# **Original Article**

# The Role of Music on The Âyin Ceremony of the Mevlevi Tariqa

Mohammad Ali Shokouhi<sup>a</sup>, Abdullah Yusof <sup>a\*</sup> & Aizan Ali @ Mat Zin <sup>a</sup>

- <sup>a</sup> Department of Islamic History and Civilization, Academy of Islamic Studies, University of Malaya, Malaysia
- \* Corresponding author, email; shokouhee@yahoo.com

#### **ABSTRACT**

Mevlevi Tariqa has been formed under the influence of Mevlānā Jalāl al-Din Rumi. After Mevlānā his thinking penetrated in the Mevlevis path among his followers, and later on, the mystical and spiritual concepts were gradually mixed with music and became parts of the category of Mevlevis customs and traditions. In this way, Music in this Tariqa has been formed along with mystical rituals and dance based on Mevlānā's Persian poems which is known Samā. Along with development of Mevlevi Tariqa and formation of Mevlevi-khāna (Mevlevi house) in different cities, the primitive form of Samā. gradually turned to the ceremonial form of muqābala which also known as āyin. In fact, when the Samā. took the shape of āyin, the spiritual influence of music was started with all its traits. The Mevlevi āyin may be described as a form of worship, and music is one of the main mystical and spiritual elements of the ritual. Thus, the focus of this research is the role of Music in terms of theory and practice, as well as its mystical philosophy and functionality on performing āyin. A textual and attributive review, this paper is a library-based case study and historical research using qualitative method with an inductive approach.

**Keywords:** Mevlānā, *Samā*, Mevlevi Tariga, Music, *āyin*, *magām*, *usul*.

## Introduction

In recent decades, Sufism, especially Mevlevi Tariqa, and their mystical rituals has been one of the main interests of studies. But exploring about Mevlevi music and its mystical dimensions is lacking in the existing researches. Thus, the focus of this research firstly, would be on a discussion about the formation of the  $Sam\bar{a}$  in Mevlevi Tariqa and its development to the musical ceremony known  $\bar{a}yin$ , Secondly, Given the fact that Mevlevis combined music with mystical customs and rituals, it is necessary to examine the function of music in its devotional  $\bar{a}yin$  ceremony.

Several important questions, which require more clarification, are addressed in this study, as below; What is the Mevlānā's viewpoints and his influence about  $Sam\bar{a}$  and music. How  $Sam\bar{a}$  has been formed in Mevlevi tariqa? How  $Sam\bar{a}$  gradually turned to the ceremonial form of  $muq\bar{a}bala$  or  $\bar{a}yin$ ? What is the role of Music in terms of theory and practice, as well as its mystical philosophy and functionality on performing  $\bar{a}yin$ ? According to the above questions, since music forms an inseparable part of  $Sam\bar{a}$ , therefore, it is necessary to introduce and

investigate the situation of  $Sam\bar{a}$  and especially in Mevlānā period even in short. Also, investigating this issue will clarify some theoretical aspects especially the role of  $maq\bar{a}m$ , and usul on using music in  $\bar{a}yin$  ceremony.

This research would contain some historical reviews of by referring to some of the most first-hand sources including hagiographic manuscripts that have been written by narrators, contemporary with Mevlānā, and secondary sources like books and articles of scholars also other experts' discussions have been used as well. In addition, the ideas and the attitudes of researchers, audio works and documentary films, as well as researcher personal observations have been cited.

# **Key Definitions**

 $Sam\bar{a}$  (A; lit., "hearing" "audition" [not " $Sam\bar{a}$ " meaning "sky"]; spelling in T:  $Sem\bar{a}$ ). The term which appears predominantly in Islamic Mysticism and Sufism texts is the concept of  $Sam\bar{a}$ . It is an infinitive, like "Sam" which means hearing like hearing music; even in the meaning, "a singing or musical performance".  $Sam\bar{a}$  refers to a state of "listening, dancing and acceptable euphoria".  $Sam\bar{a}$  in Mevlevi Tariqa, is the collective musical dance of dervishes which also known as  $Sam\bar{a}$  in Mevlevi Tariqa, is the collective musical dance of dervishes

Âyin (P.T; lit., "ceremony"): is the whirling ceremony of the Mevlevi dervishes.<sup>4</sup> It is the most complex compositional form of Ottoman art music and represents the utmost development of the cyclical suite composition in the Middle East.<sup>5</sup>Among Mevlevis this title also similar as āyin-é sharif (A.P; lit., "noble ceremony", T, āyin-é Serif). The word muqābala (A; lit., "facing one another"; T, mukābala) means implementation of the first part of ritual. The āyin in terms of musicology is consisted of two musical elements, maqām (mode) and usul (rhythmical mode).

## **Historical Background**

Jalāl al-Dīn Muhammad Balkhi, (d. 1273) also known as Rūmi he is widely known by Mawlānā and in Turkey as Mevlānā, which literally means "our master". He was a religious intellectual and Islamic scholar, but after meeting with mysterious mystic i.e. Shams-é Tabrizi he turned to Mystic. Shams encouraged him to emancipation from all of things and any dependence, Shams bestowed love to Mevlānā, after that, he became a lover of God. In fact, Mevlānā's life changed towards a new direction under the influence of Shams. Mevlānā never did Samā· but according to encouragement of Shams, he began Samā· and continued to do so in

Macdonald, D.B. Encyclopedia of Islam, (1<sup>th</sup> Ed) published by E. J. Brill & Luzac. S.V. Samā (1913-1938), p.120.

<sup>&</sup>lt;sup>2</sup> Ghiyas al- Din Mohammad Rampury. *Ghiyas al- Loghat*, vol.1. Iran, Tehran: Amir kabir, (1984), p. 567.

<sup>&</sup>lt;sup>3</sup> Ayduz, S., Kalin, I., & Dagli, C. *The Oxford Encyclopedia of Philosophy, Science, and Technology in Islam*. Oxford University Press, USA. (2014), p. 207.

<sup>&</sup>lt;sup>4</sup> In Mevlevi Tariqa the followers and also *Samā* performers known Dervishes.

Maren Lueg. (2010) the Mevlevi ayin Ceremony in the Turkish Republic, retrieved from; http://arabicmusicband.com/articles/mevlevi-ayin (accessed 12-May -2015).

Mevlānā was born on (1207) in the Balkh (a part of Iran in the past). concurrent with Mongol invasion, when Mevlānā was twelve, his father Sultan al- Ulamā, left the Balkh with his family, and following to the travel in Iraq, Mecca and Syria, finally they dwelled in Konya on Turkey.

all his life,  $^7$  and  $Sam\bar{a}$ : tradition as new mystical way rapidly spread among different classes of society.

After the Mevlānā death, his close friends and companions like Husām al-Din Chalabi (d.1284) who became the first successor of Mevlānā, gathered his followers and later Sultan Valad (d.1312) Mevlānā's son, considering the good environment of Seljuk dynasty established the early framework of Mevlevi Tariqa based on Mevlānā's viewpoints and thoughts.<sup>8</sup> This Tariqa continued and developed by Mevlānā descendants that called "Chalabi".<sup>9</sup> Sultan Valad, had a decisive role in propagation and preservation of *Samā'* and music. This Tariqa has been propagated by opening *Mevlevi-khāna or tekke* (monastery) in different cities in time of Divāne Muhammad Chalabi (d.1529).<sup>10</sup> There have been around two hundred *tekke* throughout Ottoman Empire in: Aleppo, Sham, Lattakia, Mecca, Belgrade, Bagdad, Antakya, Tripoli, Spyros, Medina, Mosul and Hums.<sup>11</sup>

Hence, Mevlevi Tariqa was active throughout seven centuries in the Ottoman Empire especially in Anatoly region and was developed further over the Islamic countries until the collapse of the Ottoman Empire, but due to the secularization reforms of Turkey the Sufi orders outlawed by a decree of December 1920.<sup>12</sup> Although the Mevlevi activities are still illegal in Turkey, the Samā· ceremony is holding as tourism attraction on Mevlānā's grave in Konya every year.<sup>13</sup>

# Prevalence of Samā and music

Mevlānā is considered as mystic who made dancing a central element in his Sufi doctrine. He believed that music is not only permissible in Islam, but it is a necessary religious practice as a spiritual step. Mevlānā is one of the greatest poet which his teachings are based on Islam and Quran. The importance of music and  $Sam\bar{a}$  in the thinking of Mevlānā can be seen in the very frequent appearance of musical imagery in his mystical poems like  $div\bar{a}n$  (poem book) Shams-é Tabrizy and Mathnavi. He, relied on three elements of music, love and  $Sam\bar{a}$  in his thoughts on Sufism. The  $Sam\bar{a}$  of Mevlānā was originated from his inward nature and affection as well as the passion he had for union with the beloved and closeness to the God almighty. And this passion was regardless of time and place without the intervention of the contractual forms and organized movements. He was seen performing  $Sam\bar{a}$  almost anywhere like home, streets and schools. A famous story is quoted that when Mevlānā was crossing the goldsmiths' market by hearing the sound of their hammer hitting he heard the word Allah, Allah, in the rhythmic

<sup>&</sup>lt;sup>7</sup> Sepahsālār, Feryidun Ibn Ahmad. Risāle Sepahsālār. (treatise in 1312 AD). Ed. Mohammad Afshin Wafāei, second print. Iran, Tehran: Sokhan publisher. (2008), P.56.

<sup>&</sup>lt;sup>8</sup> Golpinarly, Abd al-baqi. *Mawlaviyye pas az Molana*, tr, Toufiq Sobhani, Iran, Elm publisher. (2007), p.73.

<sup>&</sup>lt;sup>9</sup> Can, Sefik. Fundamentals of Rumi's Thought. USA: Tughra Books. (2014), P.77.

<sup>&</sup>lt;sup>10</sup> Golpinarly, Abd al-baqi. (2007). *Op. cit.* P.429.

Barihuda, T. The Mevlevi order aims to make a person a better Muslim", Retrieved from; http://www.semazen.net. (2015, Nov 19). Also see: Golpinarly, Abd al-bagi. (2007). *Op. cit.* p.430-1

<sup>&</sup>lt;sup>12</sup> Friedlander, S., & Uzel, N. The Whirling Dervishes: Being an Account of the Sufi Order known as the Mevlevis and its founder the poet and mystic Mevlana, London: Wild dood House (1975), p.111.

Researcher observation, (December 16. 2015), *Mevlānā's anniversary (Shebi Urus)*, Mevlevi shrine, and *Samā ·* ceremony hall, Turkey: Konya.

sound, he used to expose to the effect of their rhythm and started  $Sam\bar{a}$  and continued until evening prayer's time.<sup>14</sup>

Mevlānā was not only familiar with music, but he can be considered as a musician, he even was player  $rab\bar{a}b$ , and in his poems he mentioned musical scales  $(pardeh)^{15}$ in the scholastic form. During the time of Mevlānā, tanbur was played during  $Sam\bar{a}i$  and it was considered as one of the sacred musical instruments of Mevlevis, ney (reed) was also existing then. In fact, the most fascinating aspects of Mevlānā's mysticism is using both vocal and instrumental music in his sacred dance i.e.  $Sam\bar{a}i$ . Gradually, one common place was formed for praising God especially for doing  $Sam\bar{a}i$  which names Tekke or  $Mevlevi-kh\bar{a}na$  (lit., "Mevlevi house"; T, Mevlevihane). These places had a crucial role to organization and development of  $Sam\bar{a}i$  because one part of that was designed specifically for doing  $Sam\bar{a}i$  known  $Sam\bar{a}i$  and another part was allocated for musicians and singers known " $Mutrib-kh\bar{a}na$ ". Hence,  $Sam\bar{a}i$  and music were stabilized as religious traditions and were prevailed among different people, even women could engage in  $Sam\bar{a}i$  by playing drums and ney also they held  $Sam\bar{a}i$  sessions in the gardens or their houses.

# The Formation of Mevlevi āyin

As investigation shows, in the Mevlānā' era,  $Sam\bar{a}_{\cdot}$  was not in special shape or pre-specified forms as the organized rituals. At that time, the main reason in  $Sam\bar{a}_{\cdot}$  was to hold the session or to make situations in a way that took Mevlānā or his followers to a mood of ecstasy. And this passion used to happen spontaneously without the intervention of the contractual forms and organized movements. During the warming up in  $Sam\bar{a}_{\cdot}$  and by the accompaniment of music, sometimes dancers would cry and sometimes by excitement would rejoice, they would tear off their clothes, shriek and start dancing in a circle form. Meanwhile, they threw  $am\bar{a}meh$  (turbans), tore or took off their gowns, at times they would fell on the soil and prostrated, or would embrace each other. In the  $ris\bar{a}la-\acute{e}$   $Sepahs\bar{a}l\bar{a}r$ , some preliminary movement of  $Sam\bar{a}_{\cdot}$  have been explained.  $^{21}$ 

Along with development of Mevlevi Tariqa especially foundation of *Mevlevi-khāna*, it was necessary to organize some rituals especially performing *Samā*. Therefore, primitive actions of *Samā*. gradually have been changed and reformed by new shapes with accompany of music and finally turned to a kind of organized ceremony of *muqābala*. By the formation of *muqābala*, dance and music combined together based on mystical philosophy of Mevlānā and his poems,

<sup>18</sup> Feldman, W. *Music of the Ottoman Court: Makam, Composition and the Early Ottoman Instrumental Repertoire* (Vol. 10), VWB-Verlag für Wissenschaft und Bildung. (1996), P. 85.

<sup>21</sup> Sepahsālār, Feryidun Ibn Ahmad. *Risāle Sepahsālār*. (treatise in 1312 AD). Ed. Mohammad Afshin Wafāei, second print. Iran, Tehran: Sokhan publisher. (2008), p. 58.

Aflaky, Shams al- Din Ahmad. Maniqib al- arifin, ed, Tahsin Yazychy. Iran: Dunyaye Ketab. (1983). p. 429.

<sup>&</sup>lt;sup>15</sup> Before formation of *Maqām* as musical scale, *Pardeh* was a kind of musical scale in Iranian theoretical music.

<sup>&</sup>lt;sup>16</sup> Golpinarly. A, tr. Subhani Hashempor. T, *Mevlānā Jalāl al-Din*, Iran, Teharan: Pazhoheshgah-e Ulum Ensani va Mutaleate Farhangi, (1984), p.330.

<sup>&</sup>lt;sup>17</sup> Golpinarly, Abd al-baqi. (2007). *Op. cit.* p. 571.

<sup>&</sup>lt;sup>19</sup> These especial places were called by different names and depending on its function in the ritual, such as, *Khānaqāh*, *Tekke*, *Dargāh*, *Zāwiyah*, *and Âstāneh*, all of them can be considered as *Mevlevi-khāna*.

<sup>&</sup>lt;sup>20</sup> Aflaky, Shams al- Din Ahmad. (1983), vol.1. p. 601.

Thus, all mystical traditions of previous  $Sam\bar{a}$  transferred to the new shape of ceremony and manifested by mystical forms or symbols. This organized ritual, known as  $muq\bar{a}bala$  or  $\bar{a}yin$ , based on musical compositions emerged in the fifteenth century under the direction of Pir  $\bar{a}$ dil chalabi  $(d.1460)^{22}$  and reached its final form in the sixteenth and seventeenth centuries.  $^{23}$   $Muq\bar{a}bala$  is named so, because the participants are to face and bow (from the waist) to each other during the first part of the ceremony, from this point the word  $muq\bar{a}bala$  was also used instead of the word  $\bar{a}yin$ .  $^{24}$ 

The āyin 'was done in a circular form with long dresses and white loose skirts. This whirling movements which has been institutionalized only for the Mevlevi Tariqa was noted by the first European visitors to the convents of the Mevlevis. <sup>25</sup>Unlike the medieval Sufi Samā·, the Mevlevi āyin ceremony, was not restricted to a special audience, besides the Muslims and Mevlevi followers, non-Muslims even women were allowed to observe the Samā· ceremony. Thus, during the Ottoman Empire, the Mevlevi āyin was conceived of both as a ritual, which would benefit the participants and as a spiritual concert, which would have spiritual benefits for the audience as well. <sup>26</sup>According to the Travelers' descriptions such as those of Pietro Della Valle (seventeenth century) Lady Mary Wortley Montagu (early eighteenth century) and Carsten Niebuhr (later eighteenth century) as well as European paintings of the ceremony, in ottoman times, a visit to one of the *tekke* was a touristic must comparable to the Acropolis of Athens or the pyramids in Egypt. <sup>27</sup>

# The Role of Music on the Mevlevi āyin ceremony

Performing āyin, required the existence of applicable melodies and rhythms based on organized forms, which could have desirable effects among the performers and audience. Hence, when the Samā took the shape of muqābala, the Mevlevis music began to thrive with all its traits. Many composer (bastekār), musical player (mutrib), and singer (āyin-khwān) were gradually emerged. According to the Rauf Yekta Bey (d.1935) publication, a large repertoire of āyin songs (baste) composed in Mevlevi Tariqa. Until the 17<sup>th</sup> century, Mevlevis had three āyins including, Hosseini, Panjgāh and Dugāh, known as Basta-é qadim (old compositions), 30

<sup>&</sup>lt;sup>22</sup> Ekrem Isin. "Mevlevilik", *Istanbul Ansiklopedis*, Vol.4. (1994), p.423.

<sup>&</sup>lt;sup>23</sup> Binbas. I. E. Music and Samā· of the Malaviyya in the fifteenth and sixteenth centuries, In the Sufism Music and Society, Hammarlund, Anders & Olsson, Tord & Oezdalga, Istanbul: Numune Matbassi. (2001), P.67.

<sup>&</sup>lt;sup>24</sup> Golpinarly, Abd al-baqi. (2007). *Op. cit.* p. 467.

<sup>&</sup>lt;sup>25</sup> Schimmel, A. *Mystical Dimensions of Islam*, North Carolina Press. (1975), p. 179.

Maren Lueg. the Mevlevi Ayin Ceremony in the Turkish Republic, retrieved from; http://arabicmusicband.com/articles/mevlevi-ayin (2010) (accessed May 12, 2015).

Feldman, W. Music in Performance: Who Are the Whirling Dervishes, Nettl, B., Danielson, V., Stone, R. M., Porter, J., & Rice, T. *The Garland Encyclopedia of World Music*: The Middle East (Vol. 6). New York: Garland Pub. (1998). P.107

<sup>&</sup>lt;sup>28</sup> Golpinarly, A. (2007). *Op. cit.* p. 572.

<sup>&</sup>lt;sup>29</sup> Rauf Yekta, *Dârülelhân Külliyâti* (Istanbul: Belediye Konservatuari, 1924-30). See: Vicente, Victor A. (2007). p. 147.

<sup>&</sup>lt;sup>30</sup> Golpinarly, Abd al-Baqi. (2007) *Op. Cit*, p. 572.

besides this, there are around 66 extant compositions which are belong to the  $17^{th}$  century until the  $20^{th}$  century.<sup>31</sup>

The Mevlevi āyin structure generally can be divided into vocal and instrumental categories, and in terms of musicology is consisted of two musical elements, maqām and usul. Sections of the Mevlevi āyin frequently employ different maqāms, and modulation, which occurs within these sections as well. The vocal sections of each āyin, performed in the four Salam, were always composed by a single composer, and sometimes, in certain maqāms, there existed more than a single āyin.<sup>32</sup> Some of maqāms, which were used more than others such as: Rast, Hijāz, Bayāti, Sigāh, Ajam, Ruy-e Irāq, Huseyni, Chāhār-gāh, Panjqāh, Isfahān, and Farahnāk.<sup>33</sup> In fact, āyin is the most complex compositional form of art music and represents the highest development of the cyclical suite composition in the Middle East.<sup>34</sup> The Mevlevi āyin was developed into a musical structure with an originality that deserved to be discussed as a Sufi generis phenomenon.<sup>35</sup>

# Performing āyin-é Sharif

Mevlevi āyin also known as āyin-é Sharif is the central core of the Mevlevis ceremony, it takes place in a large circular-shaped room that is Perform in Samā-khāna, a part of the Mevlevi-khāna building. The musician ensemble consists of mutrib (musical instrument player) and āyin-khwān (vocalist) have crucial role to performing music in all sections of āyin. Musical instruments are consisting of ney (reed-flute) qānun, (plucked zither), kemence (a kind of fiddle), tanbur, ud (lute), and qudum (small double drum). The first known record of a āyin is written by J. Antoine Du Loir in the 17th century, he describes about musical group, dervishes' clothes and the time of ceremony. All āyin sections with accompaniment of vocal and instrumental music are as follow:

- 1. Na 4-é Sharif
- 2. Ilik Taqsim
- 3. Pesrev in Sultan Valad Devr
- 4. Four Salams (Salutations)
- 5. Son Pesrev
- 6. Son Yuruk Samā i

Gamard, Ibrahim, *Mevlevi Terms and Definitions*, the Mevlevi Order, (Mevlevi Articles). (Retrieved, 2009, August), from, http://www.dar-al-masnavi.org/ mevlevi-glossary.html.

Hammarlund, A., Olsson, T., & Ozdalga, E. *Sufism, Music and Society in Turkey and the Middle East.* Turkey; Istanbul. Numune Matbaasi. (2001). P. 49.

Markoff. Irene, Introduction to Sufi Music and Ritual in Turkey, *Middle East Studies Association Bulletin* (MESA). (1995). P.158.

Feldman, W. Cultural authority and authenticity in the Turkish repertoire. *Asian music*, 22(1) 73-111. (1990). p. 78.

Hajjariyan. M, Musighi Erfani, ed. M.R. Lotfi, *Ketab-e Sal-e Shayda*, vol.6&7, Tehran: Khorshid, (2006), p. 227.

<sup>&</sup>lt;sup>34</sup> Maren Lueg. (2010) *Op. cit.* 

<sup>&</sup>lt;sup>37</sup> Uyar, Y. M., & Beşiroğlu, Ş. Ş. Recent representations of the music of the Mevlevi Order of Sufism. Journal of Interdisciplinary Music Studies, 6(2), 137-150, (2012). p.142.

- 7. Tagsim on the Ney
- 8. Quran Recitation

According to researcher observation for the beginning, all dervishes (T, Samā ¿zans)<sup>38</sup> enter the Samā ¿-khāna led by dance master (T, Samā ¿zenbashi) and bowed line up slowly with their heads on one side of the hall. The Samā ¿zenbashi, wears a white hat (T, sikke) After all enter, the sheikh enters to the hall too. He bows to the red pust <sup>39</sup>(sheep skin) to honor Shams Tabrizi, who represents the sun. The musicians are at the opposite end of the hall on a raised platform, facing the sheikh. The dervishes now seat on their knees. At this time, the hafiz, who knows the entire Quran by memory, begins the āyin ceremony by reciting the na · t-e sharif. Here, different sections of the Mevlevi āyin ceremony with music would be explained part by part as followed.<sup>40</sup>

# Na · t-é sharif

Na: t-é sharif (A-P; lit., "the noble eulogy"), is a kind of vocal music form, composed for the eulogy of the Prophet Muhammad (PBUH). The Samā: whirling Prayer ceremony starts through reading a sermon praising the Prophet of Islam, the text of this na: t is composed by Mustafa Itri (d.1712), one of the Mevlevis Sheikhs at late seventeenth century AD. 41 In the traditional musical composition, the praise of Mevlānā is intermixed with this Persian ghazal of na: t and sometimes the word of "O" Mevlānā is also added at the end of each couplet. Some verses as follow: 42

Ya Hazrat-i Mevlānā, Haqq -Doost

(O our sublime master! Mevlānā, Friend of God!)

"yâ Habibu 'llâh, Rasul-e Khâliq-é yaktâ toy-i"

(O Beloved of God, you are the Messenger<sup>43</sup> of the Sole Creator!)

"Mustafà-wo Mujtabà ân Sayyid-é a`là toy-î"

(O Mustafa, you are the supreme master!)

Na: t is a non-rhythmic, and the vocal music improvisation which has been performed since seventeenth century up to now. These couplets are sung in "Rast musical maqām" and has the eighteen beat turki zarp (Turkish rhythm). The one who recites the na: t-e sharif, stands and while those present, in the hope of comprehending its profound meaning, they would fully

<sup>&</sup>lt;sup>38</sup> In whirling *Samā* · ceremony all performers are Mevlevi Dervishes which in Turkey known *Samā* ·zans.

<sup>&</sup>lt;sup>39</sup> pust (P; lit., "skin," "husk"; spelling in T, pust, pusteki): It symbolizes his authority. The red color symbolizes the manifestation of God [tajalli] to the prophets and saints. And it also symbolizes the Shams (the Sun) of Tabriz. See, Gamard, Ibrahim. (2009, August). Op. cit.

Researcher observation, (December 16. 2015). *Op. cit.* t-e Sharif is a poem of Mevlānā which glorifies Prophet Mohammad", but it is not recited in the earliest manuscripts of his divān. see: Schimmel, A. (1975). *Op. cit.*, p.325. As Golpinārli writes, it was by Mevlānā's grandson Ulu 'āref Chalabi (d.1319). see: Bingul Huseyin, Fatih Citlak.M. (2007). *Op. cit.*, p.35.

<sup>&</sup>lt;sup>42</sup> The Noble Eulogy (*Na`t-é Sharif*), Retrieved from http: http://www.dar-almasnavi.org/eulogy.html (Accessed. August, 2014).

<sup>&</sup>lt;sup>43</sup> Messenger (Rasool): a Qur'anic term, meaning "Messenger of God."

<sup>&</sup>lt;sup>44</sup> Maqām is a musical modes in Middle Eastern and also as main element of repertoire of Mevlevi music.

<sup>&</sup>lt;sup>45</sup> Reinhard. Ursula. *Music of the Ottoman Court.* Germany. VWB-verlang for wissenschaft und Bildung. (1996), p.769.

listen to the music and the meaning of the na  $\cdot t$  which believe to bring the mankind closer to God. 46

# Ilk Taqsim

The "Ilk" means beginning 'taqsim' means section (T, taksim). <sup>47</sup>It is a musical solo after reading  $na \cdot t$  hymns. The leader of ney (reed-) performers starts in solo, taqsim is improvisation in a free rhythm of the ney, which symbolizes our separation from God in the Mevlevi tradition. Taqsim is performed before songs and instrumental pieces, Thus, the most important task of the taqsim is to introduce the essence of  $maq\bar{a}m$ , its melodic intervals, and its dominant notes. <sup>48</sup>

According to researcher observations, in the section of *taksim*, when the melody of *ney* pervades the *Samā* atmosphere, silence is dominated and there is no sound expect *ney*, Sheikh and all Dervishes sit on hides, bending their heads to their chests and listen to *ney* melody in a meditative state. Then, the *ney* melody is diminished slowly and three other *ney* performers start their performance accompanying the first *ney*, and this continues for some minutes.<sup>49</sup>

Once the *taqsim* is finished, the *qudum zan-Bashi* (*qudum* player) drums with short and sectional beats of the *qudum* (small kettle drum). After that, the Sheikh and *Samā*, performers kiss the ground and beat their both hands on the ground at the same time and then harmoniously stand, which is indicating the day of the last judgment and the bridge *sirāt*<sup>50</sup> that is crossed to pass from this world or paradise.<sup>51</sup> Ibrahim Gamard (b.1947-) explains, when the dervishes strike the floor with their hands simultaneously and stand up known as *Zarb-e Jalāli*, it symbolizes the blast of the angelic trumpet, which is a symbol of the end of the worldly time and history and inauguration of the day of resurrection.<sup>52</sup> In this time, the first part of *Samā*, known as *devr-é Valadi*, begins.

# Pesrev in Sultan Valad Devr

Sultan Valad devr (A-P, dawr, lit.,"circle, round") is a ritual circumambulation of three rounds with a prelude for the instrumental music known as pesrev (P. pishraw) which is said to be in honor of Sultan Valad, the founder of the Mevlevi Tariqa. Pesrev in devr-é kebir, (A-P; lit., dawr-é Kabir "grand cycle") is a musically metric mode (usul), comprising of a great cycle of 28 primary beats, that are repeated twice in a long rhythm of 56 beats. By the eighteenth century, the Mevlevis were using a group of pesrev in the usul muza af devr-i kebir for the opening promenade of the āyin, called the Sultan Valad devr. Although Cantemir (d.1723) has attributed the pesrevs to the Osman Dede (d.1729) but Owen Wright, doubted that theses pesrev used for this function.<sup>53</sup>

In this section, the Shaikh, *semazenbashi*, and *semazens* (dervishes) make three slow and dignified circling, each wearing a black cloak (*khirqa*). In these circulations, the Sheikh, who is in

4

<sup>46</sup> Ibid.

<sup>&</sup>lt;sup>47</sup> The word of *taqsim* means division. In the nineteenth century, there were vocal versions of *taqsim* called *gazel*, but these have been sung scarcely at all in the twentieth century.

<sup>&</sup>lt;sup>48</sup> Reinhard. Ursula, the Garland Encyclopedia of world music, The Middle East, (Vol.6), New York. London: Routledge. (2002), p.773.

<sup>&</sup>lt;sup>49</sup> Researcher's Observation, (December 16. 2015), *Op. cit.* 

According to the Islamic believes, Muslims should cross from this bridge -which is as thin as a hair and as sharp as a razor- to achieve the paradise.

<sup>&</sup>lt;sup>51</sup> Friedlander, S. (1975). *Op. cit.*, p.91.

<sup>52</sup> Gamard became a Mevlevi sheikh in 2007, see, Gamard, Ibrahim. (2009, August). Op. cit.

<sup>&</sup>lt;sup>53</sup> Feldman, W, (1996). *Op. Cit*, P.97.

front revolve in line with other  $Sam\bar{a}$  doer dervishes, with slow and rhythmic steps around the  $Sam\bar{a}$  house; they whisper and repeat (*dhikr-Allah*) the name of God in their hearts. The loop-like circulation of  $Sam\bar{a}$  performers is a symbol of the loop and unity of dervishes with God.<sup>54</sup>

In *Valad devr*, the dervishes which revolve three times around the "Samā، house", refer to the three-monotheistic certainty thinking "ilm" (Knowledge) "Haqq" (God) "aynu" (Entity), believing that all actions to be done by almighty God. 55 According to the Sufi understanding, these three terms mean: عين اليقين ilmu 'I-yaqin", 56 (knowledge of Certainty), عين اليقين "aynu 'I-yaqin" (vision of Certainty), حق اليقين, "Haqqu 'I-yaqin" (truth of Certainty, or truth of Divine Reality). 59

#### Four Salams

Salam (A [derivation Salama, to be secure]; lit., "peace"; T; Selam) refers to the four separate musical sections in the  $Sam\bar{a}$ . Ceremony, for each of which there is a different music composition, as well as a different spiritual characteristic. The part of Salam in  $\bar{a}yin$ -e sharif is based on four sections of both vocal and instrumental compositions using contrasting rhythmic cycles and is performed by musical group. The vocal section of four Salams were usually composed based on the poems of Mevlānā, Sultān Valad (d.1312) and Ulu 'āref Chalabi (d.1319).

The First Salutation: (T, Selamlar) It is the first lyric part of the Mevlevi āyin-é sharif which is usually based on a poem by Mevlānā. Dervishes are to experience both the spiritual and material worlds, while they whirl in the first salutation of the Mevlevi āyin. It may be composed using the following usul, the fourteen-beat devr-é revan (P, dawr-é ravān). The first salutation symbolizes that dervishes are viewing the entire universe as a way to reach the heavens of God. The first Salam is usually long, depending on numbers of semasans (dancers). The whirlers begin to rotate their left feet in short twists, using the right foot to drive their bodies around the left foot. The body of the whirler is meant to be supple with eyes open unfocused, so that the images become blurred and flowing. When the music becomes slower and the semazans stop, they turn abruptly and face to the pust attentively. The first Salam is finished when semazens stop and return their arms to the supplication position, and then retreat backwards to the sides of the Samā -khāna and positions themselves close together in small groups of three or four.

**The Second Salutation**: Like all four salutations, the second part is usually based on one of Mevlānā's poems. At the beginning of second Salam, the sheikh leaves the *pust* again, moves forward for a few steps and bows and everyone bows with him respectively. Then the *samazens* salute the sheikh and enter the turn in the second whirling *Samā*. <sup>62</sup>Besides becoming free of unworthy attachments and passions, the dancers also become channels for spiritual energy,

<sup>&</sup>lt;sup>54</sup> Tafazooli, Abu al-Qasim. (1992). *Op. Cit.* p. 113.

<sup>&</sup>lt;sup>55</sup> Golpinarly, Abd al-Baqi. (2007) *Op. Cit*, p.488.

<sup>&</sup>lt;sup>56</sup> Holy Quran, At-Takathur (102):5.

<sup>&</sup>lt;sup>57</sup> Holy Quran, At-Takathur (102):7.

<sup>&</sup>lt;sup>58</sup> Holy Quran, Al-Haqqah (69):51.

<sup>&</sup>lt;sup>59</sup> Gamard, Ibrahim. (2009, August). *Op. cit*.

<sup>&</sup>lt;sup>60</sup> Uyar, Y. M., & Beşiroğlu, Ş. Ş. (2012). *Op. cit.,* p.143.

http://www.bazaarturkey.com/tours/whirling dervish ceremony in Sultanahmet.html (accessed 19-Oct -2016).

<sup>&</sup>lt;sup>62</sup> Researcher observation, (December 16. 2015), Op. cit.

which enter through their upturned right hand and is directed downwards to the earth through their left hand.<sup>63</sup> This section may be composed in the following *usul*: the 10-beat *agir evfer*. The second cycle represents the dissolution of one's whole existence inside of 'the Divine Unity'. In the music performance, where the tempo decreases, an emphasis is put on an aspect of the Sufi philosophy, that is, by contemplating the universe, one may experience an awareness of God.<sup>64</sup>

**The Third Salutation**: This Section is usually long too, depending on the numbers of *semasans*. The third *Salam* is identical to the first *Salam*, except for two slight variations. They do not kiss the hand of sheikh upon entering the turn and the length of the ceremony is somewhat different. The *Salam* is divided into two parts: including different the melody and the rhythm. In the first part, the cycle begins with a rhythmic pattern, called *devr-é kabir* (A-P, lit., "grand cycle")<sup>65</sup>but it is different from *Sultan Valad's devr*, whose beats are twenty-eight to four (28/4).

The second part of this third *Salam* is a kind of waltz, known *yuruk-Samā i*, whose beats are six to eight (6/8). There is a traditional rhythm between the two above parts called *Aksāk Samā i* (the limping waltz) and its pattern consist of ten to eight (10/8) beats. The last part of third *Salam* is the fastest part of the Mevlevi *āyin*. The waltz rhythm, that is eight to six (8/6), gives possibility of wider leeway to the composer. The performance of this part presents the opportunity for the highest mystical joys to be felt and expressed. Here, the mystical feelings have reached the Summit and are transformed into ecstasy. The bond between the musicians, *āyin-khwāns* and *semazenzs* become complete in this section.<sup>66</sup>

The yuruk- $Sam\bar{a}$  i is consisted of 6-beat parts and a fixed melodic part of the  $\bar{a}yin$ , dating back to the fifteenth-century compositions. The third cycle represents that dervishes are cleansing themselves of their sins and attain the spiritual perfection. In this salutation, as the tempo becomes faster, it symbolizes the divine reality, the desire to reach God and dissolution in his love. <sup>67</sup>

**The Fourth Salutation**: At the beginning of this section, the first *samazen* bows to the sheikh and begins to turn very quickly around the hall until he comes to the end of the line of *samazenlar*, who have not yet entered the turn. Then, he moves to the left of the *pust* on the point of the crescent. Each of the *semasenlar* follows this pattern until all are turning in place. In the fourth *Salam*, the rhythmic pattern is *usul evfer* nine to eight (9/8), which is slow in rhythm and long in duration, and the ecstasy is reduced. The dervishes who became delirious during the eight to six (8/6) beats, begin to concentrate again.<sup>68</sup>

The sheikh, who had been stood at the *pust* for the first three salutations, during which the musicians were playing and the *āyin-khwāns* chanted, now joins the whirling. A rich symbolism lays behind this Mevlevi ceremony. In spinning, they re-create the glory and harmony of celestial bodies. Each dervish represents a planet turning on its axis, and an elder member of the

<sup>&</sup>lt;sup>63</sup> Barber, X. T. *Four interpretations of Mevlevi Dervish dance*, 1920–1929. Dance Chronicle, 9(3), 328-355. (1985). p.331.

<sup>&</sup>lt;sup>64</sup> Uyar, Y. M., & Beşiroğlu, Ş. Ş. (2012). *Op. cit.*, p.143.

<sup>65</sup> Gamard, Ibrahim. (2009, August). Op. cit.

<sup>&</sup>lt;sup>66</sup> Friedlander, S. (1975). *Op. cit.*, p.135.

<sup>&</sup>lt;sup>67</sup> Uyar, Y. M., & Beşiroğlu, Ş. Ş. (2012). *Op. cit.*, p.143.

<sup>&</sup>lt;sup>68</sup> Friedlander, S. (1975). *Op. cit.*, p.135.

order, or the sheik, often twirls alone in the center of the hall to symbolize the sun,  $^{69}$  and the dervishes represent the planets, orbiting around it and concurrently around themselves, as it were in the symbolic solar system of Mevlānā Jalāl al-Din Rumi.  $^{70}$ The sheikh whirls slowly along the equator line to the center of the  $Sam\bar{a} \leftarrow kh\bar{a}na$ , while a distant wailing sound leads him back to his pust, he stands at his pust, as they turn counterclockwise, repeating their inaudible dhikr "Allah, Allah".  $^{71}$ 

There are different mystical viewpoints on the interpretation of the four *Salam*. In an interview Nail Kesova, the Shaikh of *Mevlevi-khāna* in Istanbul says that, "*Samā* ceremony is a way to reach ecstasy, its four parts, first part means "toward God", second part "with God", and the third part "in God". This third part represents the ecstasy, the fourth part represents coming back, and at the end, "we try to understand our mission." As Gamard (b.1947-) says, the symbolism of these four "mystical journeys" may be interpreted variously. According to the traditional Sufi, the four terms are understood as "*Shari at*" the Law (established by God), "*Tariqat*" the Way (to God), "*Haqiqat*" the Truth (of God), "*Ma rifat*" the Knowing (of God).<sup>73</sup>

Khan Malek-é Sassanid, who observed the <code>Samā</code> in the Gālātā <code>tekke</code> of Istanbul around 1919-1923, writes, <sup>74</sup> it was routine the performing <code>āyin-e</code> sharif every Friday, he explains: The dervishes one by one entered the dancing venue, while pointing the palms of their right-hands towards the sky and their left-hand palm towards the ground (which means getting blessing from heaven and granting it to the earth inhabitants). Then, <code>Samā</code> started with "sāz" (musical instrument) and "naghāreh" (kettledrum) and singers sang poems in Persian in different musical maqāms. The first "Salam" was performed in "ashirān-e ajam maqām", the second "Salam" in "Isfahān maqām", the third "Salam" in "Nahavand maqām" and the fourth "Salam" in "Dugāh maqām". At the end of each song, one maqām was played sharply with musical instruments. <sup>75</sup> After fourth Salam, two instrumental sections are played which are son pesrev and yuruk Samā in "Isfahān magām".

# Son Pesrev

Son pesrev (T-P; lit., "final prelude") is the last pesrev or the final prelude in the Whirling  $\bar{a}yin$  Ceremony, it is in a rhythmic pattern of four (4) beats and is the instrumental musical section. The Son pesrev is merely a pesrev in the desired  $maq\bar{a}m$  from the repertoire, altered rhythmically to fulfil a concluding function in the sequence.<sup>76</sup>

<sup>&</sup>lt;sup>69</sup> Barber, X. T. (1985). *Op. cit.,* P. 331.

<sup>&</sup>lt;sup>70</sup> Uyar, Y. M., & Beşiroğlu, Ş. Ş. (2012). *Op. cit*, p.143.

<sup>&</sup>lt;sup>71</sup> Friedlander, S. (1975). *Op. cit.*, p.92.

<sup>&</sup>lt;sup>72</sup> William Dalrymple, *The Mystic Music of Islam, Documentary*, retrieved from, https://www.youtube.com/watch?v=NiwRGkQQm9I (accessed 9- Nov -2016).

<sup>&</sup>lt;sup>73</sup> Gamard, Ibrahim. (2009, August). Op. cit.

Sasani. Khan Malik, Yad budhay-e Sefarat-e Istanbul, second print, Iran; Tehran, Babak. (1975), P.166-172

Tafazooli, Abu al-Qasim. Sama-e Darvishan Dar Turbate Mawlana. Iran, Tehran: self-publisher. (1992). p.77-84.

Signell, K. L. (1973). The Turkish Makam System in Contemporary Theory and Practice, Doctor of Philosophy, University of Washington, ProQuest, p. 20.

#### Son Yuruk Samā i

At the end of the Mevlevi  $\bar{a}yin$  Ceremony and following the Fourth Salam and son pesrev, there is an instrumental section, which is called the  $Son\ yuruk\ Sam\bar{a}\ i$  (final  $yuruk\ Sam\bar{a}\ i$ ). It is a section played by musical instruments in a rhythmic pattern of six (6) beats  $yuruk\ Sam\bar{a}\ i$   $usul.^{77}$ 

# Tagsim on the Ney

The mystical dance of the Mevlevi comes to an end with the final note of the *son taksim* (final *taqsim*).<sup>78</sup> The performance of this part of music is done along with concentration and mystical contemplation. During this solo, the sheikh, who is known as *pust-neshin*, (who sits on the sheep skin) slowly begins to return to the red *pust* as a single *ney* sounds a distant wailing sound that leads him back to his *pust*. When the sheikh reaches the *pust* and bows, sits on the *pust* and kisses the ground. During the final instrumental solo, the *semazens* continues to whirl until the *taqsim* music comes to an end, now they kiss the ground and listen to the recitation of Holy Qur'an.

### **Quran Recitation**

When the music finishes, a hafiz, who knows the entire of Quran by memory, recites some verses (*surah*) of Holy Quran. When the recitation is finished, the sheikh pronounces *Fatiha* in a loud voice. Then everyone recites the surah *Fatiha* of Quran, all dervishes kiss the ground and stand up. Sheikh recites a prayer to Mevlānā and Shams Tabrizi and begins the sound "*Hu*" *dhikr*, 79 now, all dervishes join him in sounding the "*Hu*", *u*, *u*, then, the *Samā* ceremony comes to an end.

#### Conclusion

The formation of Mevlevi Tariqa was based on Mevlānā's spiritual influence on his followers. In Mevlevi Tariqa, Music has been formed along with mystical rituals and traditions especially Samā: (spiritual dance). Along with formation Mevlevi-khāna or tekke (monastery), primitive actions of Samā: turned to a kind of organized ceremony of muqābala based on mystical philosophy of Mevlānā and his poems. Performing new shape of muqābala required the existence of applicable melodies and rhythms based on contractual forms, which could have desirable effects among the performers and audience, thus, Mevlevis music began to thrive with all its traits which known āyin. Hence, many composer, musical player and singer were gradually emerged and a large repertoire of ayin songs composed in Mevlevi Tariga. The ayin was done in a circular form based on two musical elements, maqām and usul. The vocal sections of each āyin are including of the na · t-e sharif for the eulogy of the Prophet Muhammad (PBUH) and performing the fourth Salam. Instrumental sections are including pesrev, Son Yuruk Samā i and the solo of tagsim by improvisation of the ney (reed-flut) in a free rhythm which symbolizes our separation from God in the Mevlevi tradition. In fact, Mevlevi āyin is the most complex compositional form of art music and represents the highest development of the cyclical suite composition in the Middle East.<sup>80</sup> It is also possible to make some general observation on the āyin characteristics as a genre.

<sup>&</sup>lt;sup>77</sup> Uyar, Y. M., & Beşiroğlu, Ş. Ş. (2012). *Op. cit.*, p.143.

<sup>&</sup>lt;sup>78</sup> This improvised section sometimes can be performed by any instrument.

<sup>&</sup>lt;sup>79</sup> The term Hu" is Arabic ( هو), one of the *dhikr* which is the names of God.

<sup>80</sup> Maren Lueg. (2010) *Op. cit.* 

# References

- Aflaky, Shams al- Din Ahmad. *Maniqib al- 'ārifin,* ed, Tahsin Yazychy. Iran: Dunyaye Ketab. (1983). p. 429.
- Ayduz, S., Kalin, I., & Dagli, C. *The Oxford Encyclopedia of Philosophy, Science, and Technology in Islam*. Oxford University Press, USA. (2014).
- Barber, X. T. Four interpretations of Mevlevi Dervish dance, 1920–1929. Dance Chronicle, 9(3), 328-355. (1985).
- Barihuda, T. The Mevlevi order aims to make a person a better Muslim", Retrieved from; http://www.semazen.net. (2015, Nov 19).
- Binbas. I. E. Music and Samā· of the Malaviyya in the fifteenth and sixteenth centuries, In the Sufism Music and Society, Hammarlund, Anders & Olsson, Tord & Oezdalga, Istanbul: Numune Matbassi. (2001).
- Can, Sefik. Fundamentals of Rumi's Thought. USA: Tughra Books. (2014).
- Ekrem Isin. "Mevlevilik", Istanbul Ansiklopedis, Vol.4. (1994).
- Feldman, W. Cultural authority and authenticity in the Turkish repertoire. *Asian music*, 22(1), 73-111. (1990).
- Feldman, W. Music of the Ottoman Court: Makam, Composition and the Early Ottoman Instrumental Repertoire (Vol. 10), VWB-Verlag für Wissenschaft und Bildung. (1996).
- Feldman, W. Who Are the Whirling Dervishes, Nettl, B., Danielson, V., Stone, R. M., Porter, J., & Rice, T. *The Garland Encyclopedia of World Music*: The Middle East (Vol. 6). New York: Garland Pub. (1998).
- Friedlander, S., & Uzel, N. The Whirling Dervishes: Being an Account of the Sufi Order known as the Mevlevis and its founder the poet and mystic Mevlana, London: Wild dood House (1975).
- Gamard, Ibrahim, *Mevlevi Terms and Definitions*, the Mevlevi Order, (Mevlevi Articles). (Retrieved, 2009, August), from, http://www.dar-al-masnavi.org/mevlevi-glossary.html.
- Ghiyas al- Din Mohammad Rampury. Ghiyas al- Loghat, vol.1. Iran, Tehran: Amir kabir, (1984).
- Golpinarly, Abd al-baqi. *Mawlaviyye pas az Molana*, tr, Toufiq Sobhani, Iran, Elm publisher. (2007).
- Golpinarly. A, tr. Subhani Hashempor. T, *Mevlānā Jalāl al-Din*, Iran, Teharan: Pazhoheshgah-e Ulum Ensani va Mutaleate Farhangi, (1984).
- Hajjariyan. M, Musighi Erfani, ed. M.R. Lotfi, *Ketab-e Sal-e Shayda*, vol.6&7, Tehran: Khorshid, (2006).
- Hammarlund, A., Olsson, T., & Ozdalga, E. *Sufism, Music and Society in Turkey and the Middle East.* Turkey; Istanbul. Numune Matbaasi. (2001).
- Holy Quran.
- http://www.bazaarturkey.com/tours/whirling dervish ceremony in Sultanahmet.html (accessed 19- Oct -2016).

- Macdonald, D.B. *Encyclopedia of Islam*, (1<sup>th</sup> Ed) published by E. J. Brill & Luzac. S.V. *Samā* (1913-1938).
- Maren Lueg. the Mevlevi ayin Ceremony in the Turkish Republic, retrieved from; http://arabicmusicband.com/articles/mevlevi-ayin (2010) (accessed 12-May -2015).
- Markoff. Irene, Introduction to Sufi Music and Ritual in Turkey, *Middle East Studies Association Bulletin* (MESA). (1995).
- Rauf Yekta, *Dârülelhân Külliyâti* (Istanbul: Belediye Konservatuari, 1924-30). See: Vicente, Victor A. (2007).
- Reinhard. Ursula, the Garland Encyclopedia of world music, The Middle East, (Vol.6), New York. London: Routledge. (2002).
- Reinhard. Ursula. *Music of the Ottoman Court.* Germany. VWB-verlang for wissenschaft und Bildung. (1996).
- Researcher observation, (December 16. 2015), *Mevlānā's anniversary (Shebi Urus)*, Mevlevi shrine, and *Samā'* ceremony hall, Turkey: Konya.
- Sasani. Khan Malik, Yad budhay-e Sefarat-e Istanbul, second print, Iran; Tehran, Babak. (1975).
- Schimmel, A. Mystical Dimensions of Islam, North Carolina Press. (1975).
- Sepahsālār, Feryidun Ibn Ahmad. *Risāle Sepahsālār*. (treatise in 1312 AD). Ed. Mohammad Afshin Wafāei, second print. Iran, Tehran: Sokhan publisher. (2008).
- Signell, K. L. *The Turkish Makam System in Contemporary Theory and Practice*, Doctor of Philosophy, University of Washington, ProQuest. (1973).
- Tafazooli, Abu al-Qasim. *Sama-e Darvishan Dar Turbate Mawlana*. Iran, Tehran: self-publisher. (1992).
- The Noble Eulogy (Na`t-é Sharif), Retrieved from http://www.dar-almasnavi.org/eulogy.html (Accessed. August, 2014).
- Uyar, Y. M., & Beşiroğlu, Ş. Ş. Recent representations of the music of the Mevlevi Order of Sufism. Journal of Interdisciplinary Music Studies, 6(2), 137-150, (2012).
- William Dalrymple, *The Mystic Music of Islam, Documentary*, retrieved from, https://www.youtube.com/watch?v=NiwRGkQQm9I (accessed 9- Nov -2016).