fretting does not embrace the *Zalzalian* third (343 cents) in the second octave, whilst his exclusion of the old Persian anterior fret (90 cents) deprives him of the lower octave responses of the old Persian second finger fret notes."[121] The following chart represents the *oud* according to ibn Sinā's description:

		STRINGS				
		Bamm	*Mathlath*	*Mathnā*	*Zīr*	*Ḥadd*
	Nut . . .	0	498	996	294	792
FRETS	[Old Persian anterior] [1]	[90]	[588]	[1086]	[384]	[882]
	[Diatonic] anterior .	112	610	1108	406	904
	Zalzalian anterior .	139	637	1135	433	931
	1st finger . .	204	702	1200	498	996
	Old Persian 2nd finger	294	792	90	588	1086
	Zalzalian 2nd finger .	343	841	139	637	1135
	3rd finger . .	408	906	204	702	1200
	4th finger . .	498	996	294	792	90

[122]

[120] Ibid.
[121] Henry George Farmer. "The Lute Scale of Avicenna." In the *Journal of the Royal Asiatic Society of Great Britain and Ireland*, No. 2 (April, 1937), p. 265.
[122] Ibid, p. 265.

Another book by ibn Sinā *Kitāb al-shifā'a* كتاب الشفاء, dealt with the *dāsātin* of the *oud*; "instruments are in classes, among them are those with *awtār* (strings) and *dāsātin* (frets) upon which one plays such as the *oud*."[123] Also, he gave a full description of the *oud*, including the length, the depth, the *dāsātin*, the ratio between fingers, and its tuning.

In his treatise *kitāb al-lāhw wal-malāhi* (On Entertainment and Musical Instruments), Ibn Khũrdādhbih (820-912) covered several issues including a discussion of music as a philosophical branch and its influence on the soul, the origin of the *oud* which he credits to Lamek, and musical instruments including the *oud*.[124]

Another important treatise on music and the *oud* was *risālāh fi al-mũsiqā* رسالة في الموسيقى (Treatise on Music) by Aḥmad Yaḥayā ibn al-Mũnājim (d. 912). Foũa'ad Sayed Aḥmād, who was affiliated with the Arabic Manuscripts Institute in Cairo, found the treatise in the1964 in Rida Rambour Library in India. It is under the number 3097 file 64. In addition, another copy of the treatise is reserved in the British Museum in London under the number (or. 2361).

The treatise was based on the teaching of the pioneering *oud* player and singer Isḥāq al-Māũṣeli (d. 850), and referred to the problems in the music practice of the old Arabic school of the *oud*.[125] He demonstrated the use of alphabetical notation based on the *oud* and discussed the major differences between the old Arabic school and the Greek theory of music.

[123] Ibn Sina. *kitāb al-shifa'a,* p. 68.
[124] Abu al-Qasim ibn Khurdadhbih. *Kitāb al-Lahow wa'l Malahi* (The Book of Pleasure and its Musical Instruments). Ledyn Library (Or. 651, fols. 79).
[125] Aḥmad Yahaya ibn al-Mũnājim. *Risālāh fi al-Mũsiqā.* Edited by Yousef Shawqi. Egypt, Mataba'at Dar al-Kitāb, 1976.

Another treatise about music and the *oud* was *risālāh fi-al-mũsiqā* رساله في الموسيقى (Trace on Music) by Ikhwān al-Sāfā (tenth century), which dealt with many different topics: the definition of music, the invention of music, the theory of sound production, the role of rhythm, and music and *tārāb* (ecstasy). [126] The treatise also contained subjects such as rhythmical modes, the parallels between music of the spheres and earthly music, the position of the celestial bodies, zodiac, seasons, winds, humors, colors, and elements, and the four strings of the *oud*. One section of the treatise was devoted to the manufacturing of musical instruments and their tuning, including a specific detailed description of the *oud*.

Another writer who discussed the *oud* was abu Tālib al-mũfadāl ibn Salāmā (830-905) in his book *kitāb al-malāhi* كتاب الملاهي (The Book of Musical Instruments). [127] He described the mythical story of the invention of the *oud* and attributed the origin of the instrument to Lamik. He also mentioned the first female singers, oud players, and some other details about the first musicians and musical forms.

Abu abdũl-Allāh Mũḥammād al-Khāwārzmi (d. 997) also discussed the *oud* and other musical instruments of his time in his book *mafatih al-ũloum* مفاتيح العلوم (The Key of Sciences).[128] Also, he described the elements of music, definitions of tones, *ajnās*, *diwāns* and other rhythmical modes.

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[126] Ikhwān al-Ṣāfā. *Risālāh fi al-Mũsiqā*. in *Kitāb Ikhwān al-Ṣafā*. Edited by Ahmad ibn Abdu Allah, Bombai: Matba'at Nukhbat al-Akhiar, 1885. Also, Britsh Museum, MS Or. 2361, fols. 157-161V.
[127] Ibn Salāmā, Abi Tālib al-Mũfadāl. *Kitāb al-Malahi* (The Book of Musical Instruments). Edited by Ghattas 'Abd al-Malik Khāshābā. Cairo: al-Hay'a al-Misriyā al-'Amma li-l-Kitāb, 1984. Also, Copy of manuscript (44 pages).
[128] Abu abdul-Allah Mũḥāmmād al-Khawarzmi. *Kitāb Mafatih al-Uloũm*. Edt. Ibrahim al-Abiyari, Beirut: Dār al-Kitāb al-Arābi, 1989, p. 257-265.

Kitāb al-Aghāni كتاب الاغاني (Book of Songs) by abũ al-Farāj ibn al-Ḥassian Al-Asfãhāni (897-967) was one of the most celebrated works in Arabic literature. [129] A model of simplicity and clarity in its writing, the book gave a comprehensive picture of Arab culture and society, including songs and poems, which were popular in Baghdad under the *Caliph Haroũn al-Rashid* (tenth century). According to al-Asfãhāni, he spent approximately fifty years on this monumental book, comprising twenty-four volumes.

The book contained a tremendous collection of poetry from the pre-Islamic Era to al-Asfãhāni's time including the authors, composers, singers, and instrumentalists. In addition, it contained a large section on Isḥaq al-Mãũseli and his modal theory of the *dāsātin*, and *mājāri* (courses). It is important to mention that Farmer and many Arab scholars used *Kitāb al-Aghāni* as a major source for their writing on Arabic music.

Kitāb ḥawi al-funoũn wa-salwāt al-maḥzoũn حاوي الفنون وسلوة الحزون by abu al-Ḥassān Mũhammād ibn al-Ṭaḥḥan (who lived in the eleventh century), was written at the beginning of the eleventh century. [130] The author, who was a professional musician and *oud* player, addressed the practice of music, giving us a clear picture of the popular music of his time.

The original book is located in *Dar al-Kũtob al-Misriyā* in Cairo under the number 539 and it is divided into eighty sections in which large section aredevoted to the *oud*. Al- Ṭaḥḥan mentioned different name of the *oud* such as: *kirān,* and the six-stringed *oud.*[131] Also, he described the process of making the *oud*; the material that has been used to make an *oud*, and the

[129] Abũ al-Farāj Al-Asfãhāni. *Kitab al-Aghāni* (The Book of Songs). Bierut: Dār a-Thagafā, 1987.
[130] Abũ al-Hassān Mũḥāmmad Ibn al-Taḥḥān. *Kitāb ḥawi al-funoũn wa-salwāt al-mahzoũn*. Edt. Zakaria Yousef. Baghdad, 1971, p. 100
[131] Ibid, p. 102.

dāsātin on the *oud*.[132] Also, he mentioned the elements affiliated with the strings of the *oud*, the modes, and the way of plucking the strings.[133]

Abd al-Qadir ibn al-Gābi al-Hāfiz al-Marāgi, known as al-Gābi (d. 1435), wrote four treatises on music. The books are *sharḥ al-adwār* شرح الادوار (Commentary on the Book of Cycles), *mũkhtasār al-mũsiqā* مختصر الموسيقى (Compendium on the Sciences of Music), *maqasid al-alḥān* مقاصد الالحان (Purports of Melodies), *jamie' al-alḥān* جامع الالحان (Complier of Melodies), and *dhikro al-anghām wa-ũsoleha* ذكر الانغام واصولها (Enumeration of the Modes and their Roots).

In his treatises, he dealt with the *māqām*, sound production, the purpose of music and its origin, *al-adwār*, and other important issues. However, in his treatise *maqāsid al-alḥān*, he dealt with the fundamental scales of the *oud*. He mentioned that eight musical instruments, including the *oud*, were used in his time Also, he described the *al-oud al-qadim* (the old-ancient *oud*) of four strings, which were named *bāmm*, *mithlāth*, *māthnā*, and *zir*. The strings are all tuned a fourth a part. Also, he discussed the trills and ornaments, which are an essential part of vocal practice in Arabic music.

Kitāb alf laylā wa-laylā كتاب ألف ليلة وليلة (One Thousand and one Nights) was a set collected over many centuries by various authors, translators, and scholars across the Arab region. [134] The tales trace their roots back to ancient and medieval Arabic, Persian, Indian, Egyptian, and Mesopotamian folklore and literature, and compiled in Arabic during the Islamic Golden Age. Some argue that the purpose of collecting the book was to teach the Arabic language to those who converted to Islam and wished to learn Arabic. It is important to mention

[132] Ibid, p. 103.
[133] Ibid, pp. 104-108.
[134] *Kitāb alf Laylā wa-Laylā*. Edt. Ahmad ibn Mahmoud Shirwani, Cairo, 1918.

that *Kitāb alf laylā wa-laylā* was attacked by some groups in Egypt in the 1970's, and it is still considered "obscenity and debauchery dangerous."[135] It mentioned three different types of *oud*: *oud Iraqi* (Iraqi *oud*), *oud jilliqi* (Syrian *oud*), and *oud min sana' al-hũnud* (Indian-made *oud*).[136]

Oud Jilliqi. From a Damascus writing box (1281). British Mesuem.

Kitāb al-adwār كتاب الادوار (The Book of Cycles or Musical Modes) by Ṣafi' ed-Din al-Armāwi al-Bāghdādi (1215-1294) is considered the second most important reference in the Arabic music after *The Great Book of Music* of al-Fārābi. Al- Bāghdādi established the study of music on a scientific basis. He dealt with the theory of sound, *ajnās*, *māqāms*, and melodic and rhythmic modes. He divided the book into fifteen sections, of which the seventh section was devoted to the *oud* and its tuning.

In *kitāb al-Adwār* , al-Armāwi presented a new theory for the Arabic musical scale. He divided the scale of the *māqām* into eighteen tones confined between seventeen dimensions. Also, he adopted a new method by using the Arabic alphabet letters to identify the tunes, and Arabic numbers to indicate the temporal extent of the rhythm.

[135] Jaredat al-Mojaz. May 17, 2010 (www.almogz.com)
[136] Henry George Farmer. "The Music of the Arabian Nights." In the *Journal of the Royal Asiatic Society of Great Britain and Ireland,* No. 1 (Apr., 1945), pp. 39-60.

ن	م	ل	ك	ى	ط	ح	ز	و	هـ	د	ج	ب	أ
50	40	30	20	10	9	8	7	6	5	4	3	2	1
غ	ظ	ض	ذ	خ	ث	ت	ش	ر	ق	ص	ف	ع	س
1000	900	800	700	600	500	400	300	200	100	90	80	70	60

Accordingly, the letter ك (k) means number twenty, and to obtain larger numbers one can add the first ten numbers into a character to become كا (ka), كب (kb), etc.

Risālāh fi al-mũsiqā رسالة في الموسيقى (Treatise of Music) by Ūmayā ibn abd al-Aziz Abũ al-Sālt (1068-1134) has been found in The National Library in Paris No. 1037 from the stock of the former Oratoire No. 702. The treatise was divided into five sections: the first and the second sections were about notes and intervals. The third section was about the Arabic musical system (*māqām*), the fourth was devoted to the musical instruments including the *oud*, and the fifth section was about the direction of melody and rhythm.

Mũhammād ibn Ḥamid al-Lādiqi (d. 1495) was another scholar who wrote about the *oud*. In his treatise *Risālāt al-fathiyā fi al-mũsiqā* رسالة الفتحية في الموسيقى (The epistle of Victory Concerning the Science of Music).[137] He divided the treatise into two sections: the first section dealt with the science of composition (harmony), the purpose of music and its origin, the principle of sound, arithmetical and geometrical principles, the cycles and modes (*māqāms*), and the musical instruments including the *oud* as the principle instrument for Arabic musical theory. The second section dealt with the definition of *iqa'a* (rhythm), rhythmical time, rhythmical cycles, and rhythmical modes.

[137] Mũhammād ibn Hamid al-Lādiqi. *Al-Risālāh al-Fathiya fi al-Mũsiqā*, pp. 29-58.

With regard to the *oud*, al-Lādiqi credited al-Fārābi for inventing the *al-oud al-kāmil* العود الكامل (the perfect *oud*)[138] which has five strings: *bāmm, mithlāth, māthnā, zir, and zir thāni* (*ḥadd*). Also, he mentioned a full description of *al-oud al-akmāl*العود الاكمل (the complete *oud*) and the use of a sixth string on the instrument in his time.[139]

Another treatise on music was written by Ṣalahed-Din al-Ṣafādi (d. 1406) called *Risālāh fi al-mũsiqā* رسالة في الموسيقى (Treatise on the Science of Music).[140] The only copy of this treatise is reserved in the Berlin Library under No. 5535 G 5 and was discovered by the Egyptian scholar Abdel Majeed Diab. It was divided into two sections: the first section dealt with the essence of music, the origin of the *oud*, the purpose of music, and the twelve *māqāms* in relation to the zodiac. The second section dealt with the modal patterns of the twelve *māqāms*, the *diwān* of six *awazat*, and instructions concerning the combination of the *shua'ab* (branches) of each *māqām*. It is important to mention that this treatise was reproduced by Husain al-Shadhili (born in the late eighteenth century) in his book *safināt bi-fan al-mũsiqā wal-anghām* سفينة بفن الموسيقى والانغام (A ship on the Art of Music and Melodies).

Safināt al-mũlk wa nafesāt al-fũlk سفينة الملك ونفيسة الفلك (The Royal Ship and the Sumptuous Boat)[141] by Mũhammād ibn Isma'il Omar Shihabed-Din (1795-1857) is another work on music and musical instruments. The book was written upon the request of a government official and was divided into three sections: the first section dealt with the science of music, melody, and the seventeen rhythmic modes. The second section dealt with the classification of

[138] Ibid, pp. 178-9.
[139] Ibid, p. 179.
[140] Salahed-Din al-Safādi. *Risālāh fi al-Mũsiqā* . Edt., Abdel Majeed Diab and Gattass Khashabeh. Al-Haia'a al-Misriya al-Ammah lel-Kitāb, Cairo, 1991.
[141] Mũhammād ibn Isma'il Omar Shihabed-Din. *Safinat al-Mũlk wa Nafesat al-Fũlk*. Eygpt, 1893 (copy of the original manuscript).

twenty-eight *māqāms* (their names and branches) and the two *diwān*s. The third section described 350 *mũwashaḥāt* arranged in thirty parts, which in turn illustrated twelve *māqāms*, six principles, and six branches.

With regard to the *oud*, the author credited al-Fārābi with the invention of the *oud* and the affiliation of the four strings to the elements, humors, etc. [142] Furthermore, he mentioned the improvement of the *oud* by Ziryāb, who added the fifth string that symbolizes the soul.[143]

The last book in this section regarding the *oud* is *al-Risālāh al-shihabiyā fi al-ṣina'a al-mũsiqiyā* الرسالة الشهابية في الصناعة الموسيقية (The Shihabia Treatise on the Science of Music)[144] by Mikhā'il ibn Jirjis Mashaqā (1800-1888). The original manuscript was reserved in the book library in Cairo under No. 23 and it contained fifty-nine pages.

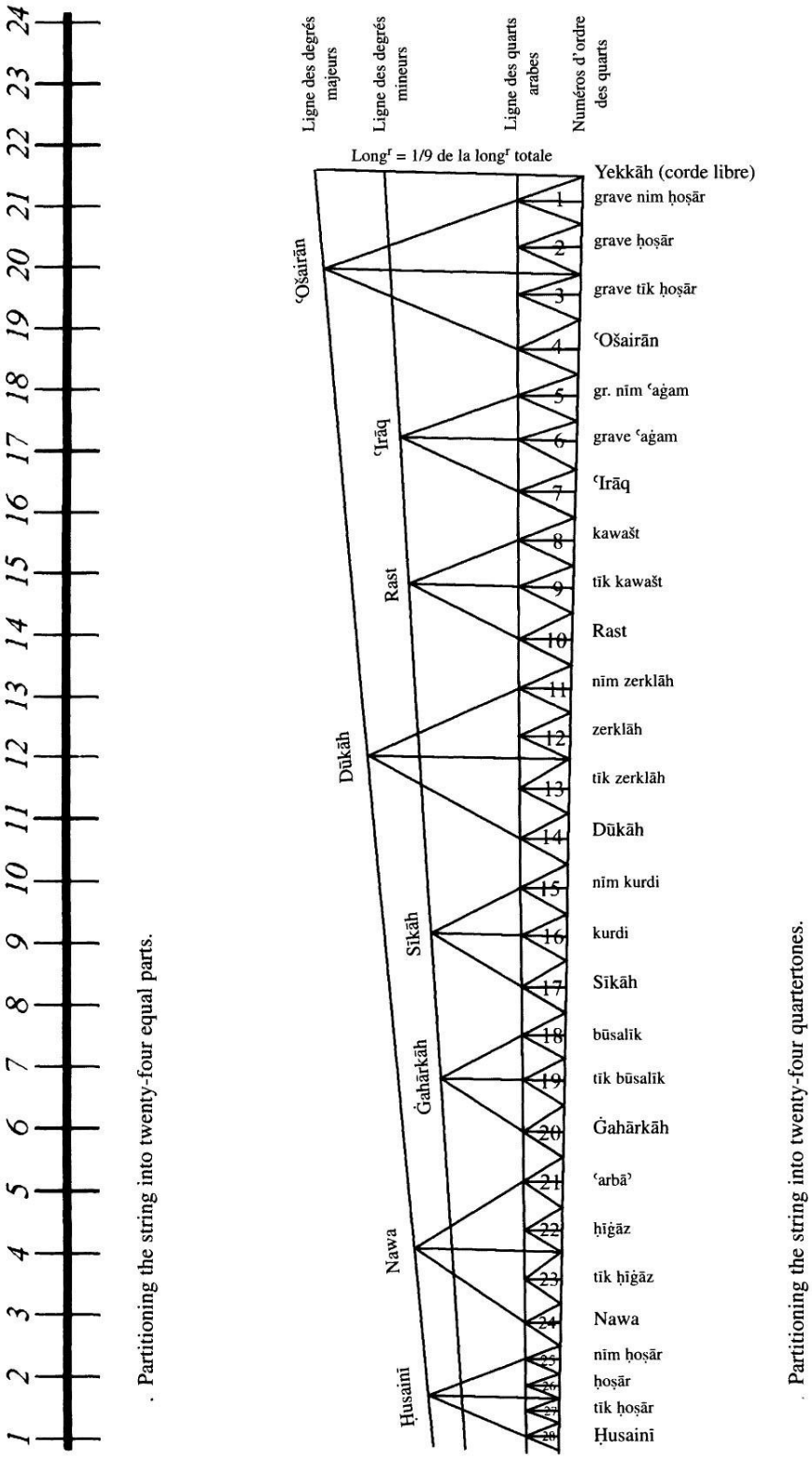
The book examined two important issues: the first was the introduction of the seven-stringed *oud*, which was doubled to increase the strength of its sound production. [145] The second was the introduction of the fourty-eight quarter-tones in two *diwān* (twenty-four quarter tones in each *diwān*).[146] In fact, dividing the *diwān* into twenty-four quarter-tones had already been done before Mashaqā, and appeared in earlier writing by his teacher Mũhammād ibn Ḥusain al-Aṭār (1764-1828) in his treatise *ranāt al-awtār fi jadāwil al-afkār fi fan al-mũsigār* رنة الاوتار في جداول

[142] Ibid, p. 465.
[143] Ibid, p. 465.
[144] Mikhail ibn Jirjis Mashaqā. *al-Risālāh al-Shihabiā fi al-Ṣina'a al-Mũsiqā*. Edt., Izis Fateh allah Jibrawi. Dar al-Fikr al-Arabi, Egypt, 1996.
[145] Ibid, p. 27.
[146] Ibid, pp. 19-26.

الافكار في فن الموسيقار (The Sounds of Strings in Rubrics to Bring to Mind What Concerns the Musician).[147]

Moreover, Mashaqā proposed mathematical techniques to calculate the accurate string lengths of the *oud* of the twenty-four equal quarter-tones. The basic idea of these mathematical techniques was that the length of an interval on a string is directly proportional to the length of the string.[148] By placing the finger on the half of a string, one obtains the *diwān*. By placing the finger on the quarter of the string, one obtains the *diwān* of the *diwān*, simply because the quarter is the half of the half, and so on (please see the chart below).[149]

[147] Shireen ma'alouf. "M. Mashaqa: Virtual Founder of the Twenty-Four Equal Quartertone Scale." In the *Journal of the American Oriental Society*, Vol. 123, No. 4 (Oct.-Dec., 2003), pp. 836-8.
[148] Ibid, pp. 836-7.
[149] Ibid, p. 378.



The chart represtns the twenty-four quarter-tone of M. Mashaqā

III: The Instrument:

III: 1 The Symbolism of the *Oud*:

Arab-Muslim scholars have noted close associations and connections between music (especially the *oud*) and other disciplines such as cosmology, astronomy, mathematics, anatomy, etc. Symbols are of two fundamentally different kinds: universal or natural and particular or conventional.[150] Universal symbols are those for which the symbolic significance derives from their innate nature, such as geometrical or numerical symbols, whereas particular symbols are for which symbolic significance relates to a particular tradition. By virtue of their very nature, universal symbols are regarded as primordial and transcultural, whereas particular symbols, which include particular interpretations of universal symbols, vary in different traditions. Particular symbols, also described as arbitrary and accidental, may be sanctified by human or divine intervention, which makes them the loci for transcendental meanings, such as the alphabetical symbolism in Islam. They are empowered by communal acceptance and participation in their spiritual significance. Universal symbols are ontologically linked to, and determined by, their referents. Hence, symbols of the infinite and the timeless have the capacity to reveal aspects of the infinite and the timeless itself.[151]

In his article "Music and Astronomy in the Muslim World", Dr. Jozef Pacholczyk stated,

> "Islamic art, including music, is deeply symbolic. It contains a code of symbols that reflects and explains the totality of the cosmos and the essence of God (Allāh). The symbols are used as a way of explaining the unexplainable. Islamic symbolism developed under the direct impetus of Greek philosophy and scholarship. Many of its elements, however, can be traced back even further to

[150] Samer Akkach. *Cosmology and Architecture in Premodern Islam.* State University of New York Press, 2005, p. 40.
[151] Ibid, p. 40-1.

> the beliefs of the ancient Egyptians, Sumerians, Chaldeans and Manicheans. These beliefs were incorporated into Greek thought and gained authority and acceptance within Islamic philosophy and scholarship."[152]

The anthropologist Victor Turner suggested "…the musical element has meaning only when modified or relayed by those symbols 'adjacent' to it in time and space in a configuration."[153]

Symbolism and musical instruments can be found in other cultures. Indians, for example draw a strong parallelism between the *vina* and the human body from the point of view of *yogic* philosophy: "the spinal column with the curved end is linked to the shape of the *vina* with the name *yali* (name of the *vina* part).[154] Also, the twenty-five concepts in the science of Yoga are compared to the twenty-five frets of the vina.[155] In Japanese culture, the parts of the *koto* are symbolized by parts of the dragon:

> "The top surface is called a dragon's back (*ryuiko*). The upper bridge is called a dragon's horn (*ryukaku*) and the bottom is called a dragon's belly (*ryufuku*). The right end of the *koto* (from the player's point of view) is referred to as a dragon's head (*ryuto*), and inside it is a dragon's tongue (*ryuzetsu*). The left end is dragon's tail (*ryubi*). In addition, the zither possesses dragon's forelegs (*ryushu or maeshi*) and dragon's hind legs (*ryushzi or atoasi*). The sound holes underneath are sometimes called dragon mouths (*ryuku*). Names of other parts also evince the dragon's symbolism: the lower bridge is called the 'cl*oud* horn' (*unkaku*). At the top of the dragon's head there is a section known as a'sea' (*umi*) which is sometimes called the dragon's forehead (*ryugaku*). The long sides of the zither are called the 'seashore' (*iso*). The top of the left end is called 'celestial seat' (*tenninza*)."[156]

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[152] Jozef Pacholczyk. "Music and Astronomy in the Muslim World." In *Leonardo*, Vol. 29, No. 2 (1996), p. 1.
[153] Victor Turner. *The Drums of Affliction.* Oxfrod: Clarnedon Press, 1968, p. 17.
[154] Karaikudi S. Subramanian. "An Introduction to the Vina." In *Asian Music*, Vol. 16, No. 2 (Spring-Summer, 1985): p. 14.
[155] Ibid, p. 14.
[156] Gen'ichi Tsuge. "Bamboo, Silk, Dragon and Phoenix: Symbolism in the Musical Instruments of Asia." In *World of Music* Vol. XX, 3. 1978, p. 17-18

In the following section, I will discuss the symbols of the *oud* and its strings and how they are connected to cosmology, astronomy, mathematics, anatomy, and nature. I will limit my commentary to the writing of al-Kindi, al-Fārābi, Ikhwān al-Ṣāfā, ibn Sinā, and al-Lādiqi.

For al-Kindi, the number four has great significance. He singled out the correspondence between the four strings of the *oud* and the four elements. The *bāmm* (thickest string) symbolizes the Earth and is equated with old age, winter, and night. The *mithlāth* represents Water, and the *māthnā* symbolizes Air. The *zir* represents Fire, coupled with courage, and attractiveness.

Al-Kindi, who was an *oud* player, stated that there is parallelism between the locations of notes on the *oud* and the seven planets; the *mũtlāq al-bāmm* string parallels with Saturn, which is the highest and slowest planet. Moreover, *sābābāt al-bāmm* parallels with Jupiter; *wũṣṭā al-bāmm* with Mars; *khonṣor al-bāmm* with the Sun; *Sābābāt al-mithlāth* parallels with Venus; *wũṣṭā al-mithlāth* with Mercury; and *khonṣor al-mithlāth* parallels with the Moon.[157] Even the shape of the *oud* is associated with the half-sphere of the heavens.[158]

In addition, al-Kindi associated the four strings, four *dāsātin* (frets), and the four *malawi* (tuning pegs) to the twelve signs of astrology; the four strings correspond to Gemini, Virgo, Sagittarius, and Pisces because they consist of two stars (like the paired of the *oud*). Therefore, each note on the *oud* has a counterpart in the second *diwān* (octave). The four *dāsātin* correspond to Taurus, Leo, Scorpio, and Aquarius because they are fixed elements. The four

[157] Ibid, p. 203.
[158] Al-Kindi. *Al-Risālāh al-Kũbrā*, p. 264.

malawi correspond to Aries, Cancer, Libra, and Capricorn because they are changeable and variable.[159]

In his treatise *al-mũsawetāt al-watāriyā,* al-Kindi mentioned the possibility of adding fifth string to the *oud*. However, the second *zir* (*al-ḥadd*) corresponded to the fifth element; he stated that the number five was found in nature; we find five senses, five planets, and five fingers. In addition, the five elements are Earth, Water, Air, Fire, and *Falāk* (the celestial sphere).[160]

On the other hand, Ziryāb, abu al Ḥasan ‘Ali ibn Nafi’ (789-857) was the one who added the fifth string to the *oud* in a performance in Andalusia (*al-Anadalus*). According to the symbolism of his time, the four strings of the *oud* corresponded to the four humors of the human body. The first string was yellow and symbolized bile. The second string was red for the blood. The third string was white and symbolized phlegm. The fourth string was black and symbolic of melancholy. Ziryāb added the fifth string between the second and the third. The new string was red and symbolized the Soul.[161]

As for the therapeutic connections of the four strings of the *oud,* al-Kindi, stated that the *bāmm* corresponds to gravity, friendliness, and deliberateness. The *mithlāth* corresponds to phlegm and is used to induce fearfulness and calm. The *māthnā* corresponds to the blood in the human body and it induces cheer, joy, sweet temper, fairness, friendship and love. As for the *zir*, it corresponds to phlegm and is use to enhance joyousness, to strengthen the gall and its

[159] Al-Kindi. *Al-Risālāh al-Ūdhma fi al-Talif*. Plate 22-24.
[160] Al-Kindi. *Risalat al-Kindi fi Khabariyat Sina’at al-Ta’alif, pp*. 212-213.
[161] Saleh al-Mahdi. *Māqāmat al-Mũsiqā al-Arabiyā*. Tunis, 1968, p. 93-95.

functions in the human body.[162] Of the effect of the humors through the four strings of the *oud*, al-Kindi said:

> "…what appears through the movements of the *zir* in the action of the soul, are joyful, glorious, victorious actions, and hardness of heart and courage. And of what adheres to *māthnā* of that joyful, merry, generous, and noble action. And of what adheres to *mithlāth* are evil actions, dirges, sorrow, and the different kinds of weeping and grief. And of what adheres to the *bāmm* of that graciousness and love."[163]

The following chart represents al-Kindi's four stringed *oud* and their associations:[164]

	Zir (C)	*Māthnā* (G)	*Mithlāth* (D)	*Bāmm* (A)
Astrology	Cancer -virgo	Aries-Gemini	Libro-Sagittatius	Capricorn-Pisces
Moon quarter	Full	Cresent	Third qtr	Right qtr-gone
Months QTRS	7^{th} -14^{th}	1^{st} -7^{th}	14^{th} -21^{st}	21^{st} -End
Day QTRS	Noon-Sunset	Sunrise-Noon	Midnight-Sunrise	Sunset-Midnight
Four Elemnts	Fire	Air	Water	Earth
Winds	Southerly	Easterly	Northerly	Weserly
Seasons	Summer	Spring	Autumn	Winter
Humors	Yellow bile	Blood	Phlegm	Black bile
Colors	Yellow	Red	Black	White
Ages	Infancy	youth	Middle age	Old age
Organs	Heart	Liver	Brain	Testicles
Poem	Bold	Sad	Soothing	Cheerful
Rythem	*Makhũri*	*Thāqil*	Heavy	*Hijāz, Rāml, Khāfif*
Melody	Strong and Maesculine		Weak and Feminine	

The strings of the *oud* were described by al-Fārābi as "…twisted into the following gauges. The *bāmm* string is made of sixty-four threads, the *mithlāth* of forty-eight, the *māthnā* of thirty-two, and the *zir* of twenty-four, and the second *zir* string (*al-zir al-thani* or *al-ḥadd*) of

[162] Al-Kindi. *Al-Musawitat*, p. 85-89.
[163] Al-Kindi. *Risālā fi aja' Khũbr fi al-Mũsiqā*, pp..22-24.
[164] The information on this chart obtains form al-Kindi's theatises, which were mentioned in chapter two of this study.

sixteen."[165] The series numbers, I believe, were chosen from mathematical proportions (2:4:8:16:32:64).

However, al-Fārābi rejected the Pythagoreans in terms of affiliation between music and the spheres. He stated:

> "…what the Pythagoreans believe about the heavenly bodies and the stars is that by their motion they produce harmonious tunes…this is false. It has been outlined in the science of nature that what they claim is not possible, for the heavens, the sphere, and stars cannot produce sound by their movements."[166]

For him, the perfect music or melody can produce the affective states and traits through suggestive poetry, which is "carried and enhanced by a pleasing melody."[167] Moreover, the perfect melody has to be vocal: "the vocal melody which emanates from human throat."[168] On the subject of the origin of sound and music, ibn Sinā chose a naturalistic rather than a mythical explanation, because music in its sad and happy modes can be seen as such expressive outgrowths of pleasant and unpleasant life experiences.[169]

Al-Fārābi also made a connection between the strings of the *oud* and the human body. He stated:

> "The body of humans is divided into three hundred and sixty veins, and so; the best *ouds* are furnished with twelve strings, each string having thirty threads. Since 12 x 30 = 360, the strings are in complete sympathy with the physical constitution of human, and if an *oud* player

[165] KMK, p. 69-70.
[166] KMK, p. 89.
[167] KMK, p. 67-7.
[168] KMK, p.68.
[169] Fadlou Shehadi. *Philosophies of Music in Medieval Islam*. Leiden; New York; Koln: Brill, 1995, p. 72.

holds the *oud*, and plays it with his hand, the three hundred and sixty veins in his body are touched and are in symbiosis with the notes of the *oud*."[170]

Ikhwān al-Ṣāfā distinguishes between four ways of creating the four types of artifacts: human (*bashariyā*), natural (*tabi'iyā*), psychic (*nafsaniyyā*: referring to the Universal Soul), and divine (*ilahiyā*). Ikhwan al-Safa explains:

> The matter of artificial work is everybody (*jism*) out of and in which an artificer works his art, such as the timber for carpenters, the iron for ironsmiths, earth and water for builders, the yarn for weavers, and the flour for bakers. Accordingly, it is necessary for every artificer to have a body to work his art from and in it. This body is the matter of artificial work . . .Natural matter is the four elements (*arkān*). All that is found in the sublunary sphere, the animals, plants, and minerals, comes from the elements and by corruption return to them. The active nature responsible for this process is one of the forces of the celestial Universal Soul . . . Universal Matter is the Absolute Body, from which is drawn the entire world, that is, the celestial spheres, the stars, the elements, and all beings. These are all bodies whose diversity derives from their diverse forms. As for Prime Matter, a simple, intelligible substance cannot be sensed, for it is the form of being proper. It is the Original Identity (*al-huwiyya*).[171]

Ikhwān al-Ṣāfā presented a symbolic model of astronomy and the *oud*. They stated in their *risālāh fi al-mũsiqā* in term of proportion as follows, "…we propose in this *risālāh* to study the art, which is constituted at one and the same time of the corporeal and the spiritual. This is the art of *ta'lif* (harmony) which can be defined in terms of proportions."[172] They continue with regards a discussion of the measurements of the *oud*, stating, "The length, breadth, and depth should be in excellent proportion to each other so that its length is in the

[170] Farmer. "The structure of the Arabian and Persian Lute in the Middle Ages." In the *Journal of the Royal Asiatic Society of Great Britain and Ireland*, No. 1 (Jan., 1939), p. 51. I should mention that this is not abũ Nasr Mũḥāmmad al-Farbi, but abu al-Hassan *al-Fārābi*.
[171] Seyyed Hossein Nasr. *An Introduction to Islamic Cosmological Doctrines*. London: Thames and Hudson, 1978, p.58.
[172] Ikhwān al-Ṣāfā. *Risālā fi al-Mũsiqā,* pp. 98-99.

proportion of 3:2 with its breadth. Its depth should be equivalent to half its breadth and its neck should be one quarter of the total length of the *oud*."[173]

Concerning the strings of the *oud*, Ikhwān al-Ṣāfā stated that the four strings should be in perfect proportion. Each string should be thicker the one before (from highest to lowest):

"…their respective thickness should be in excellent proportion to each other, the thickness of the *bāmm* should be in the proportion of 4:3 with the *mithlāth*; the thickness of the *māthnā* in proportion of 4:3 with the *zir*. The *bāmm* should be composed of sixty-four threads, the *mithlāth* of fourty-eight, the *māthnā* of thirty-six, and the *zir* of twenty-seven threads."[174] They explained the reason for this selection of proportions in the following way: "the primary element fire is a third greater in essence than air; air is a third greater than water; water is a third greater than earth."[175]

According to Ikhwān al-Ṣāfā, these measurements were built based on the ساد (*s* and *d*: *sad*) for the *bāmm*, مح (*m* and *ḥ*: *maḥ*) for the *mithlāth*, لو (*l* and *w*: *law*) for the *māthnā*, and كز (*k* and *z*: *kaz*) for the *zir*. This arrangement refers to the numerical significance of the Arabic letters ابجد هوز حطي كلمن صعفس قرشت ثخذ ضظغ (*abjād, hawāz hũti, kalāmn, sa'fas, gavshāt, thakhth,* and *dthgh*), which were used in Islamic architecture. However, Ikhwān al-Ṣāfā did not explain why they used these characters. In the text, we are told that the first six words represent the names of the kings of ancient *Median*.[176]

[173] Ibid, pp. 98-99.
[174] Ibid, p. 98.
[175] Ibid, p. 98.
[176] The medianites, from Media were Mesopotamian people. The Median Kingdom was located in or around the fertile cresent region of the Middle East. It was Darius the Median who stepped in and took the Kingdom when Balshazar, the son of Nebuchadnezzar, and took his kingdom.

أ =1	هـ = 5	ط = 9	م = 40	ف = 80	ش = 300	ذ = 700
ب =2	و = 6	ي =10	ن = 50	س = 90	ت = 400	ض = 800
ج =3	ز = 7	ك =20	ص = 60	ق = 100	ث = 500	ظ = 900
د = 4	ح = 8	ل = 30	ع = 70	ر = 200	خ = 600	غ = 1000

Therefore, the Arabic alphabet system has been used by architects when engraving Arabic poetry on the front of buildings to indicate the date of construction. One Arab poet said:

اصبحت لب بني العباس كلهم

Aṣbaḥta lũba bani el-abbāsi kũlohũmo
You became the *LB* (pronounced: *lab*) of all the Abbasids

In which *L* represent the number thirty, and *B* represents the number two. The poet's verse shows that the Abbasid *Khalifā* is the *Khalifā* number thirty-two! Another example, the name سيف الدين Seifed-Din (pronounced: *sifaldin*), is equal to 274 in which S is 90, Y is 10, F is 80, A is 1, L is 30, D is 4, Y is 10, and N is 50.

I should mention that the strings of the *oud* according to al-Kindi were the *bāmm*, which should be composed of four threads, the *mithlāth* of three, the *māthnā* of two, and the *zir* of one thread. I argue that the value of the four strings was thicker in al-Kindi's time than those seen in later times. Ikhwān al-Ṣāfā made an association between the strings of the *oud* and the medical field. The *mithlāth* string, for instance, gave "perfect health to those who are tormented with maladies that are ordinary to youth."[177]

As for mathematics and music, ibn Sinā stated in his treatise *Kitāb al-Shifa'*:

> "…so we can certainly say, the *oud* is divided between the *musht* (bridge-tail piece) and the *anf* (nut-nose) upon a quarter of the whole length, and there is tied upon it, the lowest *distān* called *khonṣor* (fourth finger). So there will be between its *mũtlāq* (open stirng) and its *khonṣor* the

[177] Ibid, p. 87.

interval of the fourth 3:4 = 498 cents. We then take a ninth of the length from the nut and there is tied upon it the *sābābeh distān* (first finger), and there will be between its *mũtlāq* and its *sābābā*, the interval of the tone is 8:9 = 204 cents. We then divide what is between its *bonṣor* (third finger) at 64:81 = 408 cents, with the result that from its *mũtlāq* to its *sababa distān* is a whole tone, and from its *sābābeh distān* to its *bonṣor distān* and its *khonṣor distān* is the minor *baqiyā* (semitone) 243:256 = 90 cents. This is the *jins tānini* (diatonic genre). We then further divide what is between the *khonṣor distān* and the *mũsht* into eight parts, and one of these parts is from the *khonṣor distān* (towards the *anf* end), and there is tied upon it the *wũṣṭā al-furs distān* (second finger). What is between this *khonṣor distān* and the *bonşor distān* is the *fadlāt al-tānini* (major semitone) at 2049:2187 = 114 cents, and between it and the *sābābeh distān* a whole tone.[178]

That approach was aligned with the cosmological system of the *arba'at ad'af* اربعة اضعاف (four-fold).

Therefore, the ratios between the *dāsātin* on the *oud* by Arab philosophers were given numerical- mathematical values. These values were divided the length of each *wāter* (string) in the ratios 2:1, 3:2, 4:3, 5:4, and 9:8, and correspond to the ratio of harmonic musical intervals (see chart below):

INTERVAL	RATIO	SPHERES
Fifth	3:2	Earth – Moon
Fourth	4:3	Moon – Air
Octave	16:8 (2:1)	Venus – Earth
Fourth	4:3	Venus – Moon
Octave	18:9 (2:1)	Sun – Air
Fifth	3:2	Sun - Moon
Octave	24:12 (2:1)	Jupiter – Moon
Octave and a Fifth	24:8 (3:1)	Jupiter – Earth
Fifth	24:16 (3:2)	Sun – Venus
Fifth	32:24 (3:2)	Fixed Stars – Jupiter
Octave	32:16 (2:1)	Fixed Stars – Venus
Two Octaves	32:8 (4:1)	Fixed Stars – Earth

[178] Ibn Sina. *Kitāb al-Shifa'*, p 69.

Al-Lādiqi associated the Arabic *māqāmat* to the four elements. Each *māqām* is associated with a different element. The following chart shows the connections of each *māqām* with the Zodiac used during his time:[179]

	Arabic	Pronunciation	Zodiac Sign		Elements
1	راست	*Rāst*	الحمل	Aries	Fire
2	عراق	*Irāq*	الثور	Taurus	Earth
3	اصفهان	*Asfahān*	الجوزاء	Gemini	Air
4	زيرافكند	*Zirafkānd*	السرطان	Cancer	Water
5	بزرك	*Bozrok*	الأسد	Leo	Fire
6	زنكوله	*Zankolah*	السنبله: العذراء	Virgo	Earth
7	راهوي	*Rāḥāwi*	الميزان	Libra	Air
8	حسيني	*Hũsiāni*	العقرب	Scorpio	Water
9	حجازي	*Hijāzi*	القوس	Sagittarius	Fire
10	أبوسليك	*Aboslik*	الجدي	Capricorn	Earth
11	نوى	*Nāwā*	الدلو	Aquarius	Air
12	عشاق	*Ūshāq*	الحوت	Pisces	water

III: 2 Descriptions and Measurments:

The *oud* consists of a large sound box connected to a short neck, which is one fourth of the length. The soundboard consists of three ornately carved holes (rosettes) that function as sound-holes. The larger hole is under the strings called *shamsiyā* شمسيه (sun) and its diameter is about 108 mm, while the two smaller holes are above and below the strings that are called *qamarāt* قمرات (moons) or *'oyoān* عيون (eyes) and the diameter of each one is about thirty two mm.[180]

The soundboard has the most important role in producing the quality of the sound and the volume. The body of the *oud* is made from lightweight, flexible wood. It consists of a series of

[179] Al-Lādiqi, p 56.
[180] French Campaign Scholars. *Wāsf Misr Vol. 9* (Description of Egypt, Vol. 9). Translation by Zuhair al-Shayeb. Eygpt: Dār al-Shayeb lil-Nāshr, 1993, p.21. [*The Description de l'Égypte*, English: Description of Egypt was a series of publications, appearing first in 1809 and continuing until the final volume appeared in 1829].

sixteen to twenty four ribs which are known as *alwaḥ* الواح (boards). The body is called *qas'a* قصعه *(*bowl) or *jism* جسم (body). It consists of a strongly rounded *dhāhr* ظهر (back) and a flat front surface called *sādr* صدر *(*chest), or *wājh* وجه (face) made of lightweight wood.[181]

The bridge, on the lower part of the belly, is known as *mũsht* مشط (comb), *farās* فرس (horse) or *marbāt* مربط (fastening place), and usually made of walnut. The *mũsht* is bears the strings and stands about 13.5 cm from the bottom, which is called *kae'b* كعب (heel). Some *oud* makers that I talked to regarding this install *raqmā* رقمه (membrane), which is a piece of green leather between the bridge and the *shamsiyā*, to protect the *wājh* of the *oud* from the strokes of the *rishā* ريشه (plectrum).[182] The length of the *raqmā* is about 158 mm and the width is about 104 mm.

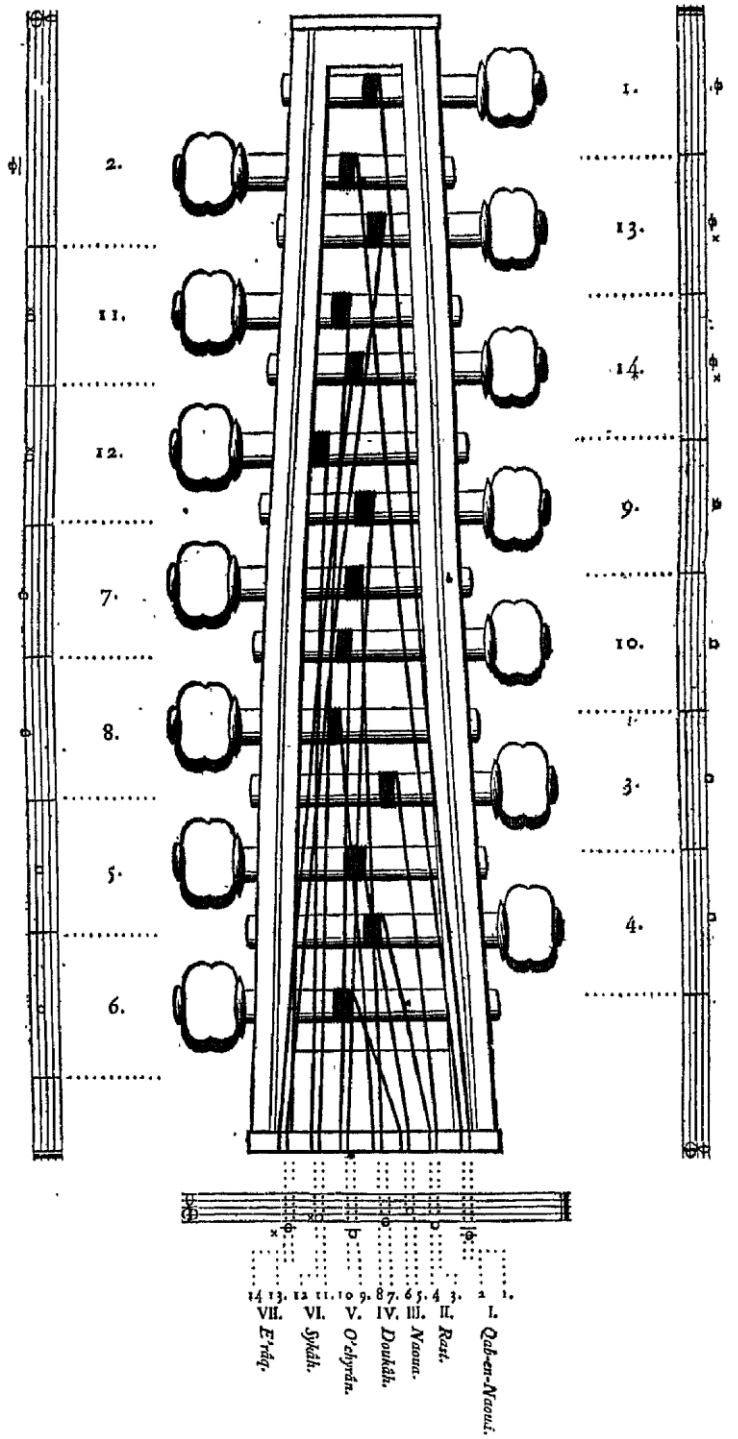
The neck of the *oud*, which is approximately one-fourth of the length and joined to the body of the instrument, is described as *ũng* or *raqābā* عنق (neck) or *zend* زند (wrist). It extends onto the upper part of the *oud* for (approximately) twenty cm and is inserted into the sound box up to the sound hole. This length of the *oud* is important in the instrument's construction in that it determines the number and location of the intervals. In Egypt, Muhammad Kamil al-Khula'i gave the length of the neck as nineteen and a half cm (195 mm), the width from the nut side as 4.5 cm (54 mm), and the width from the *qas'a* as 5.5 cm (55 mm).[183] Therefore, if the neck of the *oud* were a quarter of the overall length of the instrument, the total length would be seventy-eight cm. In some cases, the length of the neck may vary between eighteen and twenty and a

[181] Ikhwān al-Ṣāfā. *Risala fi al-mũsiqā*, pp. 69-72.
[182] Wasf Misr Vol. 9, p. 22.
[183] Mũḥāmmād Kamil al-Khula'i. *Kitāb al-Mũsiqā al-Arabiyā.* Cairo: Maktabāt Mādbuli, 1927, p. 49.

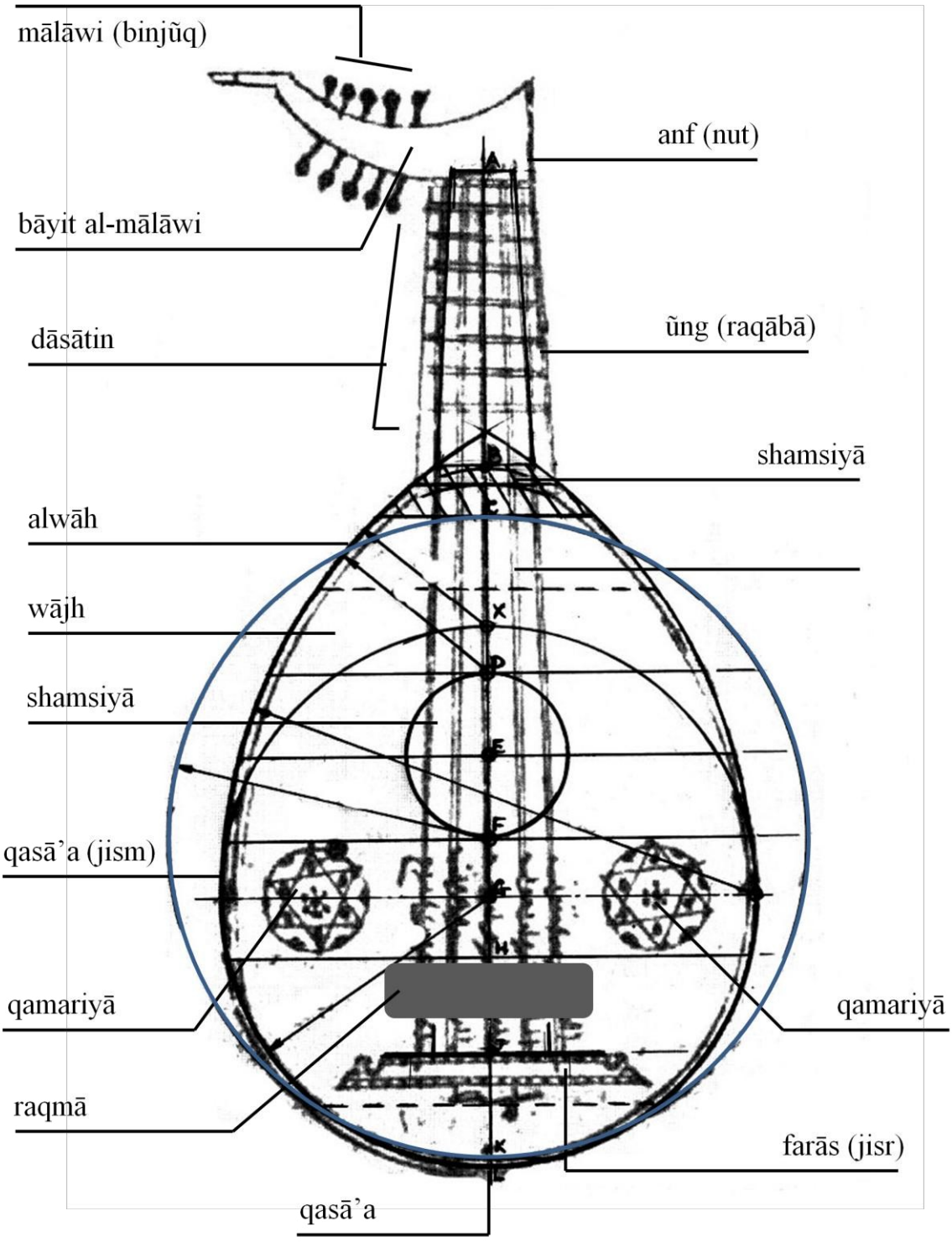
half cm. in *Bilad al-Sham*,[184] for example, the neck is standardized as twenty cm. There is a nut that is usually made of ivory and called *ānf* انف (nose-nut) or *atabā* عتبه (threshold), which is placed at the upper end of the neck before it bends sharply back to become the peg box. The tuning-pegs are screwed to the peg box; they are called *mālāwi* ملاوي (tuning pegs) in most Arabic manuscripts, or *mafātiḥ* مفاتيح (keys) in contemporary times. Ikhwan al-Safa, for example, described the *mālāwi* as four: one for each string of the *oud*. Some Arabic manuscripts dealt with the size: the length, the width, and the depth of the *oud*. While no one had mentioned the weight of the instrument, Zyriāb made his instrument one third lighter than the *oud*, which had been formerly used.[185]

The two figures below show the *bayit al-mālāwi* (tuning pegs) of seven-course *oud*,[186] along with the parts of the *oud*:

[184] *Bilad al-Sham* refers to Syria, Jordan, Lebanon, and Palestine.
[185] Kāmāl al-Nājmi. *Tūrāth al-Ghinā' al-Arābi: bain al-Māûseli wa-Zyriāb wa Ūmm Kolthoûm wa abdel Wāhāb*. Beirut: Dār al-Shûroûq, 1993, pp. 21-22.
[186] *Wasf Misr*, Vol. 9, p. 34.



This figure is from Wāsf Misr (Description of Egypt) was a series of publications, appearing first in 1809 and continuing until the final volume appeared in 1829, Vol. 9, p. 34.



An *oud*, based on an image from *al-Adwār* manuscript by al-Armāwi al-Bāghdādi (d. 1294). Dated 1333.
Bodleian Library, Oxford, Ms. March 521, f. 157
By: Seifed-Din Abdoun

The body has evolved considerably from the original pear shape. A spherical shape may even have been envisaged: al-Kindi described the body of the *oud* as a ball divided in two; the depth of the body was one-half the breadths at the widest point. Ikhwān al-Ṣāfā suggested harmonious proportions: the length is one-and-a half times the width, the depth is half the width, and the neck is one quarter of the overall length. If the neck measured only twenty cm, the total length would be eighty cm. [187]

The construction of the *oud* was described by ibn al-Ṭaḥḥān in his treatise *Ḥawi al-funũn wa salwāt al-mahzũn*:

> "take seasoned *sharbin* [larch wood] which is without flaes, and cut it very thin for the belly of the *oud*. It should be made of two or three pieces rather than of one piece. The back should be thinner wood than the belly, but it should be cut in equally measured narrow strips, placed side by side. The best *ouds* are made of eleven *alwāḥ* (strips), although thirteen strips are sometimes used, so that the back may be nicely vaulted. The neck should be made slender, so that the hand may close around it when it is held. A strong *banjāk* [pegs-box] must also be made, and likewise the *mālāwi* [pegs-box]. Attention must also be paid to the bridge tailpiece and *ānf* [nose-nut], as they are both important."[188]

Regarding ornamentation, al-Ṭaḥḥān (who lived in the eleventh century) continued:

> "as for the belly; and its *nāqsh* (ornamentation), the latter should be neatly done and securely fixed; otherwise, a buzzing sound will result when you play down with the *khonṣor* (fourth finger). It is advisable that this *nũqoũsh* should not be high, rather let it be flat. As for the bridge tailpiece, it should not be weighed down by anything, and should not be made of ivory, ebony, gold, or any precious thing, because it makes the sound of the *oud* dull. The decoration of the *oud* is made with aloe wood, sandal wood, or camphor tree wood, but all this is simply for show."[189]

[187] Ikhwan al-Safa, pp. 89-90.
[188] Ibn al- Taḥḥān abu al-Ḥassan Mũḥāmmād al-Ḥusaini. *Ḥawi al-Funoũn wa Ṣalwāt al-Mahzoũn.* Edited by Zakariya Yousef. Iraq, 1971, p 53.
[189] Ibid, p. 65.

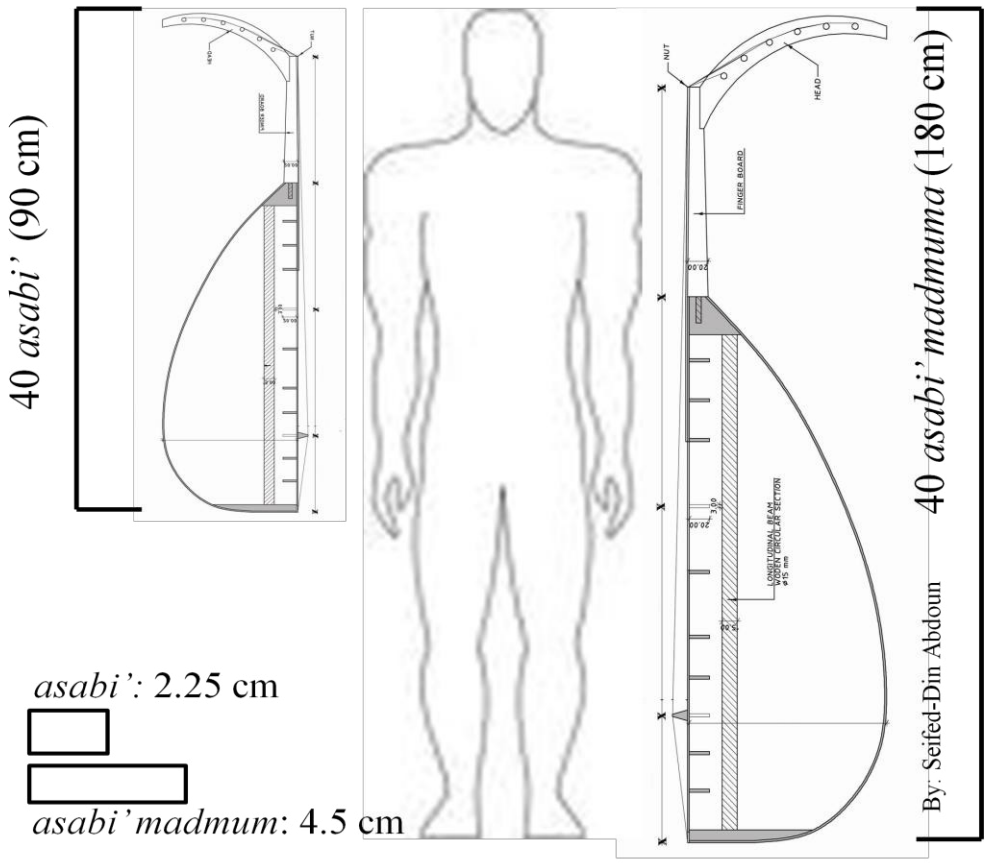
In contemporary times, all kinds of wood have been used for constructing an *oud*; walnut, larch, beech, cypress, pistachio, oak, mahogany or rosewood for the back, poplar or maple for the neck, cedar and pine for the belly, spruce for the *wājh*, and ebony for the fingerboard.

As for the measurement of the *oud*, in his book *Ḥawi al-funũn wa salwāt al-mahzũn*, al-Taḥḥān stated that:

> "the dimension of the *oud* should be as follows: its length should be fourty *asabi' mādmũmā* (180 cm). Its width should be sixteen *asabi' mādmũmā* (72 cm), its depth should be twelve *asabi'* (27 cm), and the bridge tailpiece should be placed about two *asabi'* (4.5 cm) from the bottom. The neck should be one *shibr* and one *'aqd* (29.25 cm) in length. The peg box should be 29.25 cm. in length. The number of the pegs should be eight unless there is *zir thāni* (*al-ḥadd*) string, in which case there will be ten strings, but this is not known in our times."[190]

I argue that the *oud* of ibn al-Ṭaḥḥān is disproportionate for the following reasons: the length of the *oud* as stated by him was 180 cm (more than five feet) and the width 72 cm. Therefore, if the length is one-and- a half times the width, then the length should be (108 cm). If the width is one-third the length, then the width should be 60 cm. But if the measurements of the *oud* were mistakenly written or had a typographical errors such as *asābi' mādmũmā* instead of *asabi'*, the length of the instrument would be (90 cm), and the width would be (36 cm). The following figure shows the size of the *oud* according to al-Ṭaḥḥān (on the right), and the adjusted measurement of the *oud* (on the left) compared to the human body.

[190] Ibid, p. 72.



Measurement as Adjusted Measurement according to al-Ataḥḥān

The same problem of the *oud's* measurements can be found in *Kitāb kinz tũhaf* (fourteenth century). The book gave the measurement of the *oud* as; 36 *angũsht mũndamā* (162 cm) for the length, 3.75 cm for the width at the widest point, 7.5 *angusht* (16.875 cm) for the width at the bottom of the instrument, and 13.5 for the bridge at the bottom. However, according to these measurements, the *oud* would be a very long and very thin instrument.

The two images below represent an *oud* from the ninth century (on the right): and, on the left, another form the Fatimid (973-1171). One can note that the two *ouds* are consistent with the human body, and length of each cannot be the same length as the human body.

Ivory plaque from Fatimid's period (973-1171) in Egypt.

Extract from *Kitāb al-mawalid* by Abû Ma'shār al-Balkhi (805–885).

The same extract seen above shows the rotation of the oud, to show that its size is consistent with human body.

However, the measurements of the *oud* in both: *Kitāb ḥawi al-funũn wa salwāt al-maḥzũn* and *Kitāb kinz al-tũhaf* do not represent the measurements of the instrument between the ninth century and twelfth century.

The quality of material used in the making of the *oud* is extremely varied; the more diverse the materials, the better it sounds. This explains the elaborate attention paid to decorative inlay work and the assembling of an impressive number of pieces of wood. For

instance, the Iraqi *oud* maker Ḥannā Ḥajji al-'Awwād (1862-1942) used 18,325 pieces, possibly including the ornamentations to make a single *oud*.[191]

III: 2: 1 Types

Oud Qādim العود القديم (Ancient-Old *Oud*):

"The *oud qādim*, in particular, invited cosmological speculation, linking the strings with the humors, the temperature, the elements, the seasons, the cardinal points, the zodiac and the stars."[192] The strings may be tuned from bass to treble or treble to bass. Bass to treble tuning was introduced by *al-Kindi*; who considered tuning the *bāmm* (A) to the lowest singable pitch, *mithlāth* (D), *māthnā* (G), and *zir* (C).[193] Meanwhile, Isḥaq al-Māṣeli considered the *māthnā* (G) as the first string in his tuning system. In Morocco, this *oud* is called *oud ramāl*, which also used a sequence of fourths: *ramāl* (E) *hũsain*, (A) *mayā* (D), and *rāghũl* (G).[194] As for the *oud qādim*, this *oud* also tuned in fourths. Several poets as mentioned the *oud qādim* in pre-Islamic poetry: *kirān, mũwatār, share', alon, mũstaq, mũstajib, mizhār,* and *sānj*. Al-'Asha said:

وَمُسْتَقٌّ سينين، وونّ، وبَرْبَطٌ يجاربُـهُ صَنْـجٌ إذا ما ترنَّمـا

And a *mũstajib*, and a *wan* and *barbat*

Which a *sānj* answers when it resounds

[191] Ḥussian 'Alī Maḥfūẓ: *Qāmūs al-Mūsīqā al-'Arabiyyā* (Dictionary of Arab Music). Iraq: Baghdad, 1975, p. 328. Also, Oxford Music Online (www.OxfordMusicOnline.com).
[192] Oxford Music Online.
[193] Abdalqadir ibn al-Gaibi. Copy of manuscript *Kamil al-Alhan* in Otmaniya Library (Nos. 3646 and 3649).
[194] Farmer. "An Old Moorish Lute Tutor." In the *Journal of the Royal Aiatic Society of great Britain and Ireland*, No. 2 (Apr., 1931), pp. 361-366.

Abul-Qāsim Ibn Khũrādadhbih (820-912) mentioned some names of the *oud* used by Arabs in his book *Kitāb al-lahow wa'l mālāhi* (On Entertainment and Musical Instruments): "…the Arabs used to call the *oud* and the *mizhār,* and the music of the people of al-Yaman was with *ma'azāf*." [195]

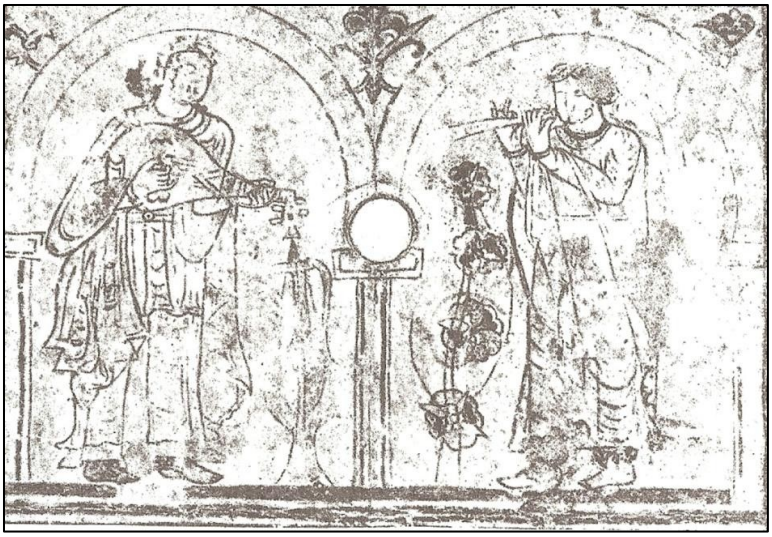
Therefore, in his *Kitāb al-malahi*, ibn Sālmā (d. 1277) also mentioned different names of the *oud*: "… the *kirān*, the *mizhār,* the *bārbāt*, and the *mũwatār,* and Arab poems mentioned all these names."[196]

***Al-Oud al-Kamil* العود الكامل(the perfect *oud*):**

The addition of a fifth string to the *oud* in Andalusia has been attributed to Ziryāb; which in al-Kindi's theoretical writings. Ziryāb, the fifth string, known as *awsāt* (intermediary), was placed between the second (*māthnā*) and third (*mithlāth*) strings. Al-Kindi called the fifth string *al-zir al-thāni* (the second *zir*) or *al-ḥadd* (high). The main goal of adding the fifth string was to obtain two *diwān* (octave) because of the demands of a new system. *Al-oud al-kāmil* is the most common and the most popular instrument among performers across the Arab world.

The tuning of *Al-oud al-kāmil* is as follows (from low to high): *yakā* (G) or *qārār bũsalik* (E), *ũshayrān* (A), *dũka* (D), *nāwā* (G), and *kirdān* (C1). The following figure represents the *oud* that was obtained from the *Qasr al-heer al-ghārbi* (the west *al-heera* palace) in Syria during the Umayyad Era (661-750), which shows *al-oud al-kāmil*.[197]

[195] Abul-Qasim Ibn Khũradādhbih. Copy of manuscript: *kitāb al-lahow wa'l malahi*. Ledyn Library (Or. 651, fol. 79).
[196] Abu Talib al-Mufadal ibn Salama. *Kitāb al-Malahi*, p. 12.
[197] David Talbot Rice. *Islamic Art*. London: Thames and Hudson, 1965, p. 25.



Fresco for oud and mizmār from the grounds of al-heer al-ghārbi in Syria, from the Umayyad era (661-750 AD)

Therefore, the figure below shows *al-oud al-kāmil* and five *mālāwi* from *Kitāb al-mawālid* by Abũ Ma'shar al-Balkhi (805-885). The image is clear evidence of the use of *al-oud al-kāmil* during the ninth century, and the strings were single instead of double.

Extract from Kitāb al-mawālid by Abû Ma'shar al-Balkhi (805–885).

***Al-Oud al-Akmāl* العود الاكمل (the complete *oud*):**

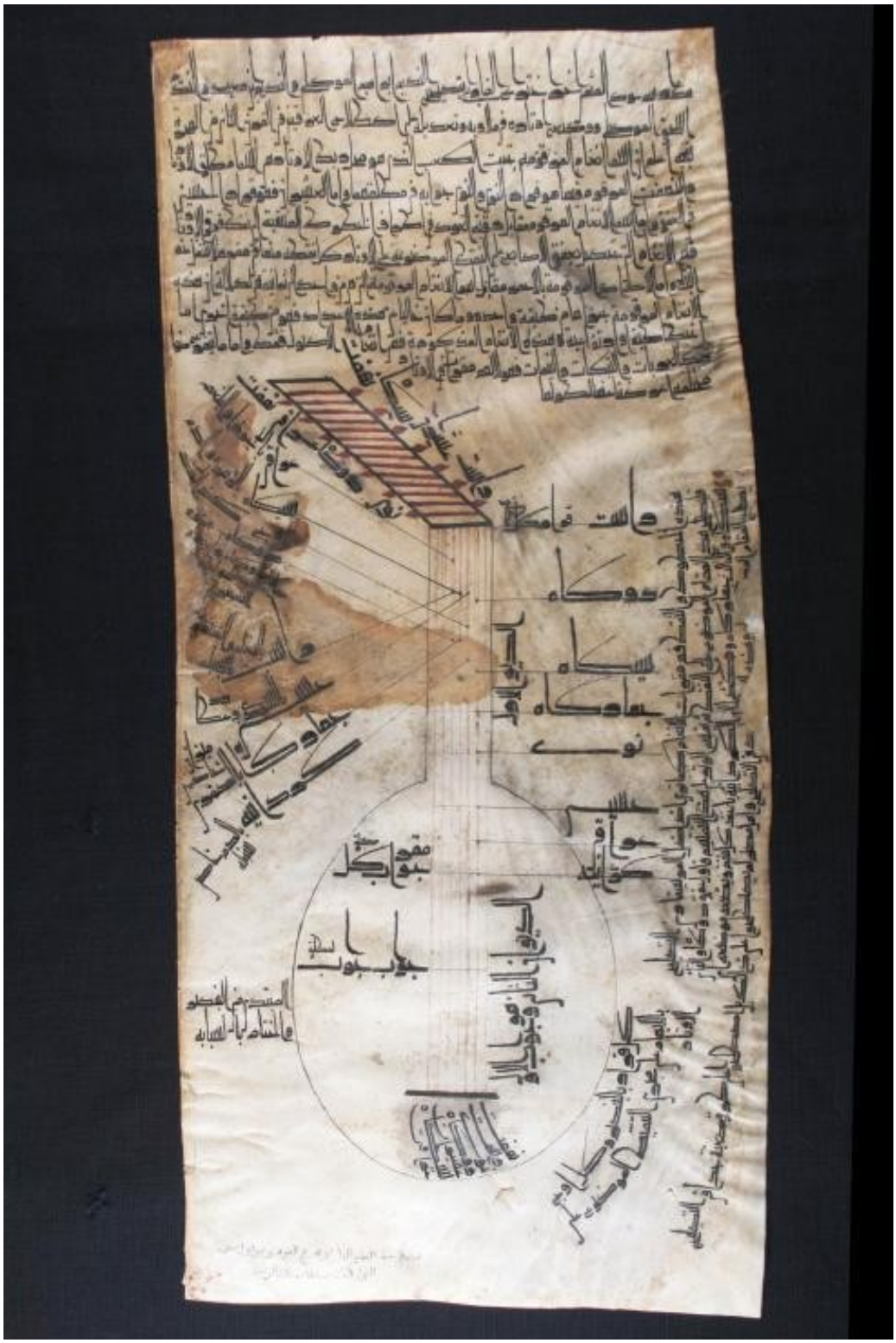
Two types of the six-course *oud* can be found in the Arab world: one has six pairs of strings, the other five pairs with an additional low strings. It is tuned as (from low to high) C E A D G C. *Al-oud al-akmāl* with five double strings and a single low string is becoming increasingly common in Iraq. However, we found different tuning system for this type of *oud*;

Moḥied-din Ḥadir (1892-1967) tuned his *oud* as (from low to hight): G G D A E D. In addition, Jāmil Bāshir (1921-1977), Salmān Shũkr (1920-2007), and Mũnir Bāshir (1930-1997) used the following tuning: F (bass) F C G D C.[198] Adding the extra string gives the instrument a wider range and increased ease of playing, allowing the performer to run effortlessly up to three *diwān* (octaves).[199]

Seven Courses *Oud* عود بسبعة اوتار

This *oud*, based on a complex system of tuning, was found in a drawing of an *oud* from al-Fārābi's (d.950) manuscript *kitāb al-mũsiqā al-kabir*. The *oud* described there appears to have seven courses. The first time it was mentioned was by M. Mashāqā (1800-1888) in his treatise *al-Risālāh al-shihabia fi al-sina'a al-mũsiqiā* الرسالة الشهابية في الصناعة الموسيقية (The *Shihabyia* Treatise on the Science of Music).[200] In addition, the French Campaign Scholars mentioned the seven courses *oud* in the late nineteenth century in the book *Wāsf Misr* (Describing Egypt).

[198] Sobhi Anwar Rshaid. *Tarikh al-Oud*, p.94.
[199] Salim al-Hilow. *Al-Mũsiqā al-Nadhariyā*, pp. 165-6.
[200] Mikhail ibn Jirjis Māshaqā. *al-Risālāh al-Shihabia fi al-Ṣina'a al-Mũsiqiyā*, p. 81.



Drawing of an oud from al-Fārābi's (d.950) manuscript of Kitāb al-mũsiqā al-kabir:
It appears to have seven strings and fourteen mālāwi, which means the use of double strings.

***Al-Oud al-Mũfakāk* العود المفكك (the disjointed *oud*):**

This *oud* made for the *Khalifas* so it would be easy to carry it with them during their travels. However, we do not know what kind of material it made of or the number of strings used on this particular *oud*.

***Al-Oud al-Shābũti* العود الشبوطي:**

This *oud* has a rectangular shape similar in a thickness to cyprinid (small freshwater fishes) and it was invented by Mansoũr Zālzāl (d. 790), who was credited for adding the fret *wũṣṭā* Zālzāl on the *oud*.[201] In his time, Zālzāl was known as *al-dhārib*, which means "*oud* player".

***Al-Mũghāni* المغني**

This *oud* invented by Ṣafi'ed-Din al-Armāwi al-Bāghdādi. It is a special instrument used to accompany singers.

***Al-Oud al-Madrāsi* العود المدرسي (The School or Training *Oud*):**

It is believeds that *Al-Oud al-Madrāsi* was a small *oud*-sized instrument made for training purposes. Majdi al-Ūqaili stated in his book *al-Samā' ind al-Arāb* that this *oud* is similar to the Mandolin with short strings. It has a high pitch and is considered as a soprano instrument.[202]

[201] Adel Al-Bakri. Safi'ed-Din al-Armāwi: *Mujaded al-Mũsiqā al-Abbasiyā*. Iraq, 1987, p. 126.
[202] Majdi al-Ūqaili. *Al-Sama' ind al-Arāb.* Syria: Dimscus, 1976, p. 18.

III: 2: 2 Strings (*al-Awtār*):

The strings (*al-wātār*) are pressed down against the flat fingerboard. Since there are no *dāsātin* (on the modern *oud*), the fingers must be positioned in precisely the right place or the note will be *nāshāz* (out of tune). The strings extend from the *faras* (bridge) to the *anf* (nut), where they are wound around *mālāwi* made of wood. On a good quality instrument, the pegs should turn smoothly and remain in place after tuning without excessive pressure being required.

On the modern Arabic *oud*, there are four pairs of strings, which are made of nylon and tune as C (*kirdān*), G (*nāwā*), D (*dũkāh*), and A (*ũshayrān*). The fifth string is usually tuned to F "*ũshayrān"*; or E "*bũslik*". Unlike the other strings, the thickest one is made of metal wound with fine silk. When tuning the six-course *oud*, the thickest string, which is tuned F or E, is made of metal wound with silk. The other strings are made of nylon and tuned in pairs from high to low: F C G D A).

Many Arab authors describe the strings of the *oud* in terms of their material and thickness. For example, Ikhwān al-Sāfā in their treatise *Risālāt al-mũsiqā* stated:

> "…and as for the strings, they are four.[203] The first of them is *bāmm*. It is made up of four *tabaqat* (strands) of thin gut firmly twisted together. It is of equal gauge throughout, there being not a finer or thicker gauge in one place than another. After this is the *mithlāth*, which is similar to the *bāmm* except that it made up of three *tabaqat*. After this is the *māthnā,* and as it is not as thick as the *mithlāth,* it made up of only two *tabaqat*. It is, however, of silk, but is of the same gauige as if it made up of two *tabaqat* of gut. After this is the *zir*, and since it is thinner than the *māthnā* by one *tabaqā* (prl. *tabaqāt*), it is made of silk and of the same gauge as if it were made up of one stand of gut. There are two reasons why the *māthnā* and the *zir* are made of silk, unlike the *bāmm* and *mithlāth*, which are made of gut: the first reason is that silk, when stretched taut, is

[203] It is important to note that five stringed *oud* was mentioned by al-Kindi in his treatises during the first half of the ninth century.

finer in tone than gut. The second reason is that these strings require tautness, on account of their high pitch, which one or two *tabaqat* of gut is not capable of sustaining." [204]

Al-Kindi recommended silk for the two higher strings (the *māthnā* and the *zir*) only.

In addition, ibn al-Taḥḥān described the material of the strings of the *oud* as follows:

"…strings are made of either silk or gut. With silk strings, they should be white, smooth, of equal gauge and well finished. These are boiled in water and ashes, and are then washed two or three times in pure water and dried in the shade. The strings are then twisted into the following gaiuges; the *bāmm* is made of sixty-four threads, the *mithlāth* of forty-eight, the *māthnā* of thirty-two, the *zir* of twenty-four, and the *ḥadd* string (second *zir*) of sixteen.[205]

Therefore, he continued:

"…as for the gut strings, the gut from sheep is better than gut from goats. Some say that white sheep gut is better than black gut…if the gut be fine the *bāmm* is made of three-ply, but if coarse, of two-ply. Some make the *mithlāth* similarly, but really, it [the *mithlāth*] should be less than the *bāmm* one-ply. The strings are stained with saffron or white wash; this being rubbed into the strings until they are dry."[206]

The strings made by Zyriāb from a lion cub without washing.

The poet al-Saqa'b ibn Jubbān al-Taghlibi (d. 555) described the emotions associated with the strings of the *oud* as follows:[207]

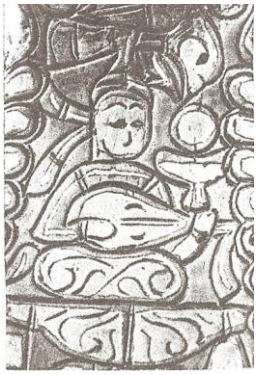
As the fire worshipper goes to and from in his garden
And he honored his little finger
With the superiority of a robber over his neighbors
And the *zir* relied on his twanging;
And the *māthnā* was attentive to its rivalry;
And the *mithlāth* was headstrong in its racecourse;

[204] Ikhwan al-Safa. *Risālā fi al-Mũsiqā*, p. 98.
[205] Ibn al-Taḥḥān, p. 89.
[206] Ibid, p. 91.
[207] Ibn Salamā. *Kitāb al-Malahi*, p. 33.

And the *bāmm* mumbled at its fellows,
As an old man mumbles at his boys

III: 2: 3 The Right-Hand Technique

The *oud* player usually plays the *oud* while seated. The images from Arabic manuscripts suggest that the player may sit on a chair or any elevated place. The *oud* players use their right hand to strike the strings and left hand to grasp the neck and stop the strings on the right *distān*. The *oud* player may lean more or less closely to the instrument. Dr. Sobḥi Rashid suggested that the *oud* player was holding the instrument either diagonally or straight during the performance.[208]

		
An oud on broken decorated pottery from the ninth century, the age of Tulunids (868-905), in the Islamic Museum, Cairo.	*Fresco for oud and mizmar from the grounds of al-heer al-gharbi in Syria, from the Umayyad era (661-750 AD)*	*Metal sculpture made in al-Mousel, Iraq, from the thirteenth century in the British Museum, London.*

The right hand of the *oud* player uses a very special method for holding the *rishā* (plectrum) or *zakhmā.*[209] This is a flexible flat stick made with a variety of materials and measuring about 100-180 mm long and eight to ten mm in width. The tips of the *rishā* can be

[208] S. A. Rāshid. *Tarikh al-Oud*, p. 15.
[209] *Wasf Misr*, p. 29.

rounded or sharpened; it depends mainly upon the player's preference. *Oud* players usually hold it at a specific angle to produce a certain tonal color. Therefore, the *risha* should strike the strings up and down throughout the performance, which gives the melody a unique timbre and texture, especially when adding trills, vibrato, and slides. The performers use two types of techniques during the performance: the first is *alternate picking*, which means that on each stroke, the player switches between down strokes and upstrokes. The second is known as economy picking, which is similar to alternate picking, except that when the performer changes strings, the next stroke is in the same direction his hand just moved. The *rishā* can be made of different materials.[210]

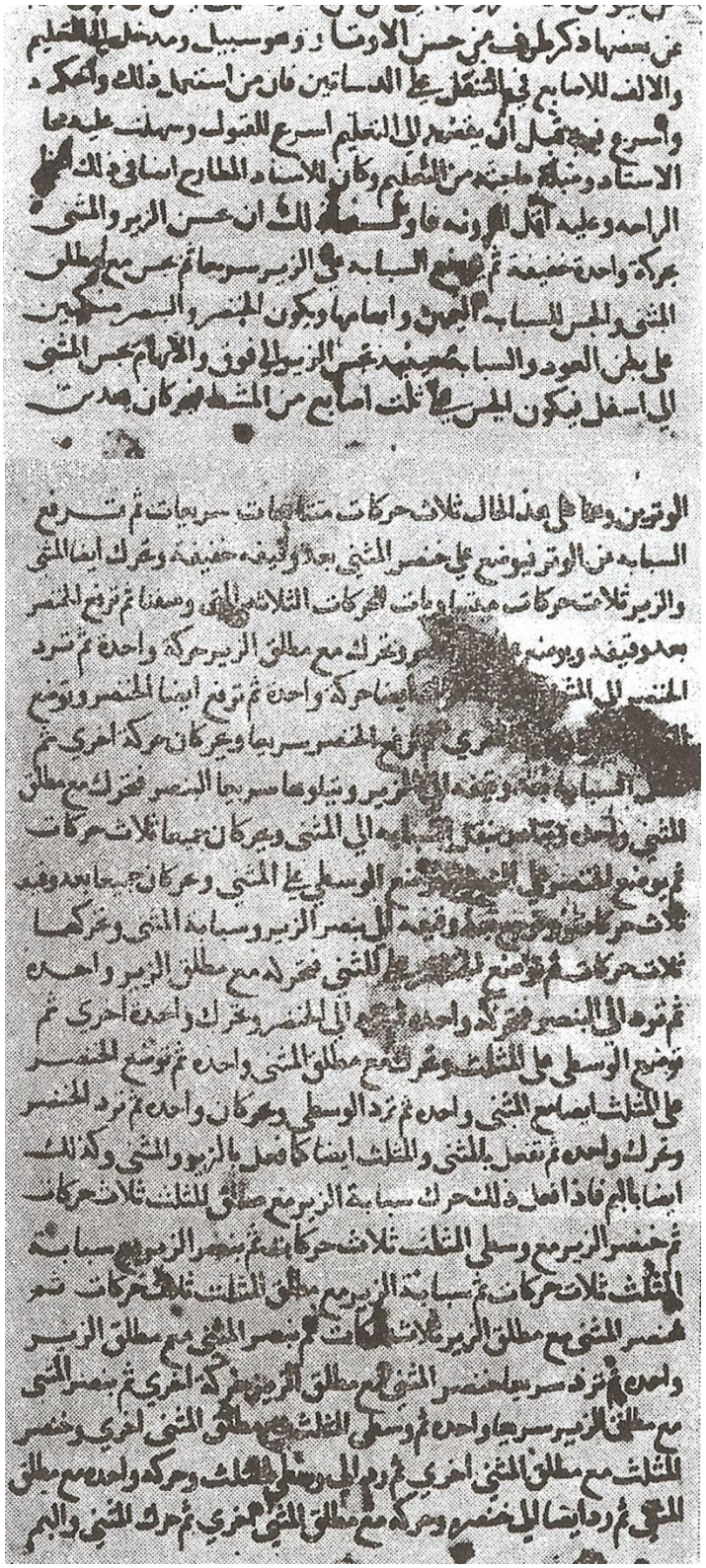
Quills, which are the classical material, were originally obtained from eagles. However, some *oud* makers and *oud* players use goose quills. I should mention that Zyriāb was the first one to introduce the quill instead of a wooden *rishā* for a performance in Baghdad.[211]

Another kind of material used to make *rishā* is horn. I believe that while it is good material for a *rishā*, it is difficult to make. However, the most common *rishā* in contemporary performance is made of plastic, which is easily handle, but may not be the best for playing purposes.

The angle at which the *rishā* strikes the string and the distance from the bridge affect the sound production to a considerable degree. Traditionally, performers preferred to play closer to the sound hole, which produced a softer tone, but today many *oud* players prefer the stronger and crisper sound produced by playing close to the bridge.

[210] S. S. Abdoun. *The Oud*, p. 25.
[211] Ibid, p.26.

There were many indications in Arabic writing for the use of the index finger and the thumb instead of *rishā* to pluck the strings. Al-Kindi wrote an exercise for the *oud* in his treatise *al-Risālāh al-udhma fi al-ta'lif* in which the right hand uses the *sābābeh* (index finger) and the *ibhām* (thumb) while the left hand uses *tawāfiq* (double stops).



Copy of al-Kindi's manuscript al-Risālāh al-ũdhma fi al-ta'lif, Exercise for the Oud
From The National Book Library, Berlin, MS.We.1240, fols.22-24V.

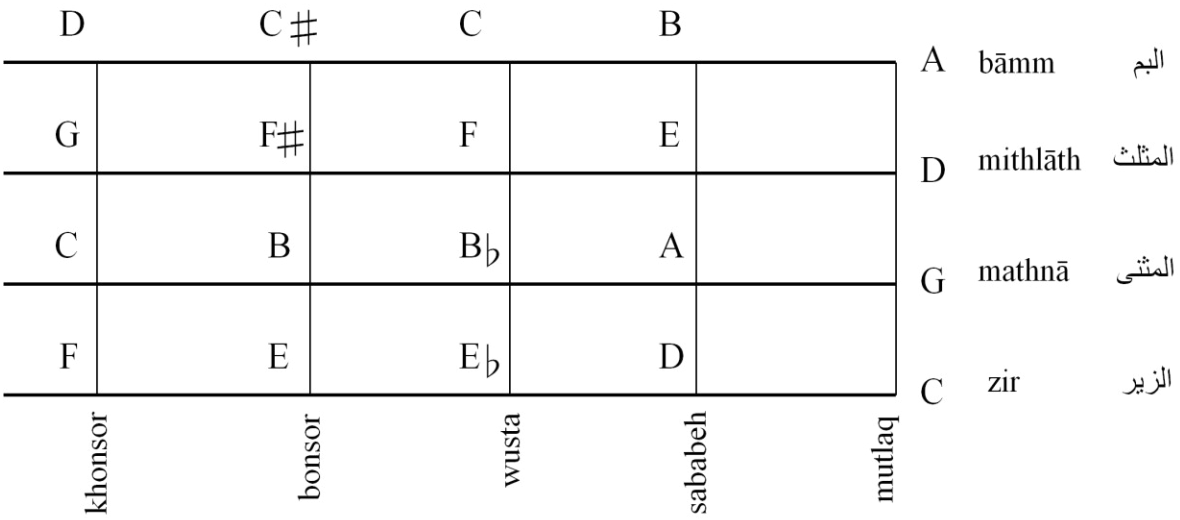
The following text is a translation of the original manuscript:

Measure #

1: *Pluck the zir and the māthnā lightly one time*
2: *Then put the sābābeh on the zir fast*
Pluck it with mũtlāq al-māthnā using the right hand and the thumb
The sābābeh should pluck the zir up, and the thumb should pluck the māthnā down
Then, move the sābābeh from the string (zir)
Put the khonṣor on the māthnā after a short rest
3: *Then, pluck the māthnā and the zir three equal times similar to previous one*
Then move the khonṣr after a short rest, and pluck the bonṣor one time
Move the khonṣor to the māthnā fast, and pluck it one time
Move the khonṣor and pluck the bonṣor one time
4: *Move the sābābeh to the zir and pluck the bonṣor one time*
After a short rest, pluck the sābābeh on the zir, then the bonṣor and pluck each one with mũtlāq al-māthnā one time
5: *Move the sābābeh to the māthnā, and then pluck all three times*
6: *Put the khonṣor on the zir and the wũṣṭā on the māthnā and pluck them three times*
8: *Then, go back to the bonṣor al-zir and sābābāt al-māthnā; then, pluck them three times*
Go back to the khonṣor al-māthnā and pluck it with mũtlāq al-zir one time
Go back the bonṣor [*al-māthnā*], *then khonṣor* [*al-māthnā*], *and pluck each of them one time*
9: *Put the sābābeh on the mithlāth and pluck it with mũtlāq al-māthnā one time after a short rest*
Then, put the khonṣor on the mithlāth and pluck it with the māthnā one time
Then move back to the sābābeh and pluck it one time (with mũtlāq al-māthnā)
Then, move back to the khonṣor and pluck it one time
10-25 *[Practice the same exercise on the māthnā and the mithlāth as you did on the zir and the māthnā; also, practice the same excerice on the bāmm and the mithlāth]*

When you finish;

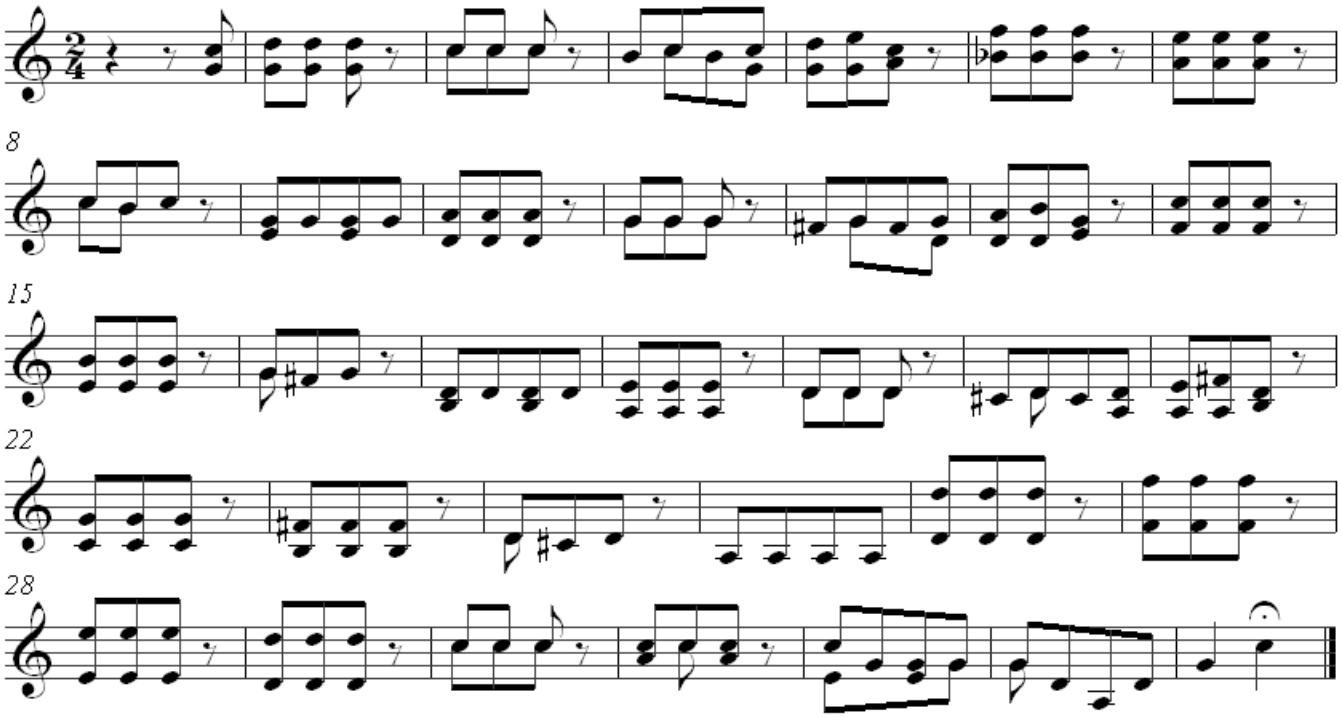
26: *Move the sābābeh on the zir with mũtlāq al-mithlāth three times*
27: *Then, khonṣor al-zir with wũṣṭā al-mithlāth three times after a short rest*
28: *Then, bonṣor al-zir with sābābāt al-mithlāth three times*
29: *Pluck sābābāt al-zir with mũtlāq al-mithlāth three times after a short rest*
30: *Then, pluck khonṣor al-māthnā with mũtlāq al-zir one time*
31: *Pluck sābābāt al-māthnā with mũtlāq al-zir one time*
Then, pluck khonṣor al- māthnā with mũtlāq al-zir one time
Then, move back to sābābāt al-māthnā with mũtlāq al-zir one time
32: *Pluck sābābāt al-mithlāth with mũtlāq al-zir one*
Then, pluck khonṣor al-mithlāth and pluck it with mũtlāq al-māthnā one time
Then, pluck sābābāt al-māthnā with mũtlāq al-māthnā one time
33: *Then, pluck khonṣor al-mithlāth with mũtlāq al-māthnā one time*
Then, pluck the māthnā and the bāmm for the movement
34: *Then, al-mithlāth, al-māthnā, and the zir one time*



The locations of the fingers on the oud

Exercise for the Oud
by Al-Kindi (801–873)

Trans. by Seifed-Din Abdoun



III: 2: 4 The Bridge of the *Oud*:

The *oud is* traditionally made of a fixed bridge; however, some images in Arabic manuscripts suggest the use of a floating bridge on the construction of the *oud*. Also, Farmer mentioned that the string of the instruments were possibly fixed to 'pins': in the side of the sound-chest, as in the Assyrian and later Persian instruments, [212] from which they were stretched to the tuning pegs on the horizontal arm below".[213] In recent years, some have noted the popularity of an instrument with a floating bridge that is similar to the bridge of the violin family. Each systems has its own feel during performance; a fixed bridge produces more mellow sounds usually associated with traditional playing, while a floating bridge tends to produce a crisper sound.

An oud on broken decorated pottery from the ninth century, the age of strain Tulunids (868-905), in the Islamic Museum, Cairo.

From a physical point of view, a floating bridge causes less energy dissipation than a fixed bridge, yet that does not translate to a louder sound because of better transmission of vibration and more efficiency. A floating bridge should be more responsive to subtle changes in playing as long as the action of *oud* is low enough, which is not a problem. For instance, the

[212] Farmer queted from "Tag-I Bustan Bas-Reliefs (A.D. 590-628)." In the *Journal Asiatic Society of Great Britain and Ireland*, No 3 (Jul., 1938), p. 398.
[213] Ibid, p. 402.

Lebanese *oud* maker Fādi Mattā prefers the floating bridge over a fixed one; he also adds so-called adjustable action necks to his *ouds*.

The bases in a fixed bridge tend to be more pronounced because of the long wavelength that is transmitted better by the large surface area of the fixed bridge. However, a few elements in a floating bridge can mellow the sound, produce better bases, and even make the *oud*s' sound more one using a fixed bridge. These elements are the length of the bridge, the thickness of the bridge, the height, and the type of wood. [214]

As for the length of the bridge, most *oud* makers make the bridge around fifteen cm long. For example, if the bridge increases in length to fifty percent of the soundboard's width, that should give the performer better bases, better support and much better resonace in the *oud*. Nevertheless, this can cause losing some crispness in the sound production. A shorter bridge can cause more sinking and more stress cracks to the soundboard; however, a longer one can distribute the pressure onto a larger surface area.

Another element is the thickness of the bridge; the thicker the bridge, the better basse response, because of better transmission of long wavelength vibrations; the thinner the bridge, the crisper and clearer the sound production. Nevertheless, anything less than four mm, is likely to cause stress cracks in the soundboard, particularly if the *oud* has cedar soundboard, which is softer than spruce. Fādi Mattā's bridge is about four and a half mm at the base side and tapers to three mm at the treble side.

[214] The information was obtain during telephone conversation and via E-mail with the Lebanese *oud* maker Fādi Mattā, the Iraqi *oud* maker Yarob Alsafaar , the *oud* player Soũhail Yoũns (Lebanon), and from personal knowledge and experience.

The higher the bridge on the *oud* can cause more pressure and the more acute the angle of the strings. Acute angles and high pressure can eliminate the soundboard vibration and can affect the sound production of the *oud*. Some *oud* makers install a piece of bone on the top of the bridge, which can cause a significant dissipation of energy. However, placing bone on top of the bridge can produce clarity and crispness in the sound, but that can affect and reduce the basses of sound and resonance.

The type of wood plays an important factor in the sound production. Some wood, like ebony, is not efficient for producing vibration. I have found upon examination that the best types of wood an *oud* maker can use to improve the clarity of sound are: Indian rosewood, Madagascar rosewood, pad-auk, and spruce on a cedar soundboard.

III: 3 The Fretting System and Range:

In Arabic, "fret" can refer to *distān* دستان (prl. *dāsātin*) or *'atāb* عتب. According to Arabic texts; - poetry and manuscripts-, I have found that the *oud* was once a fretted instrument. For instance, the poet al-A'sha (d. 629) mentioned the *atāb* in his poem as follows:

وثنى الكف على ذي عتب يصل الصوت بذي زير أبح

"And he placed the hand over the *'atāb*

To sound the note of the treble string."[215]

In the mean time, Mũhammād al-Zobaidi (1732-1790) as quoted in the *Taj al-'arũs* had a different definition of *'atāb*. He stated that the term *'atāb* and the *dāsātin* do not refer to the

[215] Al-'A'shā. *Diwān al-'A'shā,* p. 158.

same thing, although probably at the time of al-'A'shā, the term *'atabā* was used indiscriminately for both nut and fret.[216] Therefore, the *dāsātin* were frequently mentioned in the *Kitāb al-aghāni,* which stated that the *oud* player used to place the finger on a certain *distān*.[217] Also, Isāḥaq al-Māũṣeli was described as playing on the *oud*, up and down the *dāsātin*.[218]

Al-Kindi mentioned the *dāsātin* on the *oud*, and its material and thickness. For example; the first *distān* should equal the *bāmm* string (four threads); the second *distān* should equal the *mithlāth* (three threds); the third *distān* equals the *māthnā* (two threads); and the fourth *distān* is equal to the *zir* (one thread). Also, al-Fārābi said the *dāsātin* were *shāddā* (tied) on the neck of the *oud*, and that they were fixed act with the bridge- tailpiece.[219]

Al-Khāwārizmi (976-997) mentioned in his *Kitāb mafātiḥ al-ũloũm* that the *dāsātin* are tied *ribaṭāṭ* (places) upon which the fingers are placed on the *oud*.[220] Also, Ikhwān al-Sāfā (tenth century), and al-Armāwi al-Bāghdādi (d. 1294), confirm the use of *distān* that were made of gut and tied onto the neck of the *oud*. In addition, al-Taḥḥān (fourteenth century) stated in his treatise *Ḥawi al-funũn wa salwāt al-mahzũn*, that he did not need the *dāsātin* on his *oud* because he knew the location of every note on the *ũng* (neck: fingerboard) without *dāsātin*.

On fretted instruments such as the guitar, lute, and mandolin, the player places the finger slightly behind the fret, not right on the metal or gut. The fret stops the string, which is known by the technical term, - "one spot buzz,"- exactly on the right location of the pitch. On a fretless

[216] Mũḥāmmād al-Zobaidi. *Tag al-'arus I.* Egypt: al-Matba'a al-Kharia, 1888, p. 264.
[217] Al-Asfahani. Kitāb al-Aghani, v, pp. 57-8.
[218] Ibid, vi, pp. 78-80.
[219] KMK, p. 528.
[220] al-Khawarizmi. *Kitāb Mafatih al-Ūloũm*, p.238.

instrument such as the violin, cello, or the *oud*, the finger stops the string. Therefore, the finger has to be in exactly the right location. In fact, it has to be in the exact location where the fret would be if the instrument had frets.[221]

The traditional classical Arabic method for the left hand uses all four fingers to stop the strings of the instrument, one for each semitone. However, the *oud* player can use the four fingers in different ways from one *māqām* to another. The easiest way for the *oud* player to stay on pitch is playing in the first position: that is, the position in which the *sābābeh* (index finger) will naturally fall one whole step up from the nut. In playing the *oud*, each *distān* (half step) gets a different finger, and with the exception of the fourth finger, reaching back for the first fret notes. On the *nāwā* (G string) for example:

1st finger: A flat (*hiṣār*) and A quarter-tone (*tik hiṣar*)
2nd finger: A (*hũsāini*)
3rd finger: B flat (*ajām*)
4th finger: B quarter-tone (*āwj*) and B (*mahoũr*)

The range of the *oud* varies depending on the number of the strings. As I mentioned earlier, al-Kindi suggested adding the fifth string (*al-zir al-thāni*: second *zir*) to obtain two *diwān*. However, the six-course *oud* of Mũnir Bāshir, for example, was able to produce a wider range that could run up to three octaves effortlessly.

IV: The Tuning System in Performance Practice:

There have been many developments in the *oud* tuning system since the time of al-Kindi. These developments include adding one string or strings and increasing the number of the *dāsātin*, which became necessary with the development of the Arabic musical scale. In this

[221] Ibn al-Taḥḥān. *Ḥawi al-Funũn wa Ṣalwat al-Mahzũn.* Cairo National Library MS., *funũn jamilā*, 539, fol. 89.

section of this study, I will be examining these developments and theories of the *dābt* ضبط or *dozān* دوزان (tuning system) of the *oud* by al-Kindi, Isḥāq al-Māũsely, al-Fārābi, and al-Armāwi al-Bāghdādi.

IV: 1 Al-Kindi:

It is important to note that al-Kindi was the first to utilize *abjād* as a pitch notation and to name the notes of the Arabic scale, using on the *oud*. He also recognized two *diwān* in the Arabic musical scale. Because the *oud* had only four strings in practice, al-Kindi proposed a fifth one (theortical) string in order to obtain the second *diwān* on the *oud*. It is important to note that the *abjād* system was also used centuries later, by Ṣafi al-din al-Armāwi al-Bāghdādi (1216-1294) in his notation system, which had seventeen notes in the *diwān*. Therefore, in his treatise, al-Kindi endeavoured to objectify *risālā fi al-ta'lif*, the essential information for the evaluation of *ajnās* in the Arabic musical scale. These *ajnās* were estimated numerically as cents values. Al-Kindi's discussion of the *ajnās* shows that his scale was made up of twelve "half tones" to the *diwān*.

It is important to mention that Farmer mistakenly used al-Kindi's description of the *dāsātin* on the *oud*. On the one hand, in his book *Music of Islam* Farmer stated that the theory of all Arab schools "was made to conform to the lute [*oud*], in the same way as the Greeks used the kithara."[222] However, I argue that the system of al-Kindi was different from the Greek system because the notes on the *oud* obtained their names from the location of fingers and from the strings of the *oud*; fixed, consecutive notes correspond to the sequence in the musical scale.

[222] Farmer. *Music of Isalm*, p. 457.

While in the Greek system, the notes derived their names from their positions on the open five strings instrument called the Lyre. Furthermore, the three different ways of tuning the strings (on the Lyre) do not occur all at one time.[223]

On the other hand, Farmer included al-Kindi's musical scale of two *mũjanāb* in his table of the cents values. One *mũjanāb* is between the *mũtlāq* and the *sābābeh distān*, and he recognized two *distān* for the *wũsṭā* instead of one. The first *mũjanāb* is on the *bāmm* (90 cents). The second *mũjanāb* is on the *bāmm* (114 cents) and on the *mithlāth* (588 cents for the first and 612 for the second); on the *māthnā* (1086 cents and 1110 cents respectively): on the *zir* (384 cents and 408 cents respectively): on *al-ḥadd* (882 cents and 906 cents respectively).[224] However, al-Kindi stated that the first *distān* is the *sābābeh* and no *distān* between the *mũtlāq* and the *sābābeh*.

	bāmm	*mithlāth*	*māthnā*	*zir*	*2nd zir (al-ḥadd)*
mũtlāq	0	498	996	294	792
mũjanāb I	90	588	1086	384	882
mũjanāb II	114	612	1110	408	906
sābābeh	204	702	1200	498	996
wũṣṭā I	294	792	90	588	1086
wũṣṭā II	384	882	180	678	1176
bonṣor	408	906	204	702	1200
khonṣor	498	996	294	792	-------

The following chart shows al-Kindi's values of notes in cents:

Alphabet	أ	ب	جـ	د	هـ	و	ح	ط	ي	ك	ل
English	a	b	j	d	h	w	ḥ	ṭ	y	k	l
Notes	A	N/A	B	C	C#	D	E	F	F#	G	Ab

[223] Court Sachs. *The Rise of Music in the Ancient world, East and West*. Dover Publications, Inc., 2008, pp. 37-8.
[224] Farmer. *Music of Islam*, p. 459.

	bāmm			*mithlāth*			*māthnā*			*zir*			2nd *zir / al-ḥadd*		
		notes	cents		notes	cents		notes	cents		notes	cents		notes	cents
mũtlāq	*A*	A	0	*W*	D	498	*k*	G	996	*d*	C	294	*ṭ*	F	792
sābābeh	*J*	B	204	*Ḥ*	E	702	*a*	A	1200	*w*	D	498	*k*	G	996
wũṣṭā	*D*	C	294	*Ṭ*	F	792	*b*	Bb	90	*z*	Eb	588	*l*	Ab	1086
bonṣor	*H*	C#	408	*Y*	F#	906	*j*	B	204	*ḥ*	E	702	*a'*	A	1200
khonṣor	*W*	D	498	*K*	G	996	*d*	C	294	*ṭ*	F	792	*b'*	B	90

Therefore, al-Kindi identified the scale of Arabic music as being composed of twelve tones, which includes a half-dimensional *tanini* (tone), and named the note using the Arabic alphabet from أ (A) to ل (L). In addition, he adopted the system of *ajnās* to build the scales and the *māqāms*, a method used to this day. Al-Kindi used descriptive names by specifying the position of each note in a distance of the two *diwān*.

In his treatise *Risālāh fi khũbr ta'alif al-alḥān*, al-Kindi stated that the notes and the *ajnās* were given special names which derive from their positions on the *oud* with a range of two octaves. In the following pargraphs, I will show the literal text in al-Kindi's treatise, *Risālā fi khũbr sina'at al-ta'leef*, with translation and commentary regarding the tuning of the *oud*:[225]

و "ك" الى "أ" كله وثمن كله

And (G) to (A) is one and one eighth

وقد بينا ان فضل الذي بالخمسه على الذي بالاربعه كل وثمن الكل

And we have already shown that the pentachord exceeds the tetrachord by one and one eighth.

فاذن: بعد "و" التي هي مطلق المثلث من " أ" التي هي اول دساتين المثنى هو البعد الذي بالخمس

Therefore, the *ajnās* between (D) on (*mũtlāq al-māthnā*), and (a) on the *sābābeh* of the *māthnā*, is a pentachord.

[225] Al-Kindi. *Risālā fi Khũbr Ṣina'at al-Ta'leef.*

ومن الذي بالخمسه والذي بالاربعه ركب الذي بالكل. فاذن: نسبة "أ" من المثنى هي نسبة المضاعف بالاثنين. فالاضطرار: تكون "أ" من المثنى من كيفية "أ" من البم . وعلى هذا المثال: يتتالى النغم المتتالي في التشابة في الكيفية. فان "ب" من المثنى هي "ب" من البم بالكيفية, فقد ظهر كيف تستعمل "ب" من البم في الدستانات. وكذلك "جـ" من المثنى هي "جـ" من البم.

And the *diwān* is made up of a pentachord and tetrachord. Thus, the interval between (A) on the *bāmm* and (a) on the *māthnā* is 2:1; and for the reasons given above, it is, by necessity, concluded that (a) on the *māthnā* is qualitatively identical to (A) on the *bāmm*. Similarly, consecutive notes follow one another in a qualitatively identical sequence at either end of the *diwān*. Therefore, (b) flat on the *māthnā* is qualitatively identical to (B) flat on the *bāmm*; and how to use (B) flat with respect to the *distān* has been already been shown.

و "د" من المثنى و "د" من البم, وهي "د" من الزير. وكذلك "هـ" من الزير, المعراة من الاستعمال, هي "هـ" من البم. وكذلك "و" من الزير هي "و" من المثلث.

Also, (b) on the *māthnā* is identical to (B) on the *bāmm*. And (c) on the *māthnā* is the same as (C) on the *bāmm*, and (c) on the *zir*; and (c) sharp on the *zir*, which is out of use, is identical to (C) sharp on the *bāmm*, and also d on the *zir* is qualitatively similar to (D) on the *mithlāth*.

و "ز" من الزير هي "ز" من المثلث المعراة من الاستعمال. و "ح" من الزير هي "ح" من المثلث. و "ط" من الزير هي "ط" من المثلث, و "ط" من الزير الاسفل.

And (e) flat on the *zir* is similar to (E) flat on the *mithlāth*, which is out of use; and (e) on the *zir* is identical to (E) on the *mithlāth*; and (f) on the *zir* is qualitatively identical to (F) on the *mithlāth*, and is the same as (f) on the lower *zir*.

و "ى" من الزير الاسفل هي " ى" من المثلث. و "ك" من الزير الاسفل هي "ك" من المثلث. و "ك" من المثنى. و "ل" من الزير الاسفل هي "ل" من المثنى المعراة من الاستعمال.

And (f) sharp on the lower *zir* is identical to (F) sharp on the *mithlāth*; and (g) on the lower *zir* is similar to (G) on the *māthnā*; and (a1) flat on the lower *zir* is similar to (a) flat on the *māthnā*, which is out of use.

و "أ" من الزير الاسفل هي "أ" من المثنى, و "ب" من الزير الاسفل هي "ب" من المثنى, و "ج" من الزير الاسفل هي "ج" من المثنى للعلل التي قدمنا ذكرها اضطرارا.

And (a1) on the lower *zir* is qualitatively similar to (a) flat on the *māthnā*; and (b1) flat on the lower *zir* is identical to (b) flat on the *māthnā,* and (b1) on the *zir* is similar to (b) on the *māthnā,* for the reasons aforehand presented by necessity.

ولو كان المثنى نصف المثلث, فان المثنى اذا مد مدا مساويا للمثلث, لم تكن نغمة اطلاقه مساوية لنغمة خنصر المثلث, لان المثنى ثلثا المثلث.

And if the *māthnā* was half the *mithlāth* in thickness, and both strings were subjected to equal tension, *mũtlāq al-māthnā* shall not sound identical to *khonṣor al-mithlāth,* because the *māthnā* is two-thirds the *mithlāth*.

واذا كان المثنى ثلثي الثلث, واذا كان المد مساويا, كان المثنى يعطي صوت النغمه التي تحت الدستان الرابع من المثلث التي بعدها من "و" من المثلث ثلث المثلث ليكون صوت الثلثين من المثلث مساويا صوت المثنى الذي هو ثلثا كمية المثلث.

Since the *māthnā* is two-thirds the *mithlāth* in thickness,if their tension were equal, *mũtlāq al-māthnā* shall sound similar to that note which occurs below the fourth *distān* on the *mithlāth*; (i.e., the note which is separated from (D) on the *mithlāth* by one third of the length of the *mithlāth,* since the *māthnā* is two-thirds the *mithlāth* in thickness).

والذي بين الربع والثلث هو ثلث الربع. فينبغي ان يكون المثنى ألين, لتساوي "ك" من المثنى "ك" من المثلث.

And the difference between one-fourth and one-third is one-third of one-fourth. Therefore, the *māthnā* should be less attenuated in order that (G) on the *māthnā* may be equal in tone to (G) on the *mithlāth*.

فيكون اذن: اذا كان "ك" من المثنى من "ا" منه تسع كله، اذن يكون المساوي للألف من المثنى من المثلث اسفل من "ك" تسع ما بين "ك" الى جهة نهاية الوتر.

And since the distance between (G) on the *māthnā* and a on it itself is equal to one-ninth of the length of the *māthnā*, then, the distānce between the identical (a) on the *mithlāth* and (G) on it itself should be one-ninth from (G) on the *mithlāth* to the end of the length of the *mithlāth* string.

فتكون اذن "ك" كله وثمن كل لتلك النغمة، و "ك" كله وثمن كل للألف من المثنى. فباضطرار أن "أ" من المثنى هي "أ" من البم في الكيفية.

Therefore, (G) is one and one-eighth of a on the *māthnā*; hence, by necessity, (a) on the *māthnā* is qualitatively identical to (A) on the *bāmm*.

ولنمثل ذلك من العدد: فنفرض "أ" من البم من العدد 16، اذن من البم 12، لان "أ" كل وثلث كل "و".

Let us express this in numbers: let (A) on the *bāmm* be sixteen. Therefore, (D) on the *bāmm* shall be twelve, because (A) is equal to one and one-third of (D).

و "و" من البم هي "و" من المثلث، و "ك" من المثلث اذن 9، لان "و" من المثلث كل وثلث كل "ك" من المثلث.

And (D) on the *bāmm* is (D) on the *mithlāth*. Therefore, (G) on the *mithlāth* shall be nine, because (D) on the *mithlāth* is one and one-third (G) on the *mithlāth*.

و "ك" من المثنى كل وثمن كل من "أ" من المثنى. و "أ" اذن من البم ضعف كل "أ" من المثنى اذ هي 8.

And (G) on the *māthnā* is one and one-eighth of a on the *māthnā*. Therefore, (A) on the *bāmm* shall be twice a on the *māthnā*, which is eight.

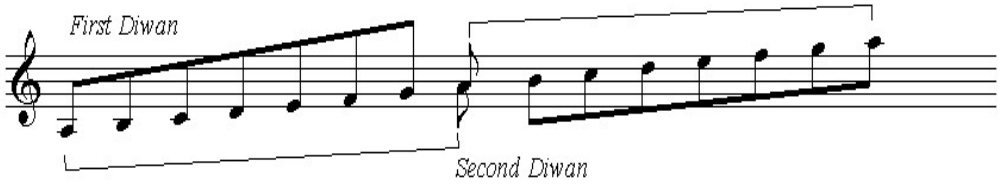
واذ عرض ذكر النغم، فنذكر ما يخلف من ذكر النغم، ما لم يكن يمكن ان نبين اولا فنقول: ان موضع النغم من المضاعف بالأربعة 25 موضعا على ما في هذه الصورة، منها: خمسة مواضع غير مستعملة، انما تستعمل في غير مواضعها المعراة من الدساتين فتبقى المواضع المستعملة 20 موضعا في الجمع الأعظم، اعني الذي بالكل مرتين.

Since we have discussed the notes, let us mention here that which we could explain before [what we have not explained before]. The notes occupy twenty-five positions in the two *diwān*. Of

these, five notes are not in use, although they may be use in positions other than those *dāsātin*. The remaining positions are thus twenty in use in the two *diwān*.

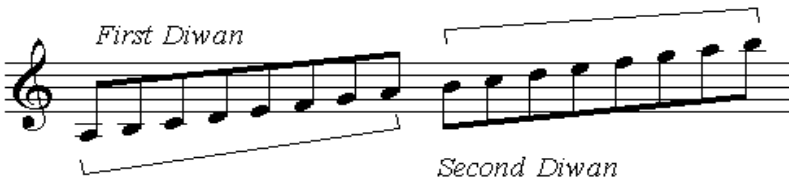
والذي بالكل مرتين نوعان:
احدهما يسمى "المتصل" وهو الذي نغمة "أ" من وتر المثنى مشتركة فيه. والأخر من الذي بالكل الأول، ولأول الذي بالكل الثاني.

The interval of two *diwān* are two types: The first one is conjunction: in which (a) on the *māthnā* is jointly shared between the two *diwān*, being the last note of the first *diwān*, and the first note of the second *diwān*.



واما جمع الفتراق، فهو الذي مبتدأ الأل منه "أ" البم ونهايته "أ" المثنى. ومبتدأ الثاني منه "ح" الزير الثاني.

And the second one is disjunct, in which the first *diwān* is from (A) on the *bāmm* to (a) on the *māthnā*, and the second *diwān* is from (b) on the *māthnā* to (b1) on the second *zir*.



وهذا الجمع منفصل ببعد "أ" المثنى الذي هو بعد طنيني، اعني نسبة كل وثمن كل. فهذه النغم التي تحيط بجمع الأنفصال وما دونه.

The disjunct two *diwān* are separated by the interval (a-b) on the *māthnā*, which is a whole tone, the ratio of which is one and one eighth. Those notes we mentioned encompass the disjunct double *diwān* and any lesser intervals.

واذا ذكرنا مواضع النغم، مواضع النغم، والنغم المستعمل، فينبغي أن نذكر النغم التي في جمع الذي بالكل مرتين، ونذكر عدة مواضع.

And since we have enumerated the positions of the notes, and the number of those notes in use, we should therefore discuss the intervals of the notes in the two *diwān*, and enumerate their locations.

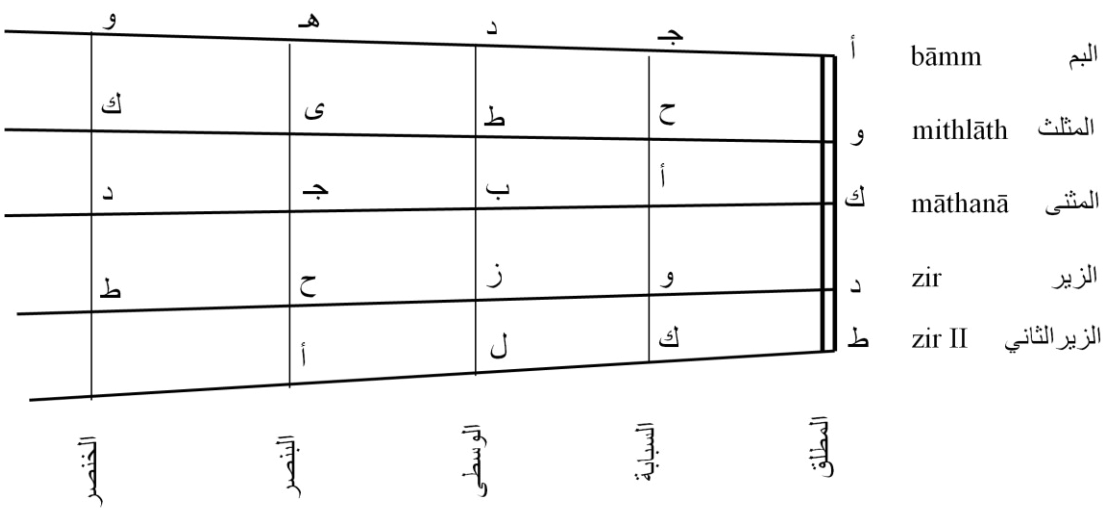
وأما عدة مواضعها، فعشرون موضعا، لأن في كل وتر أربع نغمات، أعني بالذي بالأربعة، وهي خمسة أوتار. والنغمة التي هي "جـ" من الزير الثاني، يتم بها جمع القوة، اذا اشتعملت مكان "ب" من الزير الثاني.

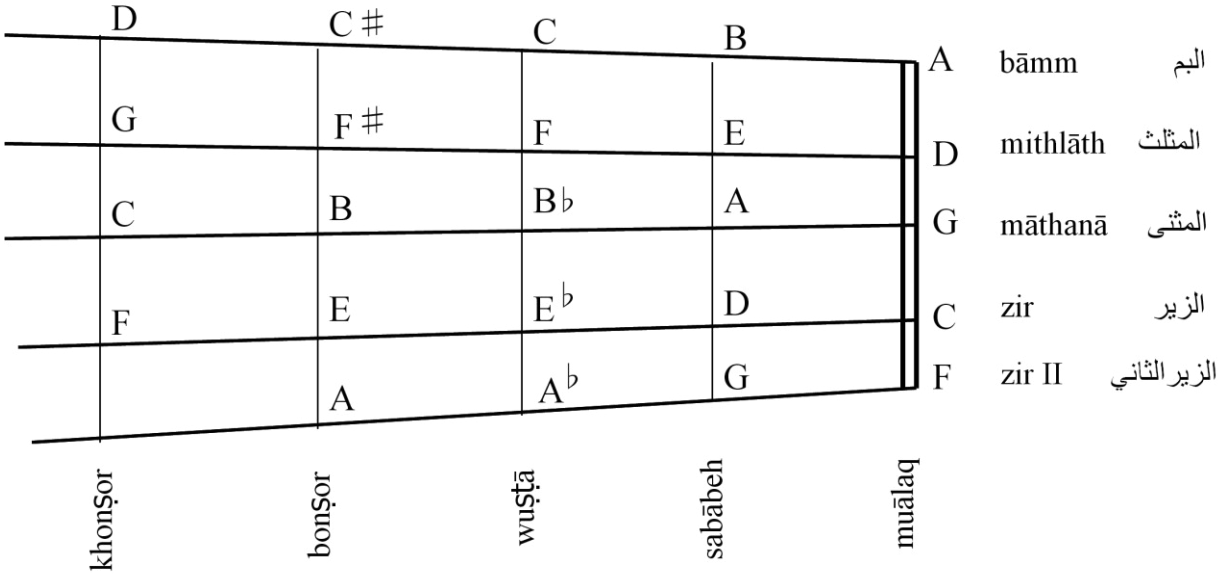
As to their number, there are twenty, since there are four notes-a tetrachords- to each string, and there are five strings; and the note (b1) on the second *zir* competes the *diwān* if used in place of (b1) flat on the second *zir*.

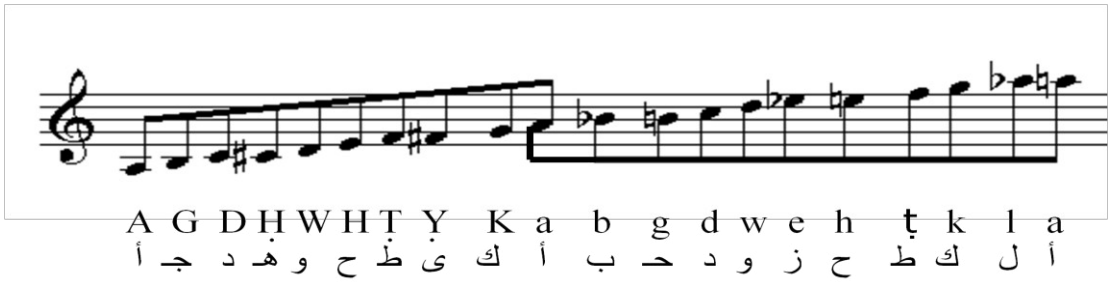
فاما كم مواضعها المستعملة:
فالـ "و" من البم ومن المثلث واحدة. والـ "ك" من المثلث والمثنى واحدة. والـ "د" من المثنى، والزير الأول واحدة. والـ "ط" من الزير الأول والزير الثاني واحدة، لأنه لا تستعمل من كل اثنتين من وتر في جمع واحد الا واحدة، لأن هاجسهما سواء.

As to the number of positions in actual use:

The *khonṣor* (D) on the *bāmm* and *mũtlāq* on the *mithlāth* are the same note. The *khonṣor* (G) on the *mithlāth* and *mũtlāq* on the *māthnā* are the same notes; the *khonṣor* (c) on the *māthnā* and *mũtlāq* on the *zir* are the same notes; the *khonṣor* (f) on the *zir* and the *mũtlāq* on the second *zir* (*al-ḥadd*) are the same notes. Only one of each note is use in any given tetrachord, since the sound of each is identical. The chart below shows the twenty notes that are used on the *oud* within a range of two *diwān*:


و هـ د جـ
ك ى ط ح
د جـ ب أ
ط ح ز و
أ ل ك
أ bāmm البم
و mithlāth المثلث
ك māthanā المثنى
د zir الزير
ط zir II الزير الثاني
الخنصر البنصر الوسطى السبابة المطلق


D C♯ C B
G F♯ F E
C B B♭ A
F E E♭ D
A A♭ G
A bāmm البم
D mithlāth المثلث
G māthanā المثنى
C zir الزير
F zir II الزير الثاني
khonṣor bonṣor wuṣṭā sabābeh muālaq


A G D Ḥ W H Ṭ Y K a b g d w e h ṭ k l a
أ جـ د هـ و ح ط ى ك أ ب حـ د و ز ح ط ك ل أ

فاذن: يبقى النغم ستة عشر نغما. وهذه الست عشرة نغمة: منها عشر نغمات ثابتة في جميع ما يستعمل في الجنس، لا تبدل مواضعها. واما ستٌ منها فمتبدلة. فأما التي لا تبدل، فهي ما كان على نهايتي الدساتين، وأما المتبدلة، فما كان بين ذلك.

Consequently, sixteen notes are left: of these sixteen notes, there are ten, which occupy fixed, unchangeable positions in all the used *ajnās* (species). The other six notes, however, occupy exchangeable positions. The fixed notes fall on the end of the *dāsātin*; the changeable ones in between.

فأن استعمال الأنواع يبدل ما كان فيما بين النهايات: لأن الأول من الطنين يستعمل غير ما يستعمل الثاني والثالث؛ والثاني يستعمل غغير ما يستعمل الأول والثالث؛ والثالث يستعمل غير ما يستمل اللذان قبلة.

Because the modulation entails exchanging the notes on the *wũṣṭā*, the first mode uses the notes that are different from the notes in the second and the third. The second mode uses notes that are different from the used ones in the first and the third; and the third mode notes that are different from those used in the two preceding modes (the first and the second mode).

ولنضع للنغم أسماء ليسهل بها تكرار القول فيها:
فنسمي مطلف البم الذي هو " أ": المفروضة، لأنا نفرضها مبتدأ النغم. ونسمي الباقيات على ما هو أقرب من فهمك. وما يسهل عليك حفظ ذلك. فأما كيف سميناها نحن على استحقاق، وعلل ذلك، فقد أوضحنا ذلك في كتابنا الأعظم في تأليف اللحون.

Let us name the notes, in order to facilitate referring to them:

The *mũtlāq al-bāmm* ا =A is called *al-naghāmih al-mafrũdā* النغمة المفروضة (*Proslambanomenos*), because we postulate it to be the beginning of the notes. The rest of the notes are named in a way that makes it easy for one to comprehend and memorize them.

ولنبين علة ما وضعنا أسمائها:
فنسمي الجموع اللاتي بالأربعة المتتالية بأسمء خاصة بها، مشتقة من أحوالها. ونسمي الجمع الأول الذي في البم من اللواتي بالأربعة: "المقدم" لأن أكثر ما يستعمل في الجنس الطنيني من النوع الأول والنوع الثاني يصير مبتداه من الستان الأول، فاما النوع الثالث، فانه يخرج بدؤه من مطلق الوتر.

Let us give the reasons for thus naming the notes:

The consecutive tetrachords are given special names that derive from their position in the sequence. The first tetrachord, which occurs on the *bāmm Proslambanomenos*, is called “The Forward” because the most frequent usage of the first and the second types of the diatonic genus starts with the note on the *sābābeh*; the third type starts from the *mũtlāq al-bāmm*.

فلذلك سمينا مطلق البم الذي هو "أ": - "المفروضة"، ونهاية النغم التي هي "أ" من الزير الثاني: "حادة الحادات"؛ لأنها نهاية الحدة من المفروضة في جمع الاتصال الأعظم. ونسمي "أ" التي هي على أول دستان من المثنى: "الوسطى"، إذ هي متوسطة في البعد من المفروضة وحادة الحادات في الجمع الأعظم ذى الاتصال.

For this reason, we have named the *mũtlāq al-bāmm* A (*Proslambanomenos*), and the highest note which is a on the second *zir* “The Most Treble of the Trebles” because it represents the extreme treble end of the double *diwān,* which starts with the *Proslambanomenos.* And (a) which lies on the *sābābeh* on the *māthnā* is called “The Middle Note”, since it occupies a middle position between the *Proslambanomenos* and the “Most Treble of the Treble Notes” in the conjunct double *diwān*.

وقد قلنا ان الجمع الذي بالأربعة الذي مبتداه الجيم هو "الجمع المقدم"، فنسمي نغمه جميعا: "المقدمات". ونسمي الجمع الذي يليه الذي بالأربعة الذي مبتداه الحاء: "جمع الأوساط"، إذ نهايته "الوسطى" التي هي "أ" من المثنى. ونسمي الجمع الذي يلي هذا: "جمع الوسطى". ونسمي الجمع الذي يليه، الذي مبتداه "و" من الزير الأول: "جمع الحادات". ونسمي الجمع الذي يليه، الذي مبتداه "ك" من الزير الثاني: "جمع الحادات".

We have already stated that the tetrachord that starts with (B) is called “The Forward Tetrachords”; The following tetrachord ,which starts with (D), is called “The Median Tetrachord”, since it ends with (a) on the *māthnā*, known as the “Middle Note”. The subsequent tetrachord is “The Middle Tetrachord”. And the next tetrachord, which starts with (d) on the *zir,* is called “The Treble Tetrachord”. And the following tetrachord, which starts with (g) on the second *zir*, is called “The Ultratreble Tetrachord.”

تسمى "جـ" من البم التي هي على أول الدساتين: :مقدمة المقدمات". و "د" من البم إن استعملنا النوع الأول والثاني من الطنين، أو "هـ" إن استعملنا النوع الثالث من الطنين: "القريبة من مقدمة المقدمات". و "و" من البم: "ثالثة المقدملت".

Therefore, (B) on the *bāmm*, which falls on the *sābābeh*, is “The Forward Note of the Forwards”. In addition, the *wũṣṭā* (C) on the *bāmm*, if we use the first and the second types of the diatonic tetrachord, and the *bonṣor* (C) sharp if we use the third type, is called “The Note Near to the Forward of the Forwards”. Moreover, the *khonṣor* (D) on the *bāmm* is “The Third of the Forwards”.

و "ح" من المثلث: "مقدمة الأوساط"، اذ هي أول الجمعين المتوسطين. و "ط" أو "ى" أيهما استعمل في الجمع: "القريبة من مقدمة الأوساط". و "ك" من المثلث: "ثالثة الأوساط".

And the *sābābeh* (E) on the *mithlāth* is “The Forward Note of the Mediants”. The *wũṣṭā* (F) and the bonşor (F) sharp, whichever is used in the tetrachord, is “The Note Near to the Forward of the Mediants”. Moreover, the *khonṣor* (G) on the *mithlāth* is “The Third of the Mediants”.

و "أ" من المثنى: "الوسطى"ز و "ب" من المثنى أو "جـ"" منه "القريبة من الوسطى". و "د" من المثنى: "ثالثة الوسطى".

The *sābābeh* (a) on the *māthnā* is “The Middle Note”. The *wũṣṭā* (b) flat or the *bonṣor* (b) on the *māthnā* is “The Note Near the Middle Note”. The *khonṣor* (c) on the *māthnā* is “The Third of the Middle Note”.

و "و" من الزير الأول: "مقدمة الحادات". و"ز"، أو "ح" منه، ايهما استعملت: "القريبة من مقدمة الحادات".

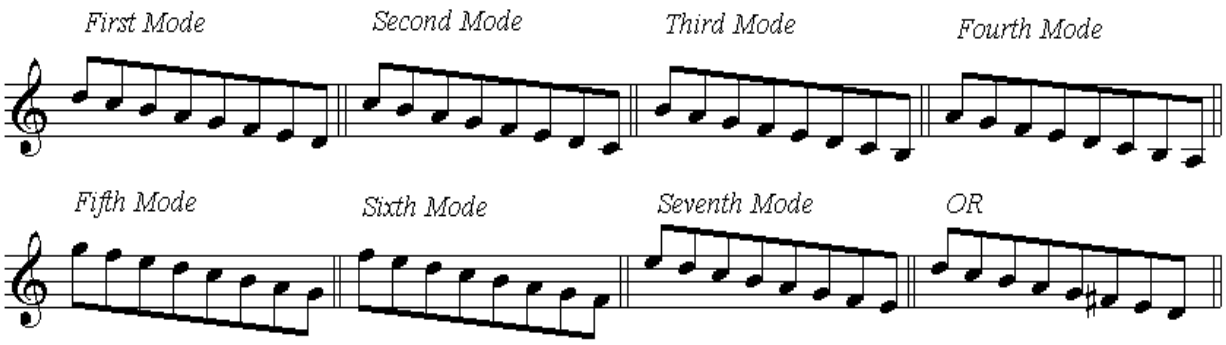
The *sābābeh* (d) on the *zir* is “The Forward of the Trebles”. The *wũṣṭā* (e flat) and the *bonṣor* (e) on the *zir*, whichever is used, is “The Note Near to the Forward Note of the Trebles”. And the *khonṣor* (f) on the *zir* is “The Third of the Trebles”.

و "ك" من الزير الثاني: "حادة الحادات". و "ل"، أو "أ" منه: ايهما استعملت في جمع الأتصال: "القريبة من حادة الحادات". و "ب" أو "جـ" منه ايهما استعملت في جمع الأنفصال: "ثالثة حادة الحادات".

The *sābābeh* (g) on the second *zir* is "The Ultimate Treble". The *wũṣṭā* (a1) flat or the *bonṣor* (a1) on the second *zir*, whichever is use in the conjunct double *diwān*, is "The Note Near to the Ultimate Treble". And (b1) flat or (b1), whichever is used in the disjunct double *diwān*, is "The Third of the Ultimate Treble".

Al-Kindi stated that the notes utilized in the conjunct double *diwān* are fifteen in number because (a) on the *māthnā* is shared by both *diwān*. In addition, since the *diwān* consists of eight notes, the *sābābeh* (a) on the *māthnā* is shared by the two *diwān*, and since the two *diwān* are identical, the notes utilized in the conjunct two *diwān* are fifteen in number. However, ˡ (A) is the lowest note on the *oud*, (A) tuned to the lowest note of the singer's voice, and the last note of the two *diwān* is ˡ (a) on the *bonṣor* on the second *zir* (*al-ḥadd*). Therefore, al-Kindi considered the first *distān* on the *oud* (the *sābābeh*) to be the first note in the two *diwān*.

As for al-Kindi's musical scale and the values of its intervals, if the note (A) *mũtlāq al-bāmm* equals zero, and (s) the *sābābeh* on the *māthnā* (a) 1200 cents, then the consecutive intervals in order on the *dāsātin* of the *oud* are equal. However, al-Kindi's scale is a natural chromatic scale, in which there are two types of consecutive "half notes"; the first one is a limma which is equal 90 cents, for example, (A) to (B♭); the second one is an apotome, which is equal 114 cents, for example, (B♭) to (B♮). It is also a "diatonic scale" by virtue of the consecutive occurrence of two "major" whole tones (ratio 9:8), one between the *mũtlāq* and the *sābābeh distān*, the other between the *sābābeh* and the *bonṣor distān*. Therefore, al-Kindi recognized seven modes:



Al-Kindi established a defined system of modulation between the modes; either from one to the next in the order of their *qarār* قرار (tonic), or from one to another within the perfect fifth interval, either upwards or downwards. In addition, he pointed out the necessity of the *qarār* modulation, for example, moving from one mode to another must be subsequent to the establishment of the characteristics of the mode by resting on its *qarār*.

The four strings of the *oud* are mathematically proportioned between fixed ratios in order to ensure accurate resolution. There shall be an acceptable tonal sequence when moving from one string to another. At a time of al-Kindi, the descent ratio between the four strings on the arithmetic progression were 4/3/2/1. For example, the *bāmm* was made of four layers of gut; the *mithlāth* from three layers of gut, the *māthnā* made from silk equivalent thickness in two layers of gut, and the *zir* made from silk but equivalent thickness in one layer of gut.[226]

Al-Kindi's twelve-tone scale is the first tuning that uses identical note names to identify the tones of the lower and upper *diwān*. In his text, Al-Kindi specifically states that the musical "qualities" of tones separated by the *diwān* are identical. This is the first mathematically

[226] *Al-Kindi. Risālāh fi al-Luhoun wa-Naghām* (Treatise on the melodies and tones), plate no. 114.

verifiable scale that accounts for the comma of Pythagoras. In his *oud* tuning, Al-Kindi distinguishes between the apotome [C#] with ratio of 2187/2048, and the limma [Db] with a ratio 256/243.[227] On the *bāmm*, al-Kindi defined the length ratio as 9:8, 32:27, 81:64, 4:3, which appears in all subsequent *oud* tunings through the seventeenth century.[228]

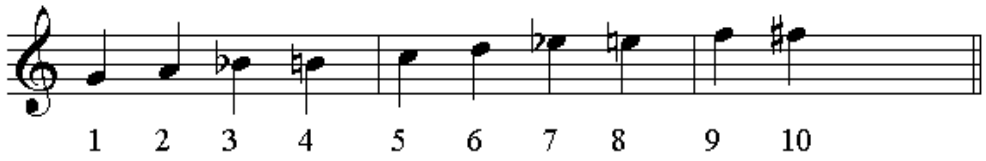
In *Kitāb al-mũsawatāt al-watariyā min dhāt al-watār al-waḥid ila dhāt al-asharat awtār* (Book of sounding strings instruments of one string to ten strings), al-Kindi said when the four normally confused them, they put four strings on the *oud* with ten potential….then they put in *al-zir* one layer, *al-māthnā* two layers, *al-mithlāth* three layers, and in *al-bāmm* four layers.[229]

In his book *Risālā fi al-loḥoũn*,[230] al-Kindi said, "The first, which he calls *al-mũftah* among the philosophers, follows *al-anāf* (nose-nut), which is for the *sābābeh* (it is common to all strings) and located for the first finger only. According to al-Kindi, the tuning of the *oud* should be as follows:[231] the *bāmm* (A) is equal to the *sābābeh* on the *mithlāth,* which is the fifth. The *sābābeh* on the *bāmm* is equal the *bonṣor* on the *mithlāth*. Then, the *wũṣṭā* on the *bāmm* is equal to the *khonṣor* on the *mithlāth*, and the *sābābeh* on the *mithlāth* is equal to the *bonoṣr* on the *māthnā*. The *wũṣṭā* on the *mithlāth* is equal to the *khonṣor* on the *māthnā*, then the *mũtlāq* on the *māthnā* is equal to the *sābābeh* on the *zir*, then *sābābeh* on the *māthnā* is equal to the *bonṣor* on the *zir*, and the *wũṣṭā* on the *mithlāth* is equal to the *khonṣor* on the *zir*.

[227] Cris Forster. *Musical Mathmatics*, California: San Francisco, Cristiano M.L. Forster. Chrysalis Foundation Press, 2006, pp. 610-774.
[228] Ibid, pp. 610-774.
[229] Al-Kindi. *kitāb al-musawatat al-wataria min dhat al-watār al-wahid ila dhat al-asharat awtār* (Book of sounding strings instruments of one string to ten strings), p. 231.
[230] Al-Kindi. *Risālāh fi al-Lohoũn*. Edited by Zakaria Yousef. Bagdad, 1965. P. 12.
[231] Al-Kindi. *Al-Risālāh al-Ūdhmā (al-kobra) fi al-Ta'alif.* National Book Library in Berlin. MS. We. 1240, fols. 22-24V.

IV: 2 Ishāq al-Māũṣeli (767-867)[232]

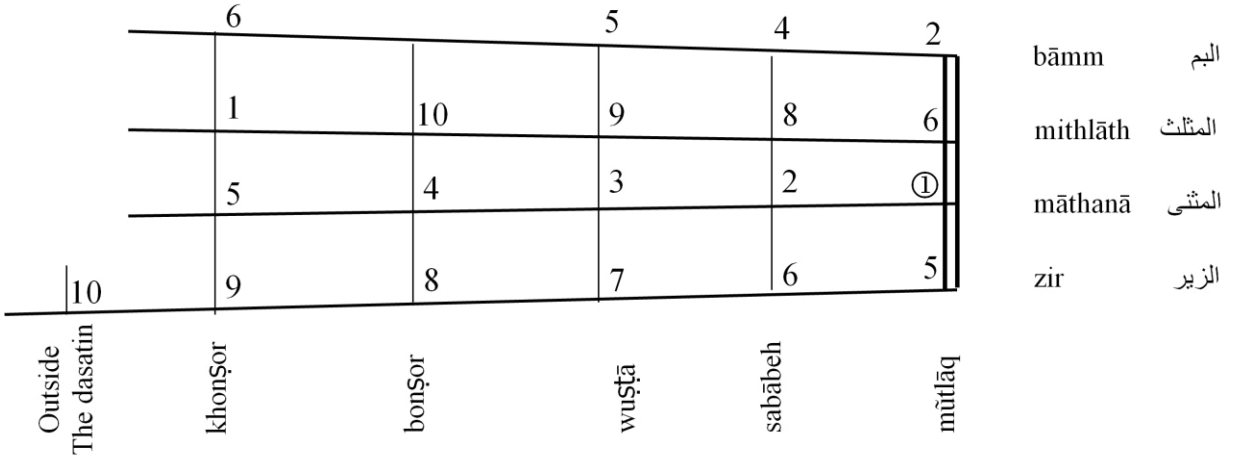
One of the most important documents regarding the teaching of Ishaq al-Māũṣeli was *Risālāh fi al-mũsiqa,* also known as *Kitāb al-nāghm*, by Yahiyā ibn al-Mũnājim, which also appeared in *Kitāb al-aghāni* of al-Asfhāni. Ibn al-Mũnājim dealt with the system (the eight modes) known as *al-mājāri* (courses): four *mājāri* were in the course of the *wũṣṭā* (minor third from the *mũtlāq*), and the other four were in the course of the *bonṣor* (major third). Ibn al-Mũnājim also, discussed the ten notes within the *diwān* that can be used to create eight melodic modes اصابع *asābi'* (modes), starting with the *mũtlāq al-māthnā*, these ten notes were: g, a, b ϕ, b, c, d, e ϕ, e, f, f σ.



The interpretations and transcriptions of al-Māũseli's modes "varied from scholar to scholar. Coolangettes and Sachs gave only five modes of differential intervallic structure within the eight modes; Shawqi (an Egyptian scholar), Wright, and Farmer gave respectively six, seven, and eight."[233] In this section, I will be examining the original text of ibn al-Munajim regarding the eight modes, *mājāri*, and tuning system, which was used by al-Māũṣili.

[232] Mũḥāmmād Shafiq Girbal. *Al-Mawsua'a al-Arabyia al-Muyasarā*. Cairo: Moa'asasat Dar al-Sha'b, 1965, p.
[233] George Dimitri Sawa. *Music Performance Practice in the Early Abbasid Era 320-932*. Canada: The Institute of Mediaeval Music, 2004, p. 76.

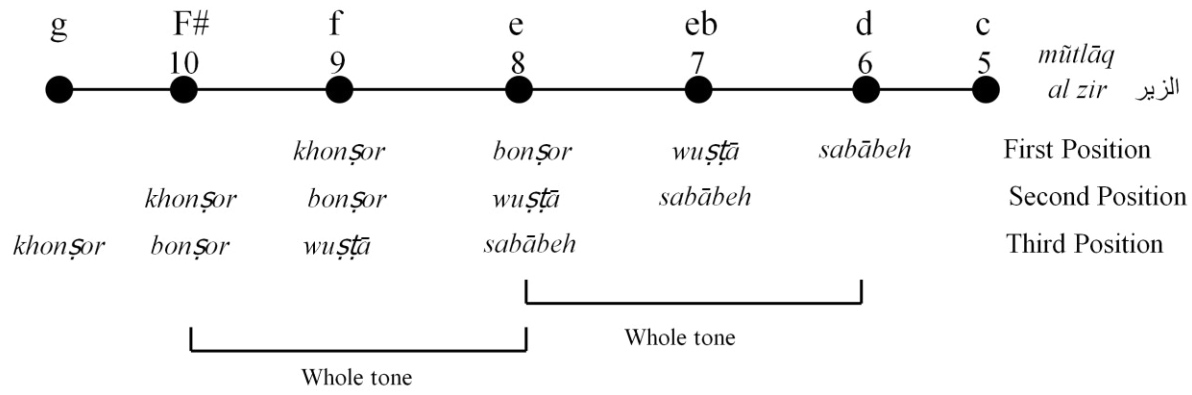
Ibn al-Mũnajim called the first note of *al-naghām al-ashār* (the ten notes) *āl-imād* (the base) which is the *mũtlāq al-māthnā* (third string on the *oud*).[234] This is the most prominent difference between the theory of al-Kindi and the theory of al-Māũṣeli. However, al-Kindi considered the first note *mũtlāq al-bāmm* (first string on the *oud*), which is the lowest and the thickest string on the *oud*. The reason for starting the note on the *māthnā* and considering it as the *imād* (العماد) is that the notes on the *māthnā* and the *zir* include all the notes on the *bāmm* and the *mithlāth* except one note, which is the *bonṣor*. In contrast, al-Māũṣeli did not consider the *bāmm* to be the *āl-imād* because they were missing two notes; *wũṣṭā* on the *māthnā* (note no. 3: chart below), and *wũṣṭā* on the *zir* (note no. 7: chart below). It is important to mention that the *distān* between the *mũtlāq* and the *sābābeh* was not used in al-Maũseli's time.



Therefore, the *māthnā* consists of five notes: *mũtlāq*, *sābābeh*, *wũsṭā*, *bonṣor*, and *khonṣor*, while the *zir* consists of four notes: *sābābeh*, *wũṣṭā*, *bonṣor*, and *khonṣor*. The reason is that *mũtlāq al-zir* is the same note as the *khonṣor* on the *māthnā*. According to ibn al-Mũnājim, the tuning of the *oud* was in fourth.[235] Therefore, the frequency of *mũtlāq al-bāmm* and *mũtlāq*

[234] Yaḥiya ibn al-Mũnājim. *Kitāb al-Nāghām.* Edited by Muhammad Bahjeh al-Athari, Cairo, p. 117.
[235] Yousef Shawqi. *Risālāt ibn al- Mũnājim wa Khashf Rũmoũz Kitāb al-Aghāni*. Eygpt: Markiz Tahqiq al-Turath wa Nashrihe, 1976, p.285-295.

al-māthnā is 4/3, which is equal 498 cents. The Arabs have used this tuning from the Umayyād Era until present time. The tenth note of al-Māũṣeli, who did not specify the notes positions on the *oud*, was outside the *dāsātin* on the *zir*; for that reason, it was easy to obtain the tenth note on the *oud* without the need to add fifth string. This method indicates that the *oud* players were able to play using more than one position on the *oud* (see chart below):



Therefore, all the ten notes belong to *āl-imād* in mathematical relations as follows:[236]

āl-imād: *sābābāt* on the *māthnā*	= 9:8	=	204 cents
āl-imād: *wũṣṭā* on the *māthnā*	= 32:27	=	294 cents
āl-imād: *bonṣor* on the *māthnā*	= 81:64	=	408 cents
āl-imād: *khonṣor* on the *māthnā*	= 4:3	=	498 cents
āl-imād: *sābābeh* on the *zir*	= 3:2	=	702 cents
āl-imād: *wũṣṭā* on the *zir*	= 128: 81	=	792 cents
āl-imād: *bonṣor* on the *zir*	= 27: 16	=	906 cents
āl-imād: *khonṣor* on the *zir*	= 16: 9	=	996 cents
āl-imād: the tenth notes	= 243:128	=	1110 cents[237]

According to ibn al-Mũnājim, the reason for the neglect of the notes on the *bāmm* and the *mithlāth* is that the notes on these two strings occur on the ten notes on the *māthnā* and the *zir*,

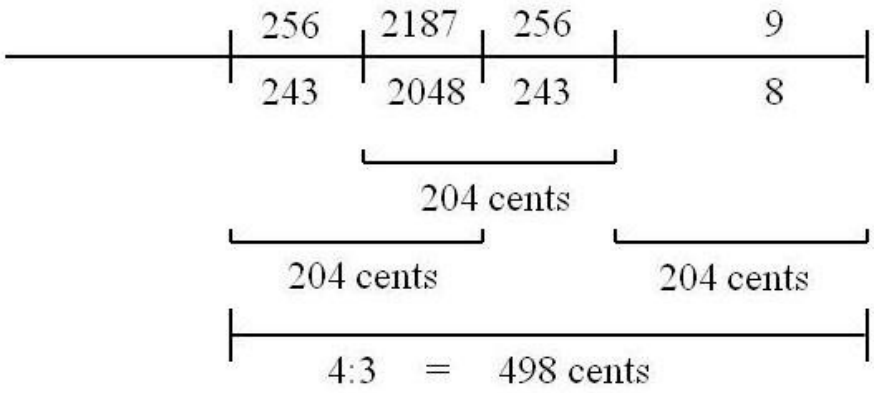
[236] Yousef Shawqi. *Risālāt ibn al-Mũnājim wa Khashf rumouz Kitāb al-Aghāni*, p.p. 302-304.
[237] Kathryn Vaughn discussed the pith measurement as "…the definition of one cent is 1/100 of a semitone...the number of cents per octave is 1200 is incidental to the theoretical basis…the ratio of frequencies from one pith to its octave equivalent is 2/1." Kathryn Vaughn. "Pitch Measurement." In *Ethnomusicoly: An Introduction*. Edetid by Helen Myers. New York and London: W. W. Norton Company, 1992, pp. 464-465.

and the two notes are identical, [238]despite the difference of the value of their tone frequency.

The dimensions between the notes on the *dāsātin* of the *oud* and its four strings can be categorized as:

From	To	distānce	Percentage	Cents
mũtlāq al-bāmm	*sābābāt al-māthnā*	*Diwān* (octave)	2:1	1200
mũtlāq al-bāmm	*mũtlāq al-māthnā*	Fourth	4:3	498
mũtlāq al-mithlāth	*sābābāt al-māthnā*	Fifth	3:2	702
mũtlāq al-mithlāth	*mũtlāq al-māthnā*	fourth	4:3	498
mũtlāq al-māthnā[239]	*sābābāt al-māthnā*	Whole tone	9:8	204
sābābāt al-mithlāth[240]	*bonṣor al-mithlāth*	Whole tone	9:8	204
bonṣor al-mithlāth	*khonṣor al-mithlāth*	Fourth	4:3	498
bonṣor al-māthnā[241]	*khonṣor al-māthnā*	Whole tone	256:243	90
sābābāt al-bāmm[242]	*wũṣṭā al-bāmm*	Whole tone	256:243	90
wũṣṭā al-bāmm	*bonṣor al-bāmm*	Half note	2187:2048	114

The following chart represents the percentage of the notes on the *dāsātin* and their value in cents:

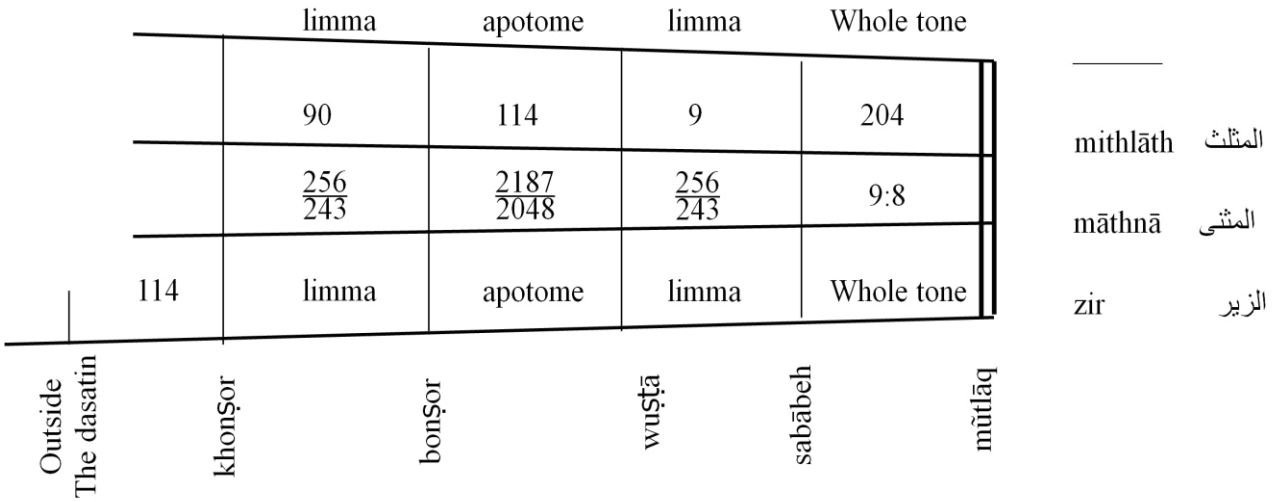


Therefore, the dimensions of Arabic scale of al- Māũṣeli are as shown below:

[238] Yahiya ibn al-Mũnājim. *Kitāb al-Naghām* (pargraph No. 13).
[239] It is the same from *mũtlāq* each string to its *sābābeh*.
[240] It is the same from *sābābāt* each string to its *bonṣor*.
[241] The distance between the *bonṣor* on each string to its *khonṣor* is 256:243 = 90 cents (one limma).
[242] It is the sam from *sābābāt* each string to its *wũṣṭā* (256:243 = 90 cents).

	bāmm	*mithlāth*	*māthnā*	*zir*
mũtlāq	204	702	0	498
sābābeh	408	906	204	702
wũṣṭā	498	996	294	792
bonṣor	Not used	1110	408	906
khonṣor	702	0	498	996
outside the dāsātin				1110

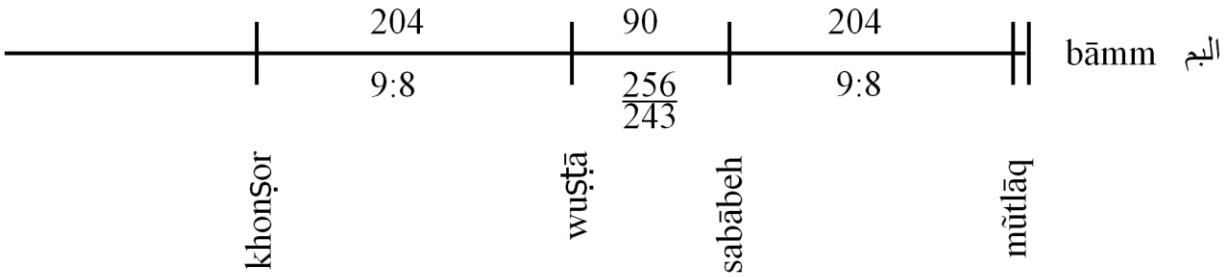
Therefore, the dimension of al- Māũṣeli's musical scale was as follows: the first note is *mũtlāq al-māthnā* that equals zero cents; the *bonṣor* on the *mithlāth* was not used, but its value would have been 612 cents. The last note on the *zir*, which is outside the *dāsātin* is equivalent to 1110 cents. The following chart shows the measurements of the *dāsātin* of the *oud* in a consistent pattern of the *māthnā* and *zir*, and includes the ten notes of al-Māũṣeli.



It is important to note that Farmer[243] and Owen Wright [244]considered the *bāmm* to be the first note of the ten notes of al- Māũṣeli equivalent to zero, the *māthnā,* according to ibn al-Mũnājim.

[243] Farmer. *The Music of Islam,* p. 457.
[244] Owen Wright. "Ibn al-Munajjim and the Early Arabian Modes," p. 28.

With regard to the *mũtlāq*, the distance between *mũtlāq al-bāmm* and its *sābābeh* is equivalent to 204 cents, and *al-boũd al-aṣghār* البعد الاصغر (the half note: minor) between *sābābeh* and *wũsṭā* on the *mũtlāq al-bāmm* (A) is 90 cents (Limma). *Niṣf al-boũd al-adhām* (aphotium) is located between *wũṣṭā* and *bonṣor* on the *bāmm*, which is equivalent to 114 cents. The chart below shows the measurements of the notes on the *bāmm*:

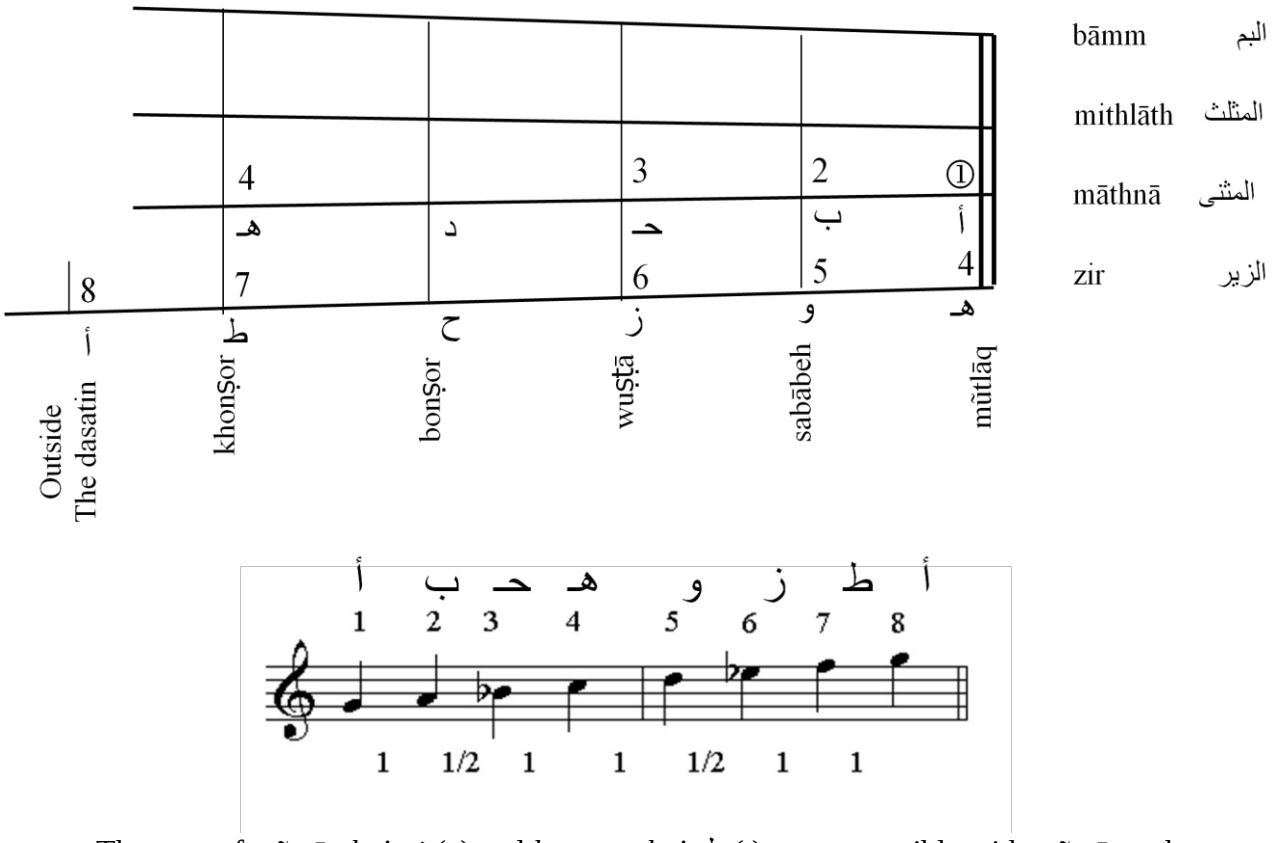


Comparing the name of the notes on the *oud* between al-Kindi and al-Māũṣeli, I find:

Arabic	English	al-Māuṣili	al-Kindi
أ	A	*mũtlāq al-māthnā*	*mũtlāq al-bāmm*
ب	B	*sābābāt al-māthnā*	*Not used*
جـ	J or G	*wũṣṭā al-māthnā*	*sābābāt al-bāmm*
د	D	*bonṣor al-māthnā*	*wũṣṭā al-bāmm*
هـ	H	*khonṣor al-māthnā*	*bonṣor al-bāmm*
و	W	*sābābāt al-zir*	*khonṣor al-bāmm*
ز	Z	*wũṣṭā al-zir*	*Not used*
ح	Ḥ	*bonṣor al-zir*	*sābābāt al-mithlāth*
ط	Ṭ	*khonṣor al-zir*	*wũṣṭā al-mithlāth*
ى	Y	Outside the *dāsātin*	*khonṣor al-mithlāth*
ك	K	… … … …	*khonṣor al-mithlāth*
ل	L	… … … …	*sābābāt al-māthnā*

The sequence of tones of the *mājrā* (course) achieves the required method in *mājrā al-wũṣṭā*, beginning with the note on *mũtlāq āl-māthnā*. The compatible notes on each *mājrā* are أ ب هـ و (a, b, h, w), also, the note of the *mājrā* is the *wũsṭā* (حـ).

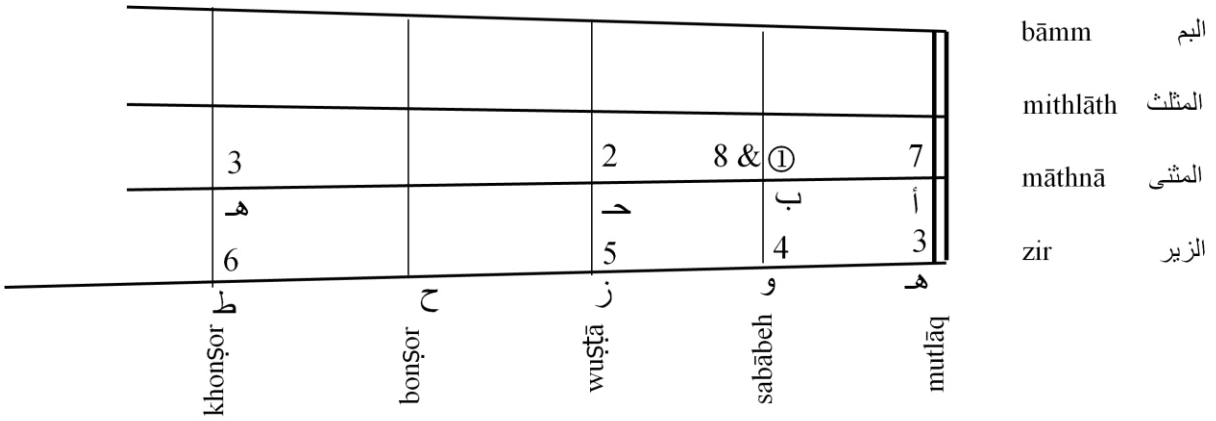
***Mũtlāq fi mājrā al- wũṣṭā* (*mũtlāq al-māthnā* as tonic using *wũṣṭā*):**

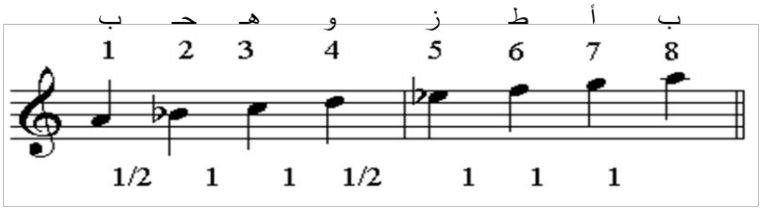


The note of *wũṣṭā al-zir* ز (z) and *bonṣor al-zir* ط (ṭ) are compatible with *wũsṭā* on the *māthnā*. According to al-Māũṣeli's method, the beginning of the first note of this *mājrā* starts from *mũtlāq al-māthnā*, and not from *mũtlāq al-bāmm* or *mũtlāq al-mithlāth* as mentioned by Court Sachs and Owen Wright, because the tuning system of al- Māũṣeli considered *māthnā* to be the first note of the ten notes. Regarding this *mājrā*, Wright stated, "…the added descriptions are superfluous, if not downwright misleading. There is nothing in the *risālā* to indicate Yaḥyā even knew what a tetrachord was, and it should certainly not be imagined that he had any clear idea of the octave being split into conjunct or disjunct tetrachords."[245]

***Mũtlāq fi mājrā al-bonṣor* (*mũtlāq al-māthnā* as tonic using *khonṣor*):**

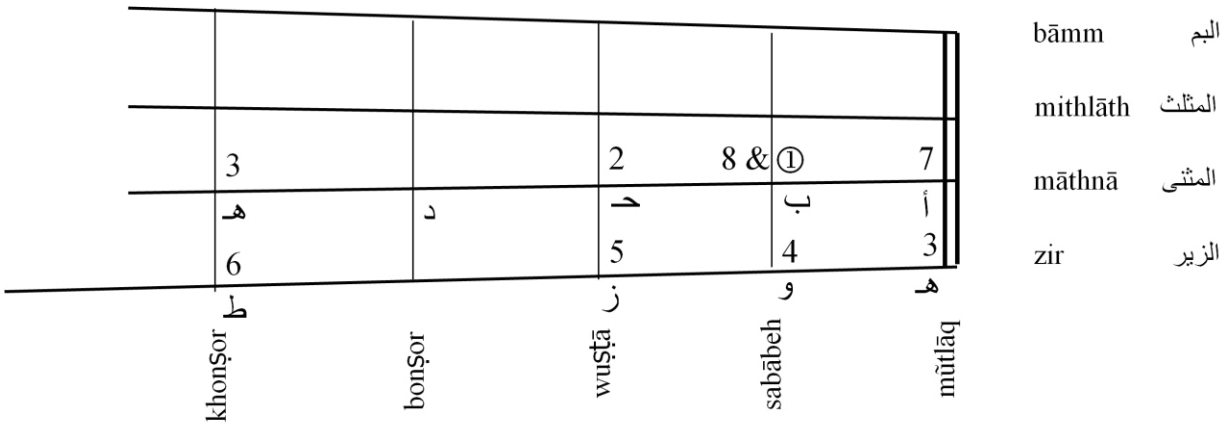
[245] Ibid, p. 35.

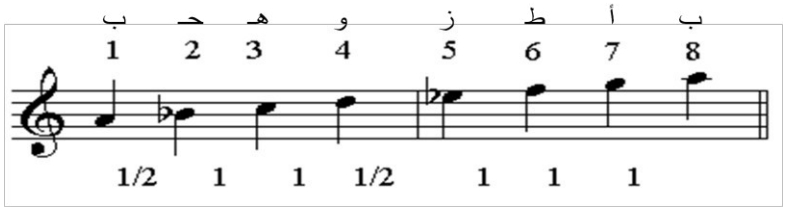




The sequence of tones of the *mājrā* achieves the required method in *mājrā al-w wũṣṭā,* beginning with the note on *mũtlāq āl-māthnā*. The compatible notes on each *mājrā* are أ ب هـ و ح (a, b, h, w, ḥ), also, the note of this *mājrā* is the *bonṣor* on the *māthnā* (د: d).

***Sābābeh fi mājrā al-wũsṭā* (*sābābeh* on *māthnā* as tonic using *wũṣṭā*):**

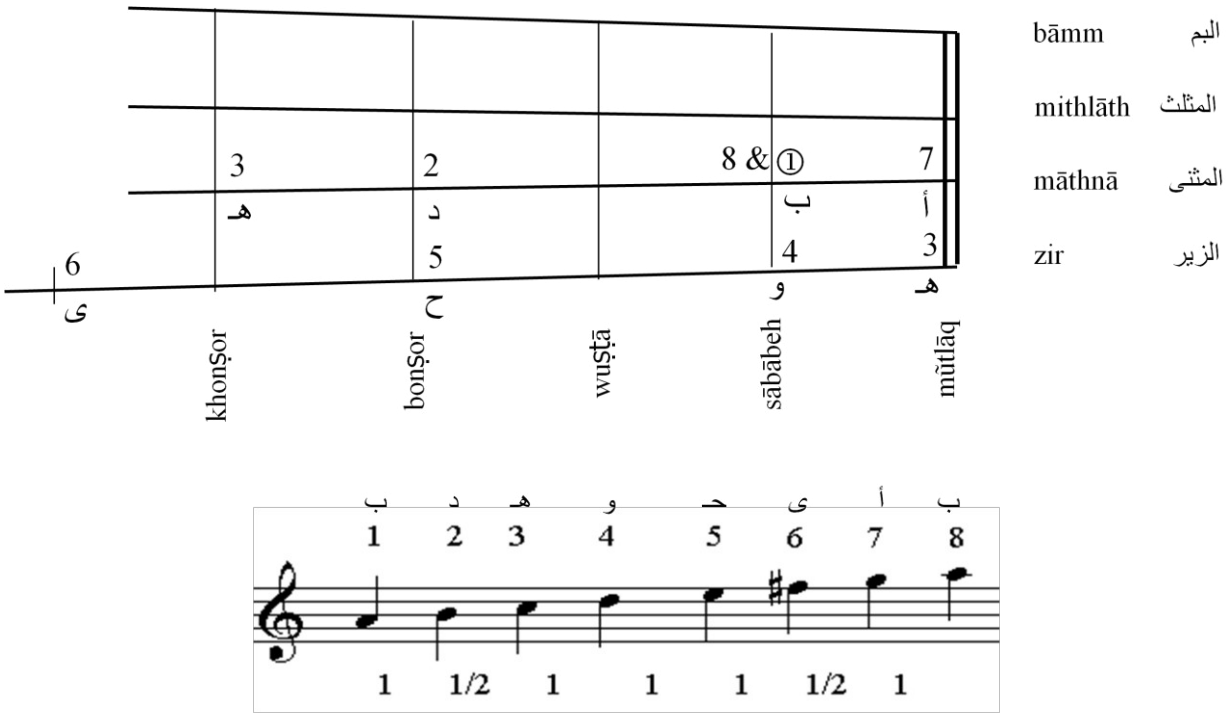




The notes *wũsṭā al-zir* ز (z) and *konṣor al-zir* ط (ṭ) are compatible with the *wũsṭā* on *māthnā*. The beginning of the first note of this *mājrā* starts on the *sābābeh* of *al-māthnā* instead of *mũtlāq al-māthnā*. Also, the relationship and distribution of *al-āṣābē al-ārbā'a* (four fingers) is *mũtlāq*, *sābābeh*, *wũṣṭā*, and *khonṣor* within the cycle of *mājrā al- wũṣṭā*, as follows:

أ	ب	ح	ه	و	ز	ط	أ	ب	
1	½	1	1	½	1	1			*mũtlāq fi mājrā al- wũsṭā*
	½	1	1	½	1	1	1		*sābābeh fi mājrā al- wũsṭā*

***Sābābeh fi mājrā al-bonṣor* (*sābābeh* on *māthnā* as tonic using *bonṣor*):**

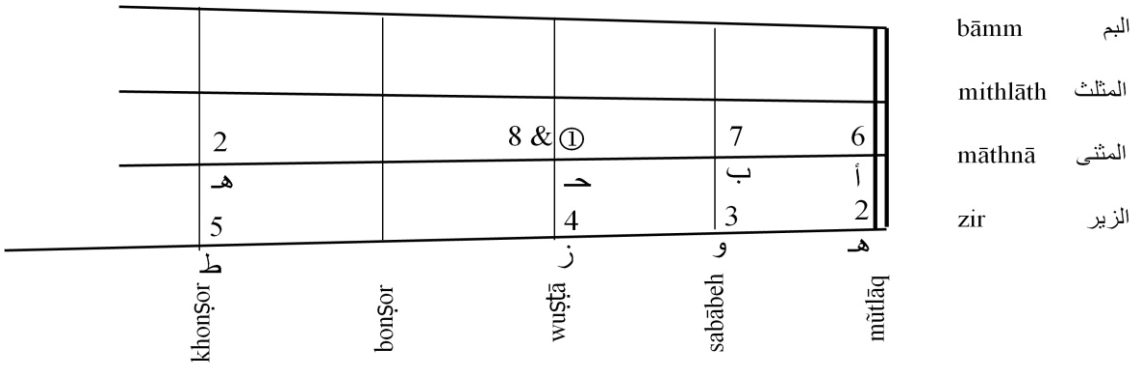


The sequence of tones of the *mājrā* achieves the required method in *mājrā al- wũṣṭā*, beginning with the note *mũtlāq āl-māthnā*. The compatible notes on each *mājrā* are أ ب هـ و ح (a,

b, h, w, ḥ), the note of this *mājrā* is the *bonṣor* on *māthnā* (د: d), and the note located outside the *dāsātin* (ى) is compatible with *bonṣor al-māthnā* (د). Also, the relationship and distribution of *al-āṣābē al-āthālāthā* (three fingers) is *mũtlāq*, *sābābeh*, and *khonṣor* within the cycle of *sābābeh fi mājrā al-bonṣor*, as follows:

أ	ب	د	هـ	و	ح	ى	أ	ب	
1	1	½	1	1	1	½			*mũtlāq fi mājrā al-bonṣor*
	1	½	1	1	1	½	1		*sābābeh fi mājrā al-bonṣor*

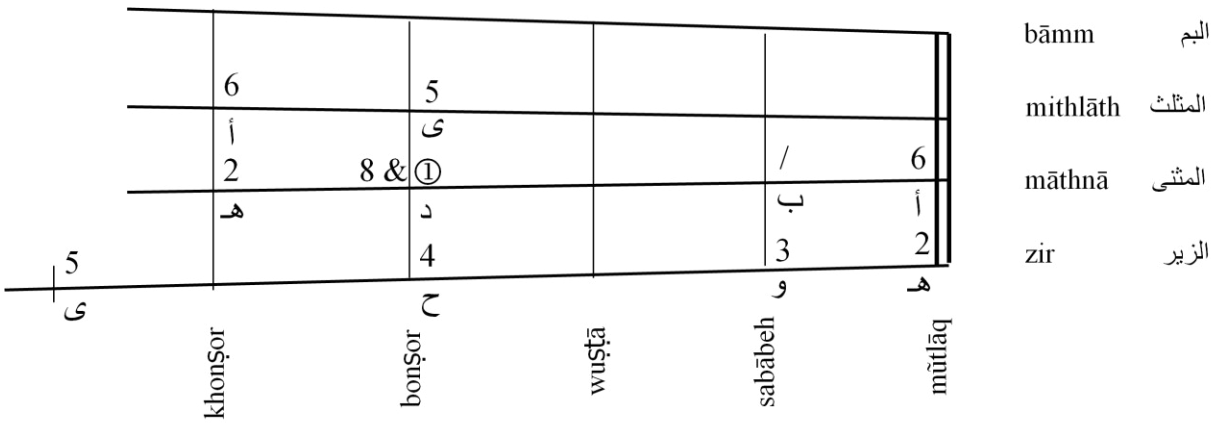
***Wũsṭā fi mājrāha* (*wũṣṭā* on *māthnā* as tonic using the *wũṣṭā*):**

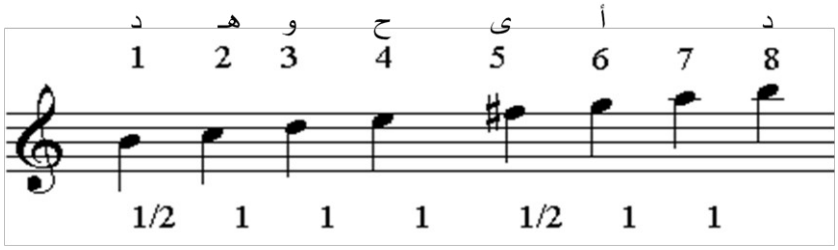


The notes *wũṣṭā al-zir* ز (z) and *konṣor al-zir* ط (ṭ) are compatible with *wũṣṭā* on *māthnā*. The beginning of the first note of this *mājrā* starts from *wũṣṭā* of *al-māthnā* instead of *mũtlāq al-māthnā* or *sābābāt al-māthnā*. Also, the relationship and distribution of *al-āṣābē al-āthālāthā* (three fingers) is *mũtlāq*, *sābābeh*, and the *wũṣṭā* within the cycle of *wũsṭā fi mājrāhā*, as follows:

أ	ب	ح	هـ	و	ز	ط	أ	ب	ح	
1	½	1	1	½	1	1				*mũtlāq fi mājrā al- wũsṭā*
	½	1	1	½	1	1	1			*sābābeh fi mājrā al- wũsṭā*
		1	1	½	1	1	1	½		*wũsṭā fi mājrāhā*

***Bonṣor fi mājrāhā* (*bonṣor* on *māthnā* as tonic using *bonṣor*):**

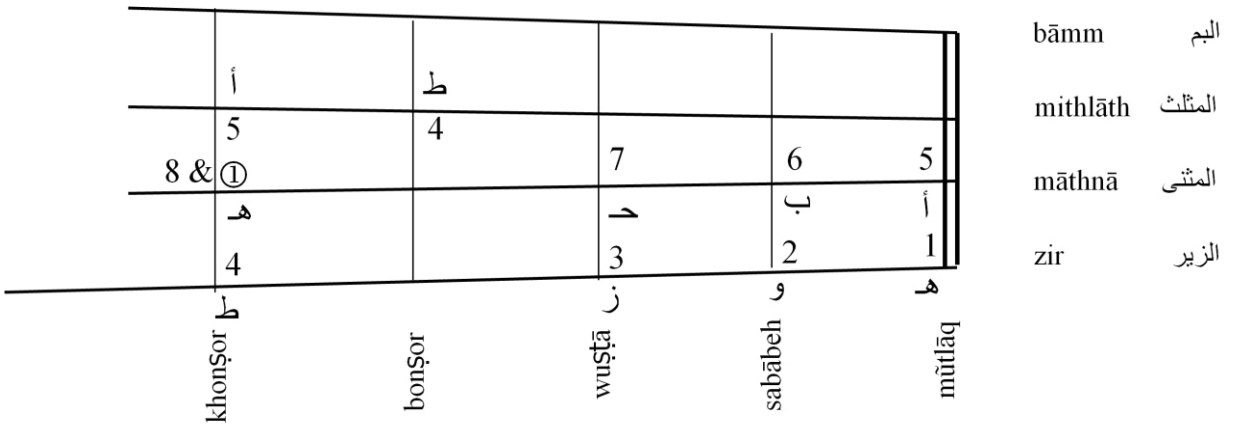


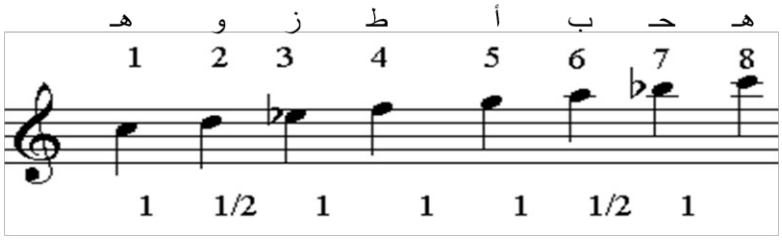


The sequence of tones of *mājrā* achieves the required method in *mājrā* (course) *al-wũṣṭā*, beginning with the note on *bonṣor āl-māthnā*. The compatible notes on each *mājrā* are أ ب هـ و ح (a, b, h, w, ḥ), also, the note of this *mājrā* is *bonṣor* on *māthnā* (د: d), which is the tonic of the *māqām*, and the note located outside the *dāsātin* (ى) is compatible with *bonṣor al-mithlāth* (ى). The relationship and distribution of *mũtlāq*, the *sābābeh*, and *bonṣor* within the cycle of *bonṣor fi mājrāhā* as seen below:

أ	ب	د	هـ	و	ح	ى	أ	ب	د	
1	1	½	1	1	1	½				*mũtlāq fi mājrā al-bonṣor*
	1	½	1	1	1	½	1			*sābābeh fi mājrā al-bonṣor*
		½	1	1	1	½	1	1		*bonṣor fi mājrāh*

***Khonṣor fi mājrā al-wũṣṭā* (*khonṣor* on *māthnā* as tonic using *wũṣṭā*):**

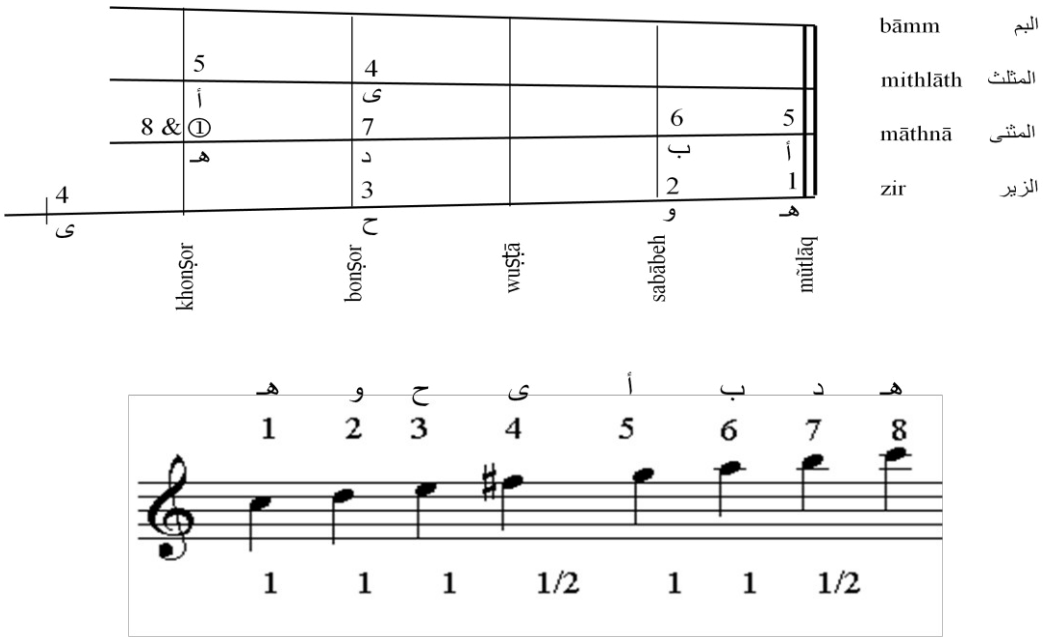




The notes *wũsṭā al-zir* ز (z) and *konṣor al-zir* ط (ṭ) are compatible with *wũṣṭā* on *māthnā*. The beginning of the first note of this *mājrā* starts on *khonṣor* of *al-māthnā* instead of *mũtlāq al-māthnā*, *sābābāt al-māthnā*, or *wũṣṭā al-māthnā*. Also, the relationship and distribution of *al-āṣābē al-ārbā'a* (four fingers) are *mũtlāq*, *sābābeh*, *wũṣṭā*, and *khonṣor* within the cycle of *mājrā al-wũṣṭā*, as follows:

أ	ب	حـ	هـ	و	ز	ط	أ	ب	حـ	هـ	
1	½	1	1	½	1	1					*mũtlāq*
	½	1	1	½	1	1	1				*sābābeh*
		1	1	½	1	1	1	½			*wũsṭā*
			1	½	1	1	1	½	1		*khonṣor*

***Khonṣor fi mājrā al-bonṣor* (*khonṣor* on *māthnā* as tonic using *bonṣor*):**



The sequence of tones of *mājrā* achieves the required method in *mājrā al-bonṣor*, beginning with the note on *khonṣor āl-māthnā*. The compatible notes on each *mājrā* are أ ب هـ و ح (a, b, h, w, ḥ), also, the note of this *mājrā* is the *bonṣor* on *māthnā* (د: d) which is the tonic of the *māqām*, and the note located outside the *dāsātin* (ى) is compatible with *bonṣor al-mithlāth* (ى). The relationship and distribution of *mũtlāq*, the *sābābeh*, and the *bonṣor* within the cycle of *bonṣor fi mājrāhā* is as shown below:

أ	ب	د	هـ	و	ح	ى	أ	ب	د	هـ	
1	1	½	1	1	1	½					*mũtlāq*
	1	½	1	1	1	½	1				*sābābeh*
		½	1	1	1	½	1	1			*bonṣor*
			1	1	1	½	1	1	½		*khonṣor*

Comparing the above-mentioned *mājāri* (*mājrā al-wũsṭā* and *mājrā al-bonṣor*) with the contemporary *māqāms* in the Arab world, we can deduce the following:

Mũtlāq fi mājrā al-wũsṭā	*māqām farḥafzā*, *māqām nāhawānd*, and *māqām bũslik*
Mũtlāq fi mājrā al-bonṣor	*māqām ajām ũshayrān*
Sābābeh fi mājrā al-wũsṭā	*māqām lāmi*
Sābābeh fi mājrā al-bonṣor	*māqām nahawānd kābir*
Wũsṭā fi mājrāhā	*māqām ajām ũshayrān*
Bonṣor fi mājrāhā	*māqām kũrdalli hijāz kār* and *māqām kũrdi*

Khonṣor fi mājrā al-wũṣṭā *māqām nāhawānd kābir*
Khonṣor fi mājrā al-bonṣor not used

IV: 3 al-Fārābi

In addition to the four strings on the *oud*, al-Fārābi added a fifth string to obtain two *diwān* on the instrument. Also, he added a new *distān* between *sābābeh* and *wũṣṭā* called *mũjānāb al-wũṣṭa* مجنب الوسطى (above *wũsṭā*). Furthermore, he added two *wũṣṭā*; the first is *wũṣṭā al-Furs*, which is located half the distance between the *sābābeh* and the *bonṣor*, and second one is *wũṣṭā Zalzal*, which is located halfway the distance between *wũṣṭā* and *wũṣṭā al-Furs*. Therefore, al-Fārābi added five *dāsātin* between *sābābeh* and *mũtlāq* called *mũjānāb al-sabābeh* (bove *sābābeh*), which are significant to the Arabic musical scale. This addendum made the whole tone (*boũd tānini*) with frequencies quarter-tone and a third quarter-tone:

Mũjānāb al-sabābeh bil-tanqiṣ dhil madātayn (anterior to the *sābābeh*), has a value of 90 cents.[246]

Mũjānāb al-sabābeh bil-tanṣif al-tanini al-awāl (above *sābābeh*), which is located half the *distānce* between the *mũtlāq* and the *sābābeh* and has value of 98 cents.[247]

Mũjānāb al-sābābeh bil baqiya (above *sābābeh* by a limma), and has value of 114 cents.[248]

Mũjānāb al-sābābeh bi wũṣṭā al-Furs (above *sābābeh*), which is located at half distance between the *mũtlāq* and *wũṣṭā* Zalzal, and has value of 145 cents.[249]

Mũjānāb al-sābābeh bi wũsṭā Zalzal (above *sābābeh*), which is located at half distance between the *mũtlāq* and *wũṣṭā* Zalzal, and has value of 168 cents.[250]

[246] KMK, p. 512.
[247] KMK, p. 513.
[248] KMK, p. 516.
[249] KMK, p. 526.

According to al-Fārābi, not all the *dāsātin* are used at the same time while performing. However, the first and the second *mũjanāb* are not significantly diferent. The tetrachord on the *mũtlāq* string, for example, consists of the *mũtlāq* as the first note; the *sābābeh* is the second note and its ratio is 9:8, the *khonṣor* is the fourth note, its ratio is 4:3. Only one of the following is considered the third note; *mũjanāb al- wũṣṭā* , which is located at a distance of a minor third from *mũtlāq*,[251] *wũsṭā al-Furs* and *wũṣṭā* Zalzal, ocated at a distance of third, or *bonṣor*, located a major third from *mũtlāq*.[252]

According to al-Fārābi's scale, the open string *ũshayrān* is 217.575 frequencies per second (fq/s), with a wavelength of (157.647 cm), while *wũṣṭā Zalzal* on the same string equals 267.0937 (fq/s) with a wavelength of 128.419 cm. So, if we have completed the first *diwān* (octave) from the *bāmm* (*ũshayrān*: open string) to the tone *hũsieni* (the *sābābeh*) on *al-māthnā*, the fq/sec is 435.15. Moreover, the wavelength is 78.823 cm, assuming that the frequency of the tone *hũsieni* (A) is 440 Hz in current practice, while the value of the old frequency tone "A" is slightly smaller.

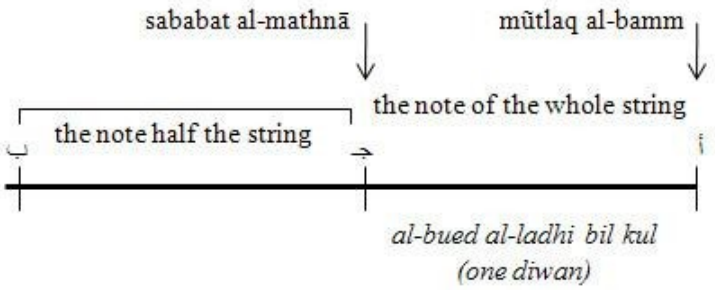
Al-Fārābi discussed the distance between the notes on the string, and divided the string into fourty-eight parts. For example, the distance between A-B is the length of the string, while A-E is divided into twenty-four parts, and E-F divided into twenty-four parts (please see appindex 1). Also, he called the distance between the notes different names; for example, the distance between أ – ب (A-B) and from ب – جـ (B-J). This distance, between A-B is called البعد الذي بالكل *al-boũd al-ladhi bil kũl* (one *diwān*: octave), and the ratio rate is 2:1. Moreover, the

[250] KMK, p. 526.
[251] KMK, p. 524.
[252] KMK, pp. 131-140, and 524.

ratio rate between *mũtlāq al-bāmm* and *mũtlāq al-mithlāth* is 3:4; between *mũtlāq al-bāmm* and *mũtlāq al-māthnā* is 3:4; and between *mũtlāq al-māthnā* and its *sābābeh* is 8:9. The total between these three distances equals one *diwān*:

$$\left(\frac{3}{4} \times \frac{3}{4} \times \frac{8}{9}\right) = \frac{1}{2}$$

البعد الذي بالكل
al-bũed al-lādhi bil kũl
(one diwan: octave)



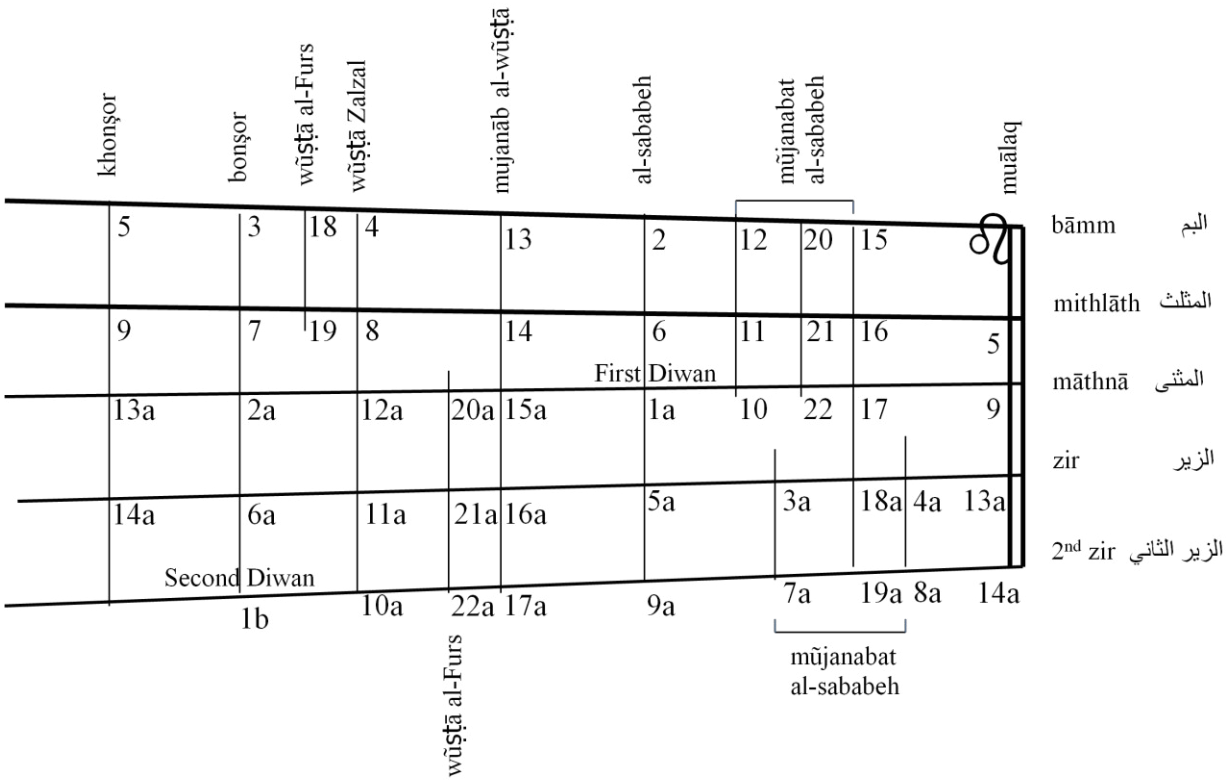
Regarding the compatible notes on the *oud*, al-Fārābi stated that *bonṣor* and *wũṣṭā* do not meet together in one melody. *Mũtlāq* and *khonṣor* in every *diwān* are compatible; *sābābeh* is compatible with *wũṣṭā, bonṣor*; and *wũṣṭā al-Furs* do not meet with *bonṣor* and *wũṣṭā* Zalzal, but it is compatible with *sābābeh*, *mũtlāq*, and *khonṣor*.[253]

By examining the notes on all of the *dāsātin* on the *oud*, al-Fārābi showed that all the *dāsātin* on the first *diwān* (or *dāwr*) have their functions in the second *diwān*. The notes on the *distān* of *wũṣṭā* Zalzal on *māthnā*, *zir*, and the second *zir* (*al-ḥadd*) have no functions in the first *diwān*. Since al-Fārābi wanted to have the same number of notes in each *diwān*, he continued to complete the missing notes by using the same method, this time descending from the second *diwān*, as follows:

[253] KMK, pp. 131-133.

The lower *diwān* note of *wũṣṭā* of the second *zir* is located of the existing *dāsātin*, above *sābābeh* of *māthnā* (10). *Wũṣṭā* of *zir* (11a) is above *sābābeh* of *mithlāth* (11), and *wũṣṭā* of the *māthnā* (12a) is above *sābābeh* of *bāmm* (12). *Khonṣor* of *māthnā* (also *mũṭlāq al-zir*) (13a) is located of the existing *distān*, below *sābābeh* of *bāmm* (13). *Khonṣor* of *zir* (also *al-ḥadd*) (14a) is located on the same new *distān* established for (13), above *sābābeh* of *mithlāth* (14).

When selcting the *distān* on the location of (13) and (14) we get three new notes on that *distān*: on the *māthnā* (15a), *zir* (16a) and *al-ḥadd* (17a). Their functions in the first *diwān* are located on a new *distān*, between *sābābeh* and the *anf* (nut), on *bāmm* (15), *mithlāth* (16) and *māthnā* (17). On the same *distān* of (15), (16), and (17) we can obtain on *zir* (18a) and *al-ḥadd* (19a) two notes that function in the lower *diwān* andlocated on a new *wũṣṭā distān* called *wũṣṭā al-Furs*, on *bāmm* (18), and on *mithlāth* (19). Therefore, al-Fārābi instructed musicians to tie a fret over (18) and (19) so that *dāsātin* for three new notes are created (20a), (21a), (22a) over *māthnā*, the *zir*, and *al-ḥadd* . Their functions in the lower *diwān* will be on *bāmm* (20), *mithlāth* (21) and, *māthnā* (22), about halfway between *sābābeh* and *mũtlāq*, as shown below:



According to al-Fārābi's tuning, each *diwān* contains twenty-two notes, and all these notes are used on the *oud*; some are used more and some are used less than other notes.[254] If we use one of the two *wūṣṭā* instead of *mūjanāb al-wūṣṭā* as if its *wūṣṭā*, the number of notes in each *diwān* is seventeen notes.[255] Moreover, if we use *mūjanāb al- wūṣṭā* as *wūṣṭā* and cancel the two *wūṣṭā* and all *mūjanābat al-sābābeh*, the number of notes in each *diwān* is seventeen. In addition, if we use one *distān* of the two *wūṣṭā* and cancel *mūjanāb al- wūṣṭā*, the number of notes on each *diwān* is seventeen notes.[256] In addition, if we use one of the two *wūṣṭā mūjanāb al-sābābeh*, the number of notes on each *diwān* is sixteen.[257]

[254] KMK, p. 130-1.
[255] KMK. P. 545.
[256] KMK, p.543-5.
[257] KMK, p. 547.

Therefore, there are three compatible *ajnās* in each of the *diwān*: the first one is *bāmm*, its *sābābeh*, *bonṣor*, *khnoṣr*, and *sābābāt al-mithlāth*, *bonṣor al-mithlāth*, and *khonṣor al-mithlāth* (fig. 1). The second is *mũtlāq al-bāmm*, its *sābābeh*, *wũṣṭā* Zalzal, *khonṣor*, and *sābābeh* on the *mithlāth*, *wũṣṭā* Zalzal on the *mithlāth*, and *khonṣor al-mithlāth* (fig. 2). The third compatible *jins* is *mũtlāq al-bāmm*, its *sābābeh*, *wũṣṭā al-Furs*, *khonṣor al-bāmm*, *sābābeh* on the *mithlāth*, *wũṣṭā al-Furs*, and *khonṣor al-mithlāth* (fig. 3).[258]

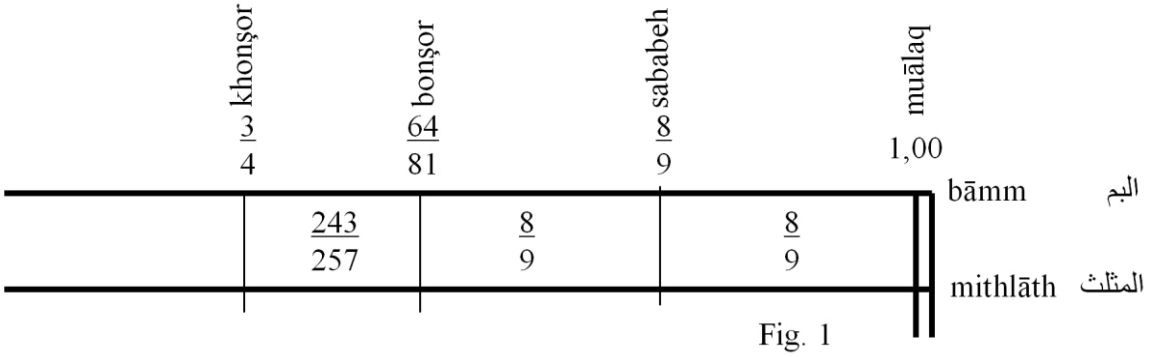


Fig. 1

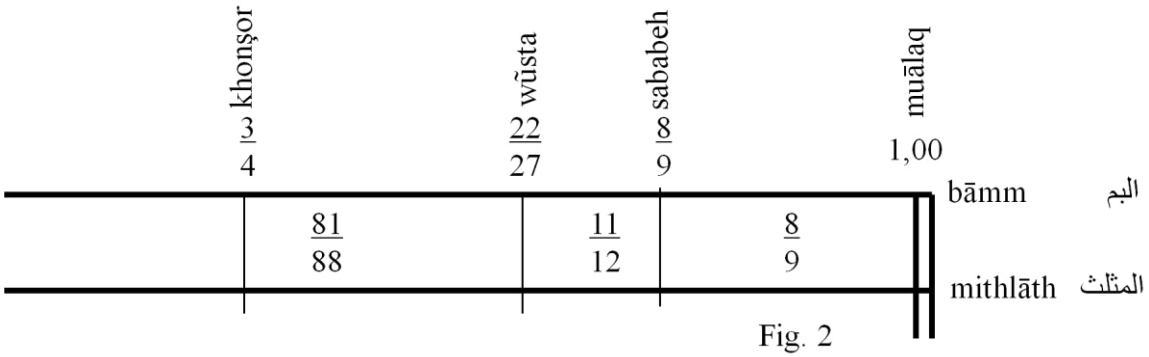


Fig. 2

[258] KMK, pp. 133-5.

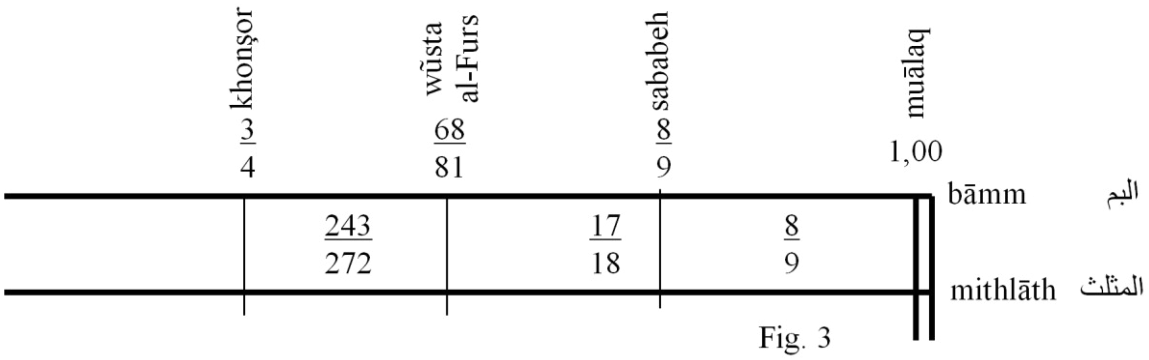
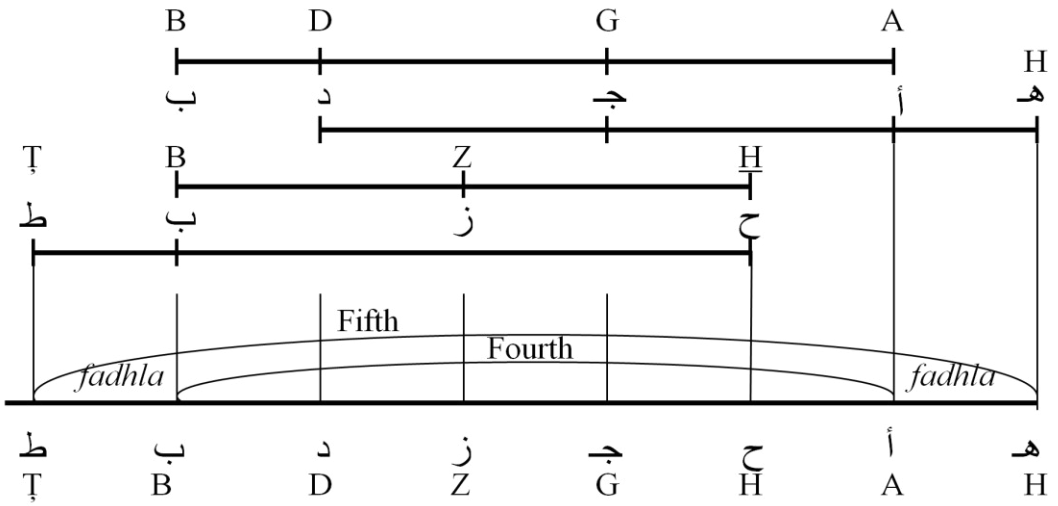


Fig. 3

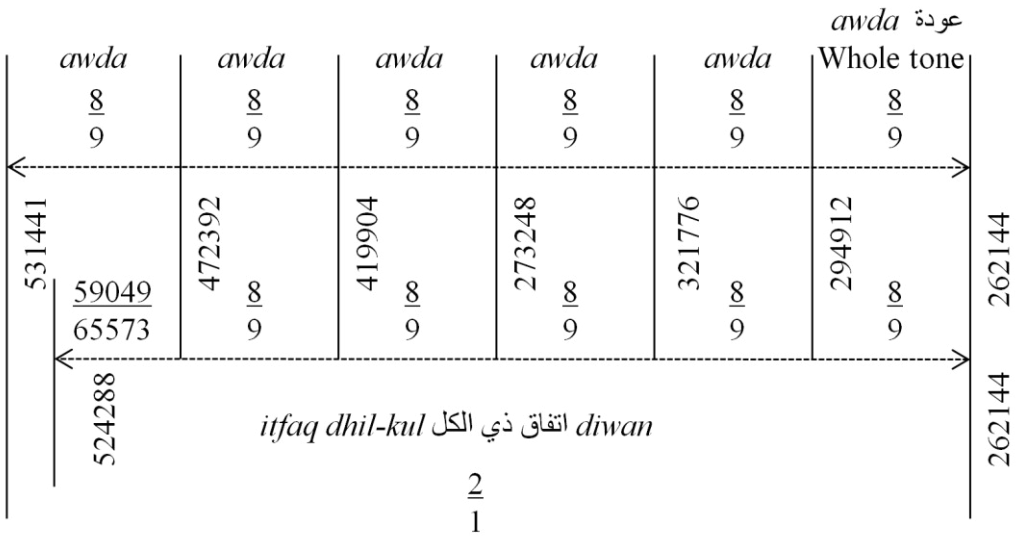
With regard to the size of the *fadhlā* (limma), al-Fārābi presented a theorem claiming that the *fadhlā's* size is exactly half a tone. Moreover, every tetrachord has two-and-a half steps (two *'awdās* and one *fadhlā*). He based his method on a geometrical model and aural perception:

> "Let us assume, "he says," an interval of a fourth ranging from A to B, using the ear we divide it into three segments so that A-G, and G-D will be one step each, and D-B the remainder, *fadhlā*. Then we take another fourth from D to H, back in the direction of A. From B towards A we take two whole steps (a ditone), B-Z, and Z-H. Then we take a fourth from H to T in the direction of B. The intervals B-T and A-H will be a limma each. When playing the whole segment of H-T, the ear recognizes a perfect fifth, and A-B a perfect fourth. Since we know that a fifth minus a fourth is one tone, and that the two *fadhlā* on each side of segment A-B are equal, we can conclude that the size of the *fadhlā* is of half a tone."[259]



[259] KMK, pp. 146-7.

Al-Fārābi suggested using seven strings on the *oud*. In this regard, the ratio between the first and the seventh string is 1:2,[260] and the distance between each note is 8:9. Al-Fārābi stated that if the *fadhlā* is half the *awdā* (prl. *awdāt*), *boũd al-kũl* must divide into six *awdāt* as follows:



Al-Fārābi discussed two different types of tuning systems and methods for the *oud*: *al-taswyā al-baṣitā* التسوية البسيطة (the simple tuning) and *al-taswyā al-mũrakabeh* التسوية المركبة (the complex tuning):[261]

- *The first method of al-taswyā al-basitā is al-taswyā al-mashhurā* التسوية المشهورة (famous tuning) in which *khonṣor* on each string is compatible with obove open string (*mũtlāq*). In addition, *mũtlāq al-bāmm* is compatible with *sābābeh* on *māthnā* (A=a1). In this regard, the ratio between each string would be 4:3.

[260] KMK, p. 164.
[261] KMK, pp. 597-624.

The second tuning is called *al-taswyā bil ladhi bil khams* التسوية بالذي بالخمس (perfect fifth) in which *khonṣor al-mithlāth* is compatible with *mũtlāq al-bāmm*. Therefore, *khonṣor* on each string is compatible with each *mũtlāq*. For example, *khonṣor al-mithlāth* is compatible with *mũtlāq al-bāmm*, and the ratio is 3:2. This system consists of three whole tones and a half, and its value is 702 cents.

The third one is called *al-taswyā bil boũd al-ladhi fil khamsā wa baqyiā* التسوية بالبعد الذي بالخمسة وبقية (perfect fifth and one quarter-tone), the ratio is 81/128 the length of the string. In this type of tuning, *mũtlāq al-bāmm* is compatible with *bonṣor al-mitlath* and the same it is true for *māthnā* from the *mithlāth* and for *zir* from *māthnā*.

The fourth is called *al-taswyā bil boũd dhi al-khamsā wa tānini* التسوية بالبعد ذي الخمسة وطنيني (perfect fifth and whole tone), and the ratio is 27/32 between the two notes. In this regard, *mũtlāq al-bāmm* is compatible with *mũjanāb al-mithlāth*, and so on for every string.

The fifth method is *al-taswyā bil boũd dhi al-khamsā wa taninayen* التسوية بالبعد ذي الخمسة وطنينين (perfect fifth and two whole tones), and the ratio is 128/243, which is equal 2/3 X 64/81. This position occurs when the *mũtlāq* on each string is compatible with *mũjanāb al-sābābeh*, whose ratio is 245/256 on the length of the string.

The sixth tuning is *al-taswyā bi die'f al-ladhi bil arba'a* التسوية بضعف الذي بالاربعة (double fourth), and the ratio is 9/16 which is equal to 2/3 X 27/32. This position occurs by tuning *sābābeh* on *mithlāth* as the perfect *diwān* to the *bāmm*, the same for the *sābābeh* on *zir* from *māthnā*. The ratio for each *mũtlāq* is 9/16.

$$\frac{\frac{1}{2}}{\frac{8}{9}} = \frac{1}{2} \times \frac{9}{8} = \frac{9}{16} = \frac{\text{mũṭlāq al-bamm}}{\text{mũṭlāq al-mithlāth}}$$

The seventh tuning is *al-taswyā bi boũd ala dhi bil kũl* التسوية بالبعد الذي بالكل (*diwān*), when *mũtlāq al-bāmm* is compatible with *mũtlāq al-mithlāth*, and the same for every string below that. The ratio in this method is 2:1; its value is 1200 cents. When using this tuning, the ratios on each *mũtlāq* are 1:2:4:8, and the distance between each *mũtlāq* is one *diwān*. The ratio of the three notes on each string, *mũtlāq*, *khonṣor*, and *mũtlāq* of the adjacent string is 3:4:6.

The eighth tuning is *al-taswyā bideif al boũd al-tānini* التسوية بضعف البعد الطنيني (double whole tone), where the ratio between each string is 9/8. The sequence of each string is a whole note; *mũtlāq al-mithlāth* is compatible with *sābābeh* on *bāmm*; also, *mũtlāq al-māthnā* is compatible with *sābābeh* on *mithlāth*; and *mũtlāq al-zir* is compatible with *sābābeh* on *māthnā*. Therefore, the eighth note for *mũtlāq al-bāmm* can heard on the *khonṣor* of *zir*, whose ratio on the length of the string is 729/1024:

$$\frac{\frac{1}{2}}{\left(\frac{8}{9}\right)^2} = \frac{1}{2} \times \frac{729}{512} = \frac{729}{1024}$$

The last tuning is *al-taswyā bil boũd al-tanini* التسوية بالبعد الطنيني (whole tone), which makes the distance between each string equal to two whole notes, with ratio of 64:41; for example, *mũtlāq al-mithlāth* is compatible with *bonṣor* on *bāmm*; the same is true for *māthnā*

from *mithlāth* and same for *mũtlāq al-zir* from *māthnā*. So, the perfect *diwān* of *al-bāmm* can heard on *bonṣor* of *māthnā*. The length of the string is equal to 7571/8192:

$$\frac{\frac{1}{2}}{\left(\frac{64}{81}\right)^2} = \frac{1}{2} \text{ X } \frac{6561}{4096} = \frac{6561}{8192}$$

The perfect eighth of each string can heard on *bonṣor al-māthnā*.

- The second system is *al-taswyā al-mũrakabeh* التسوية المركبة (the complex tuning) which includes:

Al-taswyā bi die'f dhi al-kũl min mũtlāq al-bāmm ila khonṣor al-zir التسوية بضعف ذي الكل من مطلق البم الى خنصر الزير (perfect *diwān* from *bāmm* to *khonṣor* on the *zir* string), in which *mũtlāq al-bāmm* is compatible with *khonṣor al-zir*, which means the ratio is 1:4 (two *diwān*). *Khonṣor* on *mithlāth* is the perfect *diwān*, *khonṣor* on *zir* is the perfect *diwān* of *māthnā*, and *mũtlāq al-māthnā* is compatible with *khonṣor* on *mithlāth*. The ratio of the open string is 2:3:4:6. In this method, the distance between *mũtlāq al-bāmm* and *mũtlāq al-mithlāth* is fifth, between *mithlāth* and the *māthnā* is fourth, and between the *māthnā* and *zir* is fifth.

Al-taswyā bi tarteeb al-bāmm min al-mithlāth ala boũdain taninayen التسوية بترتيب البم من المثلث على بعدين طنينين (the sequence from *bāmm* to *mithlāth* for two whole tones), in which *mũtlāq al-bāmm*, for example, is compatible with *mũjanāb wũṣṭā al-māthnā*; the distance between *bāmm* and *mithlāth* is two whole tones (27/32 X 3/4). The ratio between *mũtlāq al-bāmm* and *mũtlāq al-māthnā* is 64/81.

$$\frac{\frac{1}{2}}{\frac{64}{81} \text{ X } \frac{3}{4}} = \frac{1}{2} \text{ X } \frac{128}{81} = \frac{64}{81} = \frac{\text{mũṭlāq al-bamm}}{\text{mũṭlāq al-mithlāth}}$$

In addition, each note on *bāmm* moves one whole tone to the lower position. So, the note *khonṣor al-bāmm* becomes *bonṣor, khonṣor* on *bāmm* becomes *mũjanāb al-sābābeh* on *mithlāth*, then *wũṣṭā* Zalzal becomes *wũṣṭā al-Furs, mũjanāb al- wũṣṭā* moves to *sābābeh*, and *sābābeh* moves to *mũjanāb al-sābābeh* by 2048/2187 the length of the string.

Al-taswyā bi tarteeb al-māthnā ala boũdain taninayen min al-mithlāth التسوية بترتيب المثنى على بعد طنينين من المثلث (the sequence from *māthnā* to *mithlāth* for two whole tones), in which *mũjanāb al- wũṣṭā* on *māthnā* is the perfect *diwān* of *bāmm*. The distance between *mũtlāq al-māthnā* and its *mũjanāb al-wũṣṭā* is a whole note and a half, and the ratio between them is 24/32. All the notes are:

$$\frac{\frac{1}{2}}{\frac{27}{32}} = \frac{1}{2} \text{ X } \frac{32}{27} = \frac{16}{27} = \frac{\text{mũṭlāq al-bamm}}{\text{mũṭlāq al-māthnā}}$$

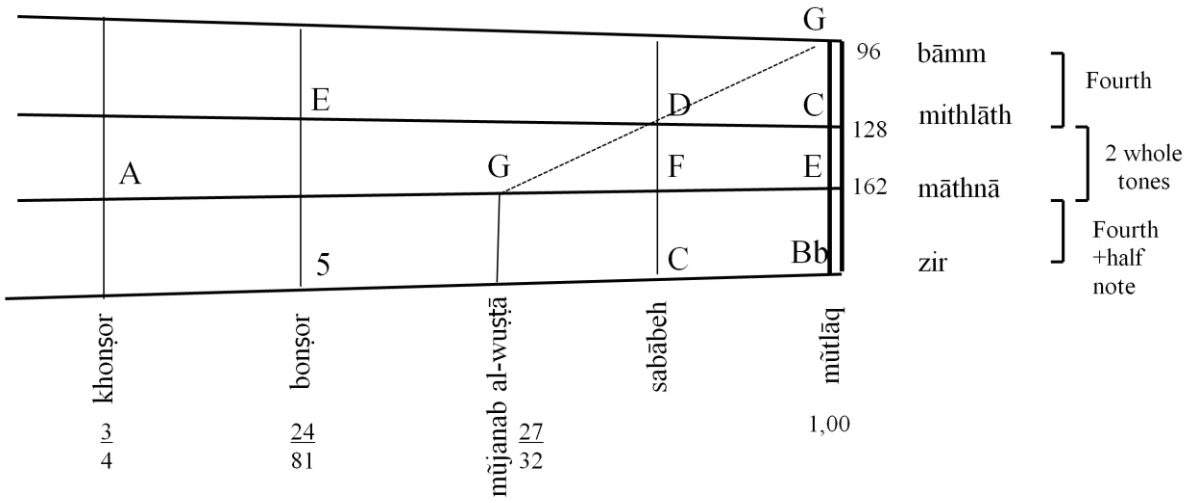
In this tuning system, all the notes from *mũtlāq al-māthnā* to *mũtlāq al-zir* will shift one *baqyiā* (minor half tone: quarter-tone) to higher pitch, which is equal to the distance between *māthnā* and its *sābābeh*, which equals 27:32 the length of the string.

$$\frac{\frac{1}{2}}{\frac{27}{32}} = \frac{1}{2} \times \frac{32}{27} = \frac{16}{27} = \frac{\text{mũṭlāq al-bamm}}{\text{mũṭlāq al-māthnā}}$$

In addition, the distance between *mũtlāq al-bāmm* and *mũtlāq al-mithlāth* is a perfect four, and between the *mithlāth* and *māthnā* are two whole tones:

$$\frac{\frac{16}{27}}{\frac{3}{4}} = \frac{16}{27} \times \frac{3}{4} = \frac{64}{27} = \frac{\text{mũṭlāq al-mithlath}}{\text{mũṭlāq al-māthnā}}$$

If we assume that *mũtlāq al-bāmm* is G, the tuning of the *oud* would be as below:



Al-taswyā bi tarteeb al-māthnā al boũd tanini wa baqyia min al-mithlāth التسوية بترتيب المثنى على بعد طنيني وبقية من المثلث (two whole tones and a half from the *māthnā* to *al-mithlāth*), in which *bonṣor al- māthnā* is the perfect *diwān* for *mũtlāq al-bāmm*, and the ratio is one whole tone (27:32). In this tuning system, all the notes on the *māthnā* will shift one whole tone toward

the higher pitch, which is the distance between *sābābeh* on *māthnā* and its *bonṣor*. The distānce between *mũtlāq al-mithlāth* and *mũtlāq al-māthnā* is one whole tone and a half:

$$\frac{\frac{81}{128}}{\frac{3}{4}} = \frac{81}{128} X \frac{3}{4} = \frac{27}{32} = \frac{\text{mũṭlāq al-mithlath}}{\text{mũṭlāq al-māthnā}}$$

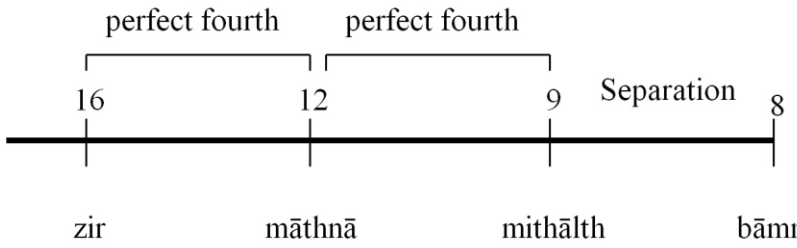
Al-taswyā bi tarteeb al-māthnā ala boũd tanini min al-mithlāth التسوية بترتيب المثنى على بعد طنيني من المثلث (one whole tone from *mithlāth* to *māthnā*), in which *mũtlāq al-māthnā* is compatible with the perfect *diwān* of *mũtlāq al-bāmm*. The distance between *māthnā* and *mithlāth* becomes one whole tone, and the ratio is 8:9. However, the distance between *bāmm* and *mithlāth* is a perfect four (3:4); between *māthnā* and its *khonṣor* is also a perfect four; and between *mithlāth* and *māthnā* is one whole tone with a ratio of 8:9.

$$\frac{\frac{1}{2}}{\left(\frac{3}{4}\right)^2} = \frac{1}{2} X \frac{16}{9} = \frac{8}{9} = \frac{\text{mũṭlāq al-mithlath}}{\text{mũṭlāq al-māthnā}}$$

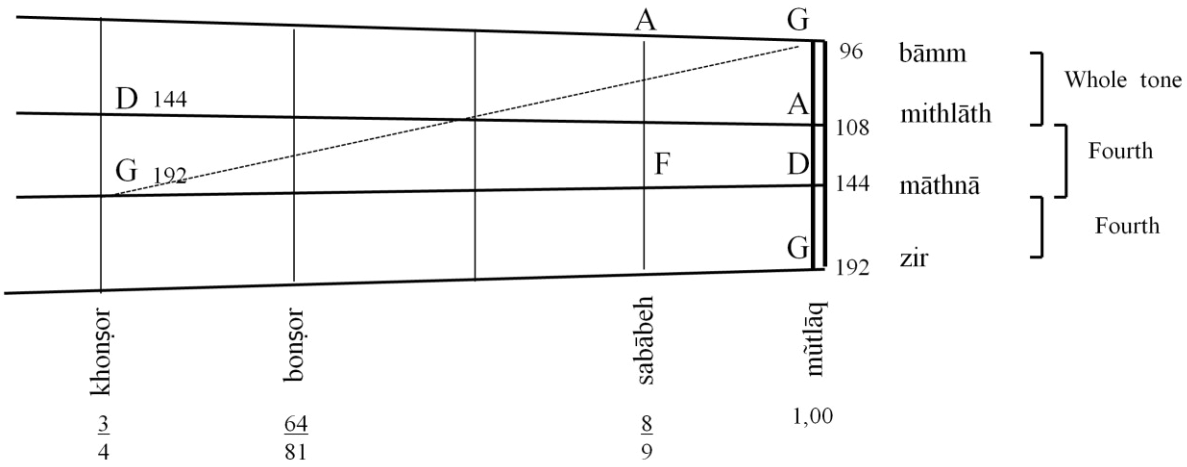
In addition, all the notes after *mũtlāq al-māthnā* will shift one whole tone and a half toward the higher pitch.

Al-taswyā bi tarteeb al-bāmm min al-mithlāth ala boũd tanini التسوية بترتيب البم من المثلث على بعد طنيني (two whole tones from *bāmm* to *mithlāth*), in which *mũtlāq al-bāmm* is compatible with *khonṣor* on *māthnā*, and the note of *mũtlāq al-mithlāth* is compatible with *sābābeh* on *bāmm*. Therefore, the distance between *mũtlāq al-bāmm* and *mũtlāq al-mithlāth* is one whole tone. By

tuning *mũtlāq al-bāmm*, as mentioned, the notes of each *mũtlāq* are commensurable with the *diwān* minus the *mũtlāq*:



It important to mention that this tuning method is the most popular tuning in current practice, especially for the five-stringed *oud*, in which all the strings after the *bāmm* are tuned in fourths:

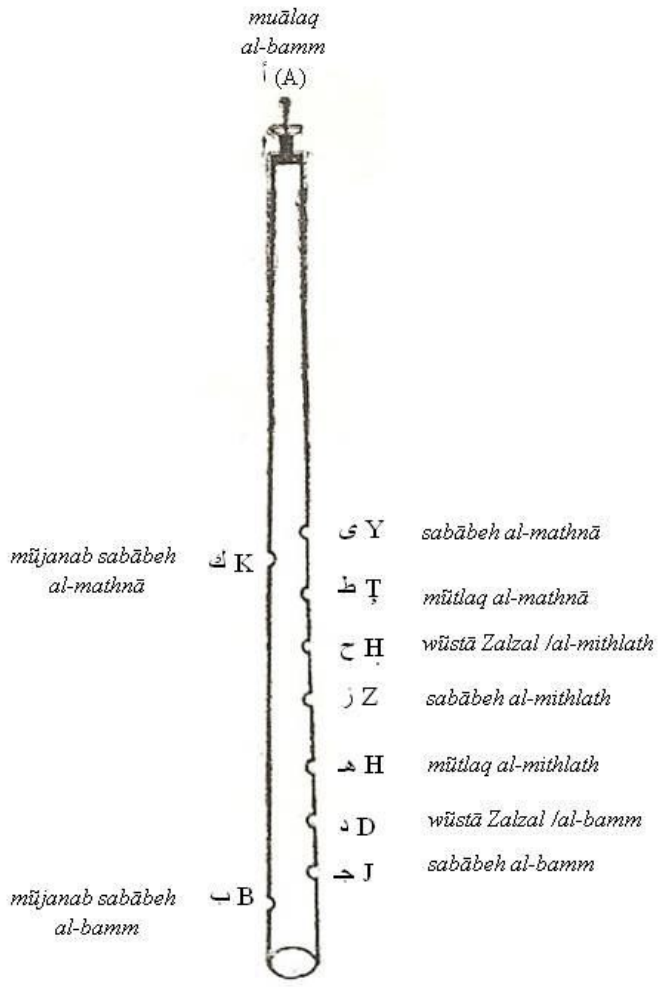


One of the main purposes of using the simple and the complex tuning is the flexibility it allowes when the other musical instrument accompany the *oud* in performance. Some of these instruments, such as the *mizmār* and the *nāy* have fixed tuning. For example, by comparing the notes on *mizmār* and *dāsātin* of the *oud*, the notes that can be obtained on the hole أ (A) are the same as *mũtlāq al-bāmm*. Also, the hole ى (Y) is the same as the note *sābābeh* of the third string

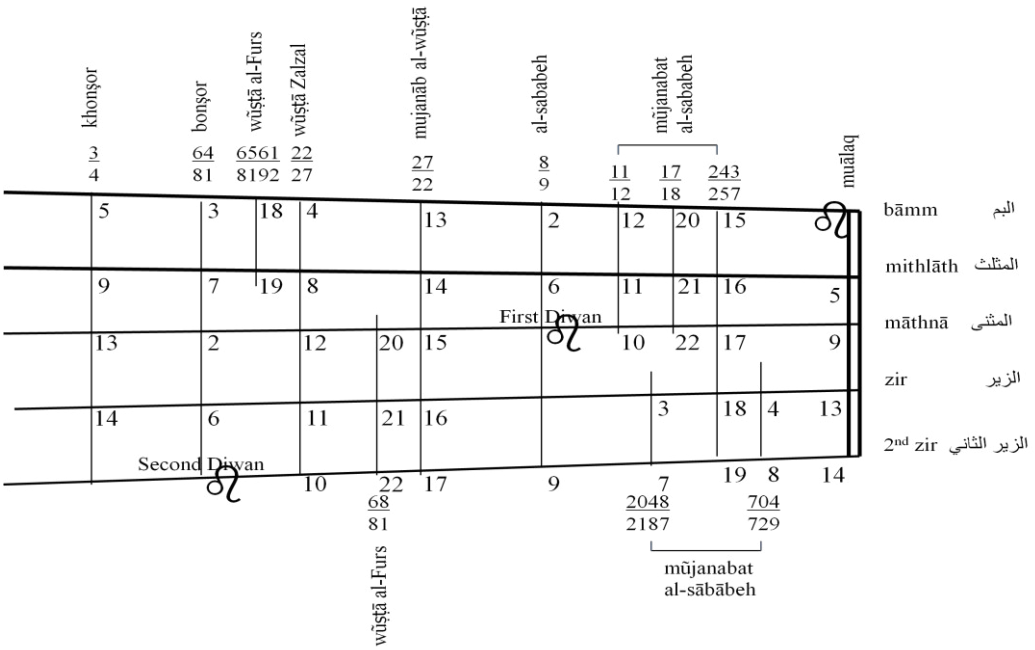
(the perfect *diwān* of *mũtlāq al-bāmm*). According to this tuning method, the distance between the two notes أ and ى is البعد الذي بالكل (one *diwān*).

Therefore, if (A) is *mũtlāq al-bāmm*, I believe that the note (J) is compatible with *sābābeh* on *bāmm*; (D) = *wũṣṭā Zalzal* on *bāmm*; (H) = *mũtlāq* al-*mithlāth*; (Z) = the *sābābeh* on *mithlāth*; (H) = *wũṣṭā Zalzal* on *mithlāth*; (Ṭ) = *mũtlāq al-māthnā* (*khonṣor* on *mithlāth*); (Y) = *sābābeh* on *māthnā*; (K) = *mũjanāb sababat al-māthnā*; and (B) is compatible with *sābābeh* on *bāmm*, as shown below: [262]

[262] KMK, p. 782.



In conclusion, the following two charts display the musical notes on the *oud*, their values, and their ratios:



			bāmm البم	mithālth المثلث	māthna المثنى	zir الزير	hadd الحاد	Ratio
open	muālaq	0	498	996	294	792		1,000
1st finger	mūjanab al-sababeh bi-tankis dhil madatayn	90	588	1086	384	882	243/256	
	mūjanab al-sababeh bi tasnif al-tanini al-awal	98	596	1094	392	890		17/18
	mūjanab al-sababeh bil baqiyah	114	612	1110	408	906	11/12	
	mūjanab al-sababeh bi wūsta al-Furs	145	643	1141	439	937		149/162
	mūjanab al-sababeh bi wūsta Zalzal	168	666	1164	462	960	49/54	
	sababeh	204	702	1200	498	996		8/9
2nd finger	mūjanab al-wūstā	294	792	90	588	1086	27/32	
	wūstā al-Furs	318	800	98	596	1094		68/81
	wūstā Zalzal	354	852	150	612	1146	22/27	
3rd finger	bonşor	408	906	204	702	1200		64/81
4th finger	khonşor	498	996	294	792		3/4	

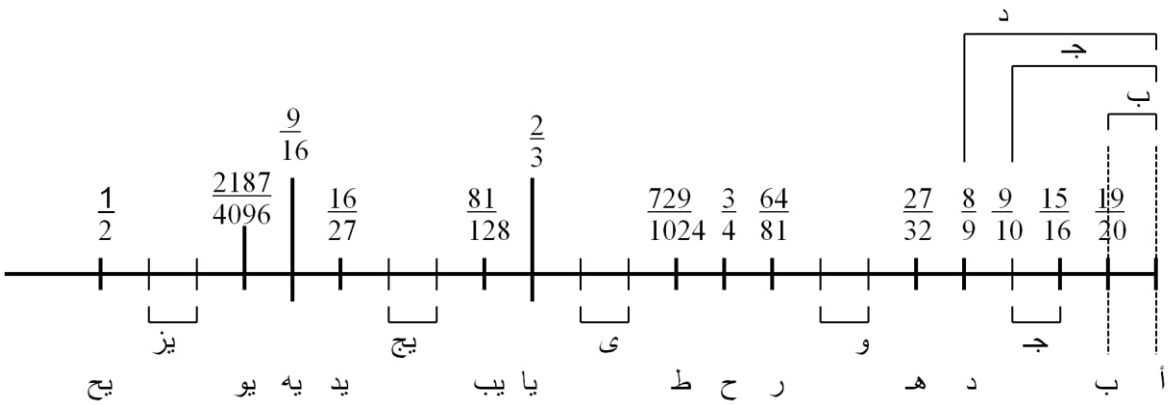
IV: 4 Ṣafiʼ al-Din Abd al-Mũmin al-Armāwi al-Bāghdādi:[263]

The tuning of al-Bāghdādi enables the notes on the *mũtlāq* of each string to equal three quarters if the thickest string and the number of the *dāsātin* is seven, which divides the whole tone into three sections. The *distān* of the *mũjānāb* is divided into two sections and the *baqyiā* equals one whole tone.

In his book *kitāb al-Adwār,* al-Bāghdādi divided a string of the *oud* into seventeen parts. Then he designated three particular rates (sections) of the string, which consists of three melodic dimensions. The ratio of the greatest of these dimensions is 8:9, which indicates the whole tone form أ - د (A-D). The ratio of the middle one is 59049/65536 on the edge of the *mũjanāb* أ - جـ (A-G), and the smallest ratio is 243/256 for the *baqyiā*, which is from أ - ب (A-B).

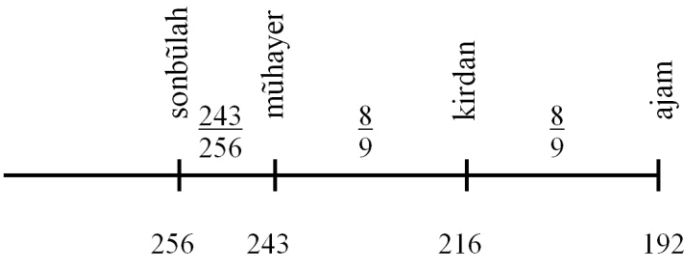
However, in section three from the same book, al-Bāghdādi stated that the ratio between (A-D) is one and eighth, between (A-G) is one one and 3/5, and between (A-B) is one-and-one-nineteenth. If we assume that the ratio of the *baqyiā* is 243/257 (19:20), and the ratio of *mũjanāb* is 59049/65536 (9:10), one can note that the ratio of *mũjanāb* has two different dimensions. The first one is 9:10, obtained by dividing the length of the string, and the second one is 15/16, which gives us twenty-four notes from أ - يج (A-a) instead of seventeen notes as below:

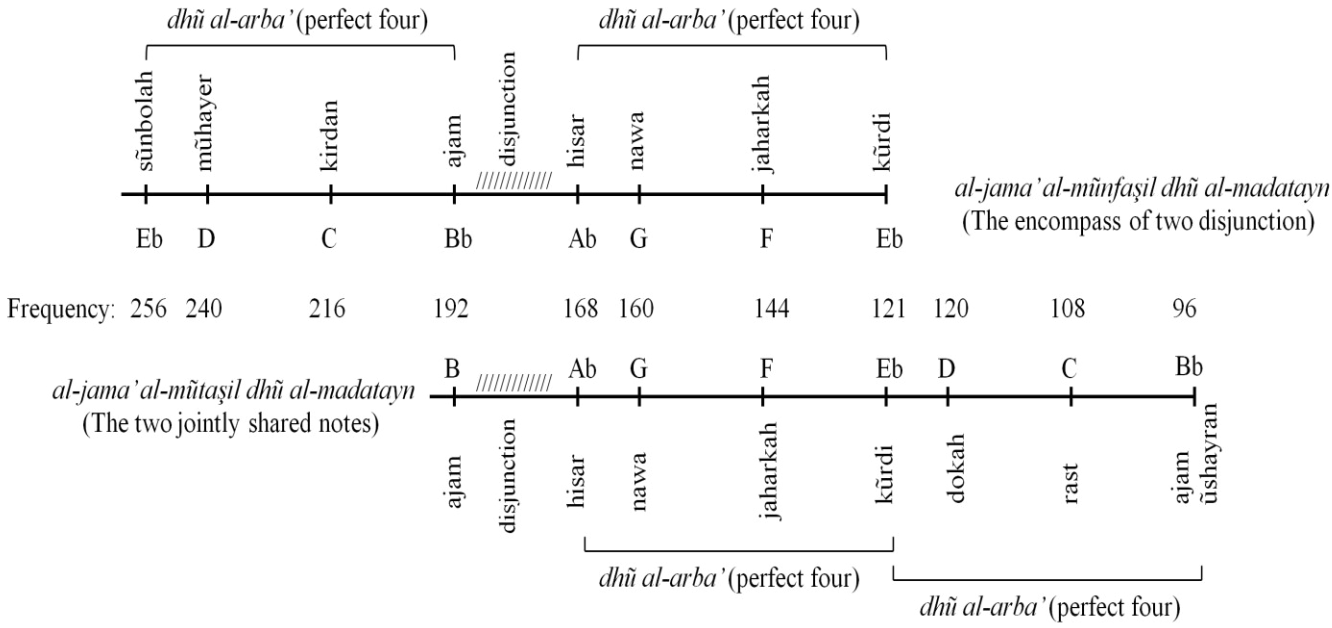
[263] The information in this section was obtain from al-Armawi's *Kitab al-Adwār* كتاب الأدوار (Book of Musical Modes) that reserved in the British Museum, Or. 136, and Or. 2361, and from the *Risalāt al-Sharafiyyā* الرسالة الشرفية (Sharafian Treatise), which is reserved in Bodleian Library, Marsh 115. And Marsh 521.



Therefore, these notes are the same as mentioned by al-Fārābi in his book *The Great Book of Music*. The dimension of the *ajāns* was used in Arabic music in the ninth century and contains two types: *al-boũd al-tanini* البعد الطنيني (whole tone) with ratio of 9/8, and *boũd al-baqyiā* بعد البقية (minor half tone: quarter-tone) with ratio of 243/256. We note that the ratio of *al-mũjanab* between أ - جـ (A-G) is 13/14, and the ratio of *boũd al-baqyiā* between أ - ب (A-B) is 19/20. It is important to mention that the first person who used this system was Manṣoũr Zalzal, who divided the whole tone into two dimensions where each became the middle *mũjanāb* between the whole tone and *boũd al-baqyiā*. However, the ratio of *boũd al-baqyiā* is 18/19 one time, and 20/19 another time.

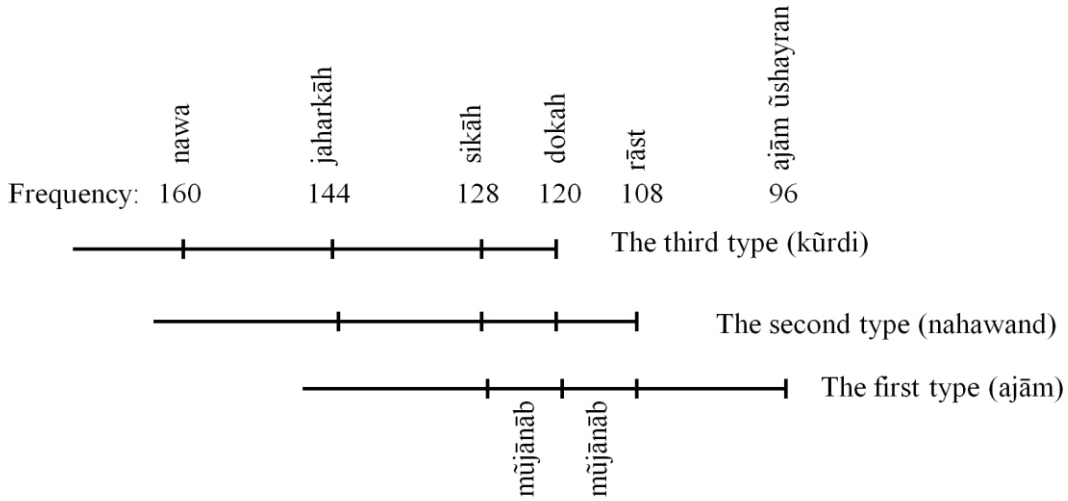
If *boũd al-baqyiā* comes before, after, or in the middle of the sequence of two whole tones, it is called *dhũ al-madatayn* ذو المدتين (the jointly and the disjunction), which is the *jins* of *māqām ũshāq* or *ajām* in contemporary Arabic music, (see chart below):



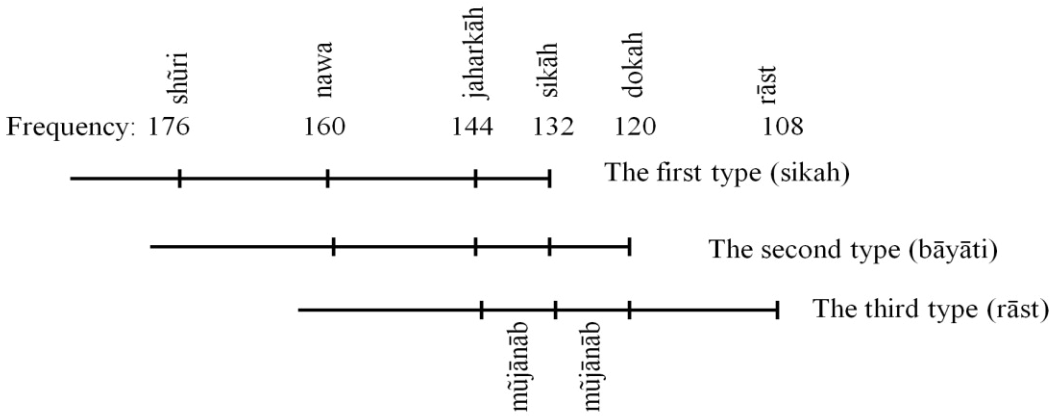


It has been shown in principle in the sequence of *jins* that *dhũ al-madatayn* (*māqām ajām*) would be composed on the note Bb in the jointly shared notes and on the note Eb in the disjunction notes. If we tune the *oud* as usually done, the Arabic note (*ajām*) would be 192,000 frq/sec. and the note (*kirdān*) would be 216,000 frq/sec. According to al-Baghdadi's system, there are seven types of *jins* used in Arabic music. The first three *ajnās* of *dhũ al-madatayn* ذو المدتين is called *ũshaq* and known as *ajām* in contemporary Arabic music. It is the sequence of *boũd al-baqyiā*, and *boũdan taninyiān* بعدان طنينيان (two whole tones). The second type is called *nāwā*, known as *nāhāwānd* in contemporary Arabic music, in which two tones mediate one *boũd*

al-baqyiā. The third type was called *bũslak*, known as *kũrdi* in contemporary Arabic music, consisting of two whole tones followed by *boũd al-baqyiā*.

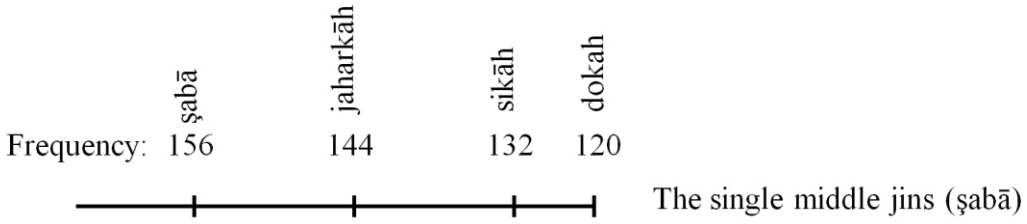


The second group of the *ajnās* are known *al-qāwi al-mũstaqim* القوي المستقيم (the strong straight *jins*), based on the note *rāst*, which includes two *mũjanāb* followed by one whole tone. The second type was known as *hũsiani*, known as *bāyati* in contemporary Arabic music, which consists of one whole tone followed by two *mũjanāb* from the thickest end of the string. The third type is *sikāh* and was known as *irāq* in earlier musical theory; it consists of two *mũjānāb* on both sides with one whole tone in the middle.



These are the sixth popular *ajnās* in Arabic music from which all the *ajnās* originate.

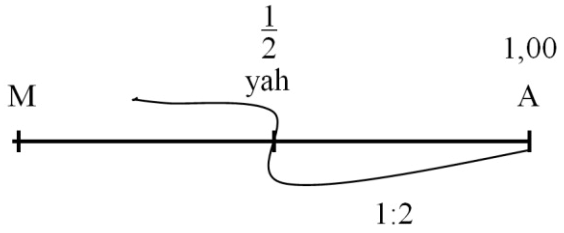
The seventh *jins* is called *al-mũfrad al-awāl* المفرد الاول (the first single). This type of *jins* is surrounded by three *mũjanāb* that precede *boũd al-baqyā* from above. However, there are two versions of this type of *ajnās*: the first one is called *al-mũfrad al-awṣat* المفرد الاوسط (the middle single *jins*) that includes three consecutive *mũjānāb*. This type was called *rahāwi* but in contemporary Arabic music, it is known as *ṣabā* and is based on the note *dokāh* as below:



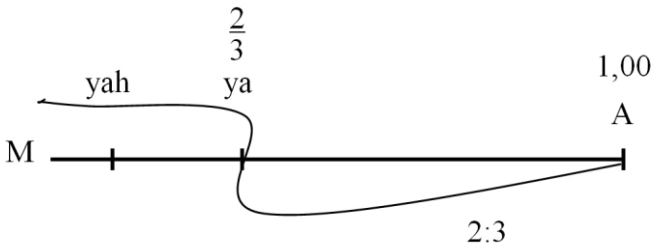
The second one is called *al-mũfrad al-aṣghar* المفرد الأصغر (the small single *jins*), and includes a perfect fourth surrounded by two *mũjanāb* preceded by *boũd al-baqyia* from above. It is the smallest type of the *jins* and was called *zirāfkand*, but in contemproray Arabic music it is known as *kũjik*.

It is important to mention that al-Bāghdādi discussed fourty-eight types of the *ajnās* in his book *al-Adwār*, by extracting twelve from each *jins*, as explained earlier. Some of these *ajnās* are still in use in Arabic contemporary performance, known as *al-adwār* الادوار (the cycles), and six of them are known as *awazāh* اوازه (prl. *awazāt*) which means *ṣawt* (tone).

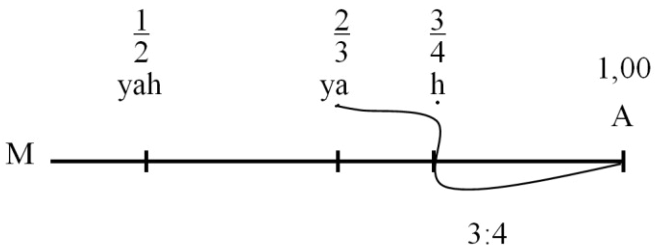
With regard to the *dāsātin* of the *oud*, al-Bāghdādi first divided the string into two equal parts; from أ – م (A-M), if we mark the string as *ũshayrān* (A) and half the distance is يح (yaḥ), the distance between (A) to (yah) is ½ and between (yah) to (M) is ½ as shown below:



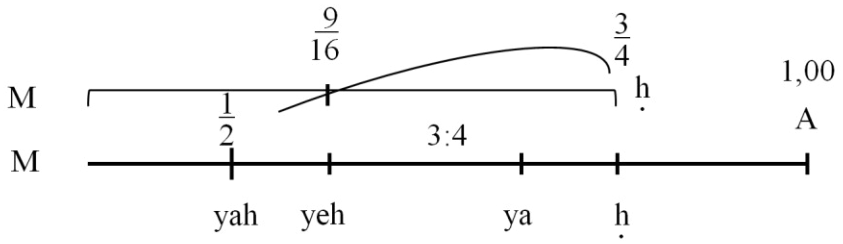
He then divided the string into three equal parts; let us mark the end of the first part as يا (ya). This interval from (A) to (Ya) is *al-boũd bil khams* البعد بالخمس (perfect fifth) as shown below:



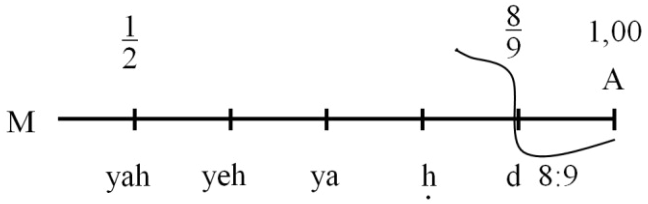
Next, he divided the string into four equal parts, if we mark the first part of the length as ح (Ḥ), the ratio between (A) to (Ḥ) is 3:4, as shown below:



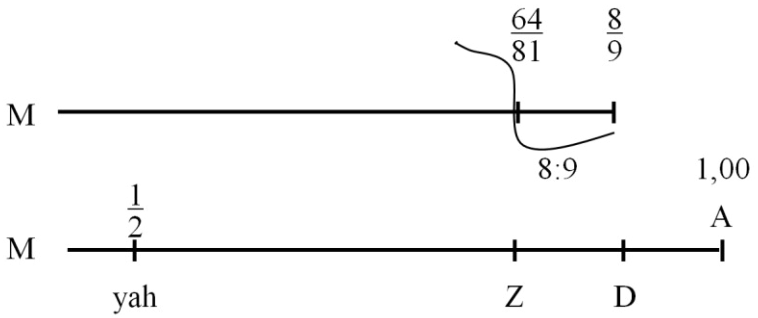
Next, he divided the distance between ح (Ḥ) to م (M) into four equal parts; if we mark this point as يه (yeh), which is 9/16, the length of the string. This dimension is *al-boũd bil arba'a* البعد بالاربعة (perfect four), as shown below:



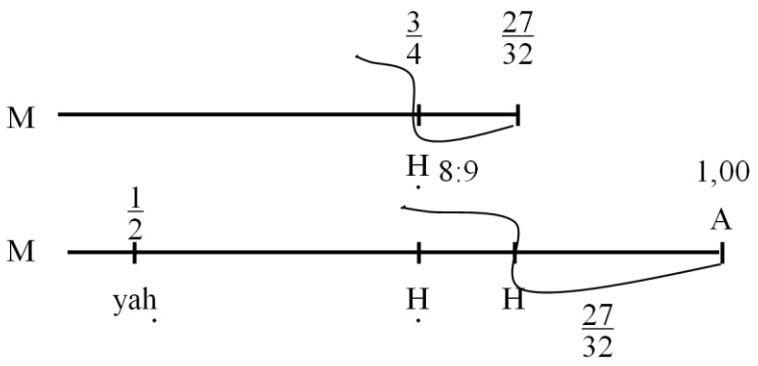
Next, he divided the string into nine equal parts. If we mark the end of the first part د (D) called *kũsht* in contemporary Arabic music, the ratio from (A) to (D) is 9:8, as shown below:



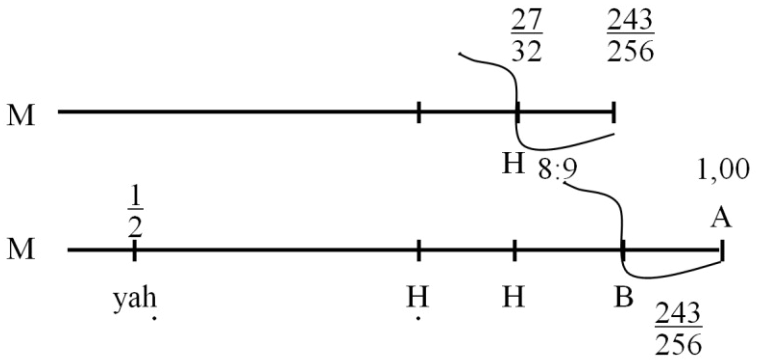
Next, he divided (D) to (M) into nine parts; if we mark the end of the first part as ز (Z), the distance would between (A) to (Z) is whole tone with a ratio of 9:8. Therefore, the distance between (A) to (Z) is equal two whole tones with ratio of 81:64. This note on the *oud* called *zirklalāh*, which is located two whole tones from *mũtlāq al-bāmm*, as shown below:



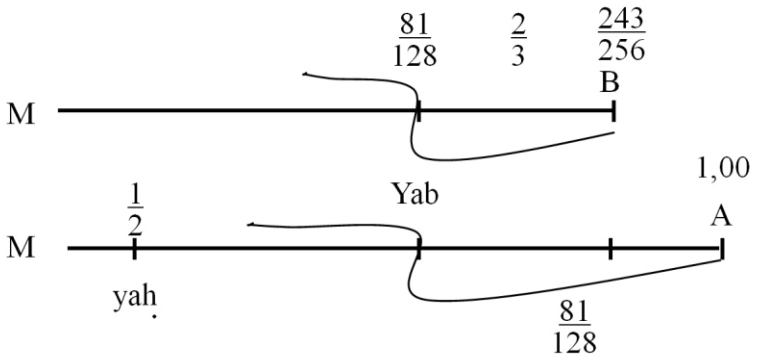
Then, he divided the distance between ح (Ḥ) to م (M) into eight parts, and added another part from the thickness end and marked it as هـ (H), which makes it one whole tone and one *baqyiā* from (A), with a ratio of 27:32. This note is known in contemporary Arabic music as *rāst*, as shown below:



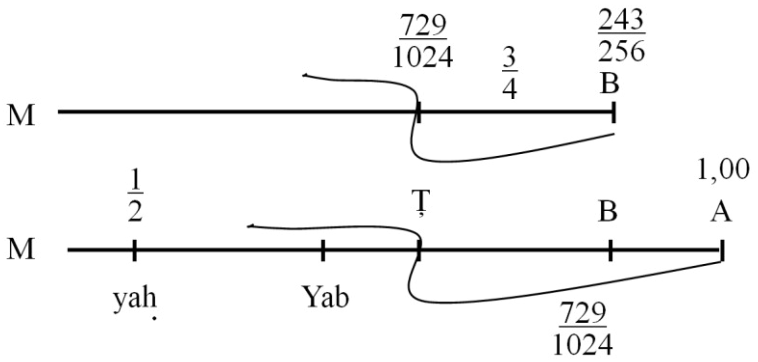
Next, he divided the distance between هـ (H) to م (M) into eight parts, and added another part from the thickness end and marked it as ب (B), which makes it 243:257 the length of the string. Each dimension is called *al-baqyiā* or *fadhlā*; the note (B) is known as *ajām ũshayran*, also known as the *mũjanāb* as showing below:



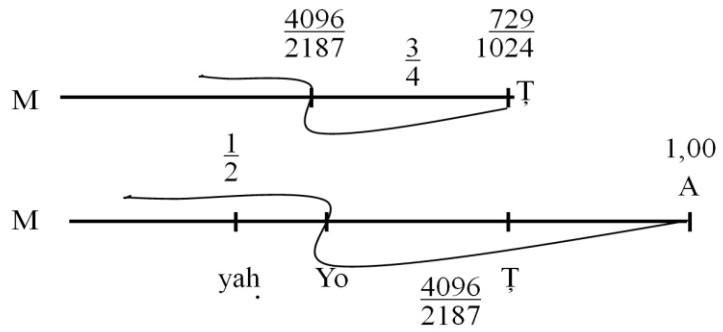
Next, he divided ب (B) to م (M) into three equal parts, if we mark the end of the first part as يب (Yab), known as *jāharkāh* with a ratio 81/128 on the length of the string, as shown below:



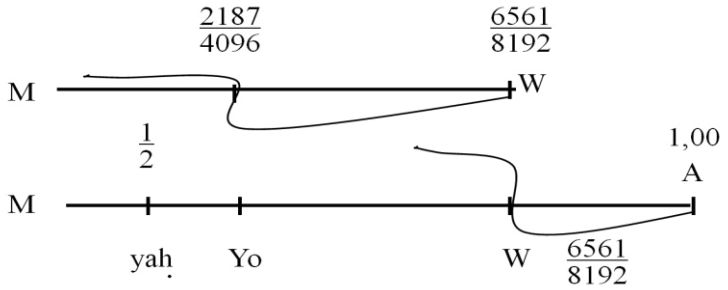
Next, he divided ب (B) to م (M) into four parts; if we mark the end of the first section as ط (Ṭ) with a ratio of 729/1024 the length of the string. In addition, it is considered as perfect fourth and known as *kũrd* in the *oud* tuning, as shown below:



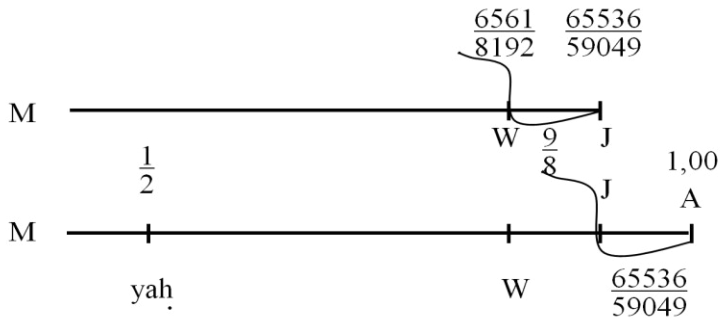
Next, he divided ط (Ṭ) to م (M) into four equal parts; if we mark the end of the first section as یو (Yo), the ratio would be 2187/4096 the length of the string. In addition, this note is known as *ḥisār*, which is located one *boũd baqyiā* above *mũtlāq al-mithlāth* (*nāwā*), as shown below:



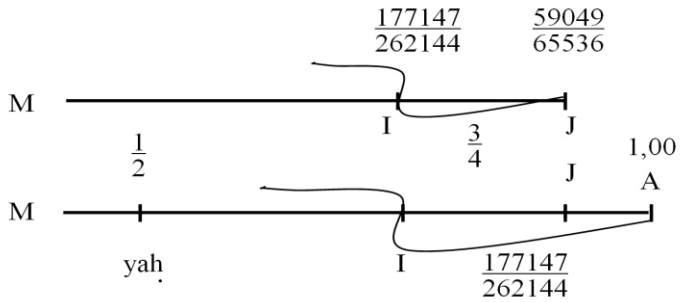
Next, he divided يو (Yo) to م (M) into two equal sections and added another part that is equal to one of the two sections from the thickness end, and marked it as و (W) with a ratio of 6561/8192 of the length of the string. In addition, the note و (W) known as *zirkālāh* in contemproray Arabic music, as shown below:



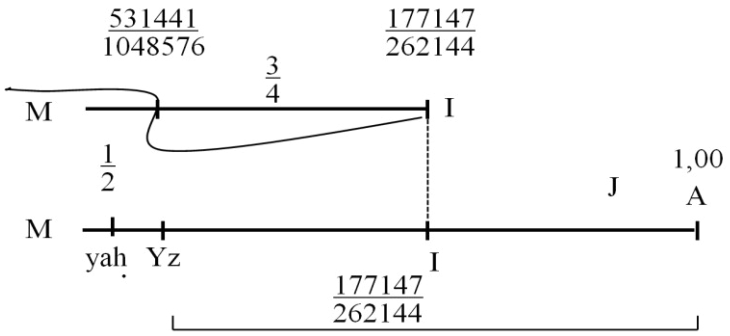
Next, he divided و (W) to م (M) into eight sections and added another part. If we mark this note as ⇁ (J), it would be one whole tone from و (W) with a ratio of 59049/75536 on the length of the string. In addition, the note (J) is *mũjanāb al-sābābeh* and known as *irāq*, as shown below:



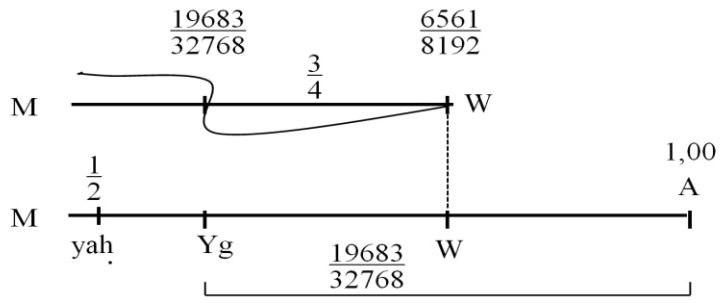
Next, he divided ـجـ (J) to م (M) into four parts and marked the end of the first part, as ى (I), with a ratio is 177147/262144 (27:40) on the length of the string. The new note is called *sikāh* in contemporary Arabic music, in which there is one *mũjanāb* above *mũtlāq al-mithlāth*, as shown below:



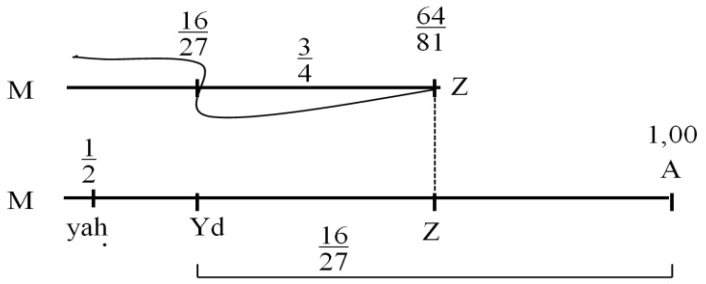
Next, he divided ى (I) to م (M) into four parts and marked the end of the first part as يز (Yz). Since the note (Yz) is higher than the note (I) as a perfect fourth, the ratio is 531441/1048576, or about 10:19. According to the popular tuning of the *oud*, this note is known as *shũri*, which is located on *mũjanāb mũtlāq al-māthnā* (*nāwā*) and is a perfect fourth higher than the note *sikāh*, as shown below:



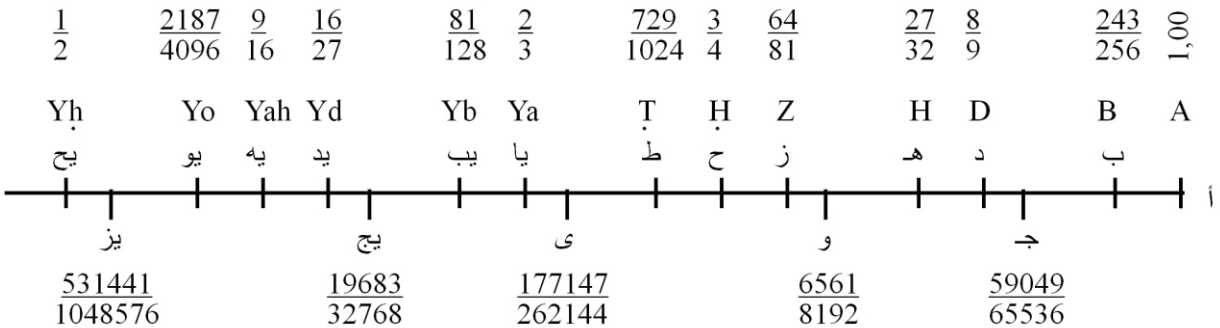
Next, he divided و (W) to م (M) into four parts and marked the end of the first part as يجـ (Yg). Since the يجـ (Yg) is a perfect fourth higher than و (W), it is compatible with the note *hijāz* on the *oud*. The ratio on the string is 19683/32768, as shown below:



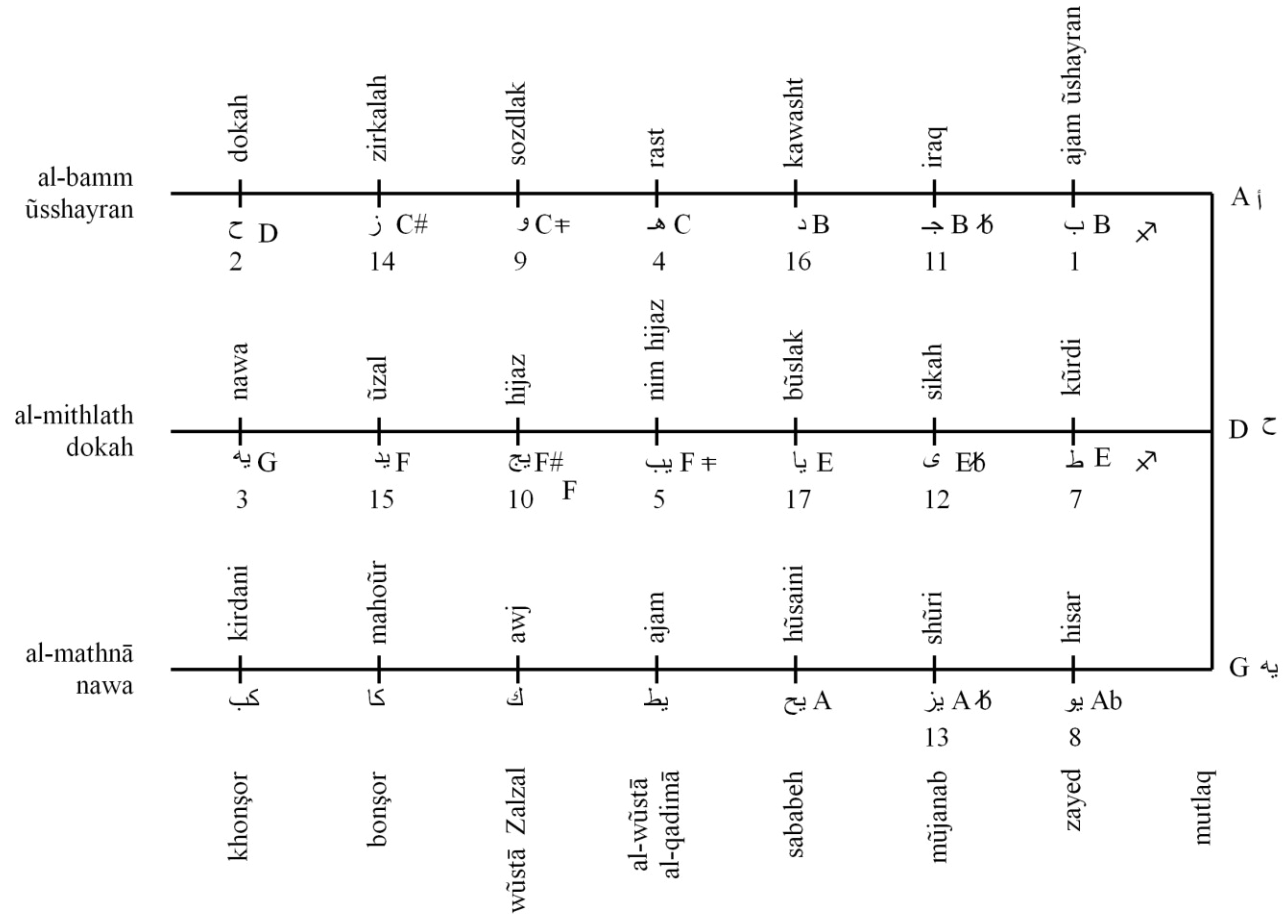
Finally, he divided ز (Z) to م (M) into four parts and marked the end of the first part as يد (Yd), which is located on the string of the *oud* with a ratio of 16:27 in the Arabic popular tuning known as *ṣabā*, as shown below:

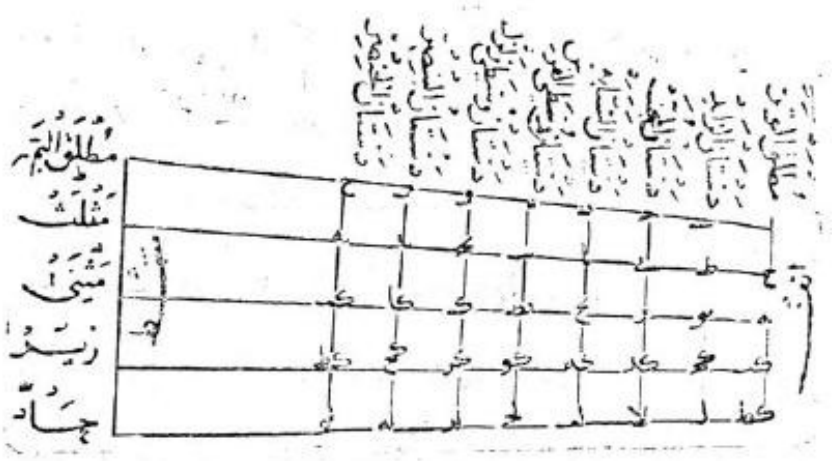


These are the locations of the *dāsātin* on the *oud*, and this is the string of the *oud* and its parts. *Al-boũd dhil khams* البعد ذي الخمس (perfect fifth) is 2:3, *al-boũd dhil arba'* البعد ذي الاربع (perfect fourth) is 3:4, and *al-boũd al-tānini al-awṣāt* البعد الطنيني الاوسط (whole tone) is 8:9, as below:



By examining the *dāsātin* of the *oud*, one can notice the seventeen notes from أ – يج (A-a) on the strings from *bāmm* to *mānthnā*. In conclusion, the notes on *dāsātin* of the *bāmm*, the *mithlāth*, and the *māthnā* strings, and their equivalent in contemporary Arabic music practice as shown below:





(صورة من صفحة ٥٦ من المخطوط المؤرخ سنة ٧٢٧ هـ ، بخط عبد الكريم الشهرورذي)

Copy from the manuscript of kitāb al-adwār, p. 56 dated 727 A.H. (about 1297A.D.), Represents the dāsātin of the oud, and the locations of the notes

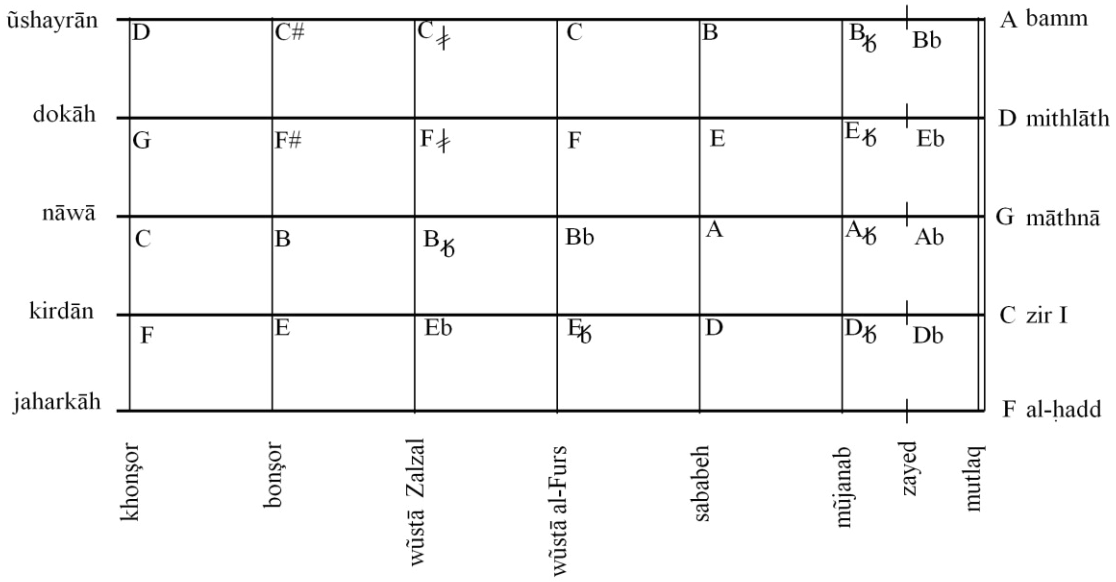
The Tuning of the *Oud*
al-Armawi

Based on al-Armawi's manuscript, page 56 dated 727 h

He divided the string of the Oud into 17 parts-fractions

ũshayran	ح	ز	و	هـ	د	حـ	ب	أ	bamm البم
dokah	يه	يد	يج	يب	يا	ي	ط	ح	mithlāth المثلث
nawā	كب	كا	ك	يط	يح	يز	يو	يه	māthnā المثنى
kirdān	كط	كح	كز	كو	كه	كد	كج	كب	zir I الزير
jaharkah	لو	له	لد	لح	لب	لا	ل	كط	zir II الحاد
	khonşor	bonşor	wũstā Zalzal	wũstā al-Furs	sababeh	mũjanab	zayed	mutlaq	

The Tuning of the *Oud*
al-Armawi
Based on al-Armawi's manuscript, page 56 dated 727 h
He divided the string of the Oud into 17 parts-fractions



The following chart representes the name of the notes according to al-Armāwi al-Bāghdādi, and their equivalent in Western music:

No.	Notes		Arabic Names	Musical Notes
1	أ	A	*ũshayrān*	A
2	ب	B	*ũshayrān Ajām*	B flat
3	ج	J or G	*irāq* (+)	B *kār*-flat (+)
4	د	D	*kũshāt*	B
5	ه	H	*rāst*	C
6	و	W	*zir kolah* (-)	C *kār* -sharp (-)
7	ز	Z	*zir kolah*	C sharp
8	ح	Ḥ	*dokah*	D
9	ط	Ṭ	*kũrdi*	E flat
10	ى	I	*sikāh*	E *kār* -flat (-)
11	با	Ya	*sikāh* (+)	E
12	بب	Yb	*nim hijāz*	F *kār* -sharp
13	بج	Yg	*hijāz*	F sharp
14	بد	Yd	*hijāz* (+)	F sharp (+)
15	به	Yah	*nawā*	G
16	بو	Yo	*hiṣar*	A flat

17	يز	Yz	*tek hiṣar*	A *kār*-flat (+)
18	يح	Yaḥ	*hũsāini*	A
19	يط	Yaṭ	*ajām*	B flat
20	ك	K	*āwj (+)*	B kār-flat (+)
21	كا	Ka	*mahoũr*	B
22	كب	Kb	*kirdān*	C
23	كج	Kg	*shāhnāz* (-)	C *kār*-sharp (-)
24	كد	Kd	*shāhnāz*	C sharp
25	كه	Kah	*mũhāyer*	D
26	كو	Kw	*ṣonbolā*	E flat
27	كز	Kz	*bozrok* (+)	E *kār* -flat (-)
28	كح	Kaḥ	*jawāb bũslik*	E
29	كط	Kaṭ	*jawāb nim hijāz*	F *kār*-sharp
30	ل	L	*jawāb hijāz*	F sharp
31	لا	La	*jawab tek hijāz*	F sharp (+)
32	لب	Lb	*sāhm*	G
33	لج	Lg	*jawāb hiṣar*	A flat
34	لد	Ld	*jawāb tek hiṣar* (+)	A *kār*-flat (+)
35	له	Lh	*jawāb hũsaini*	A

IV: 5 Contemporary Tuning System

There are several types of Arabic *oud*s used in the Arab world; many continue to have only five pairs of strings. The major categories are in *Bilād al-Shām*, Egypt, and Iraq. The *oud* in *Bilād al-Shām* has eleven strings and some common tunings are, starting from the low string: C F A d g c, D G A d g c, C E A d g c, and F A d g c f (usually all double courses with these tuning-twilve strings in all).

The Egyptian *oud*s usually differ from the *oud* in *Bilād al-Shām*, not in tuning, but in their general tone. It is not uncommon to see Egyptian players using only five pairs of strings, in effect removing the lowest "drone string" from the first three tunings above, with the tunings from the lowest string as follows: F A d g c, G A d g c, and E A d g c. When the Egyptian *oud* is used with six courses, it is the same as above for the *oud* in *Bilād al-Shām* tunings.

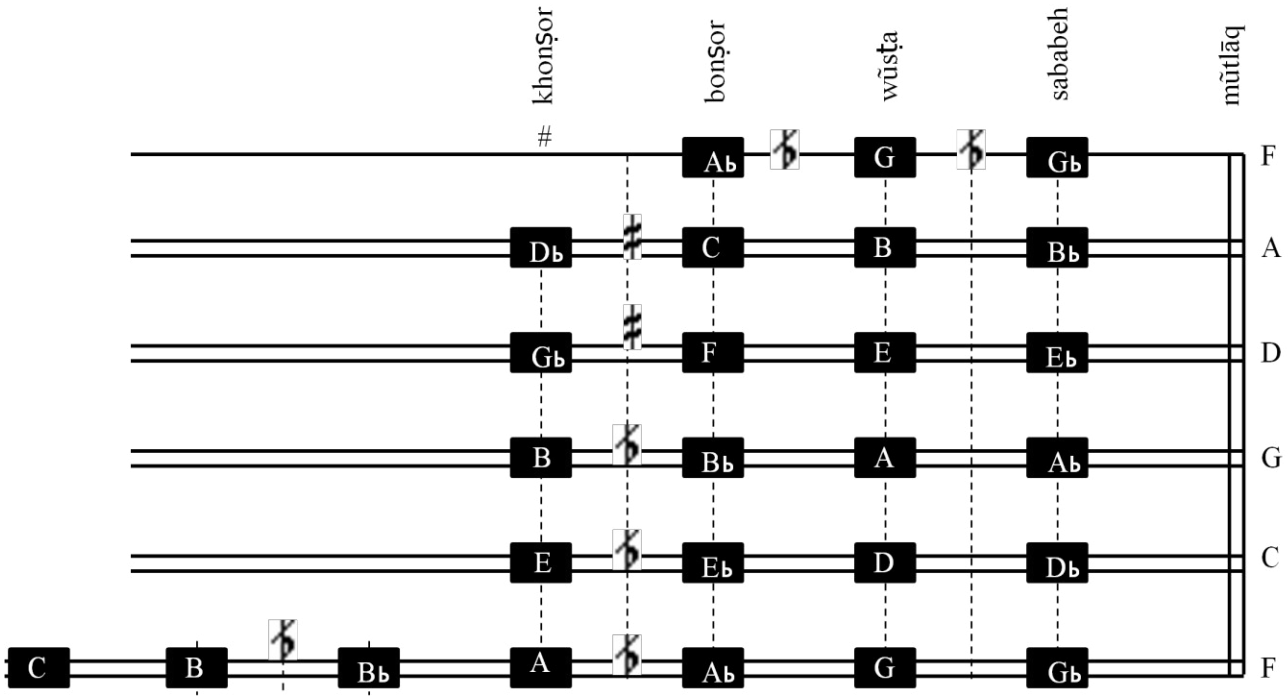
The Iraqi *oud*s are completely different in that they have floating bridges, with the strings attached at the base of the *oud*, not on the bridge. They often have seven or eight courses; some of the tunings are C D g c f F (the bass F "drone string" under the highest-pitched string pair), and F C D g c f.

In addition, the names of the string are:[264]

The first course (the lowest) is E (*bũslāk*) or F, with 174.6 frequency per second (frq./sec)
The second course A is (*ũshayrān*), with 220.0 frq./sec.
The third course is D (*dokāh*) with 293.7 frq./sec.
The fourth course is G (*nāwā*), with 392.0 frq./sec.
The fifith course on the *oud*, C (*kirdān*), with 523.3 frq./sec.

From my experience as an *oud* player, the best method of tuning the five-stringed *oud* is as follows: tune the *ũshayrān* (A) using the tuning fork, then play *bonṣor* on the *dokāh* string and tune the *kirdān*, which is the octave of *bonṣor*. Then play *wũṣṭā* on the *kirdān* string, which is compatible with *mũtlāq al-dokāh*, and tune it. When tuning the lowest string as *bũslāk*, play *wũṣṭā* on *mũtlāq al- dokāh* and tune it as an octave. There are two ways to tune the *nāwā* string; the first is by placing *wũṣṭā* on the *bũslāk* string, and the second one is by placing the finger at halfway point of the *kirdān* string. The following chart shows the locations of the *dāsātin* and the notes on the sixth stringed *oud*:

[264] S. S. Abdoun. *The Oud*, pp. 21-2.



The locations of the dāsātin and the notes on the sixth stringed oud

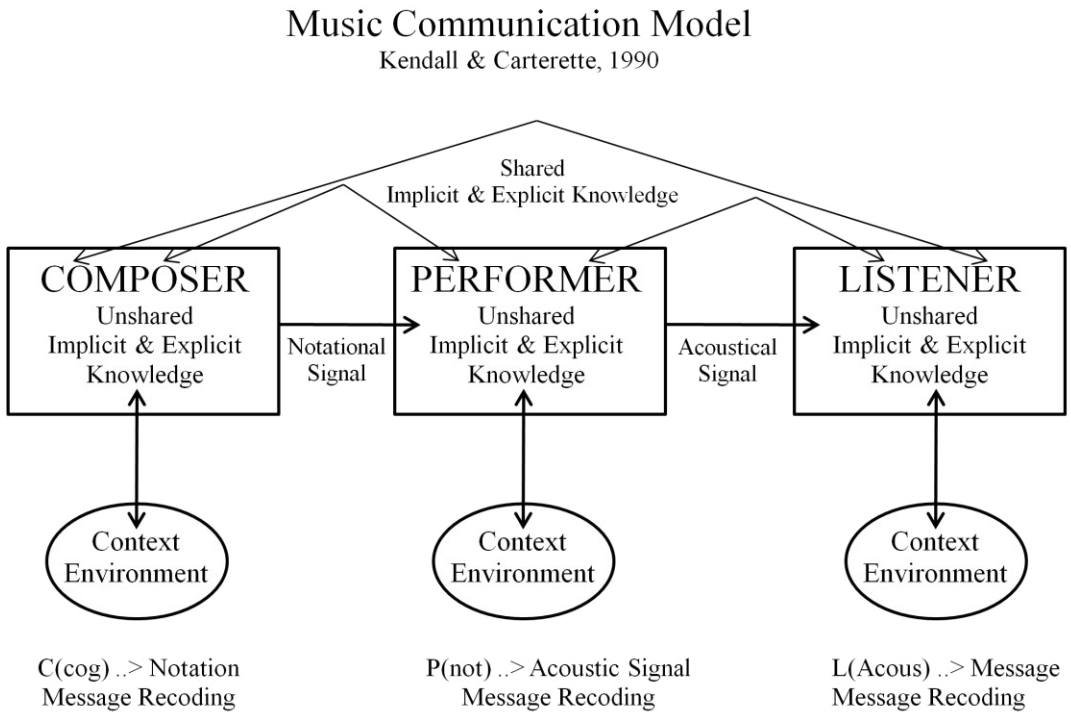
V: The Performance Practice of the *Oud*:

Who is the intended audience for *oud* performance?

Music and singing are fundamental channels of communication: they provide a means through which people can share emotions, intention, and meanings. Therefore, "Music can exert powerful physical and behavioral effects, produce deep and profound emotions within us, and generate infinitely subtle variations of expressiveness by skilled composers and performers." [265] The model of music communication (see Figure below) involves the transmission and reception of musical messages. According to Kendall and Carterette, the

[265] David J. Hargeaves, Raymond MacDonald, and Dorothy Miell. "How do People Communicate Using Music?" In *Musical Communication*. Edited by Dorothy Miell. Oxford University Press, 2005. P. 1.

process of musical communication requires three components: "the process of musical communication begins with an intended musical message that is recoded from ideation to notation by the composer, then recoded from notation to acoustical signal by a performer, and finally recoded from acoustical signal to ideation by the listener."[266]



Music Communication Model by Kendall and Garterette, 1990

It is important to mention that the vast majority of Arab musicans-performers play by ear throughout oral transmission tradition. However, to make music by ear means to create, perform, remember, and teach music without the use of written naotation. Peter Jeffery elaborates on this matter:

> "Oral transmission is not a particular feature of some music at certain times, but rather universal characteristic of almost all music at almost all times. What we call 'oral transmision' is what

[266] Roger A. Kendall and Edward C. Carterette. "The Communication of Musical Expression." In *the Music Perception: An Interdiscipainary Journal,* Vol. 8, No. 2 (Winter, 1990), p. 131.

most human beings throughout history have known simply as 'music'-something to play or hear rather than something to write or read."[267]

In this chapter, I will be examining *oud* performers and their style, the *oud* and *tārāb*: improvisations and ornamentation, the *oud* in the Arabic musical ensemble (*al-tākht al-Arābi*), the social functions and uses of the *oud*, gender in musical performance, traditional and modern techniques, and musical repertoire. The last section will be an analysis of the *oud*'s composition: *tāqsim oud* on *māqam sikāh* by Riyād al-Ṣũnbati.

V: 1 Case Studies: *Oud* Performers and Personal Experience

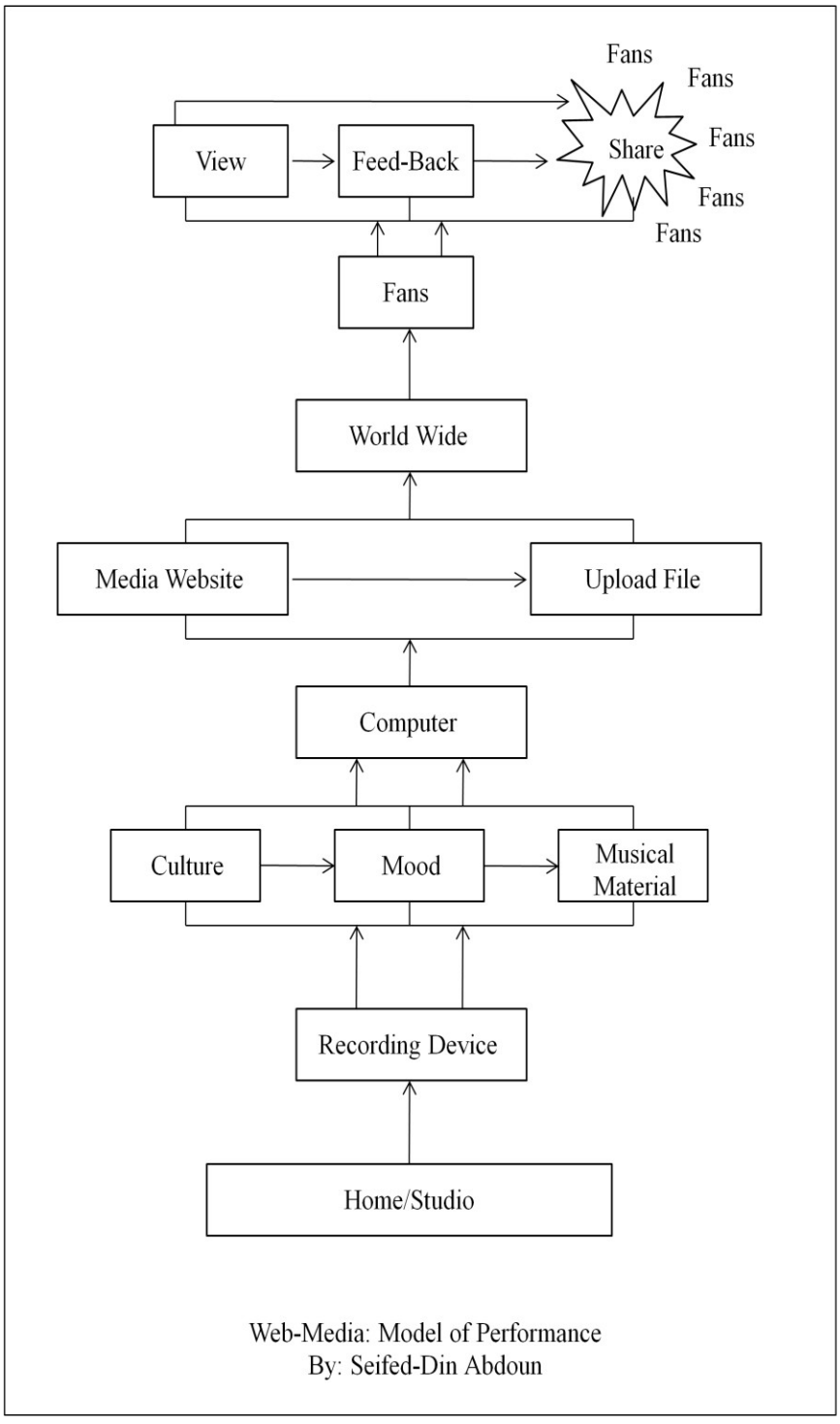
Al-Ḥasan ibn Aḥmad Ali al-Kātib (eleventh century) devoted a special chapter *Kamāl* to the interaction of the audience in musical performance in his book كمال أدب الغناء *Kamāl adab al-ghinā'* (The Perfection of Musical Knowledge). He distinguished between two types of spontaneous reactions to a beautiful performance: hand clapping and verbal expression, both of which encourage the performer to repeat his achievement while stimulating his creativity. [268]

The most important factor is the attitude of the audience to *oud* performances on different occasions. These occasions include seasons, traditions, and festivities, which are direct stimuli for most vital and social functions. However, the audience changes from "active" participation in a performance to an indirect receptor of the *oud* performances, so the relationship between audiences and performance becomes more distant. In modern times, the initial major development for *oud* performance was the radio. It made the sound production-related to the *oud* performance quite central. The second step was television and videos-dvds, which show

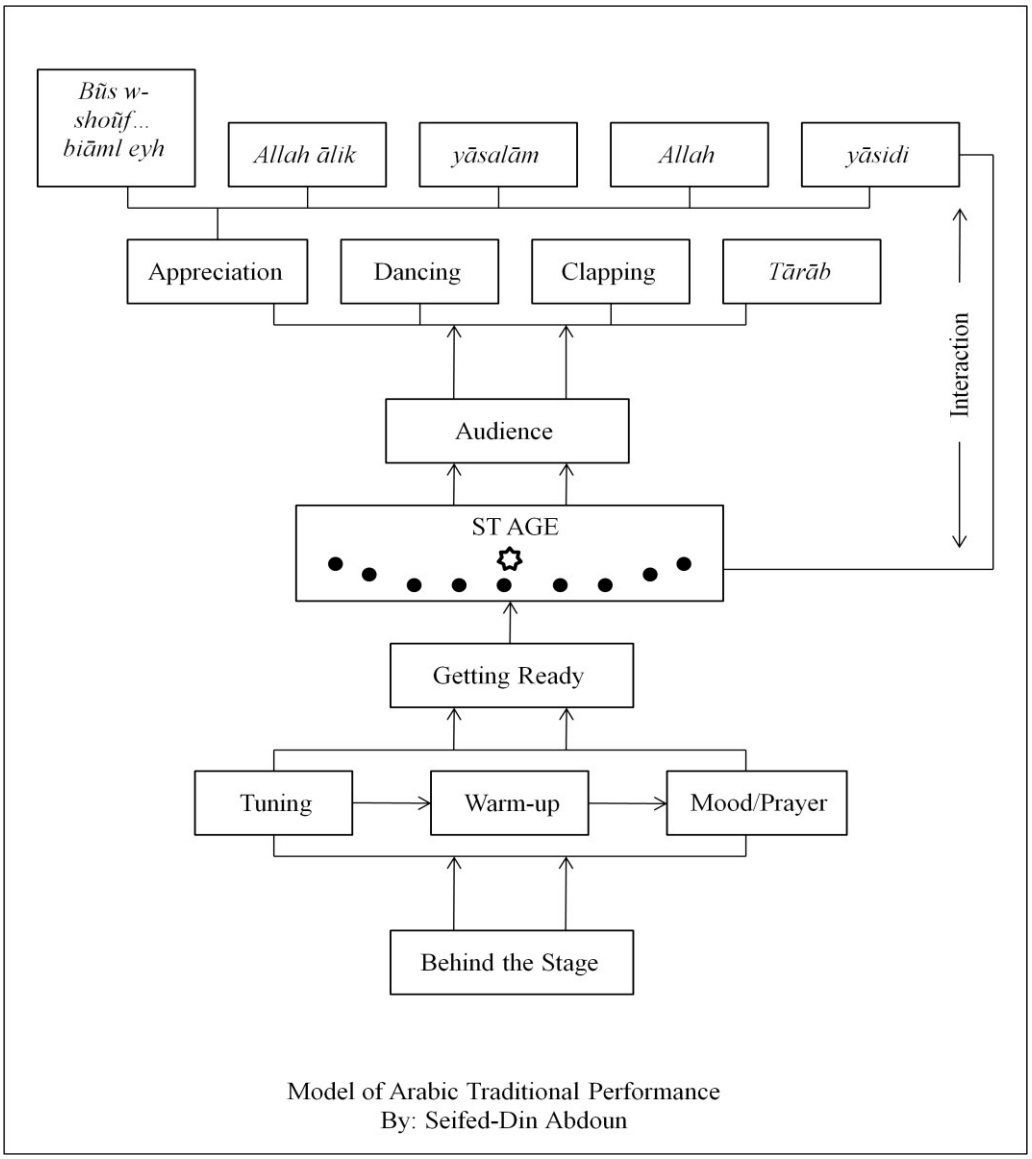
[267] P. Jeffery "Re-envisioning Past Musical Cultures." *Ethnomusicology in the Study of Gregorian Chant.* Chicago and London, 1929, p. 124.
[268] Al-Ḥasan ibn Aḥmad Ali al-Kātib. *Kamāl adab al-Ghinā'.* Edited by Ghatass Khasābeh. Eygpt, 1975, p. 25.

sound, picture, and movement. The third is the internet, which allows the performers to upload their musical files (sound and pictures) onto the web and to have more publicity and attract followers around the globe. For instance, Raḥim al-Ḥaj has more than 45,700 web viewers for one musical performance called "Smithsonian *Oud* Recording."[269] The following model presents the process of making music and publishing it for a wider audience: recording the material, uploading the files, and publishing them on a media-website. The result is more viewers and fans who can share the musical files with others. Some of the comments on al- al-Ḥaj's performance can be seen on the same page, and these include "*very good performance*," "*I want to learn the oud very badly along with the sitar,"* and" *Raḥim, you are a true inspiration, please continue to amaze us*."

[269] This information was obtained on 02/07/2011from www.youtube.com;the file name is: [http://www.youtube.com/watch?v=6R7JZbydqVk].



Web-media: Model of Performance



Model of Arabic Traditional performance

Skill in creative performing music appears to be highly valued in many societies; perhaps even universally: "…the appreciation of skillfulness in musicians and other performers are found consistently throughout the literature on world music."[270] The performers selected here are very skillful musicians and have knowledge of Arabic music as well as Western musical theory and practice. Some of them, whom I have known for many years, perform as soloists

[270] John Kaemmer. "Music as Aesthetic." In *Music in Human Life: Anthropological Perspective on Music*. Austin: University of Texas Press, 1922, p. 137.

and with ensembles on stage and in, concert halls, festivals, and recording studios. In addition, some play other musical instruments beside the *oud*. Moreover, the performers are also composers who perform their own compositions.

V: 1: 1 ʻAdel Sālāmeh:[271]

ʻAdel Salameh is a Palestinian *oud* player and composer; he was born in Nablus, in 1966. He started performing as a soloist while still living in the Arab World, but immigrated to Europe in 1990. ʻAdel Sālāmeh "quickly established a reputation as one of the finest performers of the *oud*. He has performed in more than thirty countries including Japan, Australia, Singapore, Hong Kong, South Africa, and numerous countries in North Africa and Europe."[272]

When performing as a soloist or with musicians from a variety of musical backgrounds, Adel believes "that music is an excellent tool to build bridges between various cultures. In an effort to tackle these cultural barriers, he has worked with Turkish, Spanish, Indian, French, English, and jazz musicians."[273]

I have known ʻAdel since 1983 at Yarmoũk University in Jordan, where he graduated with an undergraduate degree in music. Then, he went to Iraq to study the Iraqi style of the *oud*. During his studies in Jordan, ʻAdel was part of a Yarmoũk University Ensemble, which presented many traditional musical performances. He moved to Europe to reside in France, where he performs with his group and his wife Nāziha Azzoũz (vocals).

[271] The interview was conducted with ʻAdel Salameh by the telephone in Jan. 2011, also from his website (www.AdelSalameh.com). Other, information is based on knowledge about the performer, with whom I have had close friendship since 1983.
[272] www.AdelSalameh.com
[273] Based on interview and his website.

‘Adel has worked with Womad/Real World for six years and performed at the most prestigious concert halls in Europe. These include the Royal Festival Hall and, - Barbican Center in London; Concertgebouw, Royal Tropical Institute, and Paradiso (Amsterdam); Theatre d' Single (Antwerpen) Belgium, the Institute of the Arab World in Paris, Sydney Opera house and,- the Opera House and the Auditorium in Lyon, Woamd, New Zealand; South Korea; and many other international venues and European festivals.

‘Adel has released seven CD’s that include: *Mediterraneo*, *Master of the Oud*, *The Arab Path to India*, *Nũzha*, *Ḥafla*, *Kanzā*, and *Rissalā*, which is based on traditional Arabic music.

‘Adel Salameh performing on the oud, live concert.[274]

V: 1: 2 Raḥim al-Ḥaj:[275]

The first time I had a conversation with the *oud* player Raḥim al-Ḥaj was three years ago. He is a virtuoso *oud* player and composer. Al-Ḥaj “was born in Baghdad, where he began his

[274] The photo was captured from youtube (www.youtube.com/watch?v=k0BmgSB2-nw), Jan 2011.
[275] The interview was conducted with Raḥim al-Ḥaj by the telephone in Jan. 2011, also from his website (www.RahimalHaj.com).

career playing the *oud* at age nine."[276] Al-Ḥaj studied under the famous Iraqi Mũnir Bāshir, and Sālim Abdũl Kārim at the Institute of Music in Baghdad, Iraq. Al-Ḥaj told me that he:

> "won various awards at the Conservatory and graduated in 1990 with a diploma in composition. He holds a degree in Arabic Literature from Mũstansariyā University in Baghdad. In 1991, after the first Gulf War, al-Ḥaj was forced to leave Iraq due to his activism against Saddām Hũssein's regime and began his life in Jordan and Syria. He moved to the United States of America in 2000 as a political refugee and has resided in Albuquerque, New Mexico ever since."[277]

According to Al-Ḥaj, he has performed around the world and he has:

> "…won many awards including two Grammy nominations, He has recorded and performed with other master musicians of varied backgrounds and styles including genre-busting Americanguitarist Bill Frisell, modern accordion innovator Guy Klucevsek, Indian sarod master Amjad Ali Khan and indy-rock pioneers REM. He has composed pieces for solo *oud*, string quartet, and symphony orchestra. His music delicately combines traditional *Iraqi māqāms* with contemporary style. His compositions establish new concepts without altering the foundation of the traditional Iraqi School of *Oud*."[278]

According to al-Ḥaj, he has released "seven CDs that include : Ancient Sounds, a duet recording with Amjād ʻAli Khān, which was nominated for a 2010 Grammy in the Best Traditional World Music Recording Category."[279] One of the most interesting works was CD under the title "Home Again," which is a touching and evocative *tour de force*. This work "consists of original compositions portraying his trip to Iraq after thirteen years in exile."[280]

[276] Based on telephone interview and his websit: www.Rahimalhaj.com.
[277] Ibid.
[278] Ibid.
[279] Ibid.
[280] Ibid.

Moreover, al-Ḥaj has another important work under the title "When the Soul is Settled" with Smithsonian Folkways Recordings, which was nominated for a Grammy in 2008."[281] In addition, Al-Ḥaj his earlier recordings include Friendship: *Oud* and Sadaqa String Quartet (2005).[282]

The Iraqi *oud* player Mũnir Bāshir has influenced al-Ḥaj's performing style on the oud. He performs as soloist and accompanied by some Western instrumental ensembles such as string quartets, and a symphony orchestra. Even though he keeps to Arabic traditional music especially the *Iraqi māqām*, he does not perform with singers or *al-tākht al-Arābi*.

Raḥim al-Ḥaj performing on the oud with the orchestra[283]

V: 1: 3 Issā Boũlos:

Issā Boũlos "was born in Jerusalem, Palestine in 1968."[284] According to him, "he considered himself an *oud* player, composer and teacher.[285] In 1985 Boũlos was graduated and worked in his hometown: Ramāllāh as an arranger and performer of both traditional and

[281] Ibid.
[282] Ibid.
[283] The photo was captured from youtube.com (www.youtube.com/watch?v=ZEvhCr-yIS0), Jan 2011.
[284] The interview was conducted with Issā Boũlos by the telephone in Jan. 2011, also from his website (www.IssaBoulos.com).
[285] Ibid.

contemporary music, and a musician in the ensemble of Sāriyyāt Ramāllāh Troup.[286] During the early 1990s, Boũlos pursued music composition more intensely, which according to him "offers the performer flexible means of artistic expression, richer musical sonorities and textures."[287]

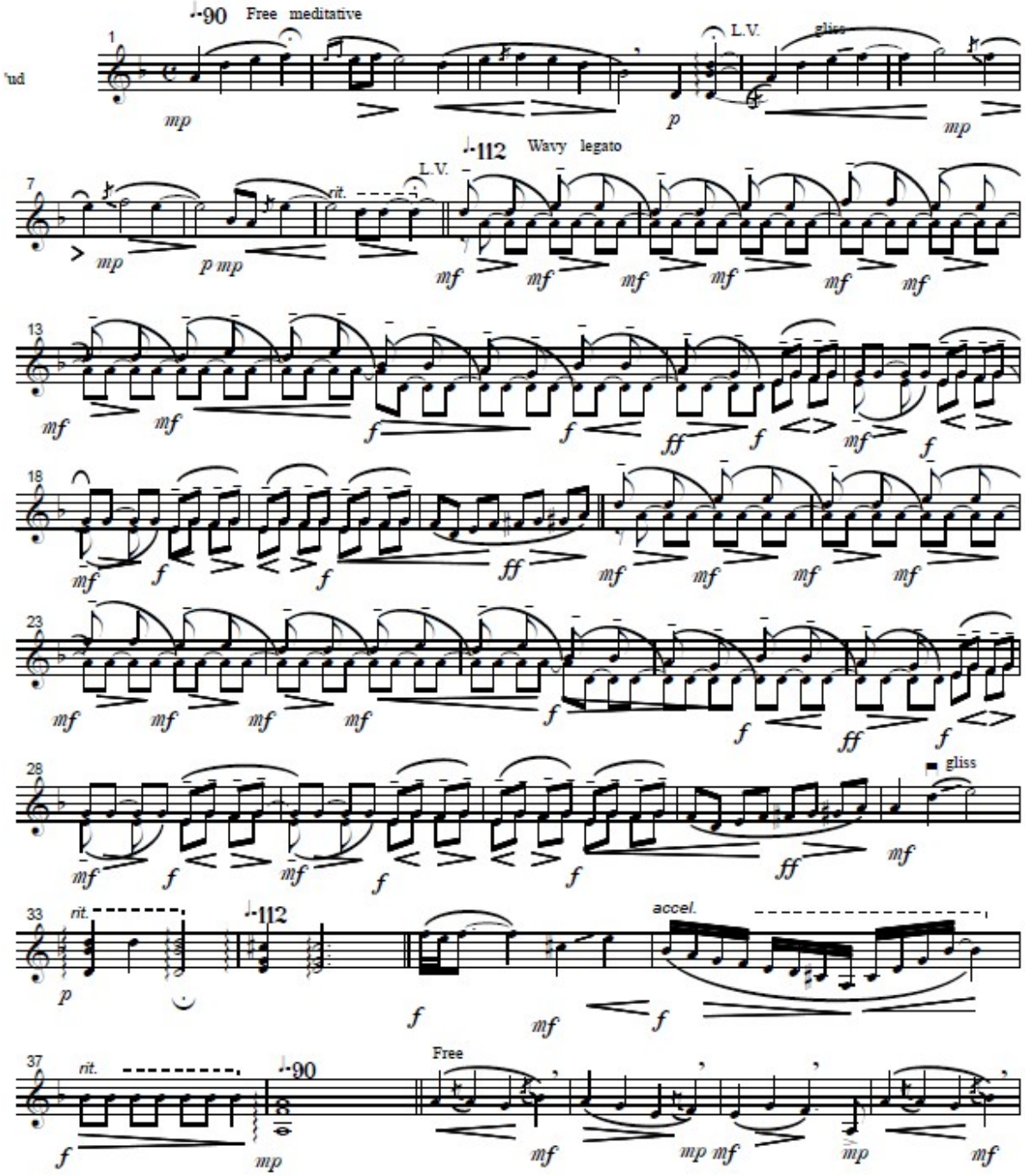
Besides composing and performing music, Boũlos has given "workshops and lecture-demonstrations at several American institutions and colleges including the University of Chicago, Yale, and Michigan University."[288] Moreover, he is cofounder of "*Sāmā' Music*, leader of the *al-Shārq Arabic Ensemble*, the *Issā Boũlos Ensemble*, member in *Lingua Musica* and *Nāwā Ensemble*, and founder of the Arab Classical Music Society."[289] Recently, he has been appointed the director of the University of Chicago Middle East Music Ensemble. One of his extended compositions is al-Ḥāllāj, which is a series of composed sũfi poems penetrating the philosophy and tragic ending of al-Hũsāyn ibn Mānsoũr al-Ḥāllāj (858-922). The album consists of twelve poetic songs and was released in 2000. His music depends extensively on the melodic material of the Arabic *māqām*, treating this material through improvisations and using various musical techniques.

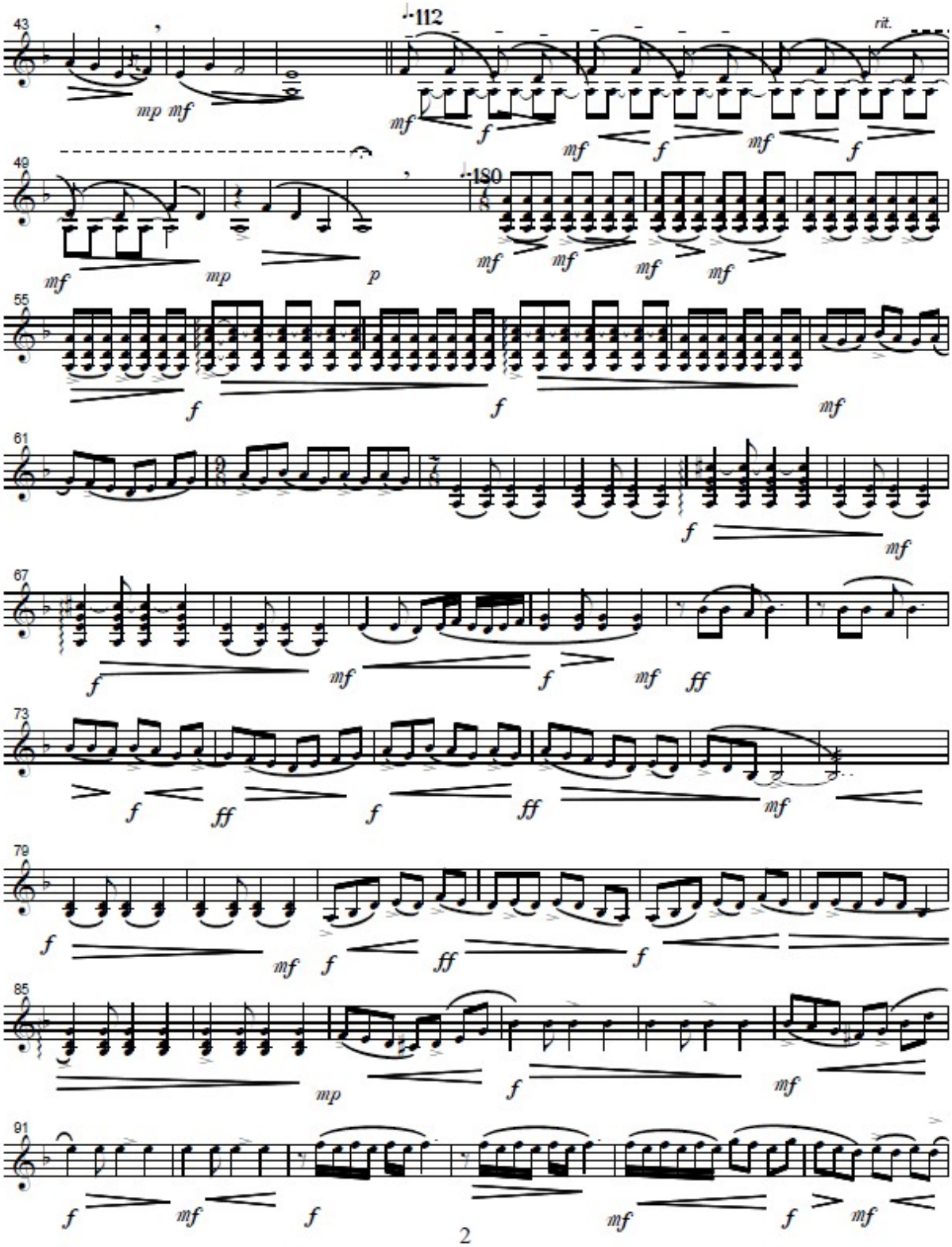
Issa Boũlos with his group at Chicago International House

[286] Ibid.
[287] Ibid.
[288] Ibid.
[289] Ibid.

Midnight Meditation

Issa Boulos

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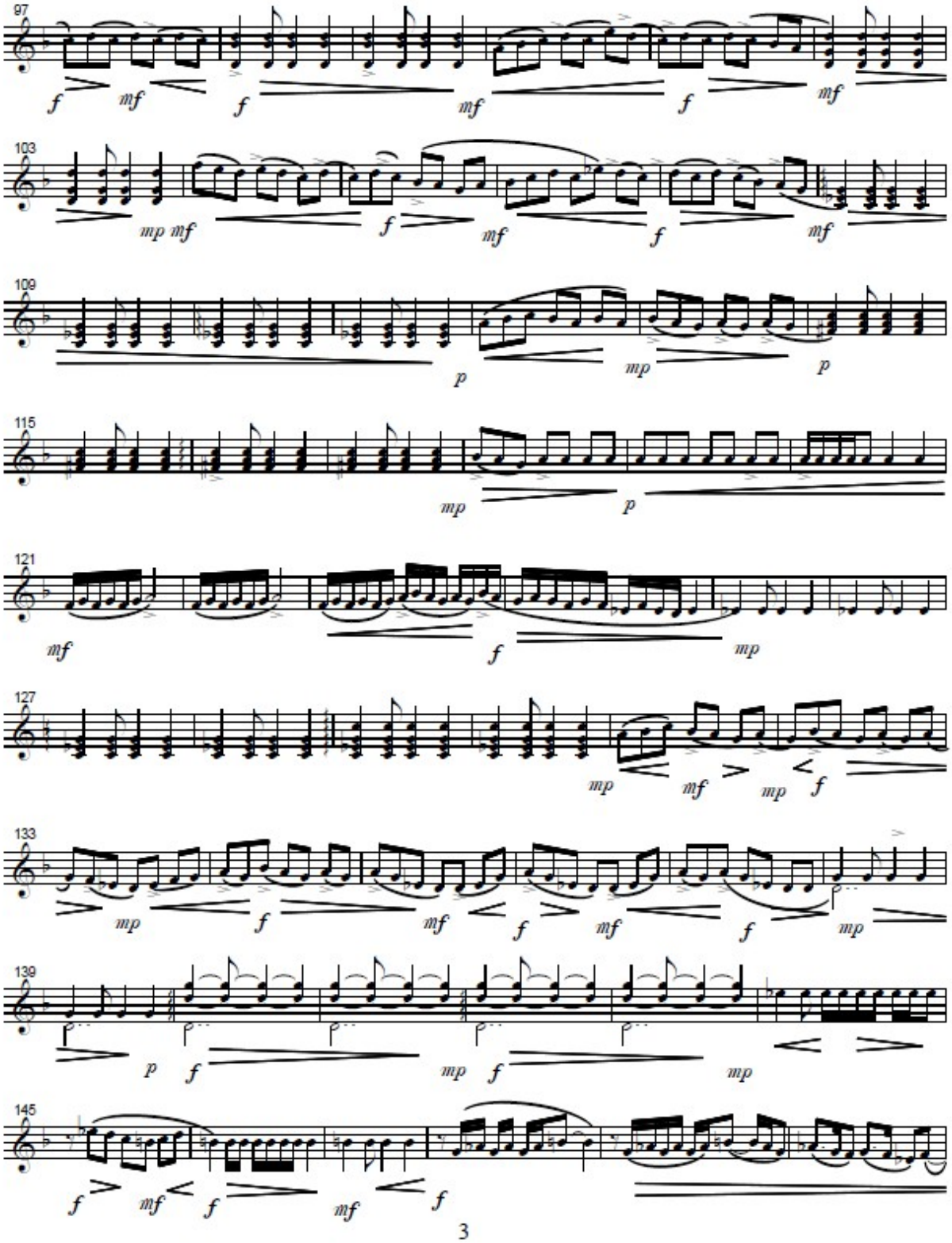
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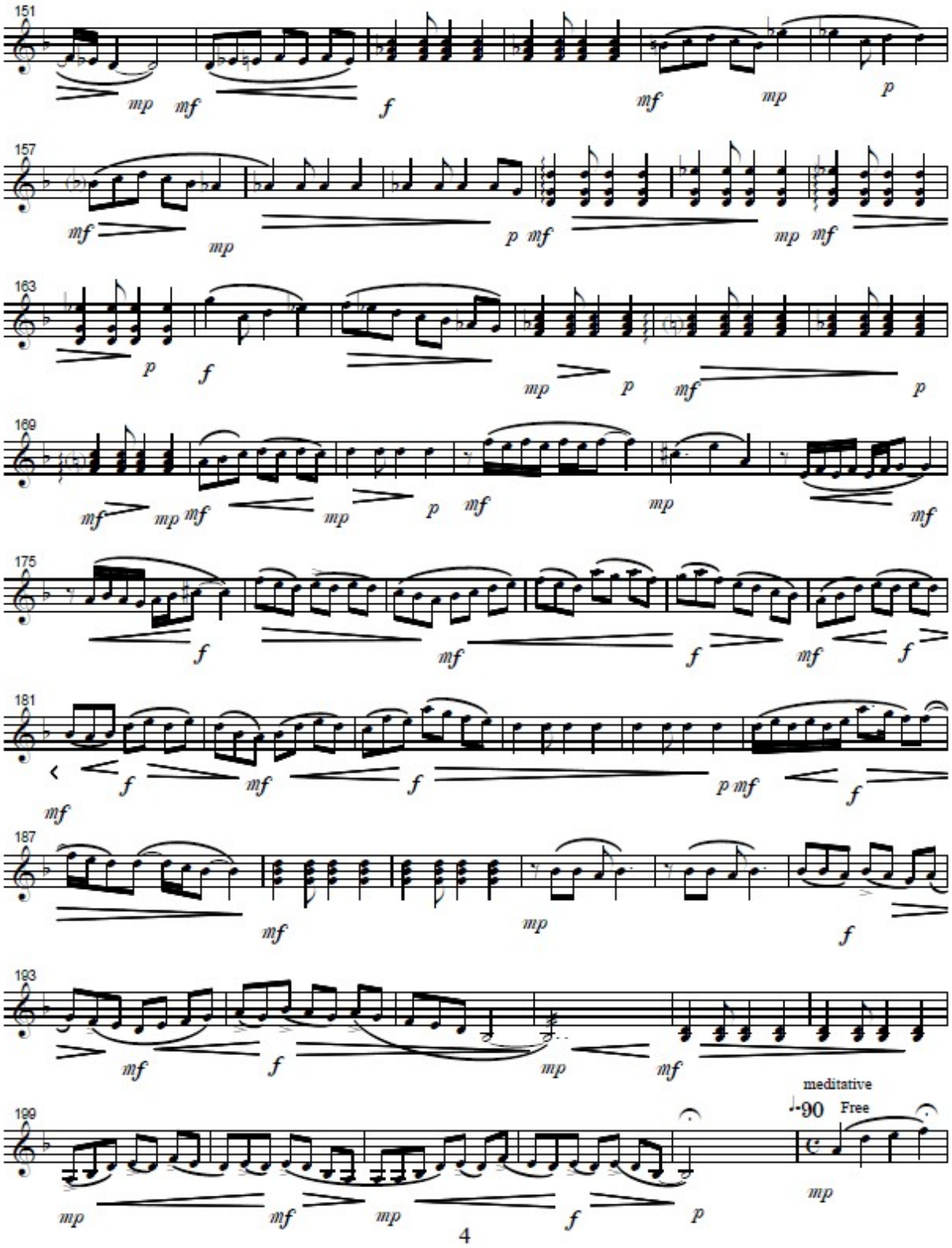
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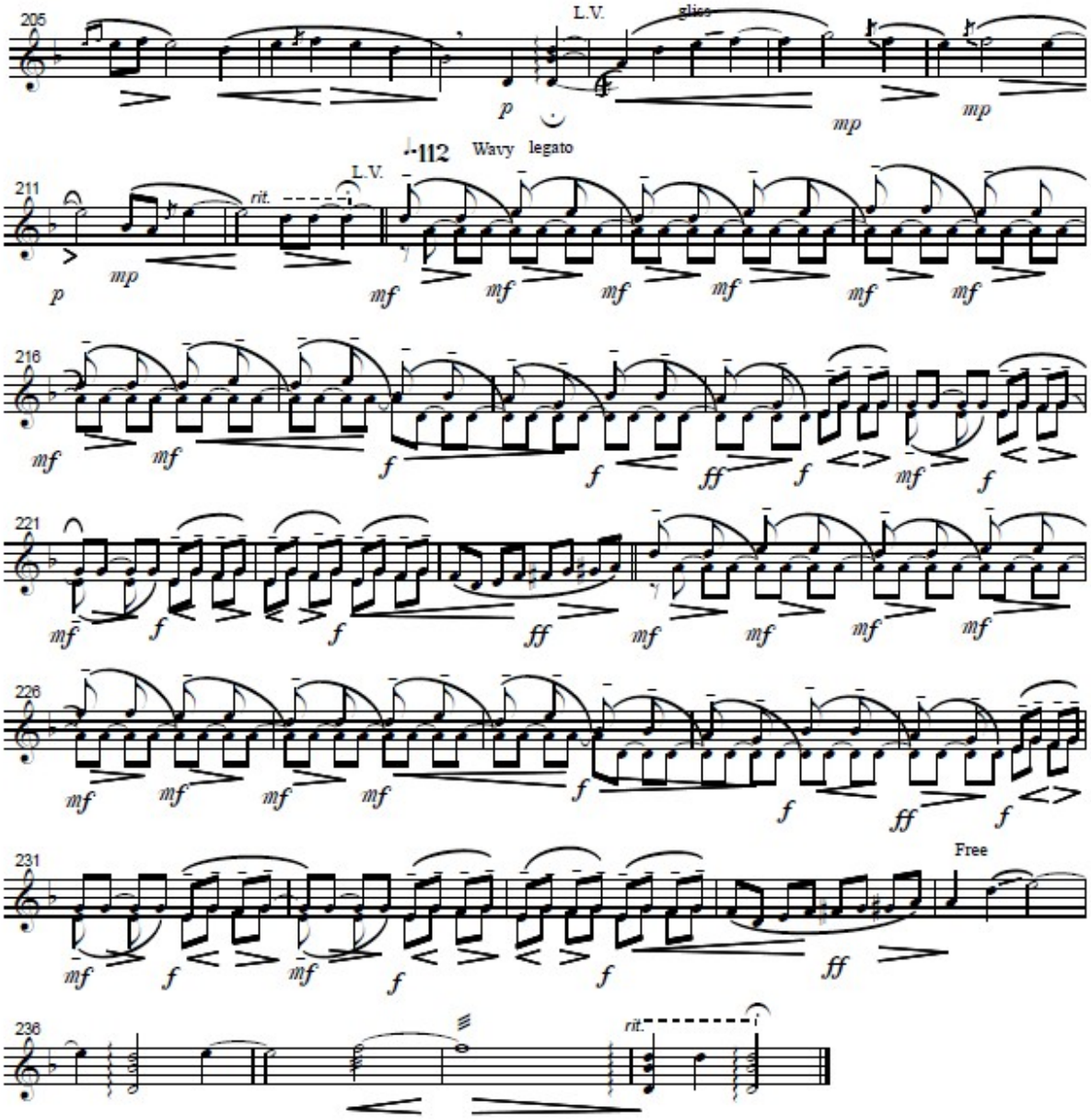


The ouds' composition "Midnight Meditaion" by Issa Boũlos, 1999©

V: 1: 4 Soũhiel Yoũnes[290]

Soũhil Yoũnes was born in Beirut, Lebanon from a musical family. He started singing with the choir of his church and playing the *bũzoq* at early age. When Yoũnes finished his high

[290] Observation and personal interview was conducted with Soũhiel Yoũnes March 2010-Jan 2011.

school diploma, he joined the choir of the famous Lebanese singer Majidā al-Roũmi during her tour in North America. During the musical tour, he decided to stay and obtained a Doctoral degree in medicine. In addition, he performed on the *bũzoq* and the *oud* with his brother, who was an *oud* player. Later, he moved to the United States of America to work for the National Institute of Health (NIH) in Maryland.

I met Soũhil Yoũnes about two years ago when my wife Christina Campo-Abdoun invited him to Mosaic Café in College Park, Maryland to interview him for her research on "Arab Musicians and Identity" in the Washington, D.C. area.[291] My wife also invited Yoũnes to perform Arabic traditional music at the Café. Between September 2009 and July 2010, Yoũnes performed more than thirty times. I observed all these performances and joined Yoũnes in some of his performances by playing on the violin (*kāmān*).

The performances included Arabic traditional music and songs such as *doũlāb*, *sāmāie'*, *longā*, and *mũwāshāt* as well as classical songs by famous Arab musicians and singers. In the performances, Yoũnes used the traditional Arabic technique and tuning his six-stringed *oud*.

According to Yoũnes, he enjoys performing live and engaging with the audience; however, he uploads many files on the web to share his music, talent, Arabic culture, and compositions with a larger audience. Also, he communicates with other *oud* players around the world through "Paltalk" to share his music and exchange knowledge and different techniques relating to the *oud* performance. Yoũnes, Dr. Eliot Bates (*oud* player), Dr. Adel Ibrāhim (*oud*

[291] Mosaic Café is located in College Park, Maryland and features Lebanese cuisine and live entertainment. It is owned by Christina Campo-Abdoun, Mousa Abdoun, and Seifed-Din Abdoun.

player), Mousa Abdoun, and I sat until late one night to discuss music, *māqām*, *oud* repertoire and technique, tuning, and performance. Because of his appreciation and love of music, Yoũnes considers himself a full-time musician and part-time doctor.

Seifed-Din Abdoun, Dr.Eliot Bates, Dr. Elie Kesrouani, Hābib Yoũnes, Genevieve abũ Khālil, Soũheil Yoũnes, Nicholas Ragheb, Photo by Adel Ibrāhim-Mosaic café (2010)

V: 2 The *oud* and Tarab: Improvisation and Ornamentation

Improvisation in the Arab world is one of the highly creative and instinctive forms of art in musical practice and tends to engage the listeners directly with the performer. Some Arab scholars as well as Westerners refer to improvisation as an instrumental. Burno Nettl stated that in the Arabic *tāqsim*: [292]

> "…Various levels of building blocks can be observed. We have, first of all, the tones of the *maqām*, from which the performer draws more or less at will, in any order as long as the melodic movement is largely scalar. At a higher level, there are motifs of three to five tones that are associated with each *maqām*; these evidently must appear at least occasionally. Beyond this, the *tāqsim* is composed of different types of sections. Most are easily identified by length and, - the section-types, which are building blocks."

[292] Burno Nettl. "Thoughts on Improvisation: A Comparative Approach." In *The Musical Quarterly*, Vol. 60, No. 1 (Jan., 1974), p. 14

The improvisation material is divided into a chain of sections, the number, shape, and length of "which depend largely on the musician's individual abilities, state of mind, to some extent, the circumstances surrounding the performance."[293] Burno Nettl described the improvisation and its modulation as "…A musician can arrange them in certain kinds of order and carry them out in a characteristic musical function; the long sections contain modulations to subsidiary *māqām*. The shorter ones serve to establish the main *māqām*, and the shorter ones provide a kind of dramatic relief."[294] It is important to note that improvisation in Arabic music has survived for many centuries through oral transmission.

I argue that improvisation in Arabic music is both instrumental and vocal. Instrumental improvisation includes three different types: improvised-memorized, *tāqsim*, and *irtijāl*. The improvised-memorized type is when the performer organizes his thought of the mood Iin specific *maqām* and performs his music on the stage, in concert, or in a studio for recording purposes. For example, the *oud* player, composer, and singer Farid al-Atrach performed his famous song *al-Rabei* اغنية الربيع (the spring song), as well as the song أول همسة *awel hamsā* (the first whisper) in live performance many times and repeated the songs in many events. These songs contain *tāqsim* named after each song: *taqsimat al-rabei* and *tāqsim awel hamsā*. I have observed many *oud* players perform the *tāqāsim* of al-Atrāch as if they are a musical composition and not a *tāqāsim*. In addition, Ahmād al-Hafnawi (*kāmān* - *kāmānjā* player), who performed with Ūmm Kolthoũm for many years improvised *taqāsim* (singular: *tāqsim*) and many *kāmān* players played his improvisations as if they were part of the composition and not as a *tāqsim*. Thus, I consider this type of performance as improvised by the first soloist (the

[293] Amnon Sholoah. *Music in the World of Islam A Socio-Cultural Study*. Detroit: Wayne State University Press, 1995, p.127
[294] Burno Nettl. "Thoughts on Improvisation: A Comparative Approach." p. 14.

inventor) and memorized by others who perform the same improvisation. In addition, I have experienced many performers, including myself, memorizing the *tāqsim* and performing it flawlessly.

The second type of instrumental improvisation is *tāqsim*, in which the performer plays the improvisation "on the spot," which means composing the *tāqsim* while performing as a solo or accompanying a musical ensemble (*tākht*). Jihād Ali Racey stated, "…the modal improviser is an artistic custodian whose talent enables him to gain access to the hidden affective powers of the *maqāmāt*."[295] In a conversation with the *oud* player Mũnir Bāshir in the early 1990's in Amman-Jordan, he informed me that when he goes on stage "he looks around the venue and the audience and improvises according to his mood at that moment."[296] Of course, the soloists must have the skills, the technique, and the knowledge of the modulations of the *maqāms* to be able to perform such a composition. In addition, modulation is the process of changing the tonal center; it can also create a bold, colorful effect when the keys of the *māqām* seem to lie musically far apart. The performer must also be "innovative in order to make representational sense…the Arab *tāqsim* has been of common musical knowledge and uncommon artistic sensibility."[297] Moreover, the *tāqāsim* is a phenomenon of great interest and calls for a detailed study, as "perfect synthesis achieved in Oriental [Arabic] music, of originality and tradition, freedom and convention."[298]

[295] Ali Jihad Racy. "The Many Faces of Imrovisation: The Arab Taqasim as a Musical Symbol." In *the Ethnomusicology*, Vol. 44, No. 2 (Spring-Summer, 2000), p. 310.
[296] I met with Mũnir Bāshir a few times during his visits to Jordan in 1992.
[297] Ali Jihad Racy. "The Many Faces of Improvisation," p. 310.
[298] Samha el-Kholy. *The Traditional of Improvisation in Arab Music*. Giza, Egypt: Imprimerie Rizq, 1978, p. 17.

The third type is *irtijāl*, in which the performer improvises his *tāqsim* and in most cases does not remember it or plays the same *tāqsim* again like the improvised-memorized type. The meaning of *ghinā' murtajāl* (extemporaneous singing) is considered as *irtijāl* according to George Farmer.[299] I have had experience-performing *irtijāl* accompanying a live Arabic poetry recitation, where I performed on the *oud* as the recitation, without remembering or needing to perform the *irtijāl* again. In addition, after tuning the instruments, Arab musicians usually do a "warm-up" by performing *irtijāl* behind the stage and before their appearance in front of the audience. Similar activities can found in Western music, when the members of the orchestra do practice scales and some musical theme. Once I was invited to record Arabic music for a short documentary film called "*The Return to Baghdad*" for the Discovery channel in early 2004. In the studio, I asked the sound engineer to give me a few minutes to tune my *oud* and prepare myself. After I was done with this "ritual practice," I informed the engineer that I was ready to start the recording session…he told me "We are done. I just captured and recorded everything you did!"

The Syrian musician and composer Tawfiq Ṣabā al-Ṣabbāgh (1892-1964) described the techniqual acpect of the modulation of improvisation as:

> "…when improvising in whatever mode and one wants to modulate to another mode, it is necessary that one does not moves suddenly from a mode to another distant mode. Rather, one modulates from the mode to the mode, which is closest to it, and then one can modulate from this last mode to a mode that closes to it. Moreover, in a manner one modulates step by step until one reaches a mode that completely distant from the original mode in which one was improvising and which, if one had modulated to it suddenly, whold have creat an explsion in the ears of the listeners. After this, whenever one wants to return to the original mode, one must do so by the same process, that is return step by

[299] Farmer. *History of Mulim Music*, p. 14.

step from one mode to the mode, which is the closest to it until one reaches the original mode."[300]

Vocal improvisational practices include *mawāl* (prl. *mawāwil*), *lāyāli*, *zājāl*, and *ātābā w-mijānā*, in which the singer or poet improvises the text according to the occasion to express a joyful or sad mood. The *mawāl*, for instance, is considered one of the most widespread poetic and vocal arts in Arab society. It has preserved its rhythmic and its authentic poetic *tafilāt* (prosody) through many centuries. It was founded by al-Hāggāg al-Thāgāfi, the governor of the Umayyad in Iraq around 662 A.D. They invented it by composing two verses in the *bāsit* form (type of rhythmic mood: simple), so that its four *shāṭr* (hemistich) follow the same rhythm. They called such a composed piece a *ṣawṭ*, which indicated the relation between this art and singing.[301] This type is very popular in *Bilād al-Shām*. For instance, Ishāq al-Māũṣeli improvised a poem and set it to music when the Caliph al-Mũtasim reminded him of his old age.[302]

Ātābā is a folk poetic genre and consists of four to eight lines of poetry. Folk poets call these lines *khānāt* (singl. *khānih*, i.e. house), *shāṭrat* (half), and *raddāt* (a refrain or an echo). The number of syllables in each line of *ātābā* is determined by the number and the length of the words used.[303]

An example of *ātābā* is by the Palestinian poet Hannā Sbait is as follows:[304]

[300] Tawfiq Ṣabā al-Ṣabbāgh. *Al-Dalil al-Mũsiqi al-'Amm fi Tārāb alAnghām* [The geneal music manual on the most pleasing mode]. Syria: Matba'at al-Ihsān li-Maytam al-Rom al-Kāthũlik, 1950, p. 54.
[301] Hũssein Nassār. *Ash shi'r al-Arabi al-Maktabah ath-Thaqāfiyyah*. Cairo, 1962, p. 27.
[302] Al-Asfāhani. *Kitab al-Aghāni*, vol. 5: 314.
[303] Dirgham Ḥannā Sbait. *The Improvised-Sung Folk Poetry of the Palestinians*, 1982. Unpublished doctoral dissertation, University of Washington, Washington.
[304] Ibid, p. 65.

	Of	
i.	*Izzaman yā nās_mā marrah_fatar-bi*	(Time has never been easy with me)
ii.	*Wyāmā a'kas ili marrah fi ṭarabi*	(How many times he reversed my joy)
iii.	*W-ilā Slimān barham fi turbih*	(I ask [God] to have mercy upon Slimān in his grave)
iv.	*W-ijit ilyũm hannilũ-Shshabāb*	(I came today to congratulate him for his sons)
	ayā bāy āh yā bāy	(O father of mine! Ah, father of mine)

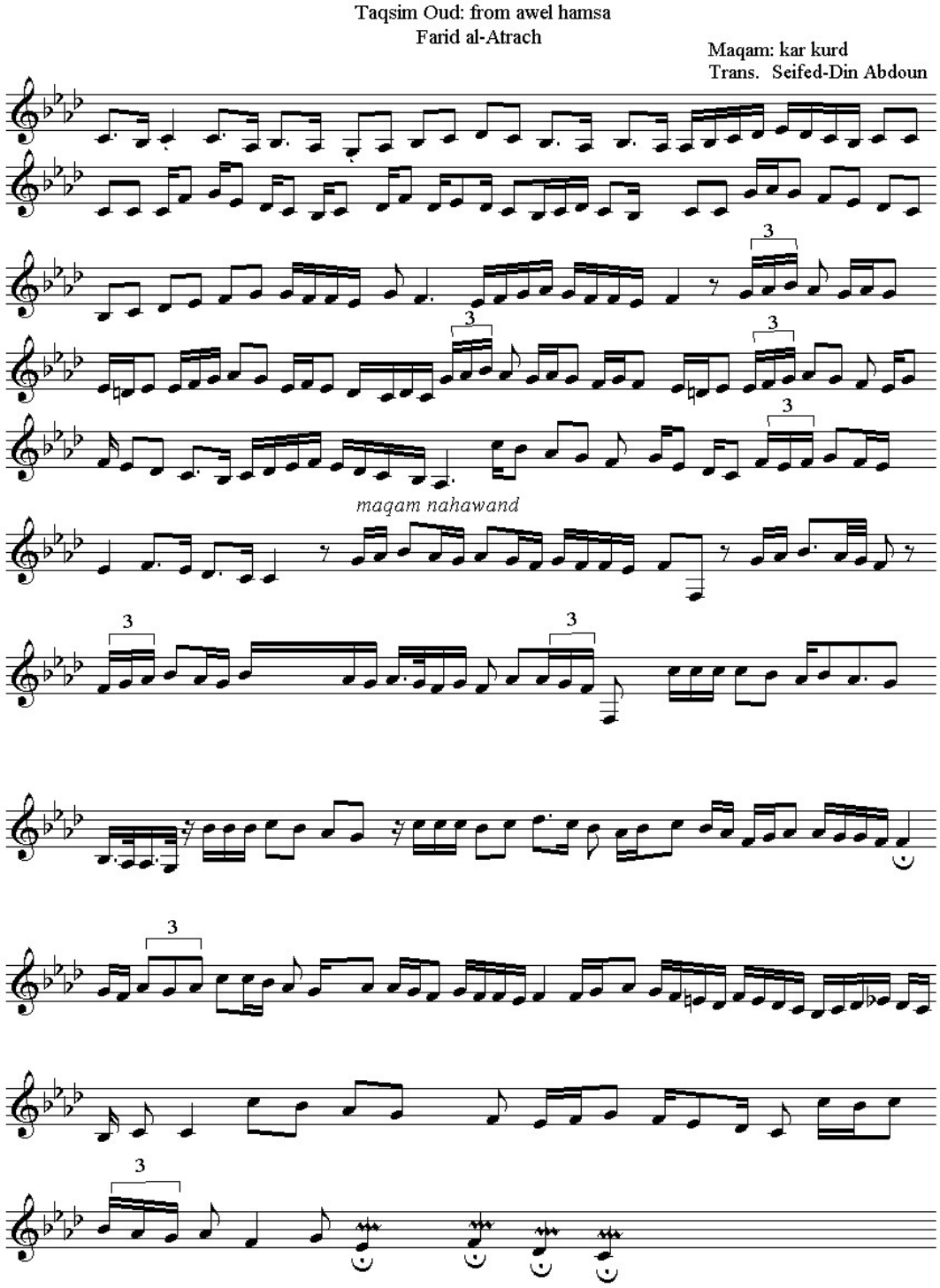
Ornamentation is an integral part of the structure of improvisation in Arabic music, but the New *Grove Dictionary of Music and Musicians* has no entry for ornamentation; its place is taken by "embellishment": that element in music,- which is decorative rather than structural, and in particular includes both free ornamentation and specific ornaments. The ornamentation can be "notes or signs in the notation or left to be improvised at the discretion of the performer."[305] In his book *Kitāb al-mũsiqa al-kābir*, al-Fārābi emphasized the aesthetic of ornaments as bringing to a melody بهي *bahei* (brilliance), أناقة *anāqāh* (elegance), تفخيم *tafkhim* (enrichment), تكثير *takthir* (abundance), تزيين *tazyeen* (embellishment), and التبديل *al-tābdil* (replacement):[306]

The *takthir* is when the notes whose rank in another kind is similar to that of the fundamental notes in the kind assumed. When the note is second in a kind, it is multiplied by means of a note that is also second in another kind. If one of the fundamental notes is the second note in a second kind of a group, it is multiplied by means of another note that is also second in a different kind that is second in a group. This is achieved from both the sharpness side and thickness side of the kinds, if it is feasible. If the *ajans* are mixed with *ajans*, groups with groups or tonality with tonality - will then be multiplied.[307]

[305] Stanley Sadie. *The New Grove Dictionary of Music and Musicians*. London: MacMillan, 1980.
[306] KMK, 490, 1058, 1060, 1173.
[307] KMK, p. 1059.

The *tafkhim* is affected by means of مقاربات *mũgāribāt* (approximating notes) to the notes of the fundamentals that are sharper or thicker. The مجاورات *mũgāwirāt* (adjacent notes) are played by means of adjacent notes one *diwān* higher or lower, from mixed kinds, mixed *ajnās* or mixed tonalities. The *tazyeen* is affected by means of notes forming with the fundamentals medium consonances (*diwān* +fourth, *diwān* + fifth, and sometimes a fourth) or, - great consonances (*diwān*, double *diwān*).[308] The *tābdil* replaces some of the fundamental notes in order of preference: the *diwān*, the fifth, and the *diwān*+fifth, and sometimes the fourth. For the neighboring notes that are mixed in a group such as by the *mũjanāb* to the *sābābeh* to replace the *sābābeh*, the most successful replacements are those that occur in the middle of a composition. The best melody is produced when the parts are small, medium, and large.[309]

[308] KMK, pp. 159-161.
[309] KMK, pp. 1060-1.



Tāqsim on the oud by Farid al-Atrach from awel hāmsā, māqām kār kũrd. Trans. By Seifed-Din Abdoun

V: 3 The *oud* in the Arabic Musical Ensemble (*al-tākht al-Arābi - al-sharqi* التخت العربي)

In Arabic, *al- tākht* means bench; it usually consists of four musical instruments; two of which are stringed: the *oud* and the *qanoun*; the third is a rhythmic instrument (*daff*: tambourine), and the fourth is the nay. Later, the violin (*kāmān*: *kāmājā*) was added to *al-tākht* with a different tuning.[310] The singer in the performance is the head of *al-tākht*. *Al-tākht al-Arābi* was considered the vocal system until the middle of the twentieth century. Each singer during that era had his own *tākht*.[311] Moreover, *al-tākht al-Arābi*, in general, is consistes of a select group of highly technical skilled musicians. *Al-tākht al-Arābi* was traditionally placed in the middle of the concert venue surrounded by the audience.

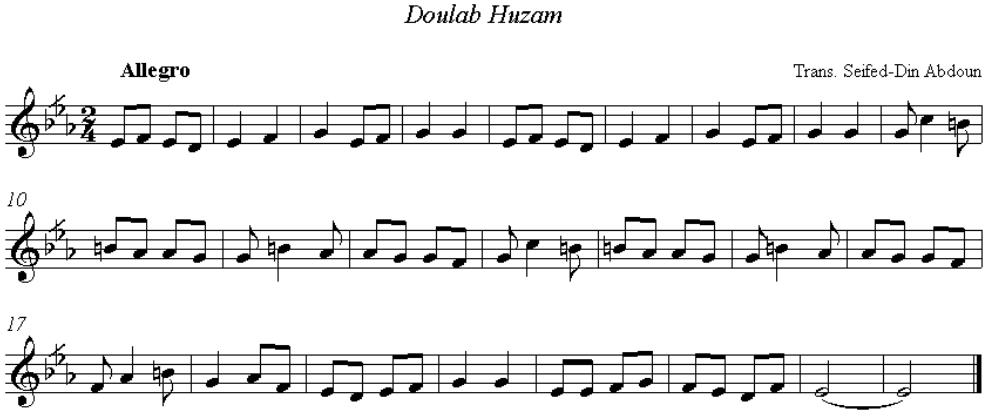
The first *tākht al-Arābi* was famous in Egypt in the early twentieth century and was named after the leader of the *tākht*, *Ibrāhim Sālwān*, who was accompanied by many singers including Ūmm Kũlthoũm (1900-1975). Another *tākht* was *tākht aqād*, which was named after the *qanoun* player, Mũḥammād al-Aqād (1850-1931). In addition, other *tākht* were known such as *tākht* Abdũ el Ḥamouly (1845-1901), Daoũd Ḥosni (1870-1937), Sayd Darwish, and Mũḥammed Abdel Wahāb (1902-1991), etc. Many musicians were known as the leaders of *al-tākht al-Arābi* such as Tawfiq Ṣābagh and al-Jamil Ūways (in Syria), *al-Galighi al-Bāghdādi* in Iraq, which included Aḥmād Zidān (singer), Nāsim Bṣoũn (*jawzeh*), Shaoũl Bṣoũn (*santour*), Ḥasqil Shaoũl (*dāff*), and Shaoũl Zinki (*oud*). Also, another Iraqi *tākht* was led by the singers Ḥassan al-Shakragi and Jāmil al-Bāghdādi, and they performed daily in the "*Sabie' al-Midan Café*" in downtown Baghdad. The Iraqi *oud* player, Jāmil Bāshir was the leader of another

[310] The violin in Arabic music tune as G D G D instead of the western one G D A E.
[311] Khayri al-Malt. *Tarikh wa Tadhweq al-Mũsiqā al-Arabyiā*. Egypt: al-Haia'a al-Misryia al-Amah lil Kitab, 2000, p. 53.

tākht, with which he recorded a significant number of traditional songs using the *oud, kāmān, nāy* and *dāff*.

There were various forms of *al-tākht al-Arābi* of the so-called الصحبجية *al-Ṣaḥbajiyā* (friends) in which one *tākht* starts singing about an existing subject, and the other one provides a response (similar to a call and respondse form). The *al-tākht al-Arābi* performance is usually long; for instance, the Iraqi *māqām* includes five sections; *maqām bayāti, hijāz, rāst, nāwā,* and *hũsieni*. The first section of *māqām bayāti* includes *māqām bayāti, nari, ṭahir, sikah,* and *ḥlilawi*. The second includes *māqām ḥijaz diwan, qũryiat, ariboũn ajām, ariboũn arāb, ibrāhimi,* and *ḥadidi*. The third includes *māqām rāst, mansouri, ḥijāz ajigh, khinbāt,* and *sharqi rāst*. The fourth includes *māqām nāwā, masjin, ajām, ṣabā, rashidi,* and *mādmi*. The last one includes *māqām ḥũsieni, dũsht, arwaḥ, āwj, ḥkimi,* and *bũnjakāh*.

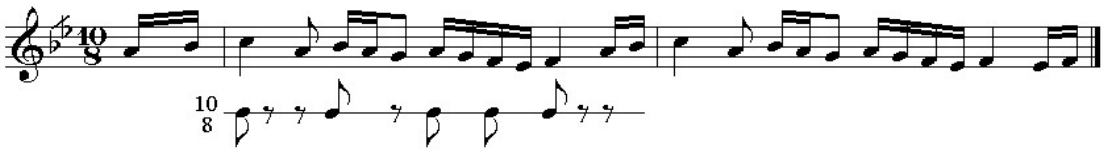
In most cases, the *tākht* starts the performance by a musical introduction called *doũlāb, tāqāsim, samāie' thāqil, longā,* and group of songs and *mũwashahāt* (singular: *mũwashāh*); see examples below:

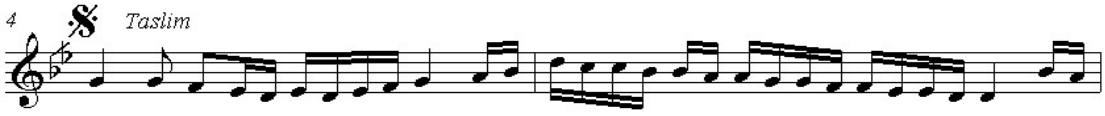


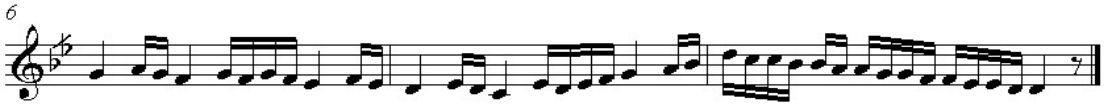
Samaei Bayati

Composer: Unknown
Trans. : Seifed-Din Abdoun

Khaneh I







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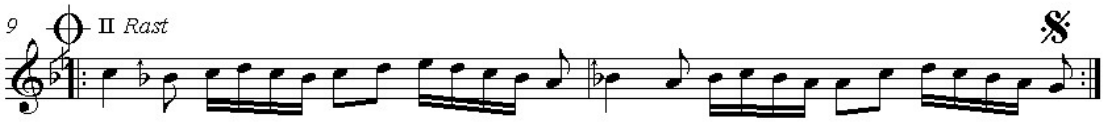
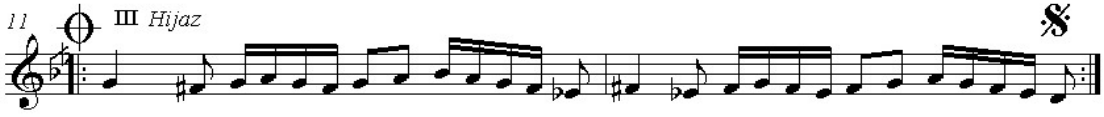
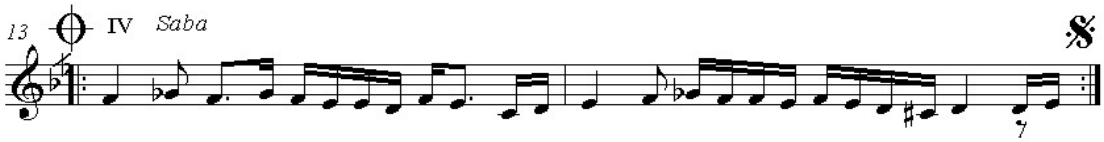






The *oud* players have a very important role in *al-tākht al-Arābi;* most *al-tākht* leaders play-and-or have knowledge of the *oud* as an essential instrument. In many cases, one can find that the singer is the *oud* player in *al-tāhkt al-Arābi*, such as Sāyd Dārwish, and Mũḥammed Abdel Wahāb. It is important to note that the poets of the pre-Islamic Era, during the Umayyad, and Abbasid periods, mentioned the Arabic musical ensemble. For example, al-Armāwi al-Baghdādi, who was an *oud* player, described his performance for the leader of the Mongol Hulagu Khan with ten singers and instrumentalists in which each one was playing different musical instrument.[312]

The formal performances (*majlis* مجلس) in the court of the Caliphs, as well as the informal performances, consisted of Arabic musical ensembles. Musicians and singers such as Ibrāhim and Ishāq al-Māũṣeli performed with their musical groups/ensembles; a conductor with a baton directed some of these ensembles. Moreover, Ibrāhim al-Māũṣeli was the first musician to beat the *iqā'* ايقاع (rhythm) with *a gādib* قضيب (wand).[313]

V: 4 The Social Functions and Uses

Before discussing the role and function of the *oud*, we should ask the following questions:

Why do people organize and conduct musical performances?
Why do people attend musical performances?
Do people's reasons have anything to do with the outcome of these performances?

[312] Ghatass Abdel Malik Khāshabeh. *Kitab al-Adwār fi al-Mũsiqā*. Cairo: Mārkis Taḥqiq al-Tũrāth, 1986, p. 5-8.
[313] Sāyed Amir Ali. *A Short History of the Saracens.* London, 1899, p. 451.

Kaemmer emphasizes how musical meaning is transformative: that its musical meaning is transformed into individual and social action. The issue of the use and function of music concerns the sources of these motivations and whether or not they are satisfied. The motivations and goals of the participant constitute the use of the music. Whether or not the goals (or uses) are realized is a matter of the success of the function. Kaemmer stated, "…the basic functions of expressive or taste culture have been described as art, entertainment, and information. In terms of music, these functions or uses are more usually referred to as aesthetic, play, and communication."[314]

The performance participant can be on two levels of perspective: the first level is the "emic" perspective, in which the main interest of the insider is what will be obtained from the musical performance. From this, they anticipate certain uses. The second is the "etic" perspective, in which the main interest of the outsider's view lies in the viewing of a musical performance and reporting on the results (without prior intention or use). Therefore, the function (or resulting goal) is the primary concern.

Ikhwān al-Ṣāfā (Brethren of Purity) divided melody into: composed spiritual influences, such as the Qurān recitation and religious songs; music for both martial and encouragement purposes in the military; funeral music; music advocating action such as songs of fishermen, porters, and builders; and music events such as weddings. However, the *oud* can be use to create music, entertainment, *tārāb* (ecstasy), communication, rituals, political power validation, advertisement, and healing. Throughout history, the *oud* was the tool for inventing and

[314] John Kaemmer. "The Uses and Functions of Music." In *Music in Human Life: Anthropological perspectives on Music*. Austin: University of Texas Press, 1992, p. 151.

developing Arabic musical theory. Scholars such as al-Kindi, al-Fārābi, ibn al-Mũnājim, al-Armāwi al-Baghdādi, and others used it to develop the Arabic musical system. In addition, it is still a tool to create and compose instrumental and vocal music. From the early known history of the *oud* until contemporary times, many composers have used it to create melody. Names such as Sayid Darwish, Mũhammad Qāsābji, M. Abd al-Wahab, Riyād al-Sũnbati, Farid al-Atrāch, M. al-Moũji, Bāligh Hāmdi, M. Sũltan, etc. were *oud* players. It is also considered a solo instrument; and also: played phrases accompanying the singer in the traditional style. Also, it continues to be heard playing *lawāzim* or *fāwāsil* when it is part of *al-tākht al-Arābi*. However, when *al-tākht al-Arābi* became larger and more instruments were added with the increase of the texture of the sound production, the *oud* had little to add to the quantitatively thick texture. For example, in his song *Yāmā banayt*, which is considered "new" or "modernized," Mũḥāmmād abd al-Wahāb"showed no enthusiasm for giving the *oud* any parts that required fast technique."[315]

Also, the *oud is* used to entertain an audience and in social gatherings for different purposes such as weddings, births, and life celebrations. *Kitāb al-aghāni* mentioned many in-door and out-door musical performances to entertain audiences. *Oud* players and singers play and sing to greet guests to impart to them the feeling of happiness and hospitality. In addition, musicians were used to communicating love messages from one event to another. [316]

[315] Nabil Azzam. *Mũhamad abd al-Wāhab in Modern Egyptian Music*. Unpublished Ph.D. Dissertation, University of Californa, Los Angeles, 1990, p. 131.
[316] George Sawa. "The Status and Roles of the Secular Musicians in the Kitāb al-Aghāni of Abu al-Faraj al-Asfāhāni." In *the Asian Music*, Vol. 17, No. 1 (Autumn-Winter, 1985), p. 75.

As for *tārāb*, the *oud* is considered the "king instrument of *tārāb*" because it is associated with lyrics, singing, and feeling. The *tārāb* is the "the traditional urban music, especially the *qādim* (old), ecstatically oriented repertoire; also the ecstatic feeling that the music produces."[317] Ethnomusicologists have described *tārāb* as an emotional state aroused in listeners because of the dynamic interplay between the performer, the music, song lyrics, the audience, and certain other factors.[318]

The strength of music to stir the feelings is at the center of the musical experience. This strength is more art than science. The psychologist Verna Kast has defined feeling as "an emotion that can be perceived and named, accompanied by images that can be communicated."[319] In fact, many Arab listeners prefer to listen to the song *dārit al-ayām* from Abd el-Wāhab (the composer) and the famous song *al-atlāl* from Riyād al-Ṣũnbāti (the composer) instead of listening to Ūmm Kũlthoũm with a large ensemble, in order to hear the richness of sound of the *oud*, the emotional effect, and the state of *tārāb*.

The *oud* also plays a very important part of Ṣufi musical ensembles for ritual ceremonies. Through ritual, many Ṣufi orders throughout the world of Islam have been able to articulate doctrines and beliefs through artistic traditions such as sung poetry, instrumental music and dance-like movements (*samā'* or spiritual concerts) and have utilized meditation patterns that combine corporeal techniques and controlled breathing (*dhikr*: remembrance) to induce or conduct trance and ecstatic states. There are three different types of *dhiker* in Egypt: "the first,

[317] Ali Jihād Racy. *Making Music in the Arab World: The Culture and Artistry of Tārāb*. Cambridge University Press, 2003, p. 229.
[318] Jonathan Shannon. "Emotion Performance in Arab Music: Reflections on Tārāb." In the *Cultural Anthropology*, Vol. 18, No. 1 (Feb., 2003), p. 75.
[319] Joy Verna Kast. *Inspiration and Hope*. College Stattion: Texas A and M University Press, 1991, p. 164.

formal *ḥadras* are closed events that welcome only initiated members of a specific Ṣufi order. The remaining two categories of *ḥadras* are both open events; anyone can come and participate in the *dhiker* ritual."[320]

The *oud* is used to validate a ruler's socio-political power by praising the leaders and the members of political parties. In Arab media, one can note many compositions and songs praising leaders across the region. For example, Ibrāhim al-Māũseli received a hundred thousand dirham from Hāroũn al-Rashid and half as much from his Visir when he praised them both saying:[321]

> Haven't you seen that the sun was ill?
> But when Hāroũn began to rule, its light shone
> Enrobing the world with beauty by reason of his countenance
> Hāroũn is its Sovereign and Yaḥyā its Vizir

The *oud* is also used for advertisement. *Kitāb al-Aghāni* mentioned the story of a merchant from al-Kũfā who arrived in Meccā to sell women's veils; he sold all the different colored veils, except the black ones. [322] He complained to his friend al-Dārāmi, who was a poet, *oud* player, and singer, who perhaps find a way to enforce to mortify and left music and singing. Nevertheless, at the insistence of his friend, he composed a special poem about black veils (*khimār*) and sang it until they had been sold. The poem was:

قل للمليحه في الخمار الأسود ماذا صنعت بزاهد متعبد ؟
قد كان شمر للصلاة ثيابه حتى وقفت له بباب المسجد .
ردي عليه صلاته وصيامه لا تقتليه بحق دين محمد

Gol lilmalihāti fi al-khimār al-asqad … madhā fa'lti bi nāsikin mũta'bidi
Gād shāmarā li-salāti thiyābaho… hattā wa qāfti lāho bi bāb el-māsjidi
Rodi 'alāhi ṣālātaho wa ṣiyāmāho… la taqtolihi bi hāqi dini Muhammadi

[320] Scott Marcus. *Music in Egypt*. Oxford University Press, 2007, p. 50.
[321] George Sawa. "The Status and Roles of the Secular Musicians in the Kitāb al-Aghāni of Abu al-Faraj al-Asfāhāni,) p. 77.
[322] Al-Asfahani. *Kitāb al-Aghāni,* Vol. 3, p. 45.

Say to the pretty woman who is wearing a black veil
What did you do to the worshiper?
He was ready for his prayer
Until you stood on the door of the mosque
Return to him his prayer and fasting
Do not kill him for the sake of Mũḥāmmad's religion!

It is important to note that this poem is one of the most popular *mawāl* in Arabic music and was performed by the Syrian singer Sabāh Fakhri (b. 1933).

The *oud*, along with dancing, can also used for healing. The healing process depends on the use of ecstatic music by the performer and the patient. One of the common practices especially in Egypt and Sudan is the *zār*, which is divided according to human categories of age, sex, social class, education, religion, and ethnicity.[323] The *zār* is best described as "*a healing cult*," which uses drumming and dancing in its ceremonies. It also functions as a sharing of knowledge and charitable society among the women of these very patriarchal cultures. Most leaders of *zār* are women, and most participants are women. Many writers have noted that while the majority of the possessing spirits are male, those possessed are generally female. This is not to say that the men do not contribute to *zār* ceremonies: they may help with drumming, the slaughter of ritual animals, or may themselves be a husband or relative required to make offerings to the possessing spirit. In fact, it is perhaps an unfortunate trend that in cultures where the *zār* becomes more visible, there is more of a tendency for men to co-opt the ceremonies, and for men to become *zār* leaders…the escalating of this practice, release and arousal attained by drumming, clapping, stamping, and beating of body.[324]

[323] Amnon Shiloah. *Music in the World of Islam*, p. 147.
[324] Christina Campo-Abdoun. "The Zār Ritual." Unpupliched Article, 2000, p. 1-2.

In his book *Risāla fi shirā' al-raqiq wa-taqlib al-'bid* (Treatise on How to Buy Slaves and How to Detect Body Defects), ibn al-Hassan ibn Abdoun ibn Batlān (d. 1068), praised the blacks' inherent sense of rhythm in the following colorful manner: "if a black were to fall from the sky to the earth he would fall in rhythm."[325] When melody and rhythm rise, it can suggest increasing "energy or tension,"[326] but when they drop steadily, it can suggest "relaxation or a sense of settling."[327] Ikhwān al-Safā mentioned the use of the *oud* in hospitals to relieve the pain and diseases of the patient, who had two nurses-servants. They clean the patient every morning, put clean clothes on him, and walk him to the Morning Prayer. Then, the patient listens to beautiful voice reciting the Qurān,[328] then walk outside in the garden were he/she listens to beautiful melody of the *oud*.[329]

V: 5 Gender in Musical Performance

By examining the history of Arab music, one can find that females played a very important role in musical performances. Female musicians_ singers and *oud* players_ have been a part of musical life since the pre-Islamic Era. Women appear to have enjoyed as much liberty as men.[330] Ḥassan ibn Thābit (563-683) described ten or more singing girls who were singing at the court of Jabalā ibn al-Aihām (623-37), He said, "I saw ten singing girls, five of them Byzantiens, singing the songs of their land to the accompaniment of the *oud*. Five others from al-Ḥira, who been given to king Jabalā by ibn Qabisa, singing the songs of their land. Arab

[325] Amnon Sholoah. *Music in the World of Islam*, p. 146.
[326] Leonard G. Ratner. *The Musical Experience: Sound, Movement, and Arrival*. California: Stanford Alumni Association, 1983, p.33.
[327] Ibid, p. 33.
[328] Abu Hurayra said, "I heard the Messenger of Allah, may Allah bless him and grant him peace, say, "Allah does not listen to anything as gladly as He listens to a Prophet with a good voice chanting the Qur'an aloud." [Agreed upon].
[329] Ikhwān al-Safa. *Rāsāi'l Ikhwān al-Sāfā*, Vol 1, p. 187.
[330] C. J. Lyall. *The Mũfadaliyāt: An Anthology of Ancient Arabian Odes, compiled by al-Mũfadāl*. Edited by C. J. Lyall. 2 Vols. Oxford, 1918-21, op. cit. xxxi.

singers also came from Mecca and elsewhere for his pleasure.[331] Moreover, Bishr ibn ʻAmr described a skillful songstress who "sang antiphonally with another like her, and struck the resounding *oud*."[332] During the pre-Islamic Era, music appeared in Arab private, public, and social life. The poet also described musical performance; for example al-ʻAshā said:

وشاهِدُنا الوردُ والياســميــ ـنُ والمُسـمِعاتُ بقُصّابهـا
ومـزْهَــرُنـا مُعمَــلٌ دائمٌ فـأيُّ الثلاثــةِ أزرى بهـا
ترى الصّنجَ يبكي لهُ شجوَهُ مخافةَ أنْ سوفَ يُدعى بها

And we saw the roses and jasmine
And the songstress with the *qasaba* (*nay*)
And the *mizhār* (*oud*) paying permanently
In which one of the three (instruments) to be blamed
You see the *sanjs* crying from nostalgia
Fearing it will be invited

During the time of the Orthodox Caliphs, professional musicians such as Ṭuwais, Sa'ib Khathir, Ḥunain al-Ḥiri were found. The female musician Azza al-Mailā (d. 705) was "usually represented playing on the old Arabian *mizafā* and *mizhār*, although she could also play the *oud*."[333]

During Umayyad's Era, the *oud* continued to be in favor with musicians in their musical performances: to some extent, music was no longer a profession for mere slaves. The leading musicians appear to have made a comfortable living, and they were in "constant demand at court, the houses of nobility and rich middle class, as well as at the innumerable festivities connected with Islam and social life generally."[334] Many musicians; singers and *oud* player became popular

[331] *Kitāb al-Aghāni*, xvi, p. 15.
[332] C. J. Lyall. *The Mūfadaliyāt*, p. 1xxi.
[333] Farmer. *A History of Arabian Music*, p. 47.
[334] Ibid, p. 67.

during this era, such as Yũnus al-Kātib, ibn Misjaḥ, ibn Muḥriz, ibn Suraij (634-726) Ma'bād, al-Gharid, abũ Kāmil al-Ghũzāyil, ibn Ṭunbũra, abu Ḥārũn Atarrad, Sāib Khāthir, and ibn Ḥunāin al-Ḥiri, etc. There were four outstanding names among the female musicians of Umayyad's Era: Jāmilā (d. 720), Salmā al-Qass, Ḥabbāba, and Sallāmā al-Zarqā. Some of the Caliphs during this period had a passion for music, such as Yazid I (680-83), al-Walid I (705-15), Yazid II (720-24), and al-Walid II (734-44) who was a poet, singer, *oud* performer, and composer.

Musical performances included solos as well as large ensembles. One of the great musical performances during this period was "the pilgrimage of the famous songstress, Jāmilā, to Mecca, and the consequent *fetes*. All the principal musicians, male and female, of al-Madina, took part in this affair, as well as the poet al-Ahwas, ibn abi Atiq, abũ Miḥjan Nuṣaib, and a crowd of dilettanti, together with some fifty singing-girls (*gainãt*)."[335]

In the return to al-Madinã, "a series of musical *fetes* were held for three days, the like of which had not been experienced in al-Ḥijãz before. During the first two days, performances were given either singly or by two or three together, by Jãmilã, ibn Misjaḥ, ibn Muḥriz, ibn Sũraij, al-Gharid, Ma'bãd, Mãlik, ibn A'ishã, Nãfi' ibn Ṭunbũrã, Nãfi' al-Khair, Fãnd, al-Dalãl Nãfidh, Naũmã al-Duḥã, Bard al-Fũa'd, Budaiḥ al-Maliḥ, Hibãt Allãh, Raḥmat Allãh, and al-Hũdhali. On the third day, Jãmilã assembled fifty of the singing-girls, with their *ouds*, behind a curtain, whilst she herself, *oud* in hand, sang to their accompaniment."[336]

[335] Ibid, 74.
[336] Ibid, p. 75.

During the Abbasids Era, palaces were crowded with professional musicians and singing-girls. The patrons rewarded musicians for satisfying performances with money, gold, silver, and other forms of gifts. For instance, Haroũn al-Rashid rewarded the performer Ḥakām al-Wādi with nearly 600,000 pieces of silver on two occasions.[337] Some famous performers during this period were Ibrahim al-Māũseli, Ishaq al-Māũseli, Zālzāl (who invented the perfect *oud* known as *shāboũt* and credited for the *wũṣtā* Zalzal), ibn Suraij, Ziryāb, Siyyāt (d. 785), and Yaḥyā al-Mākki. The female musicians were more famous "than those of the Umayyad days, as we know from the pages of *The Thousand and One Nights*."[338]

Some of the female musicians were Baṣbāṣ, Uraib (d. 841), Ubaidā, Shāruya, Badhl, Danānir, Atikā, Mutayim, and Qalām, etc. In addition, many of the Caliphs and their children were musicians and *oud* players: al-Mũntaṣir, al-Mũ'tazz, al-Mũhtadi, al-Mũ'tamid, and al-Mũ'tadid. The prince Ibrahim al-Māhdi (brief regime: 816-818), had distinguished himself as "one of the most important musicians of the age."[339] Instrumental music, especially the *oud*, in general, were developed and described during this period, such as *Kitāb al-mũsiqā al-kābir* by al-Fārābi.

In contemporary Arabic musical performances and practices, one can find a strong male orientation. By examining these practices and from my experience in musical performance, I have been able to enumerate tens of *oud* players-performers across the Arab world, in Europe, and the Western Hemisphere, but it is difficult to find a female *oud* performer. Most female graduates from music schools prefer to work as music teachers in public or private schools rather

[337] Al-Asfāhāni. *Kitāb al-Aghāni*, vol. 6, p. 283. [The current value is $ 78,000,000].
[338] Farmer. *A Histroy of Arabian Music*, p. 132.
[339] Amnon Shiloah. *Music in the World of Islam*, p. 26.

than be stage performers. In some cases, female musicians and *oud* players decide to change career and attend different colleges to obtain degrees in law, education, computer science, and other disciplines. For instance, my sister Riḥāb, who was a skillful violin player, graduated from Yārmoũk University in Jordan, and chose to obtain her Master's degree in Technology of Education. Another example is when Ūmm Kolthoũm "saw her picture at the center of an advertisement announcing her performances, she reportedly cryied of embarrassment."[340] Her father, Shāykh Ibrāhim, refused "to allow her performances to take place until the performance manager had removed her picture from the advertisement."[341]

V: 6 Traditional vs. Modern technique

By examining the technique of playing the *oud* in Arabic contemporary practice, one can find two methods; first, is the traditional technique, which is very popular among *oud* players who are part of Arabic ensembles, composers, and singers. The second is the modern technique, which is popular among solo *oud* players. The traditional technique is usually accompanied by signing while the modern one is used when playing the *oud* as solo instrument. According to Soũheil Yoũnes, the traditional technique can appeal to a wider audience because of its association with lyrics.

Therefore, the lack of the *dāsātin*, the narrow distance between strings, the tuning, and the shape of the neck make it hard to produce many chord positions harmonically. The *oud*'s sound is delicate and rich, and it is a relatively soft instrument. It important to note that the Arabic *oud*'s sounds are an octave lowers than they actual written notation. Therefore, the

[340] Ali Jihād Racy. *Making Music in the Arab World: The Culture and Artistry of Tārāb*, p.16.
[341] Ibid, pp. 16-17.

written music for the *oud*, especially the traditional, serves as "melodic guide" because most performers use their technique skills, experiences, and personal feelings to produce composition.

The right hand plucks the strings, controls the dynamics, and produces several special effects. The distance between the bridge and the point of plucking affects the timber of the sound. A deeper sound is produced as the *rishā* strikes further from the bridge. Usually, *oud* players try to play as far from the bridge as possible while maintaining a horizontal wrist for best control and speed. When I asked the *oud* players whom I interviewed about playing closer to the bridge, they all agreed that playing farther from the bridge should be done only for slow section; also, it might require them to move the whole arm into a new position.

Leaping between different strings requires special right hand techniques called الصد والرد *ṣād* and *rād* (up and down). However, it remains difficult to do so quickly when having to skip over strings to execute a large descending interval. Well trained *oud* players are able to play through fast parts with ease, especially relatively conjunct parts.

There are some of special effects used when playing the *oud*; the first effect is tremolo, which is a rapid succession of up and down plucking that is unique to the Arabic *oud* traditional technique. However, it is rarely used in modern technique. *Oud* players often use several flavors of this technique to produce a variety of dynamics and tone colors: the faster the tremolo, the slower the *rishā* that goes in between strings and the smaller the overall hand movement. The second effect is short tremolo, which is a series of three or four fast plucks. This special effect is used frequently in both the Arabic traditional and modern technique. The third one effect is an octave with a hort tremolo that used for coloring a slow note. It is a series of two

actions; the *oud* player plays the note *diwān* below the note being ornamented, and immediately a short tremolo on the actual note. In addition, two varieties of these special effects are in use: the first in which the *diwān* below is treated as a grace note and can serve to decorate the melody, and the second where the *diwān* below receives half the duration of the ornamented note, and the short tremolo the other half. The fourth effect is un-plucked ornaments, which come immediately after plucking; the *oud* player can rapidly finger and release another note on the same string that produces a soft ornament. The last effect is the glissando, which slides up and down the scale, or making a quick uninterrupted passage up and down the scale. Also, it is performed by combining the slide and tremolo. One can note this technique in the modern technique rather than the traditional.

Other special technique effects are used in the *oud's* performance, such as vibrato, which is typically characterized in terms of two factors: the amount and the speed of the pitch.[342] In his interview, Issa Boũloṣ stated that he incorporates both traditional and modern technique in performing and teaching the *oud* for ear training, rhythm, and *māqām* theory. Rāhim al-Ḥaj usually performs the *oud* as a solo or with western musical ensembles such as quartets and large orchestras.

It is important to note that each technique has an advantage or disadvantage. The traditional techniques are widely used and can accompany the singing and the *tākht*. Nevertheless, the modern technique is used for solo instruments and it is not a practical accompaniment to singing. The traditional technique usually uses a five-stringed *oud*, while the

[342] J. Shonle & K. Horan. (1980). "The pitch of vibrato tones, J. Acoustic." In the *Society of America*, Vol. 67, 1980, p. 249. [246-252].

modern one uses a six, seven, or eight-stringed *oud*. I argue that the modern technique of the Arabic *oud* has influences from Western music. In fact, most *oud* players of this style have been trained and have studied Western music first; for instance, Moḥyed-Din Ḥaider (1892-1967), who invented the Arabic modern technique, was a cellist; Jāmil Bāshir was a violinist, and Mũnir Bāshir was a cellist.

The traditional style of the *oud* can be performed in many different occasions such as in concert halls, on stages, and at weddings, and pop-cultural events, while the modern style is usually be performed in a concert hall. Therefore, the traditional style is more accessible to a general audience, while the modern one is limited to a specific audience.

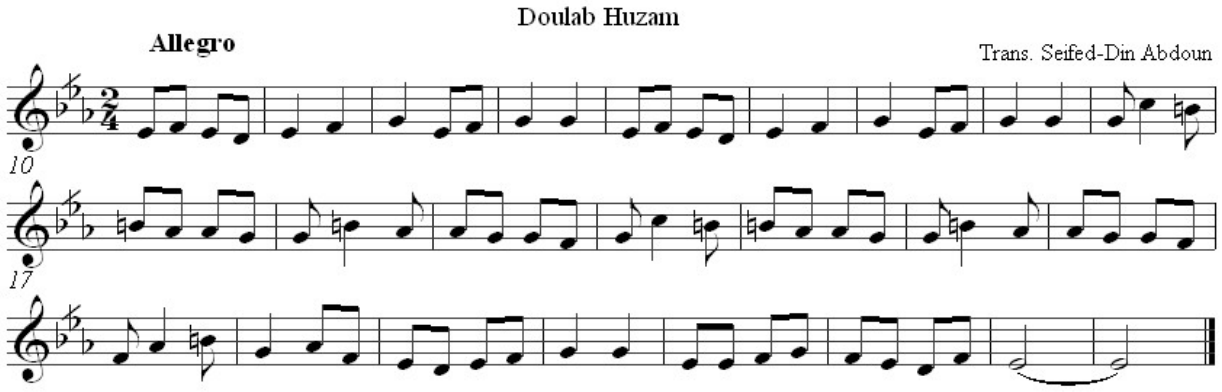
In addition, some *oud* players own more than one instrument with different tunings for different purposes. For example, Soũheil Yoũnes has a collection of four *ouds* made by the *oud* maker Fādi Māttā, while Adel Sālameh has a collection of more than twenty-five *ouds* that he uses for recording, stage and hall concerts, and for practice purposes.

V: 7 Musical Repertoires

Of course, improvisation is one of the most important forms of musical repertoire of the *oud*, but also other forms appear to be very popular in Arabic musical practice. In this section, I will be examining these forms with some musical examples of each one. These forms are instrumentals performed by *al-tākht al-Arābi* (*al-shārqi*) in contemporary Arabic musical practice:

V: 6:1 The *Doũlāb* (plural *Dawālib*)

The دولاب *doũlāb* literally means "wheel", and is an "introductory short instrumental piece [composition]."[343] It consists of simple musical themes, which is used for establishing the mood, or feeling" of a specific *māqām*,[344] and is intended to reveal its special character such as its intervallic structure and the emotions attached to it. The *doũlāb* melodies are "based on a *māqām* row and are performed to the rhythmic accompaniment of the *wāzn wāhdah*."[345] It is usually performed in the beginning of the *wāṣlā* (suite form).[346] The time signature of the *doũlāb* is 2/4 and the rhythmic pattern used along with it can be *bālādi*.



V: 6: 2 The *Tāhmilā* (plural *Tāhāmil*)

The *tāhmilā* is one of the most fascinating Arabic musical genres performed by the *tākht* "native to Egypt that has been forced into the background today by newer, non-authentic musical form."[347] The basic rhythmic pattern is usually simple throughout the *tāhmilā*, which is generally 2/4 or 4/4 in moderate tempo. The *tāhmilā* is based on a traditional and it is "easily

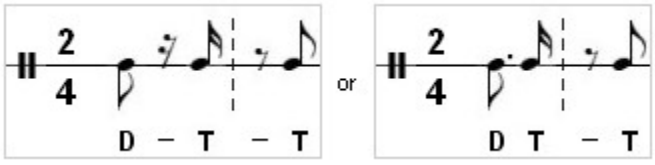
[343] Habib Hassan Touma. *The Music of the Arabs*. Portland: Amadeus Press, 1996, p. 106.
[344] A. J. Racy. *Making Music in the Arab World*, p. 226.
[345] Habib Hassan Touma. *The Music of the Arabs*, p. 106.
[346] The *wāslā* is "consisted of a series of approximately ten to twelve songs…and a short instrumental form called *doũlāb*." Scott L. Marcus. *Music in Egypt*, p. 100.
[347] Ibid, p. 105.

remembered melody in two -part time, which extends over eight to twlve measures and is composed in an easily recognizable *māqām* row."[348]

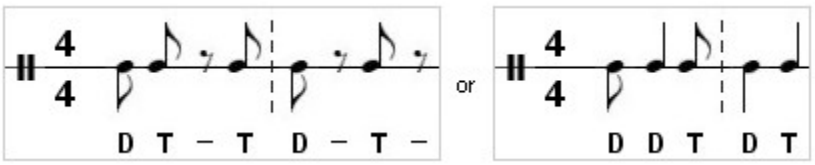
Samha El-Kholy described the *tāhmilā* form in performance practice as:

> "…the group [*tākht*] would begin with the principal melody, in unison…next each instrument in turn would improvise freely, to the accompaniment of the short rhythmic melodic ostinato. The improvised phrases should correspond in rhythmic structure to the principal melody, beig: of the same length, half, or twice as long…when the *tāhmilā* is played by two instruments only…the two performers answer each other [call and reponse] in short modulatory phrases, the limitations imposed by strict rhythm are stimulating to the imagination."[349]

The *tāhmilā* in musical practice consists of two parts form: the first part is similar to the *doũlāb*. It consists of short themes that disclose the primary *māqām*. The second part constructs short improvisational in which features the alternation between the instrumentalist and the full *tākht* (call and response). The call is an improvised section, which is played by the virtuoso instrumentalists (*oud*, *qānoun*, *nāy*, and *kāmān*), which extends up to twelve measures. However, the "call" is follow by a "response" of equal length, which is played by the *tākht*.



mālfoũf

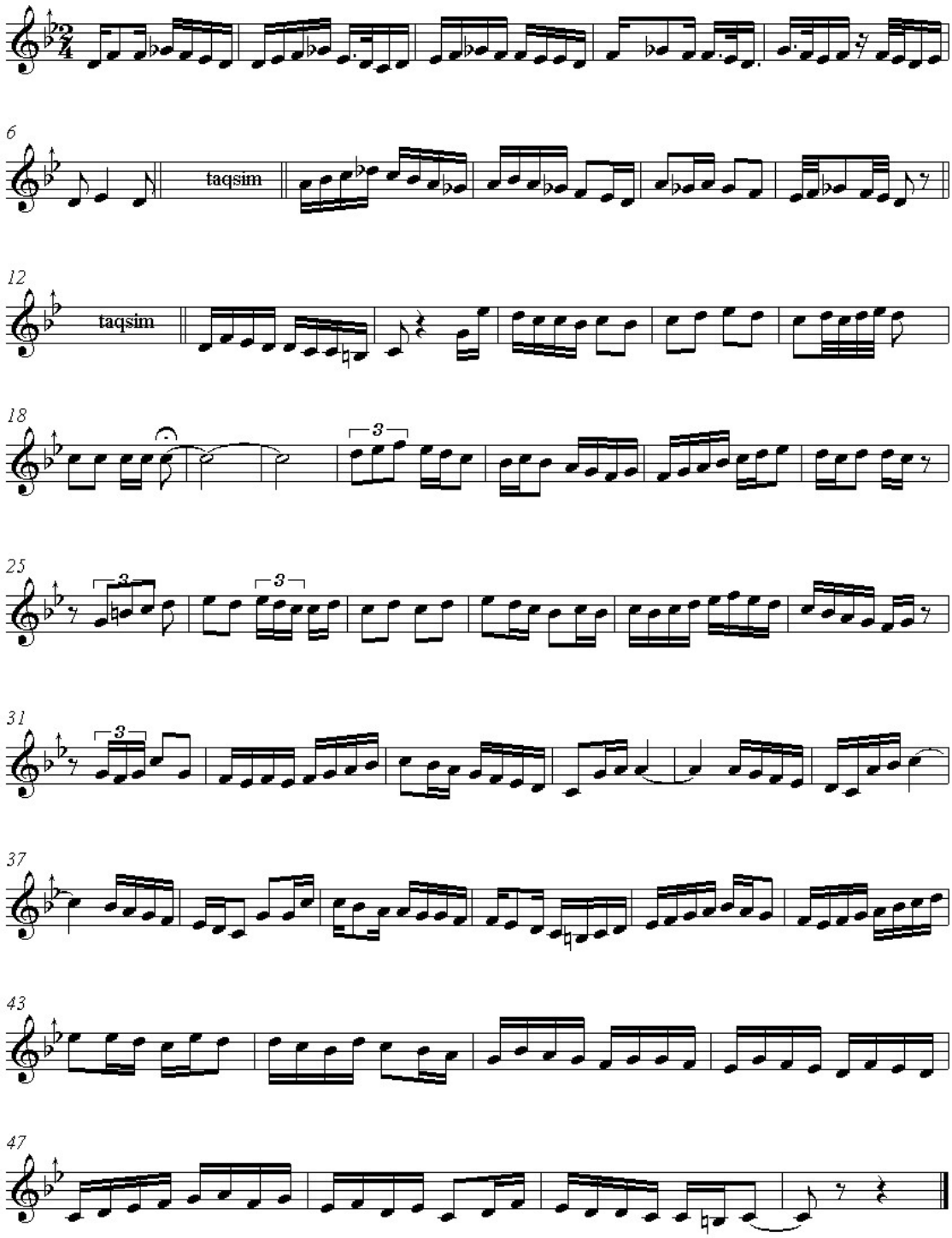


māqsũm

[348] Habib Hassan Touma. *The Music of the Arabs*, p. 105.
[349] Samha el-Koly *Traditional of Improvisation in Arabic Music*, p.13-14.

Tahmila Saba

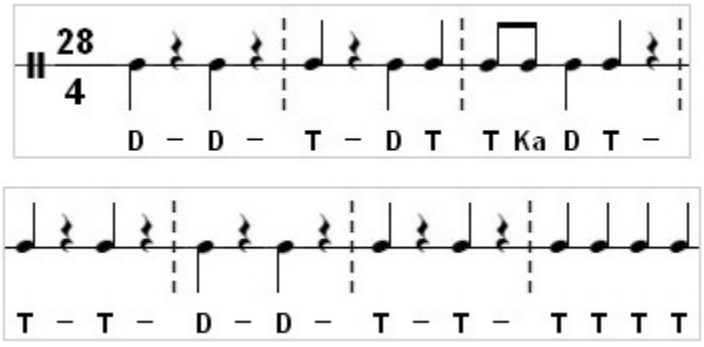
By: Muhammad Fakhri
Trans.: Seifed-Din Abdoun



V: 6: 3 The *Bāshrāf* (plural *Bāshārif*)

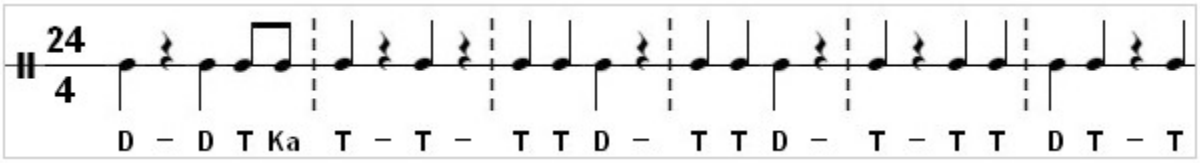
The *bāshrāf* is "a pre-composed instrumental genre that is metric and follows a rondo-like structure."[350] It is comprised of four to five different segments in which four segments known as *khānā* (plural *khānāt*), and the fifth one known as *tāslim* (refrain) that repeated after each *khāneh*. The word *bāshrāf* means, "proceed", which refers to a musical composition performed as an opening in *a wāṣlā* (suite). Throughout the *bāshrāf,* all musicians play the same melody as unison. The main aim of the *bāshrāf* is to set the mode, mood, and melodic phrases of the *wāṣlā*. In Arabic musical practice, the *bāshrāf* rerpresents "an unsuccessful synthesis between oriental melody and musical elements of Western musical cultures."[351]

The *bāshrāf* usually performed by by an instrumental ensemble (*tākht*), with accompanying rhythmic pattern played on the *dũrbakkāh* and the *riqq*, these rhythmic pattern such as *dāwr al kābir* (28/4), *shānbār* (24/4), *al-fākhit* (20/4), and *mũkhāmmās* (16/4).[352] The musical intensity increases from *khāneh* to *khāneh*, but balanced out again each time in the *tāslim* parts. The first *khāneh* and the *tāslim* are composing in the same primary *māqām* known as *bishro*.

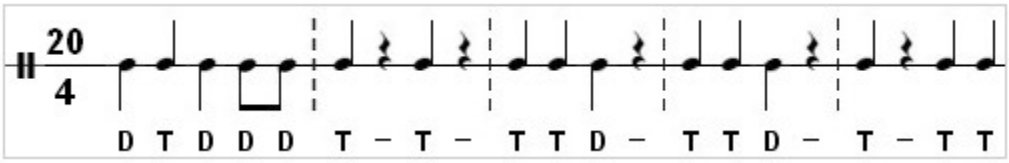


Dāwr al-kābir

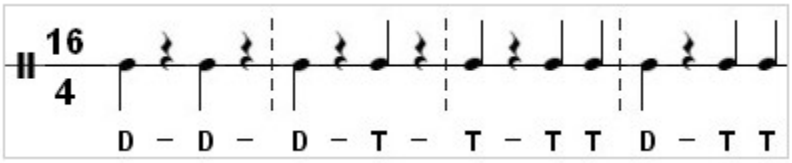
[350] A. J. Racy. *Making Music in the Arab World*, p. 226.
[351] Habib Hassan Touma. *The Music of the Arabs*, p. 99.
[352] Mājdi al-Ūgāili. *Al-Sama' ind al-Arāb*. Syria: Damascus, 1976, pp. 276-80.



Shānbār



Al-Fākhit

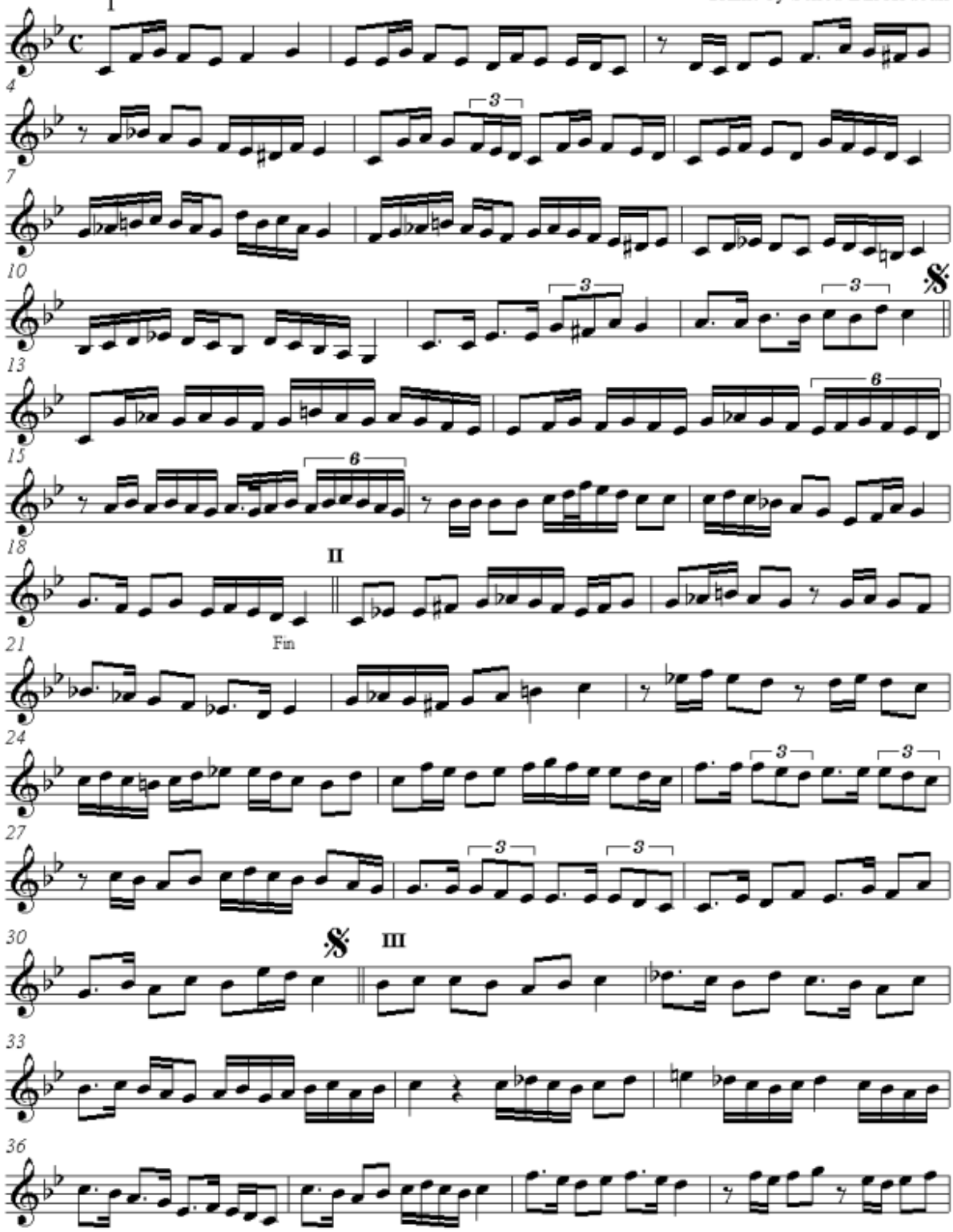


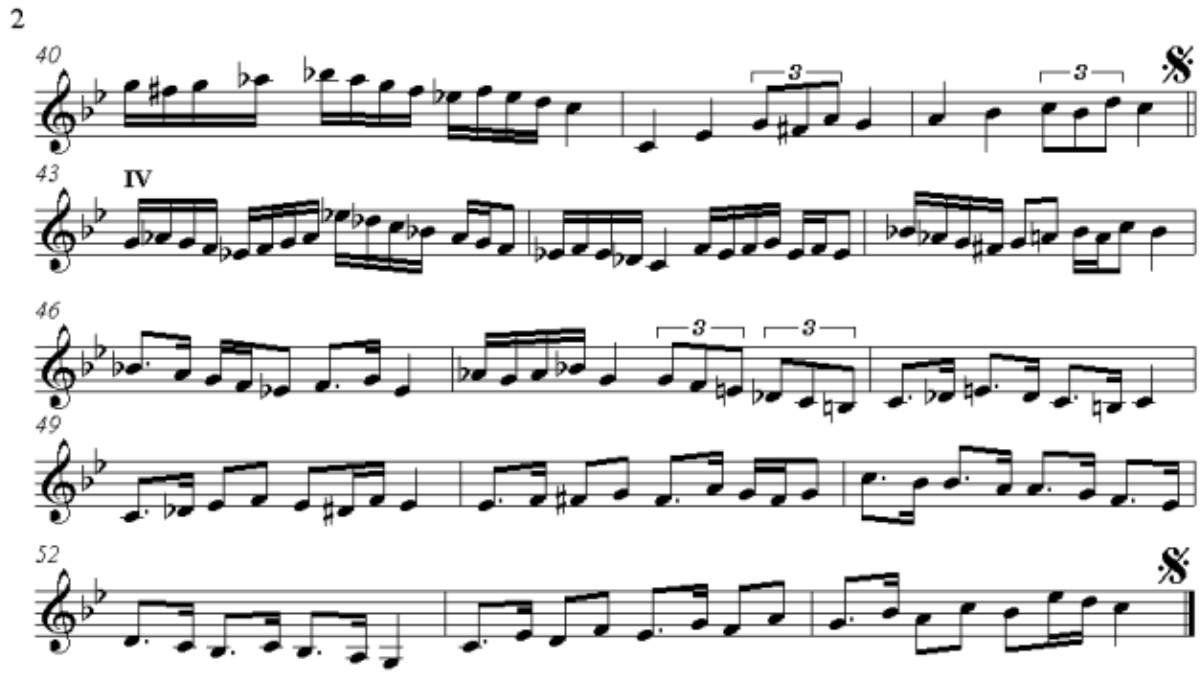
Mũkhamās

Bashraf Rast

Moderato

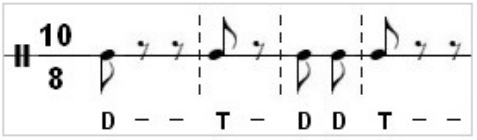
By: Sami al-Shawa
Trans. by Seifed-Din Abdoun



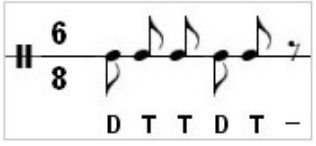


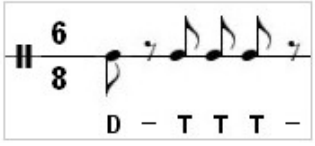
V: 6: 4 The *Sāmāi'* (plural *Samā'iyat*)

The *sāmāi'* is "a pre-composed instrumental genre that has a rondo-like structure and follows a specific ten-beat pattern [*sāmāi thāgil*], except for the last *khānā* before the final *tāslim*."[353] The rhythmic pattern of the *sāmāi'* is based on a combination of binary and tertiary elements. The ten-part rhythmic pattern of the first four *khānāt* (prl. *khānā*) of the *sāmāi'* has the form 3+2+2+3 (10/8) known as *sāmāi' thāqil* followed throughout the *tāslim*. The last *khānā* follows by three or six-part measure scheme (3/4 or 6/4) known as *sāmāi' dārij* or *yũrũk sāmāi'*. The first three *khānā* of the *sāmāi'* consist of four to six measures; the last *khānā* varies from six to twenty-four measures.



sāmāi' thāqil



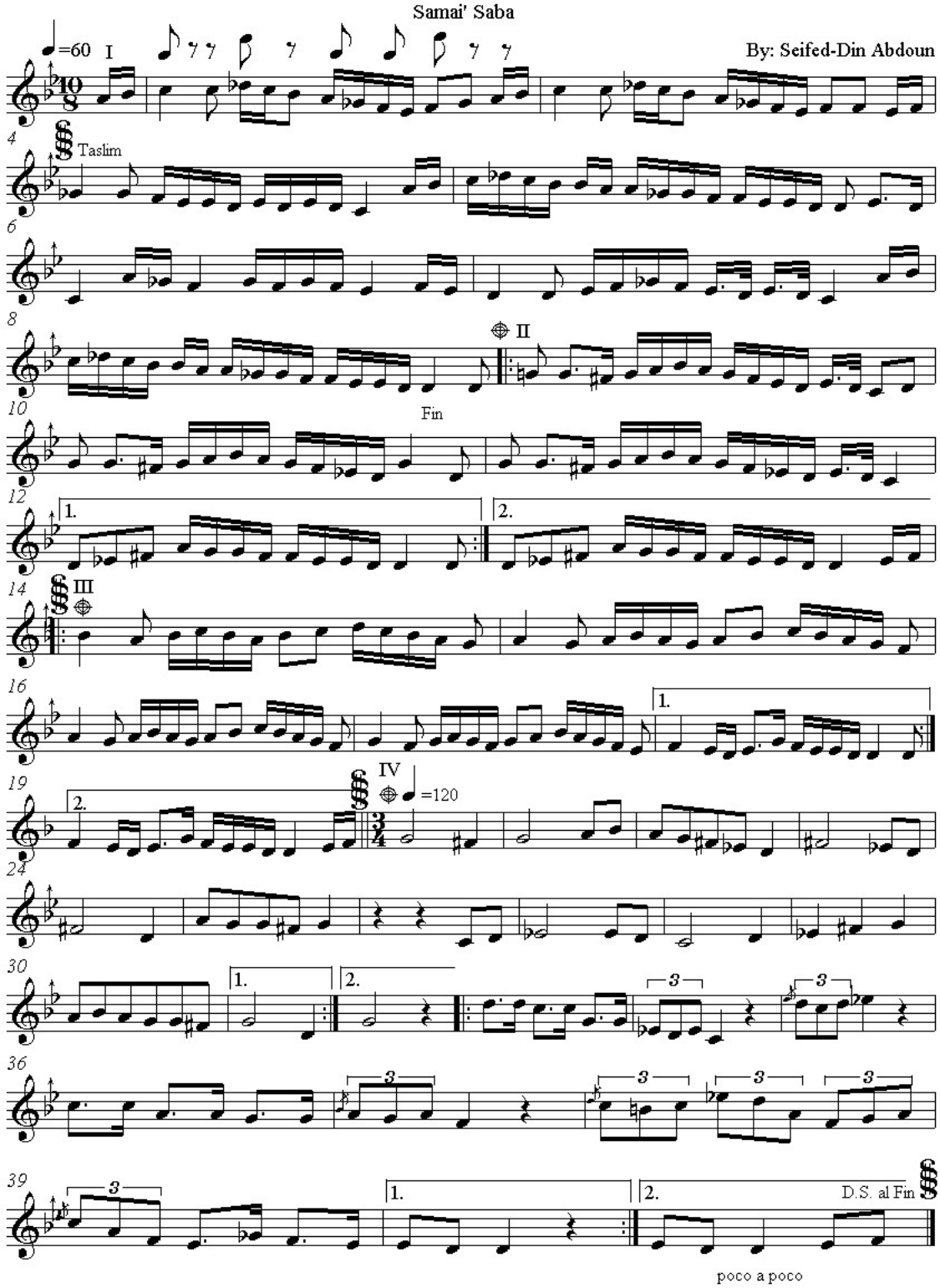


yũrũk sāmāi'

[353] A. J. Racy. *Making Music in the Arab World,* p 229.

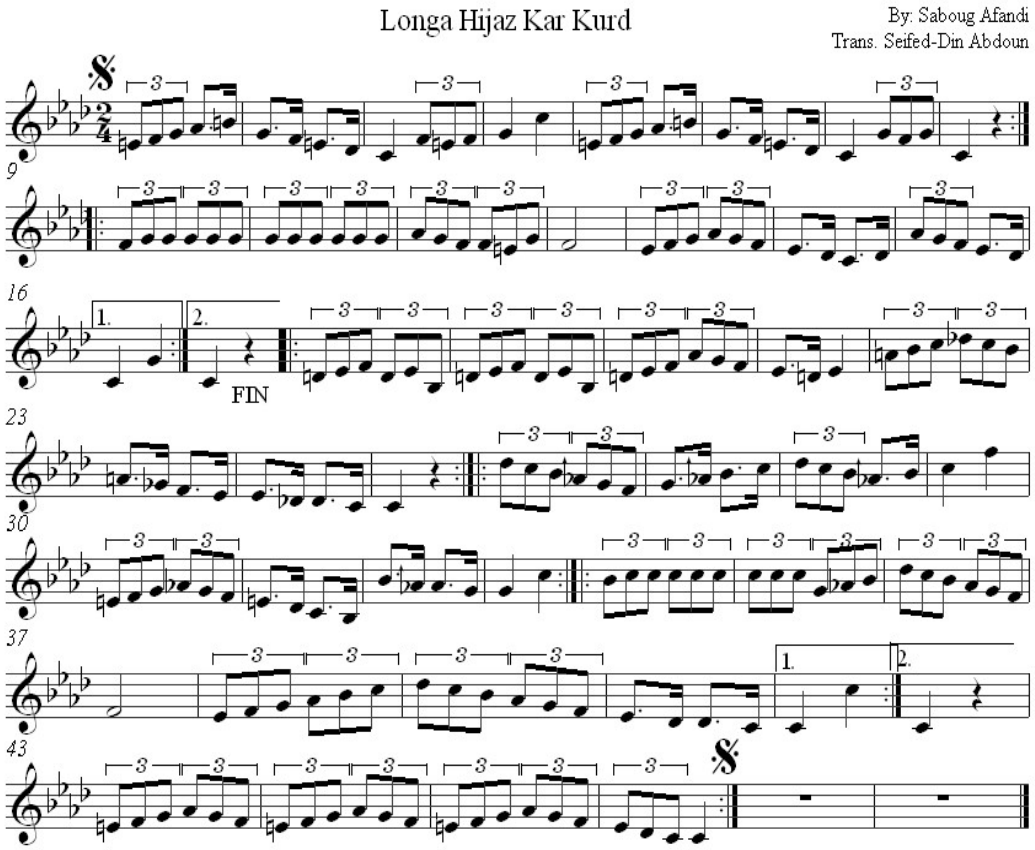
The first *khānā* usually displays the selected *māqām* and is composed in the lower *jins* of the *māqām*. While the second *khānā* demonstrates the modulation to the primary *māqām,* which expands the melodic range to the higher *jins* of the *māqām* in the third *khānā.*

Several arab composers have distinguished themselves with *sāmāi'* compositions such as Tawfiq Ṣābbagh (1892-1964), ʻAli Darwish (1884-1952), and Ibrāhim al-ʻAryān (1850-1950) in which the *sāmāi'* named after the compoer, for example, one of the most popular *sāmāi'* on *māqām bāyāti* by al-ʻAryān known as *sāmāi' bāyāti al-ʻAryān.* The following example shows the *khānāt* and the structure of the *sāmāi'* composed by Seifed-Din Abdoun in early 1990.


Samai' Saba
By: Seifed-Din Abdoun
I
Taslim
II
Fin
III
IV
=120
D.S. al Fin
poco a poco

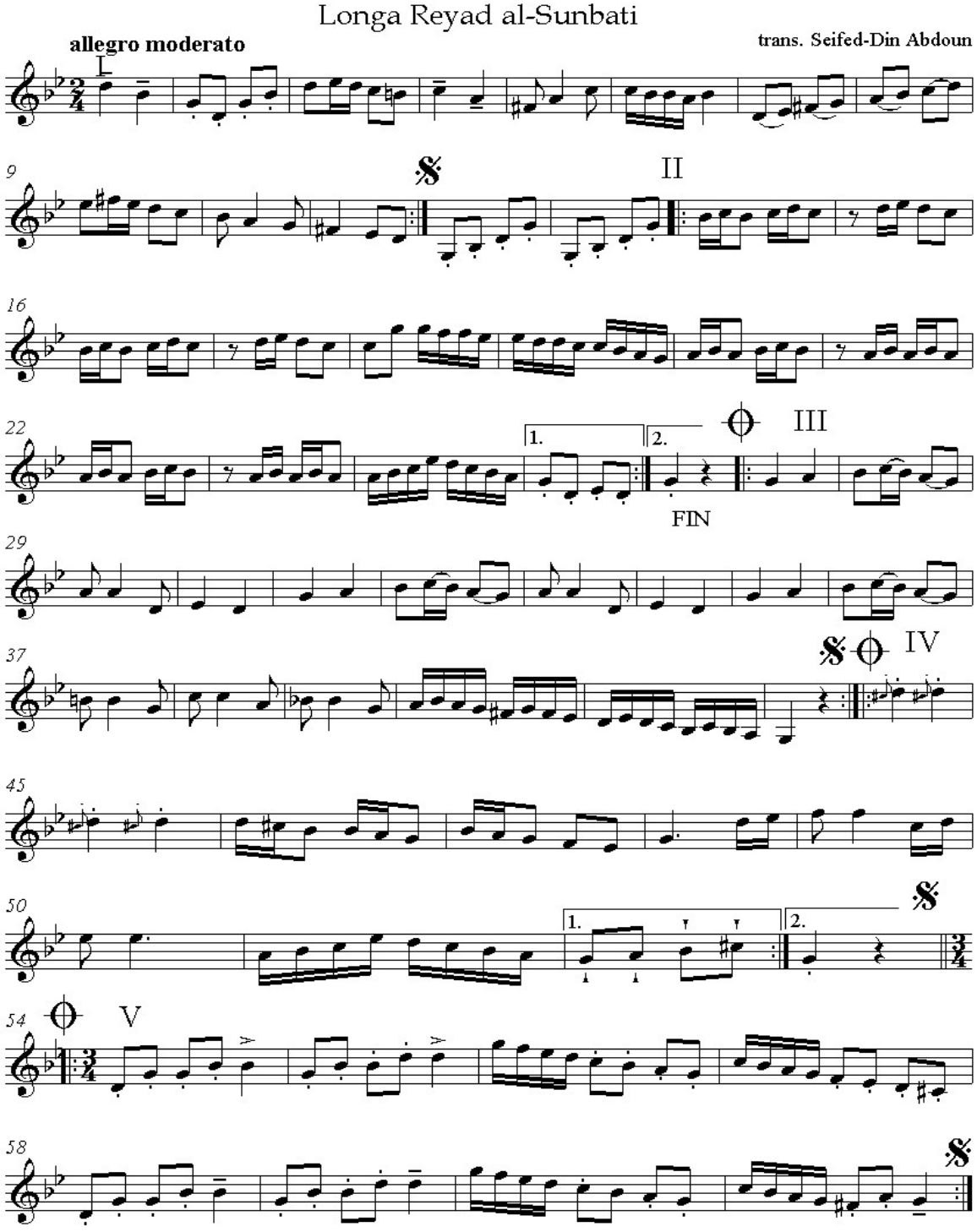
V: 6: 5 The Longā

The *longā* is a musical form usually in simple 2/4 rhythmic pattern. It is considered in Turkey as *mũgādimah* (prelude). Usually, it consists of musical themes similar to *bāshrāf* genre in some extend, but each theme consider as *khānā*. It consists of two to four *khānā*, follow *tāslim*, which each *khānā* and *tāslim* of the *longā* consists of eighteen to sixteen measures, mainly in 2/4 (*al-waḥdā al-basiṭā*), except for the last, which occasionally follows the 3/4 or 6/4, *sāmāi dārij* rhythmic *sāmāi'*.[354] The tempo of the *longā* is usually allegro or allegretto. The following two *longā* are very popular among Arab musicians; however, I performed them with several groups in Jordan such as *al-Fuhais*, *Yarmouk Arabic Tākht*, and *The Jordanian Musicians Association Tākht*.



Longā ḥijaz kār kũrd by Ṣaboũg Afāndi, Trans. By Seifed-Din Abdoun

[354] Sālim al-Hilow. *al-Mũsigā al-Nathāriyā*. Bierout, Dār Māktābāt al-Hayāt, 1972, P. 183.



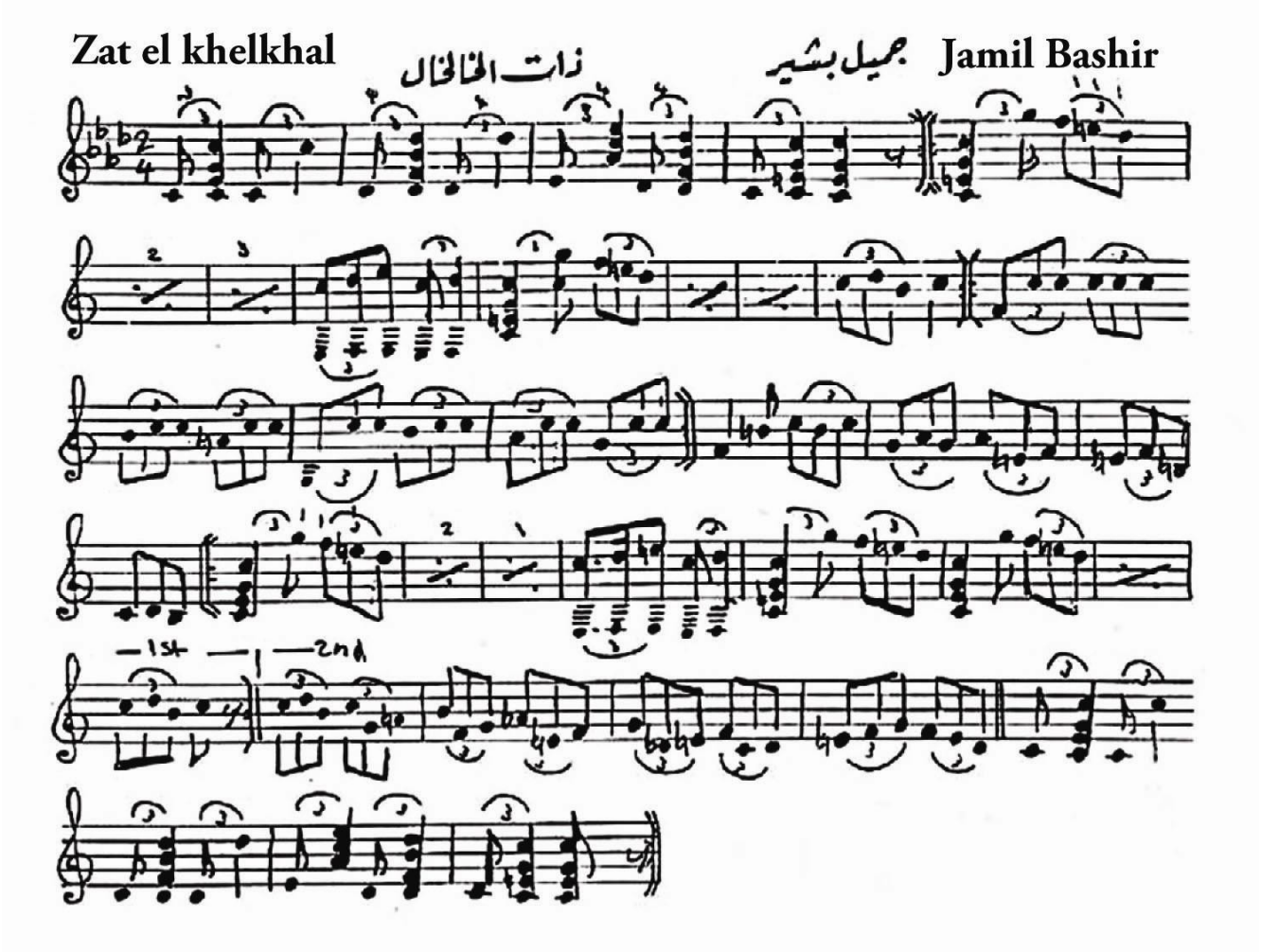
Longā al-Sũnbati, Trans. by Seifed-Din Abdoun

V: 6: 6 Other Musical Forms:

In contemporary Arabic musical practice, one can find the influence of Western music in some *oud* compositions. The Egyptian musician Dr. Sāyed Awād (1926-2000) was the first to compose a musical piece for the *oud and the orchestra*.[355] The title of the composition is *Fantasia al-Oud*, and it consists of four movements based on the sonata form. The Jordanian *oud* player and cellist ʻAmer Mādi (1953-2009) performed *Fantasia al-Oud* many times in Jordan with the Yārmoũk Orchestra, which was part of the Music Department at Yārmoũk University.[356] In fact, Dr. Awād dedicated this composition and Violin Capriccio to me: he wrote "to my best student and son, Seifed-Din." Other instrumental compositions for the *oud* are given specific titles by the composer, such as *Zāt el-khelkhāl* by the Iraqi *oud* player Jāmil Bāshir, and *Zikrāyāti* by the Egyptian *oud* player M. al-Qāssabji, etc. Also, Issā Boũlos has many compositions for the *oud* and Western ensemble such as *Rāqs al-Jānũb*; for the *oud*, clarinet, violin, cello, bass, guitar, and percussion.

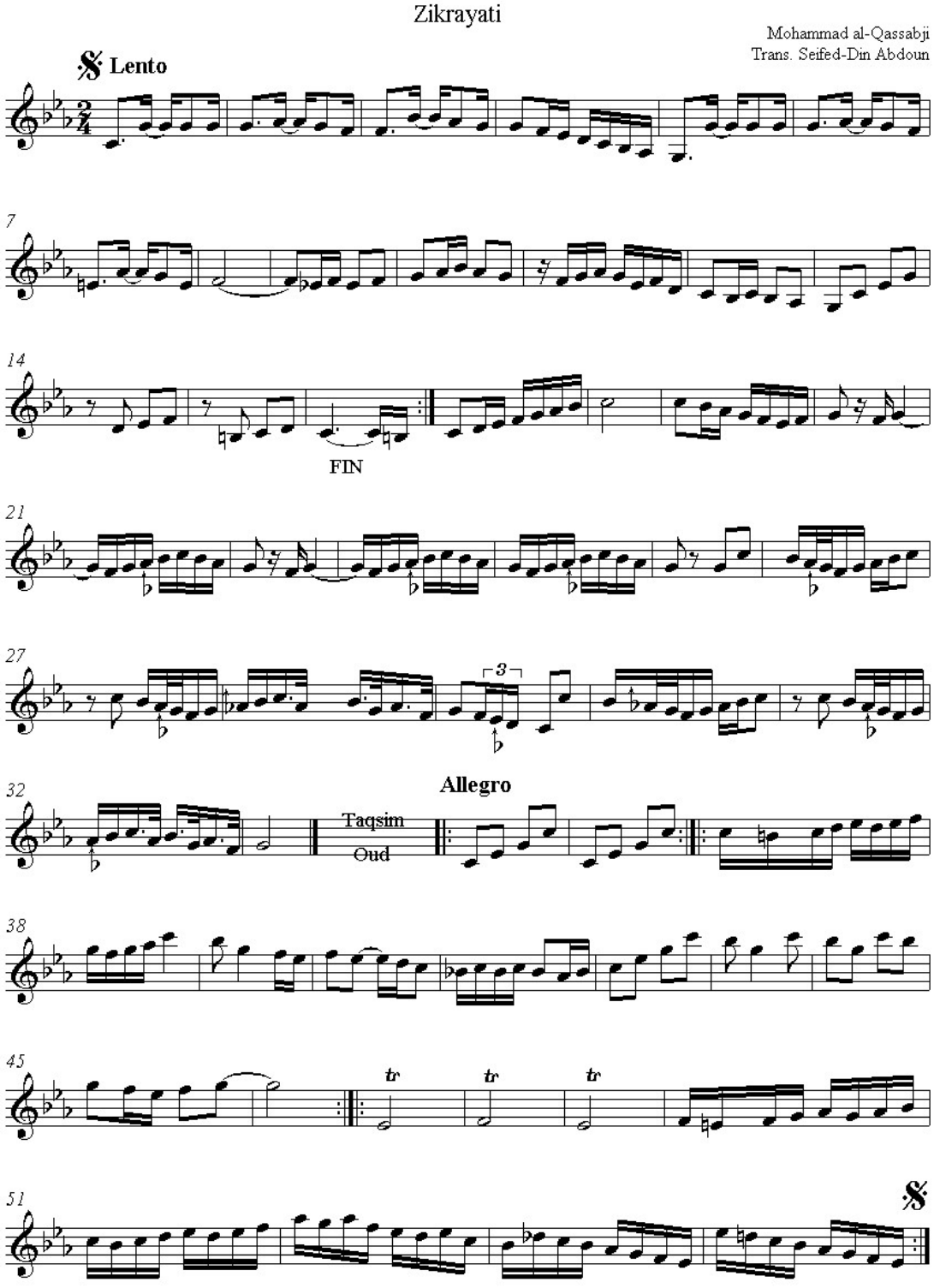
[355] Sāyed Awād was an Egyptian composer of contemporary classical music. He began his career as a violinist for the orchestra of the Cairo Opera House and later lived from 1983-1989 in Jordan teaching music at Yārmoũk University. He was my violin teacher during that period at Y. University. He studied in Moscow with the Russian violinist and conductor David Oistrakh and received a Ph.D. in music there in 1968. He is best known for his Yārmoũk Symphony, Fantasia al-Oud, Symphonic poems, Chamber music, works for violin and orchestra, and three-act opera The Death of Cleopatra in Arabic, which is based on the epic poem by Ahmed Shawqi.

[356] Yarmoũk Orchestra was the continuous of Yarmoũk Quartet Ensemble that consisted of first violin (Dr. Sāyd Awād), second violin (Seifed-Din Abdoun), viola (Prof. Anwār Bākir), and Cello (Dr. Robert Gordon).



Zāt el-Khelkhal by Jāmil Bāshir[357]

[357] Jāmil Bāshir. *Al-Oud wa Ṭariqāt Tadreeseh* [*Oud* Method], Vol. 2. Iraq, 1989, p. 67.



Zikryāti by al-Qassābji, Trans. By Seifed-Din Abdoun

V: 8 Analysis of *Oud* Composition: *Tāqsim Oud* on *Māqām Sikāh* by Riyād al-Ṣũnbāti

In the section, I will be examining *tāqsim sikāh* on the *oud* by Riyād al-Ṣũnbāti (1906-1981). Al-Ṣũnbāti was as an *oud* player, singer, and composer, who composed large number of songs for other singers and performed *oud* improvisation regularly. For instance, he composed one hundred and five songs for Umm Koũlthom alone.

The examination will discuss length, arrangement, modulation, melodic movement, melodic sequence, and rhythmic pattern. In addition, a full transcription will be attached following the analysis. From listening to this *tāqsim*, it indicates that al-Ṣũnbāti has a six-course *oud* in which he uses the lower string for drone purposes. In addition, he uses the fermata key for the three types of duration in which:[358]

	Short Duration
	Medium Duration
	Long Duration

Touma described the Arabic modern *tāqsim* as "an instrumental realization of the modal framework of the *māqām*, which is not subject to any rhythmic-temporal organization, i.e., it has neither a regularly recurring and established bar scheme nor an unchanging *tactus*."[359] However, the *tāqsim* has a strong musical element, and "characterizes the performer's style and is dependent upon his manner and technique of playing."[360] The Arabic *tāqsim* usually begins with an exploration of the lower *jins* of the *māqām* and moves up through higher *jins*. Scott Marcus stated, "The choice of notes is based on the degree of compatibility understood to exist

[358] Fermata Key refers to hold a tone or rest held beyond the written value at the discretion of the performer.
[359] Habib Hassan Touma. The *Māqām* Phenomenon: An Improvisation Technique in the Music of the Middle East. In *Ethnomusicology Journal*, Vol. 15, No. 1 (1971), p. 43.
[360] Ibid, p. 39

between the various notes and the tonic [*qārār*] pitch. The range of possibilities has been addressed in the existing Arab music theory…"[361]

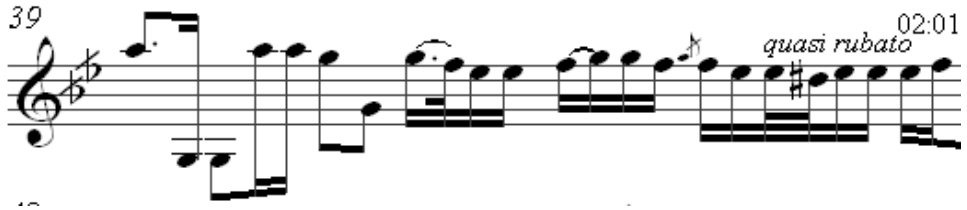
The length of *tāqsim sikāh* is about five minutes and eight seconds, in which the tempo changes twenty-six times; the slowest tempo is 50 at 2:42 and its length about two second. The fastest tempo is ninety-three at 1:41 which a length of eight seconds. The *tāqsim* consists of eight phrases that vary from one to another; the shortest phrase is number seven, which is about seven seconds long, and the longest one is phrase number five, which is about two minutes and eleven seconds long. The first phrase starts at 0:00 seconds; the second at 0:48; the third at 1:07; fourth at 1:41; fifth at 1:49; sixth at 2:49; seventh at 4:03; and the eighth phrase at 4:12. The first four and the seventh are shorter phrases, while the fifth, sixth, and eighth are longer phrases.

Phrase Number	Time per second	Tempo: θ
1	0:00	88
	0:42	76
2	0:48	82
3	1:07	75
	1:27	88
4	1:41	93
5	1:49	74
	2:10	72
	2:12	88
	2:15	86
	2:31	74
	2:37	86
	2:42	50
6	2:49	90
	3:00	86
	3:22	80
	3:24	86

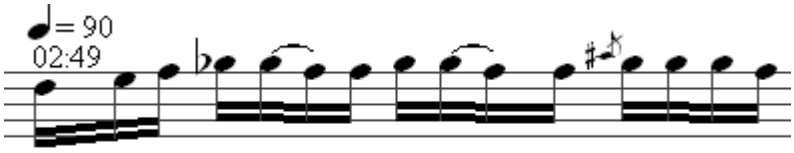
[361] Scott Marcus. "Modulation in Arab Music: Documenting Oral Concepts, Performance Rules and Strategies." In *Ethnomusicology Journal*, 36, 2 (1992), p. 177.

	3:28	48
	3:30	82
	3:45	70
	3:47	82
7	4:03	82
8	4:12	75
	4:13	68
	4:18	77
	4:34	90

The arrangement of the *tāqsim* form is associated with the *māqām* concept, which gradually ascends from low to high registers.[362] The range of the *tāqsim* consists of two *diwān*.



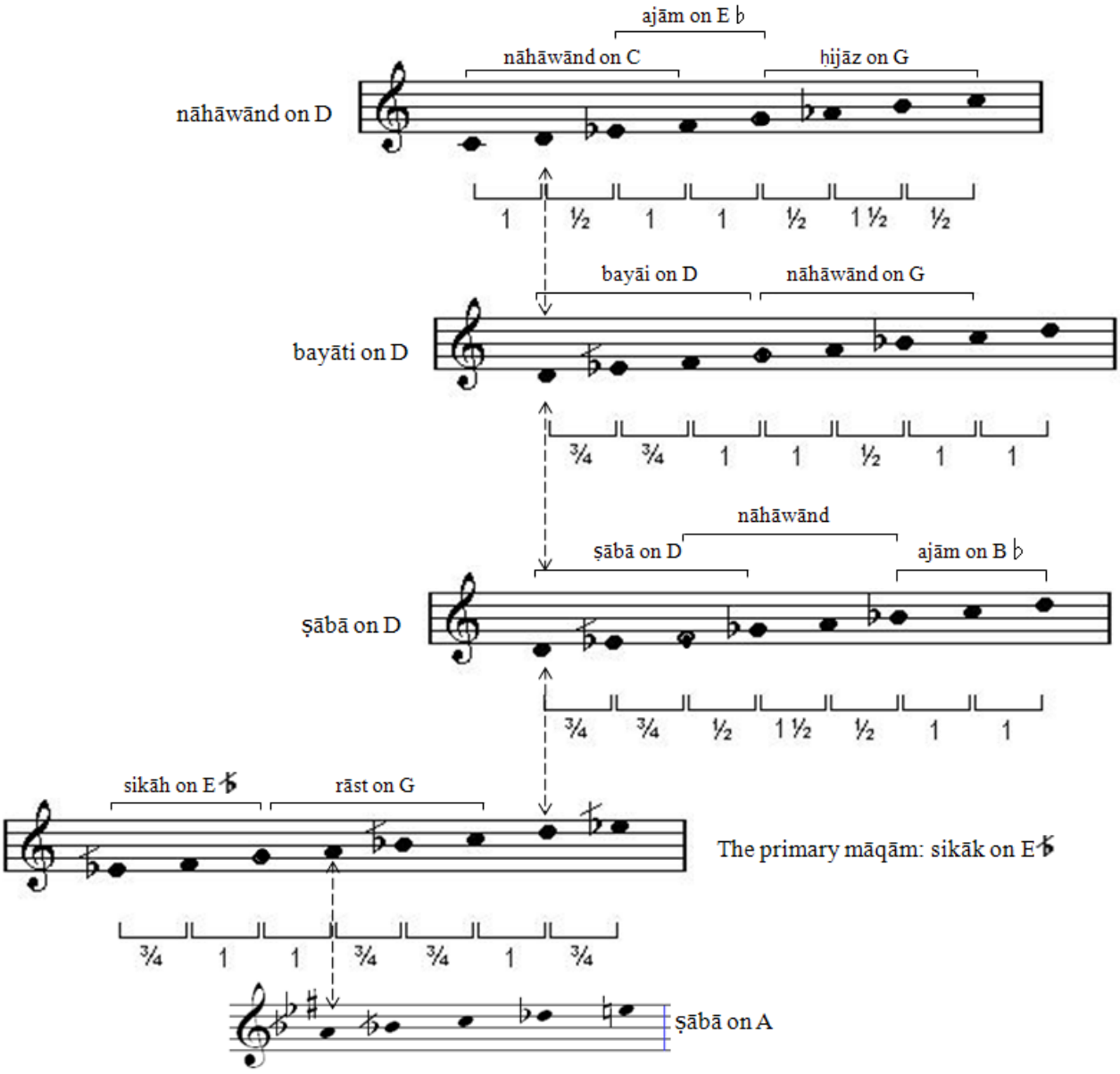
Al Ṣũnbāti used the same *jins* as a point of departure and final arrival, however, the first modulation in this *tāqsim* starts in the first phrase at 00:33 second. The interesting point of the *tāqsim* is the use of two transposing *māqām ṣābā* on D at 4:03 (phrase seven) and the beginning of phrase eight at 4:12, which is uncommon in Arabic music and, results in *māqām bāstnikār*. Also, at 2:49 (phrase six), al-Ṣũnbāti used *māqām ṣābā* on D.



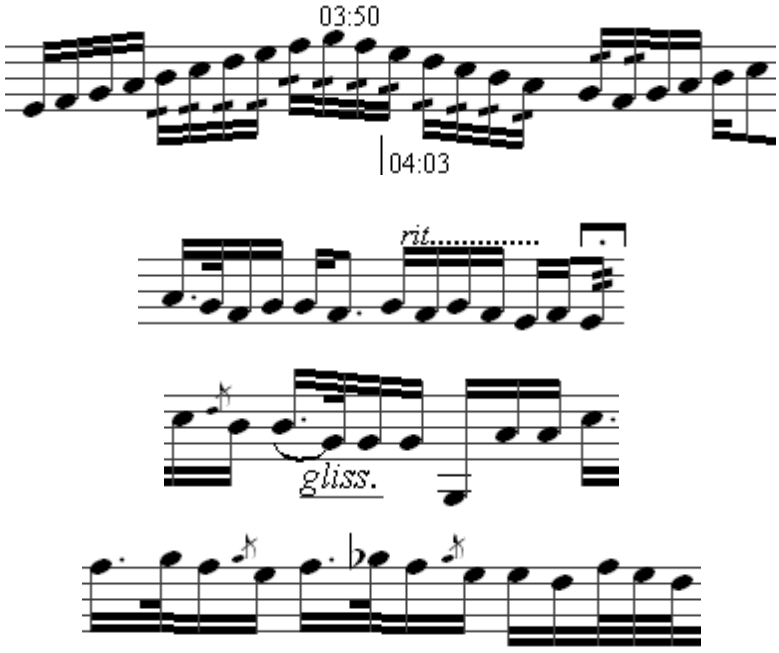
One can note that al-Ṣũnbāti used four modulations throughout the *tāqsim*: *māqām nāhāwānd, bayāti, ṣābā* on D, and *ṣābā* on A, and the primary *māqām sikāh*. However, the

[362] Toũma Hābib. "The *Māqām* Phenomenon: An Improvisation Technique in the Music of the Middle East," p. 41.

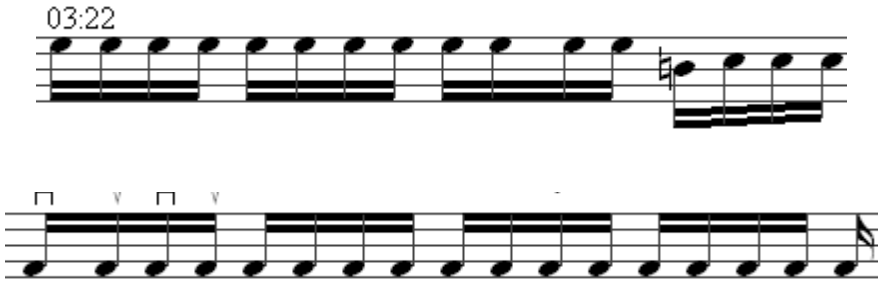
primary *māqām* consists of two *ajnās* (tetra-chords): *sikāh* on E 𝄲 and *rāst* on G. The following figure shows the modulation of the *tāqsim*:



Al-Ṣũnbāti used many techniques effects and ornamentation such as tremolo, trill, glissando, vibrato, appoggiatura, and acciaccatura, throughout the *tāqsim*. In addition, he used the lower string as a drone many times in his performance.[363]



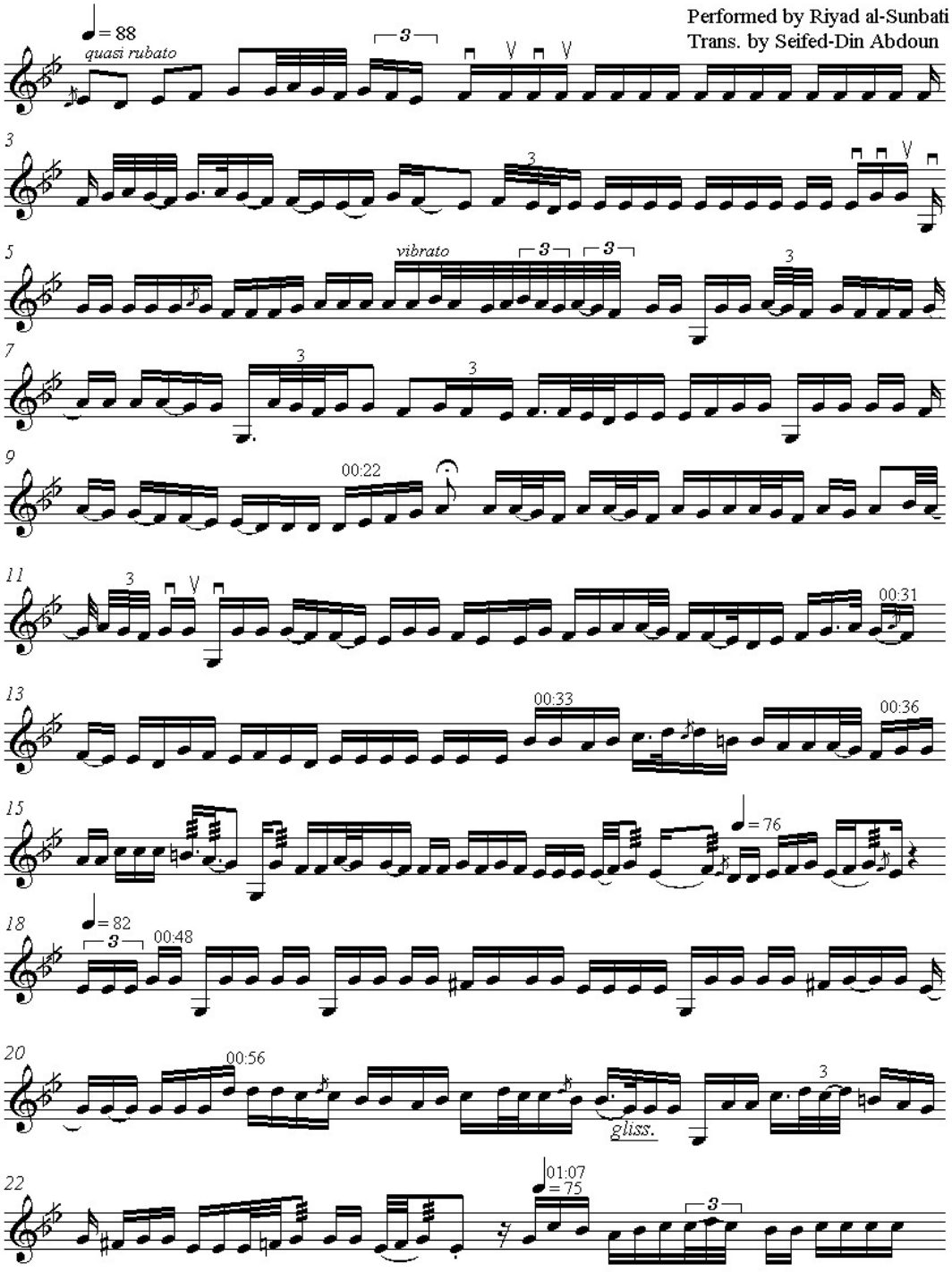
One of the most characteristic devices of the melodic development in the *tāqsim* is the sequence, which can be identified in the structure of the *tāqsim*. One can note the repeated notes throughout the *tāqsim* as the main theme of the rhythmic pattern (see example below):

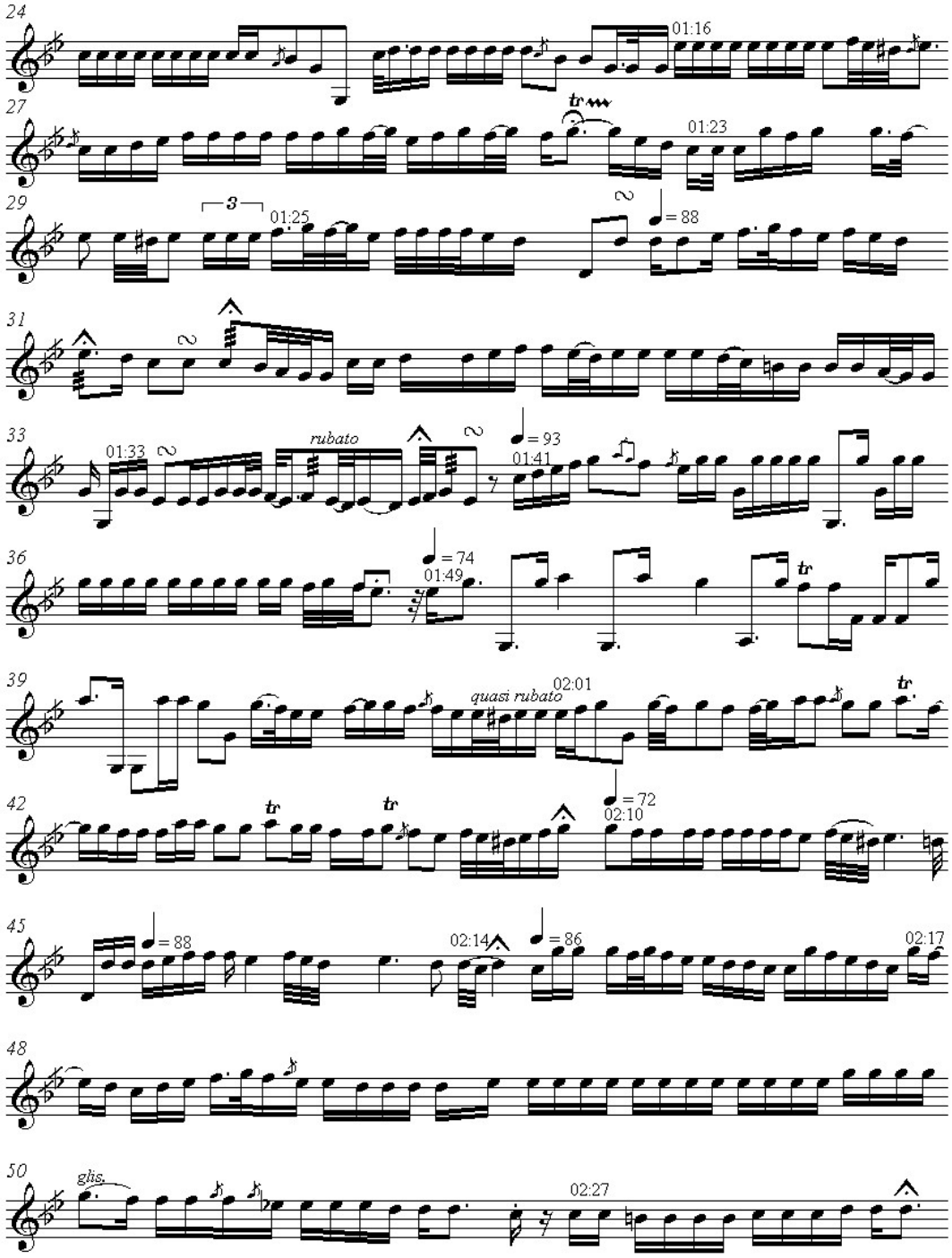


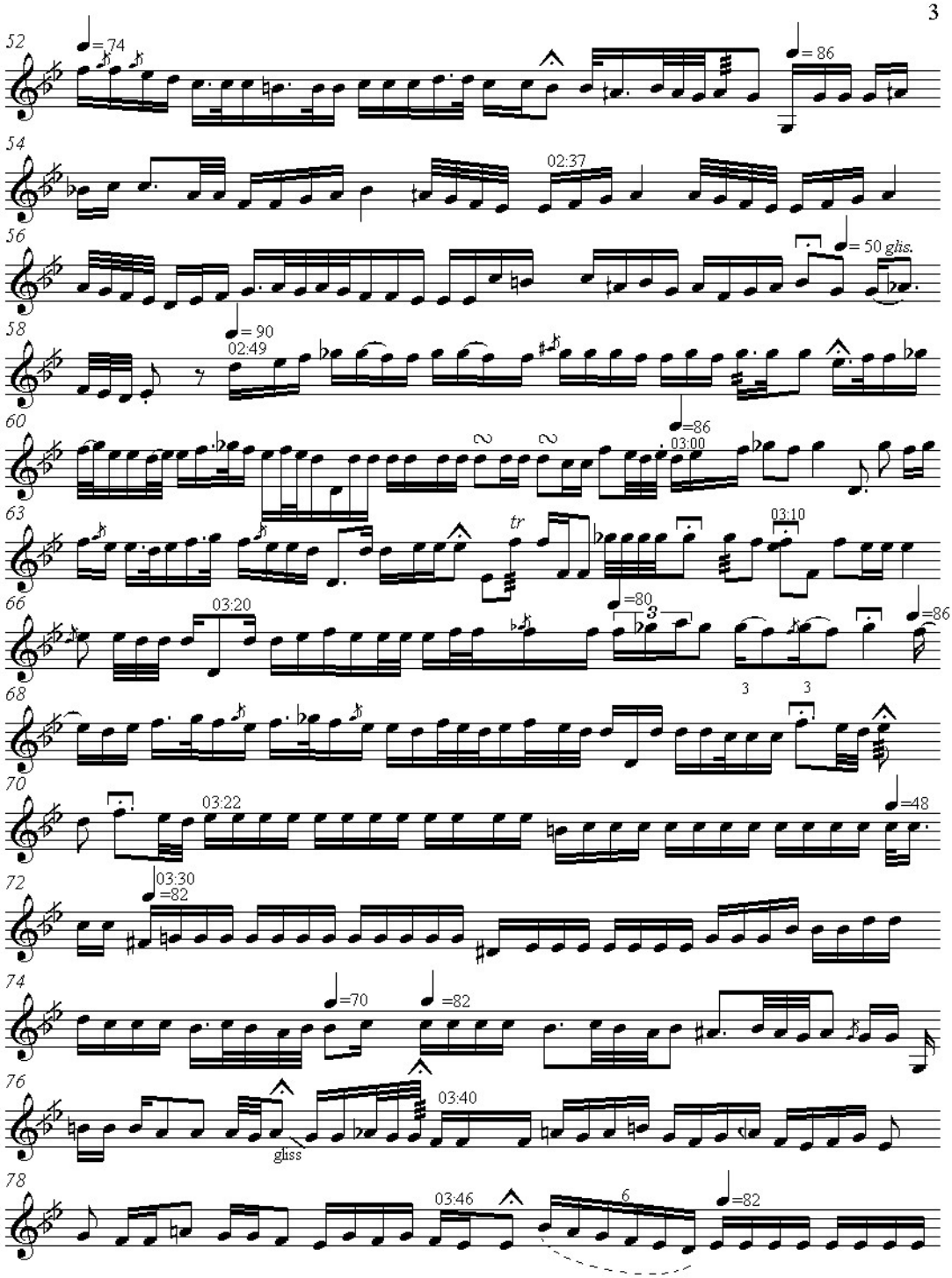
[363] Drone refers to a continuous low-pitched droning sound. *Roget's II: The New Thesaurus*. Edited by Fernando de Mello Vianna. Boston: Houghton Mifflin Company, 1980, p. 297.

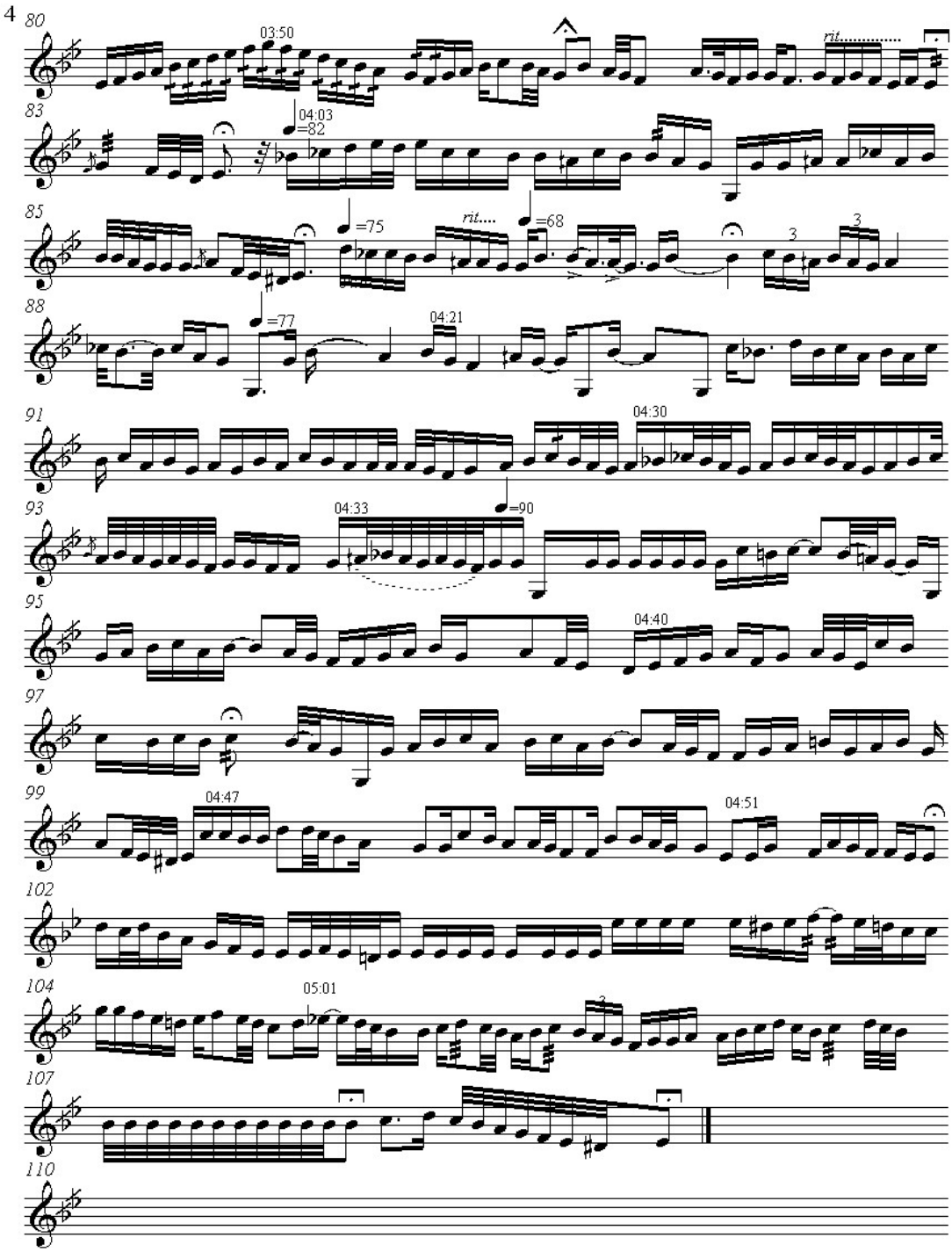
Taqsim Sikah

Performed by Riyad al-Sunbati
Trans. by Seifed-Din Abdoun




24
01:16
27
01:23
29
3
01:25
= 88
31
33
01:33
rubato
= 93
01:41
36
= 74
01:49
39
quasi rubato
02:01
42
= 72
02:10
45
= 88
02:14
= 86
02:17
48
50
glis.
02:27


52
=74
= 86
54
02:37
56
= 50 glis.
58
= 90
02:49
60
=86
03:00
63
tr
03:10
66
03:20
=80
=86
68
3
3
70
03:22
=48
72
03:30
=82
74
=70
=82
76
03:40
gliss
78
03:46
6
=82



Tāqsim sikāh on the oud by Riyād al-Sũnbāti
Trans. By Seifed-Din Abdoun

Conclusion

There is no doubt that the *oud* is one of the oldest musical instruments known to humankind, and mystery still surrounds its early history and origin. Archeological discoveries indicate the use of the *oud* for the first time in the Akkad Era (2370-2083 BCE); it was described as a small instrument in size that was easy to carry while walking in processions, for worship, and in religious rituals.

For many years, scholars described the *oud* as "wood" or as a "flexible stick." However, in this study; I offer two theories to clarify the origins and meaning of the name "*oud."* Firstly, I propose that the name "*oud"* may be derived from the Arabic word *oud* (عود) that means, "*come back."* Secondly, the *oud* is an instrument made of flexible sticks from the *oud* tree (scientific name Aquilaria SPP).

In this study, I explore the *oud* as the perfect instrument, designed originally by philosophers, who noted close associations and connections between the instrument and other disciplines such as cosmology, astronomy, mathematics, and anatomy.

Many Arab poets mentioned the *oud* in their poetry as early as the fifth century. Arab-Muslim philosophers considered the *oud* to be the basis for the writing and interpretation of the Arabic musical system (*māqām*). Al-Kindi (The Arab philosopher) and Ikwān al-Ṣāfā demonstrated strong understanding of music, especially the *oud*, using musical theory such as the harmony of the spheres, ethos, and the affinities in the universe. The *oud* was for them manifestation of the order of the universe, formulated by mathematical calculations and

mathematical ratios. They saw the *oud* as a scientific device constructed with the purpose of displaying these mathematical proportions.

Al-Fārābi discussed the *oud* and saw the *oud* as a human project, developed in a historical context by individuals of different nations over time. According to him, the *oud* was a scientific tool with which anyone interested in understanding the nature of music could experiment. His discussion of the *oud* was focused on explaining its basic acoustic features and the different levels produced by each, while al-Kindi and others discussed the *oud* in detailed descriptions of its measurements and dimensions.

Throughout the instrument's history, the measurements, shape, and the strings of the *oud* became perfectly proportioned. The long neck of the *oud* became shorter, the sound box became larger, and the face of the *oud* changed from animal skin to wood, to enrich the power of its sound production. However, some scholars discussed the measurements of the *oud* as mentioned in *Kitāb ḥawi al-funũn wa salwāt al-maḥzũn* by ibn al-Ṭāḥḥān (eleventh century) and *Kitāb kinz tũhaf* (eleventh century) without any analysis. In this study, I found these measurements of the *oud* were disproportionate: ibn al-Ṭāḥḥān *Kitāb*, for example, described the *oud* as 180 cm for the length and 72 cm for the width. Meanwhile, Ikhwān al-Ṣāfā suggested harmonious proportions: the length is one-and-a half times the width, the depth is half the width, and the neck is one quarter of the overall length. Therefore, if the neck measured only twenty cm, the total length would be eighty cm.

As for the strings, the four strings of the *oud* are mathematically proportioned between fixed ratios in order to ensure accurate resolution. There was an acceptable tonal sequence when moving from one string to another. At a time of al-Kindi, the descent ratios between the four strings on the arithmetic progression were 4/3/2/1. For example, the *bāmm* was made of four layers of gut; the *mithlāth* from three layers of gut; the *māthnā* was made from silk equivalent thickness in two layers of gut; and the *zir was* made from silk, but had equivalent thickness in one layer of gut. In addition, he associated the four strings, four frets, and four tuning pegs with the twelve signs of astrology: the four double-course strings correspond to Gemini, Virgo, Sagittarius, and Pisces because they each consist of two stars.

Al-Fārābi described the strings as "…the *bāmm* string is made of sixty-four threads; the *mithlāth* of forty-eight, the *māthnā* of thirty-two, and the *zir* of twenty-four, and the second *zir* string (*al-zir al-thani* or *al-ḥadd*) of sixteen."[364] The series numbers, I believe, were chosen from mathematical proportions (2:4:8:16:32:64). Ikhwān al- Ṣāfā stated that the thickness of the strings should be in excellent proportion to each other; the thickness of the *bāmm* should be in the proportion of 4:3 with the *mithlāth*; the thickness of the *māthnā* in proportion of 4:3 with the *zir*. The *bāmm* should be composed of sixty-four threads, the *mithlāth* of forty-eight, the *māthnā* of thirty-six, and the *zir* of twenty-seven threads. The numbers of the strings of the *oud* have been developed from two to three, four, five, and six courses.

One of the most important developments on the *oud* was the change from a fretted instrument to a fretless one. Moreover, the method of playing the *oud* has developed; the use of *rishā* has replaced the use of the fingers of the right hand for striking the strings.

[364] KMK, p. 69-70.

With regard to the *dābt* ضبط or *dozān* دوزان (tuning system), I examined and clarified the developments and theories of the *oud* by al-Kindi, Isḥāq al-Mãũsely, al-Fārābi, and al-Armāwi al-Bāghdādi. Al-Kindi was the first to utilize *abjād* as a pitch notation and to name the notes of the Arabic scale, using the *oud*. He also recognized two *diwān* (octaves) in the Arabic musical scale in which he proposed a fifth string in order to obtain the second *diwān* on the *oud*. While he used four frets on the *oud* starting with the *sābābeh* (the index finger), al-Fārābi invented a new fret called *mũjānāb al-sābābeh* (above the index finger or anterior to the *sābābeh*). Moreover, al-Armāwi al-Bāghdādi added another fret on the *oud*, which is above the *mũjānāb* known as *zāyed*. Al-Kindi, al-Fārābi, and al-Bāghdādi considered the first note on the *oud* to be *mũtlāq al-bāmm* (lowest open string: A), while, al-Mãũsely considered *māthnā* (the third open string) to be the first note.

Many scholars who dealt with the tuning system of the *oud* gave descriptions that differed from the original treatises. For example, Farmer included al-Kindi's musical scale of two *mũjanāb*; one *mũjanāb* is between the *mũtlāq* (open string) and the *sābābeh distān* (the index finger fret), and he recognized two *distān* for the *wũsṭā* instead of one. Another issue, which I examined and clarified in detail, was the interpretations and transcriptions of al-Mãũseli's modes that varied from scholar to scholar: Coolangettes and Sachs gave only five modes of differential intervallic structure within the eight modes; Shawqi (an Egyptian scholar), Wright, and Farmer gave six, seven, and eight respectively. Ibn al-Mũnājim described *al-mājāri* (courses) as follows: four *mājāri* were in the course of the *wũṣṭā* (minor third from the *mũtlāq*), and the other four were in the course of the *bonṣor* (major third). In addition, Farmer[365] and

[365] Farmer. *The Music of Islam,* p. 457.

Owen Wright [366]considered *bāmm* to be the first note of the ten notes of al- Māũṣeli equivalent to zero, the *māthnā,* according to ibn al-Mũnājim. The chart below represents the *oud* according to Al-Kindi, al-Māũsely, al-Fārābi, and al-Armāwi al-Bāghdādi:

	Al-Kindi	al-Māũsely	al-Fārābi	al-Bāghdādi
Number of strings	4 (5)[367]	4	5 (7) [368]	5
First note on the *oud*	*Bāmm* (1st)	*māthnā*(3rd)	*bāmm*(1st)	*bāmm*(1st)
Diwān (octave)	two	Ten notes	two	two
First fret on the *oud*	*sābābeh*	*sābābeh*	*mũjanāb*	*zāyed*
Number of frets/string	4	4	11	7
Made-up scale	12	12	22	17

This study has examined the *oud*, which is the primary instrument in Arabic music making, in performance practice: improvisation and ornamentation, the role in the Arabic ensemble (*al-tākht al-Arābi*), social functions and uses, gender in musical performance, technique, and musical repertoires. I observed and interviewed four selected skillful performers who have knowledge of Arabic music as well as Western musical theory and practice. Some of them, whom I have known for many years, perform as soloists and with ensembles on stage and in concert halls, festivals, and recording studios.

With regard to improvisation, from my personal knowledge and experience, I have offered a new approach that is both instrumental and vocal. Instrumental improvisation includes three different types: improvised-memorized, *tāqsim*, and *irtijāl*. In addition, I examined the role of the *oud* in *al-tākht al-Arābi*, and its functions in musical composition, *tārāb*, and ritual ceremonies, for validation of a ruler's socio-political power by praising the leaders and the members of political parties, and in healing.

[366] Owen Wright. "Ibn al-Munajjim and the Early Arabian Modes," p. 28.
[367] Suggestion the number of the strings on the *oud.*
[368] Suggestion the number of the strings on the *oud.*

With respect to the history of the *oud*'s performance practice, I examined the shift from female performers to male orientation. For instance, during the Abbasids Era, palaces were crowded with professional musicians and singing-girls. In this study, I have examined the modern and traditional techniques of the *oud*, and the musical repertoires of the instrument in detail, and included some musical transcriptions. In addition, I examined *tāqsim sikāh* on the *oud* by Riyād al-Ṣũnbāti (1906-1981) with a full musical transcription.

My aim in this analytical study is not only to provide useful information and background on the *oud*, especially in contemporary Arabic music practice, but also to provide a thought-provoking foundation for further research. Topics for further research include the *oud* in Arabian Peninsula, *al-Magrib al-Arabi* (Morocco, Tunisia, Algeria, and Libya), Turkey, Iran, East and West Africa, Israel, and Greece. Also, I would like to interview more *oud* performers and analyze their performances in depth. Moreover, comparative study of musical compositions-performances of various performers such as R. al-Ṣũnbāti, Farid al-Atrārch, M. Qāssabji, Jāmil Bāshir, and Mũnir Bāshir can serve a useful purpose of understanding the musical practice of the *oud*.

Arabic Alphabet and Pronunciations:

There are twenty-eight letters in the Arabic alphabet. These are mostly consonants as the vowel sounds (e.g. 'a' or 'u') are showing by signs called *ḥārākāt* above or below the letters. The *ḥārākāt* for the vowel sounds are:

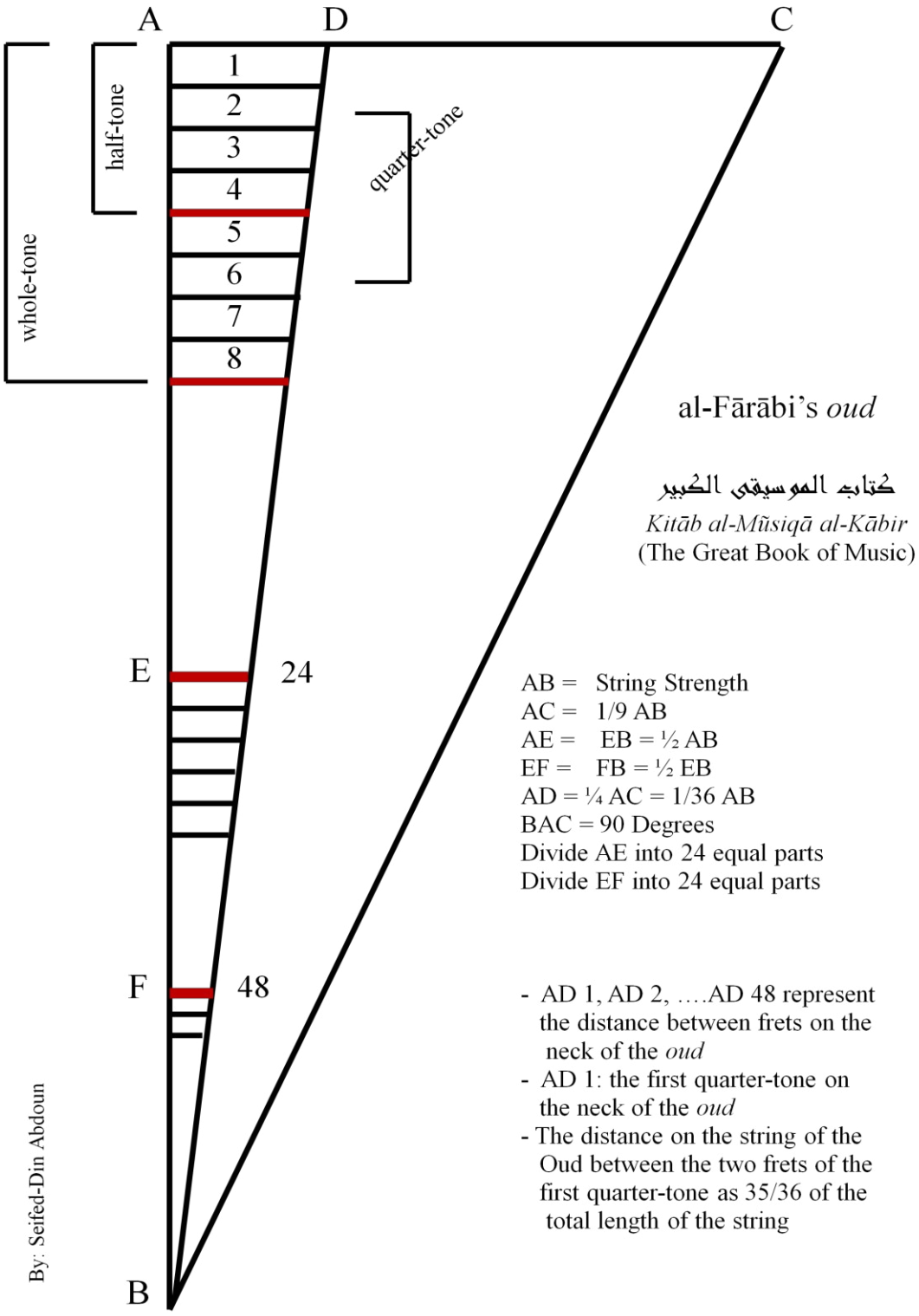
Fāthā (a short line above the letter): this gives an 'a' sound pronounced as in 'sun'.

Dāmmā: this gives the 'u' sound pronounced as in 'soot'.

Kāsrā (a short line below the letter): this gives the 'I' sound pronounced as in 'sit'.

Name of letter	Arabic	English	Pronunciation: as in
ألف	أ	*'alif*	a: fat
باء	ب	*ba'*	b: bag
تاء	ت	*ta'*	t: table
ثاء	ث	*tha'*	th: north
جيم	ج	*gim*	g or j: George or job
حاء	ح	*ḥa'*	ḥ: sound made in the throat (Ḥassan)
خاء	خ	*kha'*	kh: ch or loch
دال	د	*dāl*	d: oud
ذال	ذ	*dhāl*	dh: 'th' in 'then'
راء	ر	*rā'*	r: 'r' in 'rāst'
زاي	ز	*zay*	z: z in mizmār
سين	س	*sin*	s: sing
شين	ش	*shin*	sh: show
صاد	ص	*ṣād*	ṣ: a strong 's' in 'song'
ضاد	ض	*dād*	dh: a strong 'd' like the 'd' in 'don't'
طاء	ط	*ṭā'*	ṭ: a strong 't' like in 'ton'
ظاء	ظ	*thā'*	th: as 'th' in 'thus'
عين	ع	*'ayn*	a strong guttural produced by the compression of the throat and exulsion of the breath: 'a in 'Ali
غين	غ	*ghāyn*	gh: like the 'r' in French as in 'father'
فاء	ف	*fā*	f: flute
قاف	ق	*qāf*	q: a strong 'k' sound made at the back of the throat
كاف	ك	*kāf*	k: king
لام	ل	*lām*	l: lemon
ميم	م	*mim*	m: music
نون	ن	*nũn*	n: nāy
هاء	هـ	*ha'*	h: horn
واو	و	*wāw*	w: wish
ياء	ي	*yā*	y: yellow
همزة	ء	*hmzā*	': like a'

Appendix 1: Arabic Alphabet and Pronunciations



Appendix 2: al-Farabi's Oud

Glossary of Musical terms

Al-boũd al-tānini al-awṣāt: whole tone.

Al-boũd bil arba'a: perfect fourth.

Al-boũd bil khams: perfect fifth.

Al-dhārib: the *oud* player.

Al-adwār: the cycles.

Al-garār: tonic note.

Al-qāwi al-mũstaqim: the strong straight *jins* (tetrachord).

Al-ghina: singing.

Al-ḥadd: the fifth string on the *oud.*

Al-jahilyā: ignorance era (pre-Islamic Era).

Al-mu'allaqāt: The Suspended Odes.

Al-mũfrad al-aṣghar: the small single *jins* (tetrachord).

Al-mũfrad al-awāl: the first single.

Al-mũfrad al-awṣat: the middle single *jins* (tetrachord).

Al-naghāmih al-mafrũdā: *Proslambanomenos.*

Al-oud al-akmāl: the complete *oud*.

Al-oud al-kāmil: the perfect *oud.*

Al-oud al-mũfakāk: the disjointed *oud* that made for the *khalifas* so it would be easy to carry it with them during their travels.

Al- oud al-Shābũti: this *oud* has a rectangular shape similar in a thickness to cyprinid (small freshwater fishes) and it was invented by Mansoũr Zalzal (d. 790).

Al- oud al-Madrasi: school or training *oud*. It has a high pitch and is considered as a soprano instrument.

Al- oud al-Mũghani: type of an *oud* was invented by Ṣafi'ed-Din al-Armāwi al-Bāghdādi. It is a special instrument used to accompany singers.

Al-āṣābē al-ārbā'a: four fingers.

Al-āṣābē al-āthālāthā: three fingers.

Arkān: elements.

Asabi' (sigl. *ũsba'*): fingers.

Alwaḥ (singl. *lawḥ*): board or strips.

Al-tākht al-Arābi: Arabic musical ensemble.

Anf: nose-nut.

Atāb: fret.

Atabā: threshold.

Al-taswyā al-baṣitā: the simple tuning.

Al-taswyā al-mashhurā: famous tuning.

Al-taswyā bil ladhi bil khams: perfect fifth.

Al-taswyā bil boũd al-ladhi fil khamsā wa baqyiā: perfect fifth and one quarter-tone.

Al-taswyā bil boũd dhi al-khamsā wa tānini: perfect fifth and two whole tones.

Al-taswyā bi die'f al-ladhi bil arba'a: double fourth.

Al-taswyā bi boũd ala dhi bil kũl: octave or *diwān.*

Al-taswyā bideif al boũd al-tānini: double whole tone.

Al-taswyā bil boũd al-tanini: whole tone.

Al-taswyā al-mũrakabeh: the complex tuning.

Al-taswyā bi die'f dhi al-kũl min mũtlāq al-bāmm ila khonṣor al-zir: perfect *diwān* from *bāmm* to *khonṣor* on the *zir* string.

Al-taswyā bi tarteeb al-bāmm min al-mithlāth ala boũdain taninayen: the sequence from *bāmm* to *mithlāth* for two whole tones.

Al-taswyā bi tarteeb al-māthnā ala boũdain taninayen min al-mithlāth: the sequence from *māthnā* to *mithlāth* for two whole tones.

Al-taswyā bi tarteeb al-māthnā al boũd tanini wa baqyia min al-mithlāth: two whole tones and a half from the *māthnā* to *al-mithlāth*.

Al-taswyā bi tarteeb al-māthnā ala boũd tanini min al-mithlāth: one whole tone from *mithlāth* to *māthnā.*

Al-taswyā bi tarteeb al-bāmm min al-mithlāth ala boũd tanini: two whole tones from *bāmm* to *mithlāth*.

Awdā:(prl. *awdāt*) limma or half a tone.

Awazāh (prl. *awazāt):* tone.

Anāqāh: elegance.

Bahei: brilliance.

Banjāk: peg-box.

Bashariyā: human.

Bāshrāf: a pre-composed Arabic instrumental genre.

Bāmm: first string on the oud.

Bayit al-mālāwi: pegs-box.

Bilād al-Shām: refers to Syria, Jordan, Lebanon, and Palestine.

Bilad ma bayn a-nahrāin: Mesopotamia.

Bonṣor: ring finger fret.

Boũd al-baqyiā: minor half tone (quarter-tone).

Boũd al-kũl: whole tone.

Boũd tāanini: whole tone.

Boũdan taninyiān: two whole tones.

Bũzoq: long neck lute was known as *tanboũr.*

Dāb: tuning system.

Dāff: frame drums, tambourine.

Dhāhr: back.

Dhikr: remembrance.

Dhũ al-madatayn: the jointly and the disjunction.

Distān (prl. *dāsātin*): fret.

Diwān: octave.

Diwān al-thāni: second octave.

Doũlāb (plural, *dawālib*): literally means "wheel", it is a pre-composed instrumental genre.

Dozān: tuning system.

Fadhlā: Limma or half a tone.

Farās: horse.

Gādib: wand.

Gamariā: two small holes on the face of the oud.

Gammaz: dimple.

Gas'a: bowl.

Ghinā' murtajāl: extemporaneous singing.

Ibhām: thumb.

Iqa'a: rhythm.

Ilahiyā: referring to the divine.

Irtijāl: improvisation.

Jins (prl. *ajnās*): tetrachord.

jins al-āṣl: original tetrachord.

Jins al-farea': basis tetrachord.

Jins fawiq al-tām: perfect tetrachord.

Jins motawasit: average tetrachord.

Jins nāqis: minus tetrachord.

Jins tām: complete tetrachord.

Jins zae'd: tetrachord plus.

Jism: body.

Kae'b: heel.

Kāmān: violin.

Kasāt: finger-cymbals.

Kitāb al-Musiqā al-Kabir: The Great Book of Music.

Khānih (plural, *khānāt*): laterally, house or part-section.

Khonṣor: little finger fret.

Longā: a pre-composed instrumental genre.

Mājāri (singl. mājrā): courses (of either middle or ring finger fret) was invented by Isḥaq al-Māũseli.

Majlis: court of the Caliphs.

Mafātiḥ: (sigl. *mifāḥ*) keys.

Māqām: Arabic musical system.

Mālāwi: tuning pegs.

Māthnā: third string on the *oud*.

Marbāt: fastening place.

Mawāl (prl. *mawāwil*): vocal improvisation.

Mithlath:second string on the *oud*.

Mũgāribāt: approximating notes.

Mũgādimah: prelude.

Mũgāwirāt: adjacent notes.

Mũwāshāt (singular, *mũwāsh*): a pre-composed, metric vocal genre.

Mũjanāb: above sābābeh (first finger).

Mũjānāb al-wũṣṭa: above *wũṣṭa*.

Mũsht: comb.

Mũtlāq: open string.

Mũtrib: a professional male singer.

Mũtribāh: a professional female singer.

Nafsaniyyā: referring to the Universal Soul.

Nāqsh (prl. *nũqoũsh*) ornamentation.

Nāshāz: out of tune.

Nāy: type of flute or reed-pipe.

Niṣf al-boũd al-adhām: aphotium, which is located between *wũṣṭā* and *bonṣor* on the *bāmm*.

Raddāt (singular, *raddā*): a refrain or an echo.

Raqābā: neck.

Raqmā: membrane.

Ribaṭāṭ: places.

Risāla: treatise.

Rishā: plectrum.

Sābābeh: index finger fret.

Sādr: chest.

Ṣād and *Rād*: technique used to pluck the strings of the *oud*, which means up and down.

Sama': refers to music and singing.

Samāie: a pre-composed instrumental genre.

Sāmāi thāgil: a rhythmic pattern 3+2+2+3 (10/8).

Shāddā: tied.

Shamsiā: big hole in the middle of the face of the *oud*.

Shāṭrat (singular, *shāṭra*): half.

Shi'er: poetry.

Shāṭr: hemistich.

Shua'ab: branch.

Tabi'iyā: natural.

Tābl: double-headed drums.

Tābdil: replacement.

Tāhmilā: Arabic musical genres.

Tafkhim: enrichment.

Tākht: Arabic musical ensemble.

Takthir: abundance.

Tāqāsim: improvisation.

Tārāb: ecstasy (acute emotion of joy or grief).

Tawāfiq: harmony.

Tazyeen: embellishment.

Ũng: neck.

Wājh: face.

Watār (prl. *awtār*): string.

Wāṣlā: a traditional melody with generic components that share the same melodic mode.

Wũṣṭā: middle finger.

Zai'd: surplus.

Zakhmā: plectrum.

Zend: wrist.

Zir: the fourth string on the *oud*.

Zir thani: the fifth string on the *oud.*

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