Department of Music
The University of Sheffield

Rhythmic Structure in Iranian Music

(Vol. I)

Mohammad Reza Azadehfar

Submitted for the Degree of PhD

July 2004

Abstract

Most previous studies of Iranian music focus on melodic systems (Farhat, Zonis, etc.) or on instrumentation and the transcription of folk songs (Massoudieh, Darvishi, etc.). This thesis examines the so-far neglected rhythmic structure of Iranian classical music. This research has adopted a multidisciplinary perspective, employing approaches from the psychology of music, Western and Iranian music theory, historical musicology and the ethnomusicological approach of participant-observation.

In order to investigate the rhythmic aspect of Iranian music and attempt to relate it to other aspects of this music, this thesis examines different issues related to the rhythmic structure of Iranian music, including the rhythmic structure of the Persian poetry, the old rhythmic cycles and the rhythmic characteristics of both improvisation and composed music. Analysis of more than fifty improvisations and composed music in this thesis shows that the rhythmic organisation of *gūsheh-ha* and musical genres with any rhythmic profile (such as free metre, stretchable metre or fixed metre) may be influenced by the shape of Persian poetic metres.

A wide exploration of music-related manuscripts from the twelfth to fifteenth centuries provides an opportunity to compare more than thirty different rhythmic cycles recorded there. Although this system of rhythmic cycles is no longer explicitly used in Iranian music, examining several examples of contemporaneous improvisation and composed music reveals that a taste of the old rhythmic cycles is still felt in this music. An adaptation of the old rhythmic cycles examined in this thesis to current techniques of *tombak* performance is another outcome of this thesis. Moreover, presenting a case study of contemporary performance of Iranian classical music at the end of this thesis provides an opportunity to exhibit the role in a real performance of most of the theories raised in this thesis.

Acknowledgments

I owe much of my musical knowledge to Sa'īd Naimimanesh, Sa'īd Sābet and master Farāmarz Pāyver in Iranian music and Sharif Lotfi and Karim Gogerdchi in Western music. I am indebted to Professor Jonathan Stock, my first teacher in ethnomusicology. I have benefited from his broad knowledge in music of the world as well as in theoretical issues of the discipline of ethnomusicology. I appreciate his patience in critically reading every section of this work and the freedom he gave me in finding my own way in this thesis. I thank Dr Andrew Killick, who generously responded to much of this work as it was written up and benefited me with many valuable comments.

I thank all the staff of the Department of Music who supported me at all stages of my study at the University of Sheffield, especially the grant they offered me for my second period of fieldwork in Iran. Acknowledgment is also due Ministry of Science, Research and Technology of Iran for a doctoral scholarship, and to the British Government for award of an Overseas Research Studentship. Thanks are also due to all the people who helped me during my fieldwork in Iran, especially my sister Monir and brothers Ḥasan and Ḥamid.

My special thanks go to Mojgan Mirtaheri, my wife, who helped me with her support during my study. I appreciate the patience she had in the face of many limitations and difficulties in living far from home during my long study in Sheffield, and I note her own generous input into the form and intellectual content of this study.

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Track 2 *Bakhteyārī* in *dastgāh Homāyūn*

Track 3 *Sayakhī* in *āvāz Abū-atā*

Track 4 *Reng-i Ḥarbī* in *Māhūr*, a version by Farāmarz Pāyvar for *santūr*

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Track 6 *Sāqi-nāmeh* in *Māhūr*

Track 7 *Zang-i shotor qadīm* in *Segāh*

Track 8 *Zangūleh* in *Chahārgāh*

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Track 20 Rhythmic pattern of Toghānian's version of *Zang-i shotor* (on *tombak*)

Track 21 Rhythmic pattern of *Ḥarbī* (on *tombak*)

Track 22 Rhythmic pattern of *Majlis afrūz* (on *tombak*)

Track 23 Rhythmic pattern of *Sāqi-nāmeh* (on *tombak*)

Track 24 Rhythmic pattern of *Gereyli* (on *tombak*)

Track 25 Rhythmic pattern of *Zangūleh* (on *tombak*)

Track 26 *Mokhammas ṣaghīr,* 4 *naqarāt* (on *tombak*)

Track 27 *Fākhtī aṣghar* and *Far' Far' Turkī (Sharḥ-i Adwār),* 5 *naqarāt* (on *tombak*)

Track 28 *Ẓarb Fath (Djāmi' al-Alḥān),* 5 *naqarāt* (on *tombak*)

Track 29 *Hazaj thānī,* 6 *naqarāt* (on *tombak*)

Track 30 *Turkī sarī',* 6 *naqarāt* (on *tombak*)

Track 31 *Khafīf thaqīl (Sharafiyah),* 8 *naqarāt* (on *tombak*)

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Track 33 *Khafīf ramal,* 10 *naqarāt* (on *tombak*)

Track 34 *Hazaj awwal,* 10 *naqarāt* (on *tombak*)

Track 35 *Fākhtī ṣaghīr* and *Turkī khafīf* (*Djāmi' al-Alḥān*), 10 *naqarāt* (on *tombak*)

Track 36 Unnamed cycle (*Durrat al-Tāj*), 10 *naqarāt* (on *tombak*)

Track 37 *Turkī (Durrat al-Tāj),* 12 (14) *naqarāt* (on *tombak*)

Track 38 *Ramal* (version 1) and *Turkī khafīf* (*Risāleh Mūsīqī*), 12 *naqarāt* (on *tombak*)

Track 39 *Ramal* (version 2) and *Ẓarb 'aṣl* or *Ẓarb rāst* (*Durrat al-Tāj*), 12 *naqarāt* (on *tombak*)

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Track 41 *Ramal (Adwār),* 12 *naqarāt* (on *tombak*)

Track 42 *Ẓarb Jadīd (Djāmi' al-Alḥān),* 14 *naqarāt* (on *tombak*)

Track 43 *Thaqīl awwal,* 16 *naqarāt* (on *tombak*)

Track 44 *Thaqīl thānī* and *Mokhammas kabīr,* 16 *naqarāt* (on *tombak*)

Track 45 *Khafīf thaqīl,* 16 *naqarāt* (on *tombak*)

Track 46 *Khafīf (Durrat al-Tāj),* 16 *naqarāt* (on *tombak*)

Track 47 *Fākhtī moẓā'af,* 20 *naqarāt* (on *tombak*)

Track 48 *Turkī 'aṣl jadīd,* 20 *naqarāt* (on *tombak*)

Track 49 *Thaqīl ramal,* 24 *naqarāt* (on *tombak*)

Track 50 *Thaqīl ramal (Sharafiyah, Durrat al-Tāj),*24 *naqarāt* (on *tombak*)

Track 51 *Turkī 'aṣl ghadīm,* 24 *naqarāt* (on *tombak*)

Track 52 *Chahār ẓarb,* 24 *naqarāt* (on *tombak*)

Track 53 *Fākhtī aẓ'āf,* 40 *naqarāt* (on *tombak*)

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Track 1 *Sūrat Yūsuf* from Quran presented by Shaikh 'Abd al-Bāset 'Abd al-Samad

Track 2 *Sharveh* vocal song from Būshehr

Track 3 Improvisation based on the *gūsheh* of *Shekasteh* in a private lesson by Nour Ali Boroumand

Track 4 Performing the *gūsheh* of *Shekasteh* in a private lesson by Boroumand

Track 5 *Maṯnavī* in *dastgāh* of *Shūr* by Mahmud Karimi

Track 6 *Baste-negār* in *Abū-atā* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 7 *Baste-negār* in *Bayāt turk* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 8 *Baste-negār* in *Bayāt kord* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 9 *Naghme-ye avval* in *Shūr* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 10 *Chahār pāreh* in *Māhūr* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 11 *Chahār pāreh* in *āvāz* of *Abū-atā* by Mahmud Karimi

Track 12 *Sūz o godāz* in *Bayāt Isfahan* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

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Track 15 *Sāqi-nāmeh*, *Koshteh-mordeh*, and *Ṣufi-nāmeh* in *Māhūr* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

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Track 17 *Koshteh* in *Māhūr* by Mahmud Karimi

Track 18 *Ṣufi-nāmeh* in *Māhūr* by Mahmud Karimi

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Track 20 *Gereyli* in *Shūr* by Mahmud Karimi

Track 21 *Zang-i shotor* in *Rāst-panjgāh* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 22 *Zang-i shotor* in *Homāyūn* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 23 *Zang-i shotor* in *Segāh* performed by Toghānian

Track 24 *Zangūleh* in *Māhūr* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 25 *Naṣīrkhānī* in *Māhūr* by Mahmud Karimi

Track 26 *Kereshmeh* in *Māhūr* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 27 *Kereshmeh* in *Shūr* by Mahmud Karimi

Track 28 *Kereshmeh* in *Shūr* performed by Shajarian

Track 29 *Dobeytī* in *Shūr* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 30 *Dobeytī* in *Shūr* by Mahmud Karimi

Track 31 *Mokhālef* in *Segāh* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 32 *Mokhālef* in *Segāh* by Mahmud Karimi

Track 33 *Taḥrīr* in *dastgāh Shūr* performed by Shajarian

Track 34 *Gham-angiz* in *Dashtī* by Mahmud Karimi

Track 35 *Darāmad* of *Afshāri* by Mahmud Karimi

Track 36 *Darāmad* of *Afshāri* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 37 *Pīshdarāmad Māhūr* by Darvishkhān performed by an orchestra of Iranian master musicians, conducted by Farāmarz Pāyvar

Track 38 *Chahārmeẓrāb* of *Homāyūn* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 39 *Taṣnīf Amān* by Āref presented by Shajarian

Track 40 *Reng Ẓarb-i oṣūl* from the *radīf* of Mirzā 'Abdullāh performed by Boroumand

Track 41 *Reng Ẓarb-i oṣūl,* orchestrated version by Parviz Meshkatian

Track 42 *Darāmad* of *Shūr* performed by Farhang Sharif

Track 43 *Pīshdarāmad* in *dastgāh Shūr* performed by Farhang Sharif and Mohammad Isma'ili

Track 44 First *chahārmeẓrāb* performed by Farhang Sharif and Mohammad Isma'ili

Track 45 Second *chahārmeẓrāb* performed by Farhang Sharif and Mohammad Isma'ili

Track 46 Third *chahārmeẓrāb* performed by Farhang Sharif and Mohammad Isma'ili

Map of Iran[1]

[1] Map from: www.nationalgeographic.com

Note on transliteration of Persian letters

There is no single rule in the transliteration of Persian terms to English. Different sources use various systems of transliterations. The most well-known systems are those used in the *Encyclopaedia Iranica*, the *Encyclopedia of Islam*, *International Journal of Middle East Studies* and the Library of Congress. Each system has some advantages and some limitations. For instance, the *Encyclopaedia Iranica* employs single letters in special shapes to show consonants, which normally are represented by a combination of to letters—š instead of sh (as in shop) and č instead of ch (as in child). *International Journal of Middle East Studies* uses the modified *Encyclopedia of Islam* system. The problem with *Encyclopedia of Islam* and consequently the *International Journal of Middle East Studies* is that the transliteration system is based on Arabic pronunciation, which is different in number of respects from Persian pronunciation. For instance, ض is represented with ḍ in this Encyclopaedia which makes sense in Arabic pronunciation but in Persian it is simply pronounced z. Those problems have been avoided in the Library of Congress system of transliteration where Arabic and Persian have two separate systems of transliteration.

All terms from Persian and Arabic in this thesis are transliterated according to the system of Library of Congress.[2] None of the sources mentioned above suggest English equivalents for the vowels and consonants, and some of the consonants used in Persian language do not exist in English. The list of English examples presented here have been developed in collaboration with the English Language Teaching Centre, University of Sheffield, and are used only as approximate equivalents.

---

[2] The table of transliteration presented here is a summary of the instructions and the table of transliteration of Persian language provided by the Library of Congress (see: http://www.loc.gov/rr/amed/TransliterationPage/TransliterationPage1.html).

Vowels and Diphthongs

Persian	English	as in
ـَ	a	hat
ـُ	u	go
ـِ	i	ten
آ	ā	arm
ی	ī	see
اُو	ū	too
اَوْ	aw	brown
اَی	ay	(no equivalent diphthong was found in English)

Consonants[3]

Persian	English	as in
ب	b	bad
پ	p	pen
ت	t	tea
ث	s̲	sit
ج	j	Jack
چ	ch	cheap
ح	ḥ	him
خ	kh	Bach (no equivalent in English)

[3] In Persian language there are a number of the consonants which have a different spelling but the same pronunciation (the same consonants have different pronunciations in Arabic). In the Library of Congress system of transliteration those letters are distinguished by dotted, double-dotted and underlined characters which help the readers familiar with Persian language, to recognise the correct spelling.

د	d	dip
ذ	z̲	zoo
ر	r	trilled 'r'
ز	z	zoo
ژ	zh	measure
س	s	sit
ش	sh	she
ص	ṣ	sit
ض	ẓ	zoo
ط	ṭ	tea
ظ	ẓ	zoo
ع	‘	'a' with pressure on throat (no equivalent consonant in English)
غ	gh	articulated further back than 'g' (no equivalent in English)
ف	f	free
ق	q	articulated further back than 'q' (no equivalent in English)
ک	k	cat
گ	g	got
ل	l	leg
م	m	man
ن	n	no
و	v	voice
ه	h	him

Notes:

1. For short vowels not indicated in the script, the Persian vowels nearest the original pronunciation of the word are supplied in romanized.

2. The two-letters symbols *kh*, *gh*, *sh* and *zh* are note combined by an underline. In case infrequent sequences of *k*, *g*, *s* and *z* followed by *h* an apostrophe (') is used to separate an independent h from a preceding of *k*, *g*, *s* and *z* (example maz'habī).

3. The silent *v* (و) preceded by an initial *kh* (خ) is not retained in transliteration (e.g. *Norūzkhān*, rather than *Norūzkhvān*).

4. The Persian suffix for the plural form "*-ha*" is retained instead of adding the English plural suffix "s" to a Persian word (e.g. *dastgāh-ha* rather than *dastgāh*s).

5. Concerning person's name, as a general rule, the named person's own spelling is respected (e.g. Massoudieh rather than Mas'ūdīyeh).

6. Foreign words in a Persian context, including Arabic words, are romanized according to the rules of Persian (except the technical Arabic names used in rhythmic cycles).

7. Words in Arabic context are romanized according to the rules of Arabic. Transliteration of Arabic words follow the same rules as in Persian except following consonants:

Arabic	English
ث	th
ذ	dh
ض	ḍ
و	w

Note on Historical Periods

The country has always been known to its own people as Iran (land of the Aryans), although for centuries it was referred to as Persia by the Europeans, mainly due to the writings of Greek historians. In 1935 the government specified that it should be called Iran; however, in 1949 they allowed both names to be used.

The table below shows the order of historical periods from Achaemenid up to now.[4]

Achaemenid	559–330 BCE
Hellenistic	331 BCE–250
Parthian	247 BCE–224
Sasanian	224–651
The advent of Islam	640–829
Abbasid	750–821
Samanid	819–999
Ghaznavid	977–1186
Seljukid	1040–1157
Mongol	1256–1394
Timurid	1387–1502
Şafavid	1502–1736
Zandieh	1750–79
Qajar	1794–1925
Pahlavi	1925–79
Islamic Republic	1979–

[4] The information on table is based on the Encyclopaedia Britannica.

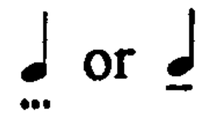
Note on Music Notation

This dissertation employs two systems of notation. The first is a notation based on ancient Iranian musical sources which I mainly use to represent rhythms. This system is fully introduced and explored in Chapter Two. The second is Western notion in the way it is currently used in Iran.

Elements of Western staff notation were adapted for notating Iranian music by Ali Naqi Vaziri in the 1920s. This idea was expanded to notate percussion instruments such as *tombak* in the 1960s by a group of Iranian music theorists and musicians under the editorial guidance of Ḥoseyn Dehlavi. Gradually, further signs for representing techniques on different instruments were added by various musicians. There are also some new signs specially used in this dissertation for the first time which I will introduce wherever I use them. Other than songs transcribed by author, the music examples notated by the other musicians have been used with no change or re-notating.

NB. Although I use staff notation and detailed note-by-note analysis, it is important to remember that this approach does not necessarily correspond to the way in which performers actually think of the music. For instance, the form of ornamentation known as *taḥrīr* (discussed in Chapter Three, Section Five) will appear in staff notation as a series of main notes with grace notes, while a performer thinks of it more as continuous melodic line with a certain subjective quality.

Transcriptions observe the following conventions:

Sign	Meaning
	*riz*, tremolo
	*riz* or tremolo, especially as used in *tombak* notation
	Tie
	slur or phrase mark, particularly where one syllable is sung on more than one note
	*dorrāb-i setā-i*, two grace notes played immediately before the main note
	*dorrāb-i panjtā-i*, four grace notes played immediately before the main note
	Accent
	*tekiyeh*, a grace note which has to be preceded by a main note. The grace note is normally played one step, and in some circumstances more than one step, higher than the following note (further explanation on this technique is presented in the last section of Chapter Three)
	right-hand stroke
	left-hand stroke
	*koron*: symbol that lowers the pitch by approximately one quarter tone
	*sori*: symbol that raises the pitch by approximately one quarter tone
	the pitch values of notes are not distinguishable (this is used in pieces transcribed by Massoudieh)

Opening Statement

Previous Studies

Even though there is no written history on Iranian music from before the Islamic period, some archaeological studies show the significant status of rhythm in Iranian music. The oldest such source is a seal impression dating back to 3300–3100 BCE, which was unearthed at Chogha Mish near Dezful City in the southwest of Iran by Pinas P. Delugaz and Helen J. Cantor between 1961 and 1966 (Lawergren 2001: 552). It shows an ensemble of harpist, woodwind performer, singer and drummer. Although it is obvious that rhythm is an inseparable component of music, the presence of a drum in the ensemble in this seal reveals the significant status of rhythm in Iranian music from very early periods.

It is hard to find any treatise in Iranian music with no section on rhythm in the Islamic period. However, in the present day, rhythm has tended to be addressed in one or two sections of a work only. Examples include the writings of Henry George Farmer (1926, 1929), Hormoz Farhat (1965, 1973, 1990), Parviz Nattel Khānlarī (1967), Fakhreddini (1968), Bruno Nettl (1972, 1978, 1992), Zonis (1973), Hoseyn Ali Mallāh (1988), Ruh-Allah Khāliqi (1991), Lloyd Miller (1999) and Hossien Dehlavi (2000).

Significant studies on the rhythmic aspect of Iranian music are limited to two dissertations. The first is *Āvāz: A Study of the Rhythmic Aspects of Classical Iranian*

Music by Gen'ichi Tsuge (1974)[1] and the second one, which partly deals with rhythm, is *The Classical 'Tasnif': A Genre of Persian Vocal Music* by Margaret Louis Caton (1983). In this section I provide a brief review on Tsuge's dissertation. A summary of findings in Caton's work on the rhythmic aspects of *taṣnīf* will be offered later in a section with the same name, *Taṣnīf*.

Tsuge begins with an introduction to the music history of Iran. His main sources in this introduction are the works of Henry George Farmer, and so adds very little contribution to the existing knowledge. One problem here is that Farmer regards nearly all the existing sources from West Asia as referring to Arabic music, including those written by Persian scholars such as Ibn Sina, Ṣafī al-Dīn and Qutb al-Dīn Shīrāzī. This problem has later been corrected to some extent by the works of more recent scholars (see, for instance, Neubauer 1995, Wright 2001a, 2001b and 2001c and Farhat 2001).

In chapter one, Tsuge provides a general introduction to the "*āvāz*." He begins by giving different definitions of the *āvāz* in different contexts. His introduction to the terminology of *āvāz* is a particularly useful piece of work. He then provides a general introduction to the *radif*, which again is beneficial to the readers not familiar with Iranian classical music. With respect to rhythmic aspects, Tsuge (1974: 30) classifies the pieces contained in the *radif* into two groups as follows:

A. *āvāz* (pieces or *gūsheh-ha* which are performed in non-metric rhythm)

B. *ẓarbi* (pieces which have a stable metric basis)

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[1] Tsuge also published an article called "Rhythmic Aspect of the Āvāz in Persian Music" in *Ethnomusicology* (1970), which contains the basic ideas he later developed in his PhD dissertation.

The classification suggested by Tsuge has the advantage of simplicity. However, it has some limitations. The key question regards use of the phrase non-metric for *āvāzi* pieces. As we shall see in the following chapters, metre and rhythm are two fundamentals in music without which music tends to collapse. The second problem is that in a number of cases there are *gūsheh-ha* which are not categorised in either of above categories. This problem has been avoided in the current thesis by categorising such *gūsheh-ha* as being of "stretchable-metre". Tsuge tries to solve this problem by describing a number of *gūsheh-ha*, such as *kereshmeh*, as "melodies which are more or less fixed in term of rhythm" (*ibid.*: 31).

In following section, Tsuge addresses various issues some of which such as historical survey on introducing Western notation to Iranian music hardly relates to the subject of rhythm and some of which such as versification principles in *'Arūẓ* does not have much contribution to the existing knowledge . Chapter four finally takes the rhythmic characteristics of the *āvāz* into account. It starts with an examination of a regional song from Khorāsān. The issue which mostly attracts the attention of Tsuge in this analysis is the correspondence of the rhythmic foot of the lyric and the musical line. In this example he illustrates how the singer uses short and long musical durations in accordance with the short and long syllables of the poem. Tsuge distinguishes two kinds of *gūsheh-ha*: those in which there is a close correspondence between poetic and musical metre and others in which this correspondence is not visible. He describes the second group as "complex and highly artistic" (*ibid.*: 153) and then analyses one example for each group. Tsuge's analysis is quite complete in term of examining the poetic pattern in both examples. Nonetheless, there still remain two problems with this analysis. The first problem is that Tsuge does not look beyond the relationship of the poetic line and the music line. And, the second problem, which is

seen in most part of Tsuge's dissertation, is that of the presentation of the analyses which are not very reader friendly. This problem arises mostly from ambiguities of the notations which lack marks and signs to show phrasings and other rhythmic divisions.

Tsuge's (*ibid.*: 175-6) general findings in examining the rhythmic aspects of *āvāz* in this chapter are as follows:

1) The rhythmic organization of the *āvāz* is primarily based upon the poetic meter of the *'arūz* system, which is a recurring cycle of short and long syllables.

2) The primal unit of recurring elements of the unmeasured texture is a phrase, the accent of which is the inseparable pair: a short and a long syllable.

3) Generally speaking, a phrase unite coincides with a foot of the poetic meter, which has usually one iambic pattern (= the accent).

4) In most cases this iambic pattern is found at the very beginning of the phrase.

5) When certain numbers of syllables precede the accent, they are treated rather as neutral syllables in term of duration.

6) From points 4) and 5), it is clear that words are usually articulated at the beginning of a phrase. Then, the following long syllable(s) may be prolonged as far as the sustaining energy permits.

7) At the end of a phrase, the *tahrir* technique is preferably employed; this must constitute one of the recurring elements of a phrase.

At the end of this conclusion, Tsuge provides some diagrams to illustrate the rhythmic structure of the *āvāz*. In his diagrams he illustrates an analogy between the structures

of the musical phrases and the structure of an entire *gūsheh*. Tsuge's conclusion contains some valuable findings but it also has a number of limitations. Tsuge's first remark is the case in the majority of situations. However, Tsuge does not provide sufficient examples from various *gūsheh-ha* to support this idea. The current thesis presents more than fifty examples from three major *radif-ha* to overcome this problem.

The second comment in Tsuge's conclusion is an important characteristic of *āvāz*. Nonetheless, this finding is not fully addressed in the main body of his dissertation. The current thesis gives a section to free-metred *gūsheh-ha*, which consists of sub-sections on regular phrasing and irregular phrasing.

Tsuge also does not provide enough examples to support statements three to six, although the seventh remark about *tahrir* is generally approved by the examples Tsuge presents and is also reinforced by the current thesis. The final statement usefully illustrates the rhythmic structure of the *āvāz* but, as an oversimplification of the issue does not contribute to an analytical understanding of Iranian music.

Finally, Tsuge presents two further chapters. The first one is *"Taṣnīf"* in which he provides an introduction to the historical issues of this old Iranian genre, and the last chapter is "Poetic Meter and Music Meter: The Rapport," in which he examines a few songs and tries to draw a link between the metric structure of the poem and metric structure of the music. Even though he does not draw any conclusions from these two chapters, they contain some useful information.

Tsuge's work was the first work on the rhythmic aspects of the *āvāz* at such a length and still remains a valuable piece of work. There are several areas and aspects not covered by his work that the current thesis has tried to cover:

- The considerable part of Tsuge's work, more than two-thirds, deals with prosody, whereas the current thesis deals with rhythmic structure of Persian poetry in a rather short chapter.

- The categorisation of *gūsheh-ha* in Tsuge's dissertation and the current thesis are fundamentally different. Tsuge categorises *gūsheh-ha* based on the closeness of correspondence between poetic and musical metre. I categorise *gūsheh-ha* based on their metric principles: free, stretchable and fixed.

- Tsuge's approach to analysis is based on fewer musical examples than the current thesis is (for instance, in his chapter on the rhythmic characteristics of the *āvāz* assesses only one regional song and two *gūsheh-ha* from the *radif*).

- Whereas Tsuge reports every *gūsheh* from a particular version of the *radif*, the current thesis takes a comparative approach in which every *gūsheh* is examined by considering three different *radif-ha*.

- The analytical approach and consequently the issues covered in analysis of *gūsheh-ha* differs in the current thesis.

- There are areas not covered by Tsuge's dissertation, such as rhythmic cycles, which are addressed in the current thesis. Those areas, as we shall see at the end of this thesis, will affect the final conclusion.

- A considerable part of the current thesis considers the use of rhythm in actual practice, including analysis of percussion performance and a case study of a contemporary music performance on the stage, an area neglected in Tsuge's dissertation.

- Finally, Tsuge's dissertation considers the rhythmic aspect of *āvāz* in Iranian music while this thesis covers all instrumental and vocal genres in Iranian classical music more generally.

About this Thesis

In Persian, classical music is called *mūsīqī-i sunnatī* (traditional music), *mūsīqī-i asīl* (genuine music) or simply *mūsīqī-i Irani* (Iranian music). The last sense has been used in the title of this dissertation, in other words, the title 'Rhythmic Structure of Iranian Music' refers to Iranian classical music. There are, of course, many other genres that might be covered by the term Iranian music in English, but this study, for reasons of scale, concentrates on the already substantial classical music tradition.

The study of the rhythmic structure of Iranian classical music can be developed along several lines. The subject could have been addressed by means of one of the traditional methodologies such as ethnomusicology and historiography. The primary advantage of employing a traditional methodology in any study is that of the familiarity of the readers with the procedure of developing the ideas. However, providing a broad picture to address several perspectives of a subject demands a multidisciplinary approach. In this dissertation, I employ music theory and the psychology of music in the introductory chapter; historical literary studies, linguistics and historical musicology in Part 1; a combination of Western musicological and analytical study with Iranian musicology in Part 2; and ideas like participant-observation from ethnomusicology in Part 3.

This dissertation begins with an introductory chapter on the 'Theoretical Perspective of Rhythm and Metre.' Three major parts, each consisting of two chapters, shape the main body of this dissertation. The first part consists of a chapter entitled 'Rhythmic

Structure in Persian Poetry,' and a chapter on 'The Rhythmic Cycles.' Part 2, the heart of this dissertation, consists of two chapters, 'Rhythmic Structure of the *Radif* and Improvisation-based Music' and 'Rhythmic Structure in Iranian Pre-composed Music.' To provide further practical sense of the materials presented in this dissertation, there is also a final part, entitled Rhythm in Practice. The first chapter of this part is 'Utilising Rhythmic Structure on the *Tombak*' and the second chapter is 'A Case Study.' General findings and conclusions are presented in an additional section at the end of the dissertation.

In a broad view, the introductory chapter aims to find a set of shared terms and principles to be used in the following sections of this dissertation. Different viewpoints on fundamental issues and theoretical perspectives on the phenomena of time, rhythm, metre, accent, group perception and so forth will be addressed in this chapter. In addition, some Western music theories will be assessed for their applicability to some non-Western music.

It is generally known that Persian poetry has had an enormous impact on Persian music. It is vital, therefore, for a thesis like this one which mainly deals with the rhythmic structure of Iranian music to look also at poetry. The first chapter of Part 1 is mostly concerned with the rhythmic aspects of Persian poetry. This chapter begins with an introduction to different systems of poetry. It is followed by an examination of the technical issues of the quantitative metric system of Persian poetry, such as the significance of vowel, consonant, syllable and stress. The last section of this chapter is an examination of the '*Arūẓ*, the collection of main cyclic patterns of Persian poetry, and the way of representing the rhythmic patterns of quantitative poems by this system.

The second chapter of this part is an examination of historical rhythmic cycles. At first, two methods of describing and transcribing the rhythmic cycles are examined. An example from one of the contemporary regional musics of Iran, *Sharveh*, is transcribed according to each of the methods to show how they work in practice. (In fact, there are far more than two potential methods by which these cycles might be transcribed and, for the matter of economy, other methods from Iranian tradition are presented in Appendix One.) Examining these methods is an original contribution since they have not been directly compared at such length before now. In the second section of this chapter the historical rhythmic cycles between the twelfth to fifteenth centuries are examined. In the following parts of this thesis we shall see whether there still exist any possible signs of such rhythmic cycles in today's Iranian music.

Part two, as the core of this dissertation, deals with the rhythmic structure of Iranian classical music and consists of several sections in a format of two major chapters. In the first chapter of this part, the rhythmic structure in the *radif* of Iranian music is examined. This begins with the key question of how to analyse the rhythmic structure of a music which is changed in every performance in the hands of the improviser. My approach to this issue undertakes two levels of study; first, having a clear picture of the process of improvisation in which music is created and, second, examining enough examples to distinguish constant components from momentary elements. This will be done in two sections. The first section provides an introduction to the concept of the *radif*. In the following section the process of structuring improvisation based on the *radif* is considered. This section also is original in the way in which it applies a theory of building blocks to the study of improvisation in Iranian music. In this section the significance of several factors is assessed: melody type, motif and rhythmic pattern and dynamic pattern. Every issue of this section is illustrated by

examples from the main body of the *radif*. These two sections provide a broad picture of the theory and practice of Iranian music, which is vital in understanding the following sections.

The next topic is the rhythmic structure of the *radif*. With regard to rhythm, I categorise Iranian classical music into four types, fixed-metre music, free-metre music, music with stretchable metre and pre-composed music. The first three types (along with a section on *taḥrīr*) are discussed in one chapter and the last one, pre-composed music, comprises a following chapter which assesses four pre-composed genres, *pishdarāmad*, *chahārmeẓrāb*, *taṣnīf* and *reng*.

The final part, Rhythm in Practice, attempts to illustrate practically the theoretical issues which I raise in this dissertation. The first chapter of this part deals mainly with technical issues of playing the *tombak*, the main percussion instrument in Iranian music. In that chapter I summarise and exhibit the main rhythmic patterns of musical examples and rhythmic cycles discussed in this dissertation, focusing on the techniques of *tombak* performance. The last chapter is a case study of an event in Tehran. In that chapter I demonstrate how those theoretical issues which I discuss in this dissertation work in a real performance. This chapter includes transcription and analysis of five pieces performed by Farhang Sharif and Mohammad Ismā'ili.

Two audio CDs accompany this thesis, giving most of the examples presented in the text. CD1, including 53 tracks, contains those examples that have been performed on *santur* and *tombak* by the author and CD2, including 46 tracks, is a collection of the examples performed by other musicians, whether recorded by myself during my fieldwork or collected from other recordings.

I wish to add at the end of this preface that this dissertation is product of more than four years of full-time work as a Ph.D. student, including two field trips in February to April 2001 and March to May 2002. At all stages of this work I benefited from my existing experiences as an Iranian musician and teacher. I started my formal training of Iranian music as a *santur* student at the music conservatory in Isfahan in 1980, where I began also to teach in 1985. I continued my advanced training on *santur* and the *radif* of Iranian music in the class of master Farāmarz Pāyvar in Tehran for a period of 10 years since 1988. Meanwhile, I also learned Western music theory, mostly with Sharif Lotfi, Karim Gogerdchi and Hasan Riyāhi during 1988 to 1996 in Tehran.

In this thesis my aims are not to develop a scientific theory or to prove a single hypothesis. Rather, I will analytically explore the rhythmic structure of Iranian classical music to help provide a better understanding of Iranian music in general. I hope further investigations into other rhythmic aspects of Iranian music will develop the ideas raised by this research in the future.

Introductory Chapter:

Theoretical Perspectives

Introduction: Fundamental concepts

This chapter offers a brief introduction to the literature of rhythm and metre to find a set of shared terminology and principles which directly or indirectly is used in the remainder of this thesis. First, the term rhythm itself will be examined. Then, to reach a deeper perception of time in music, discussion will be extended to examine the distinction between metre and rhythm and also the crucial role of accent in the configuration of those two. Furthermore, the matter of the perception of musical time, particularly grouping, will be assessed. To generate a more accurate picture of rhythm in a non-Western music, the discussion is illustrated with a series of examples. However, it has to be acknowledged here that there will not be any claim of suggesting a new theory of rhythm in this chapter. The results and general findings in

the matter of rhythm are returned to at the end of the dissertation, where the specific considerations of rhythmic structure in Iranian music are also fed in.

"There is no accurate simple definition of the term 'rhythm' (or 'rhythmics') and no consistent historical tradition to explain its significance" (Fassler 1987: 166). Even though it has been suggested that the term rhythm is derived from Greek *rhythmos* and Latin *rhythmus*, when it comes to defining the scope of the vocabulary it has been used in at least "fifty different meanings" (de Groot 1932: 82) such that the answer to the question of what rhythm is still is in doubt. Curt Sachs (1953: 11-12) declares: "What is rhythm? The answer, I am afraid, is, so far, just – a word: a word without generally accepted meaning. Everybody believes himself entitled to usurp it for an arbitrary definition of his own. The confusion is terrifying indeed." It does not seem appropriate, under the topic of this thesis, to repeat here all the different meanings that authors have given to the word 'rhythm' in more than two-and-a-half thousand years, though, significant ideas are selectively introduced below.

In a broad view rhythm is defined in two scenes: rhythm as continuously flowing and rhythm as periodically punctuated movement. With regard to its terminology, rhythm has a character more general than any other term in every language. This is a shared term in most of the art works either 'time honoured' such as music and poetry, 'place honoured' such as painting, sculpture and architecture or both 'time and place honoured' such as dance, theatre and cinema. Some scholars, on the other hand, are against using this term in other areas than music. Werner Jaeger, for instance, does not believe the word 'rhythm' has any utility in the visual arts except in figurative sense (Jaeger 1939: 122-24). In contrast with 'rhythm' which has several ambiguous

meanings, there are some terms, such as *takt* in German, which have specific meanings and define certain objects.

In Persian there is no general term equivalent to rhythm to use in different circumstances. *Iqā'* is the term used in both Persian and Arabic which can be most closely compared with the term rhythm. "*Iqa'* is groups of *naqarāt*[1] with specific durations among them; for them there are certain cycles which are quantitatively equal. Such equality [of the durational patterns or cycles] is perceived by the common sense" (manuscript of *al-Adwār* by Ṣafī al-Dīn [*d.* 1294] page 77).

Andreas Heusler also refers to sensation in his definition of rhythm. In his view, which is an overview based on Aristotle's definition,[2] rhythm is "organization of time in parts accessible to the senses" (Heusler 1925: 17 cited in Sachs 1953: 15). Heusler's definition seems wide enough to cover the entire range of music, in contrast with some descriptions offered in music theories which mostly, with or without awareness, present views based on Western music. In most of those sources rhythm usually involves a contrast which occurs between two values, long and short, strong and weak, and so on. Describing rhythmic patterns in Western-style music, Curt Sachs wrote (1953: 16):

> In dealing with rhythm, we find a generating, time-organizing pattern in two phases, say long and short, or strong and weak, or heavy and light, or dark and clear, or whatever the contrast may be. If, as usually, this pattern is repeated, the two phases recur on a higher level: the first pattern may play the role of the strong phase, while

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[1] Naqarāt: (pl. of *naqareh*) a measurement for note value; the smallest unit in a rhythmic cycle.

[2] Aristotle describes rhythm as the 'order of time,' *taxis chronon*, following Plato's earlier definition of rhythm as 'order of movement' (*The Laws*, II, 665).

> the repetition may be the weak phase, or vice versa. The easiest example is our 2/4 bar with the generating pattern one-two. Repeated, it forms a greater pattern of 4/4, in which the one-two group is stronger than the three-four group. And so on in double bars, phrases of four, and periods of eight or sixteen measures—a process that can theoretically be continued as infinitum.

This view has not been without its critics. Hasty (1997: 4), for instance, argues that such a way of looking at rhythm as a static and fixed phenomenon is an inadequate approach.

> ... in the analysis of rhythm we cannot so easily ignore the course of events as they emerge for us in a particular experience of "this" piece. To the extent that it suggests process rather than product, dynamic becoming rather than static being, a *fait accomplissant* rather than a *fait accompli* (to use Bergson's distinction), rhythm stands as a reminder of the reality of temporal passage. And it is for this reason that rhythm remains such a problematic concept for music theory and analysis. Neither our technical vocabulary nor our habits of thought prepare us to engage the questions of temporality implicit in the notion of rhythm, or rather in the notion of rhythm most broadly conceived.

There is no doubt that rhythm comes to exist by contrasts, but not necessarily that it exists in sets of twos (or threes) as Sachs claims. In addition to the argument of Hasty, this way of defining rhythm and metre is a dimension of music which finally leads it to be represented by a time signature. Time signatures and related symbols, of course, may undoubtedly sometimes be appropriate to the description of non-western musics. What is clear, however, is that the problems encountered by ethnomusicologists in notating the rhythm of musics from around the world have sometimes been severed.

The distinction between rhythm and metre

Even though the feeling and awareness of rhythm is so obvious that its perception in music often does not need any preliminary knowledge from the listener, in theoretical definition scholars have presented numerous different descriptions of it. A key issue in many sources is the difference between metre and rhythm. For instance, we can consider the description offered for metre by David Temperley (2000: 66-67) as one that looks somewhat like those given by certain other theorists for rhythm:

> A metrical structure consists of a framework of rows of beats, where beats are points in time, not necessarily events. The meter of a piece must be inferred from the events of the piece; but once the meter is established, the events of the piece need not constantly reinforce it, and may even conflict with it to some extent. In this sense, a metrical structure is best regarded as something in the mind of the listener, rather than being present in the music in any direct way.

According to Hasty (1997) the strong separation between metre and rhythm can be traced to nineteenth-century theorists such as Lussy (1885). In addition to Temperley's statement there are some other descriptions for rhythm such as "a series of events occurring at regular time" and so on, there is more to the distinction between metre and rhythm than regularity versus non-regularity. It is broadly assumed that rhythm involves the pattern of durations that is actually present in the music, while metre involves our perception and anticipation of such patterns. In other words, "rhythm involves the structure of the 'temporal stimulus', while metre involves our perception and cognition of such stimuli" (London 2001: 277).

While the majority of contemporary music theorists hold a strong separation of rhythm and metre, Lerdahl and Jackendoff (1983: 12) go further. They even make a

distinction between rhythm, metre and grouping. In fact they consider metre and grouping as two components of rhythm:

> The first rhythmic distinction that must be made is between grouping and meter. When hearing a piece, the listener naturally organizes the sound signals into units such as motives, themes, phrases, periods, theme-groups, sections, and the piece itself. Performers try to breathe (or phrase) between rather than within units. Our generic term for these units is group. At the same time, the listener instinctively infers a regular pattern of strong and weak beats to which he relates the actual musical sounds. The conductor waves his baton and the listener taps his foot at a particular level of beats. Generalizing conventional usage, our term for these patterns of beats is meter.

There are also some theorists who deny or consider explicitly inconsequent the rhythm–metre distinction, preferring instead to address a more general concept. Arom assumes metre as a regular pattern of accentuation. He also concedes that musical metre has no independent status when he says "What is called metre in music is ... the simplest of rhythmic expression" (Arom 1991: 204 quoted in Clayton 2000: 32). Hasty (1997: 16) also questions the basis on which rhythm and metre can interact if such a strong separation exists between them and argues that "modes of description that treat musical rhythm and metre as static entities and patterns seriously distort the nature of the musical object" (see also Schachter 1987 and Rothstein 1989).

According to London (2001: 278) salient differences between metre and rhythm can be classified as follows (Figure I.1):

Metre	Rhythm
A series of articulations or time points which form measures.	A series of durations or time spans which form groups.
Musical 'whens'—metre functions as a means of locating durations of time.	Musical 'whats'— objects formed by the concatenation of phenomena that have duration.
Usually regular, requiring isochronous spacing of beats and/or downbeats in a measure.	Usually not regular, as groups typically are comprised of varying durations within a group.
Metric accent stems from the listener's active engagement with the music, the fall-out from counting/foot-tapping behaviour.	Rhythmic accent stems from phenomenal aspects of the musical surface such as differences in loudness, duration, contour, etc.
Metric accent is always the first event in a measure.	Rhythmic accent may occur anywhere within a rhythmic group.
Measures are continuous: no gaps or breaks within a metric unit.	Rhythmic groups are continuous: no gaps within a group.
Measures are contiguous: no gaps between successive measures.	Rhythmic groups are not necessarily contiguous: often there are gaps between successive groups.
Strongly predictive: metric patterns usually remain constant and are thus a reliable basis for anticipating when subsequent events will occur.	Weakly predictive: though durational patterns may be repeated, often they are not, and rhythm is not a reliable basis for anticipating subsequent events.

***Figure I.1** Differences between rhythm and metre (London 2001: 278)*

If we accept a distinction between metre and rhythm, then, the first question that arises is whether rhythm is perceived first or metre? Hauptmann[3] (1853 cited in London 2001: 283) viewed metre and metric processes as perceived prior to rhythm, while Neumann (1959 cited *ibid.*) takes the opposing view. Kolinski (1973 quoted by Clayton 2000: 30), on the other hand, described metre as a "background against which

[3] M. Hauptmann (1792-1868): German composer, theorist and teacher.

the rhythmic surface is perceived." According to this view metre is a kind of reference grid which profoundly influences the perception and cognition of rhythm, the 'ground' to rhythm's 'figure'. Johnson-Laird (1991: 89), who believes in metric priority, suggests that metric priority implies that durational patterns are understood only within the context of a metric framework and, on some views, are generated from that framework.[4]

Justin London (2001: 283) suggests a third possibility which is a middle course between these two perspectives. He proposes that "when a piece begins, its metre and tempo are usually not known to the listener, and so the listener must make metric inferences from the pattern of durations and stresses that are given." London believes this stage usually takes place quickly and without difficulty. "Once the metre is established it takes on a life of its own; the listener may then project a sense of accent onto an event even if it is not otherwise marked by duration, dynamics, contour, or harmonic change." He suggests that the listener is always in the middle of changing perception:

> ... at some times a sense of accent flows from the musical surface to the emerging metre, and at other times from the metre to the unfolding musical surface. Metre is not constant over the course of a piece, and should the metre falter or collapse later on, the listener must again seek an appropriate metric framework.

The statement of London rests on the significance of accent. To extend this argument, though, we first need to reconsider the construction of accent and its operation in metre and rhythm. Before that, I would also point to two experiments performed by Peter Desain and Henkjan Honing (2003) in "The formation of rhythmic categories

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[4] To find out about historical and philosophical aspects of this issue, see Hasty (1997).

and metric priming," which also indirectly show the significance of accent. In the first experiment, Desain and Honing asked twenty-nine participants to perform an identification task with 66 rhythmic stimuli. The results showed that listeners do not just perceive the time intervals between onsets of sounds as placed in a homogeneous continuum. Instead, they can reliably identify rhythmic categories. In a second experiment, they studied the effect of metric priming by presenting the same stimuli but preceded with a duple or triple metre subdivision. The result was significant. It is revealed that presenting patterns in the context of a metre has a large effect on rhythmic categorisation; i.e. the presence of a specific musical metre primes the perception of specific rhythmic patterns.

The impact of accent in the configuration and interaction of metre and rhythm

The interaction of accented and unaccented elements, which is the motor of rhythmic motion in music, is one of the arguments which has drawn the attention of most theorists of rhythm. Cooper and Meyer (1960: 7-8) define accent as "a stimulus (in a series of stimuli) which is *marked for consciousness* in some way." They regard accent as a relational concept and as axiomatic in that it is understandable experientially but undefined causally. They also build up the description of rhythm and metre based upon the phenomenon of accent. Cooper and Meyer (*ibid.*: 6) describe rhythm as "the way in which one or more unaccented beats are grouped in relation to an accented one." They also depict metre as "the number of pulses between the more or less regularly recurring accents" (*ibid.*: 4). Most authors define metre similarly, as somehow dependent upon and contributing to patterns of accent.

Among the theorists who consider the significance of accent, the descriptions of Zuckerkandl, Komar and Imbrie illustrate further aspects. Zuckerkandl (1956) views

metre as a series of "waves" that carry the listener continuously from one beat to the next.[5] However, he does not make it clear whether accents are involved or not in the configuration of beat. Komar (1971) views accents as the point at which a new pitch configuration is generated. Nevertheless, he confirms that accent and pitch configuration will not necessarily coincide on the musical surface, as the pitch configuration may subsequently be shifted to some new attack point. Imbrie (1973) goes further. He regards accent as a time point at which contrast or change serves to establish, confirm, challenge, or overthrow the meter. Imbrie's view later was developed and extended by Lester.

The 1980s was a remarkable decade in the development of the theory of rhythm. One of the most important hypotheses of rhythm and metre was suggested by Lerdahl and Jackendoff in the early 1980s and became the basis of many arguments afterward. The most significant concern in Lerdahl and Jackendoff's theory was looking at the context where accents come to exist, the sources of accents. They (1983: 17) defined three kinds of accent:

> ... it is essential to distinguish three kinds of accent: phenomenal, structural, and metrical. By *phenomenal accent* we mean any event at the musical surface that gives emphasis or stress to a moment in the musical flow. Included in this category are attack points of pitch—events, local stresses such as sforzandi, sudden changes in dynamics or timbre, long notes, leaps to relatively high or low notes, harmonic changes, and so forth. By *structural accent* we mean an accent caused by the melodic/harmonic points of gravity in a phrase or section especially by the cadence,

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[5] Zuckerkandl argues that these metric waves are the result of the constant demarcation of equal and unvarying time intervals, not the result of patterns of accent in the music or the result of pre-conditioning in the mind of the listener. He claims that the metric structure can be quite independent of these.

> the goal of tonal motion. By *metrical accent* we mean any beat that is relatively strong in its metrical context.

Lerdahl and Jackendoff also made reference to the role of perception throughout their arguments. Lester (1986: 40) reaffirms the theory of Lerdahl and Jackendoff, pointing out that previous theorists had over-simplified the contribution of accents. He avoids the notion that the total accent of a musical event is the sum of all of its individual accent-creating parts, stating: "such a tally system would ignore that: 1) not all accent-producing factors are of equal importance, 2) accents occur in a metrical context, and 3) our perception of accents in a given passage is affected by our familiarity with that passage."

Lerdahl and Jackendoff's theory was also taken up by Bar-Yosef (2001) in "Musical Time Organization and Space Concept," for a model of 'cross-cultural analogy between time organization and space concept.' Bar-Yosef applies his model to three musical styles: Arabic *īqā'*; central Javanese *gending* gamelan music; and Western tonal music. He distinguishes two types of accent (*ibid.*: 428) echoing Lerdahl and Jackendoff's designation of phenomenal and metrical accents. These accents occur in two structural levels, referred to as "rhythmic," or first level, and "metric," or second level. Bar-Yosef (*ibid.*: 427-34) claims that, depending on the cultural background, rhythmic structure in some musical styles is built up based on "local structural relationships among events of time units" (first level) and in some other musical styles, by contrast, time is organized based on "global structural relationships among events of time units" (second level).

> The medieval rhythmic modes—based on long and short durations, and Arabic *īqā'*—based on sequence of stresses, are examples of organizations that rely on the first

> level only; the Javanese gong cycle ... is based on the metric level only; and the Western meter and hypermeter result from combination of the two levels (*ibid.*: 428).

The approach Bar-Yosef suggests to the analysis of rhythmic structure of music in a cross-cultural perspective does make sense and offers an appropriate way to examine rhythmic structure within and among different cultures. The problem, however, lies in his sharp division between music which uses "first level only" for its time organisation and music that employs a "second level only" form of rhythm arrangement. In fact, Bar-Yosef suggests that an interaction between rhythm and metre as in Western tonal music does not exist in the other two examples, the Arabic *īqā'* and the central Javanese *gending* gamelan music. In reality there does not seem to be such a black and white division between the appearance of one level and the other one. In *īqā'* music, for instance, even though the first level is crucial in the establishment of time units, the second level also plays a comprehensible role in the organisation of rhythm (as will be examined in more detail in later chapters). There is also a basic question that Bar-Yosef's classification does not address: 'is it possible to have music without interaction of rhythmic and metric levels at all?'

One of the latest theorists who has carried out further work on Lerdahl and Jackendoff's theory is Jonathan D. Kramer. Kramer (1988: 86) also recognizes three types of accent: *stress*, *metric* and *rhythmic*. His stress, metric and rhythmic accents are equivalent to Lerdahl and Jackendoff's *phenomenal*, *metrical* and *structural* accents, respectively. Kramer, like Cooper and Meyer (1960: 96-99) and Epstein (1979: 72), believes that what performers commonly call accent is, in fact, 'stress.' He describes this type of accent as "emphasis on a note created by a sharp attack, a high dynamic level, a small preceding silence, and so forth" and claims, "a stress accent [whether provided by the performer or the composer] is incapable of affecting meter

except in the most ambiguous of situations" (1988: 86). On the other hand, Kramer criticises Benjamin's (1984) and Cooper and Meyer's (1960) ways of distinguishing between metric and rhythmic accents. Benjamin (1984) in his article "A Theory of Musical Meter" discussed three types of accent: accent of climax, accent of image shift and accent of discontinuity. Kramer claims that Benjamin's study, nonetheless, is "marred by a failure to differentiate between types of accents" (1988: 415). He has somewhat same opinion about Cooper and Meyer. Kramer claims, "they [Cooper and Meyer] seem to be thinking only of metrically irregular contexts." (*ibid.*: 415). Kramer, however, does not specify the problem with the three types of accent suggested by Benjamin or further amplify his criticism of Cooper and Meyer. Even though Kramer blames the previous theories for not being broad enough it is difficult to accept his theory as generally applicable to all kind of music without further assessment.

In one part of his discussion on the status of accent in metric configuration, Krimer puts forward an example from Haydn's Piano Sonata in D Major (1795: Figure I.2).

> No matter how heavy the stress on the *fz* notes in the opening of third movement of Haydn's 1795 D Major Piano Sonata ... they remain metrically weak. In other words the stress in [this] example does not change the placement of the metric downbeat. Indeed, they emphasize the metrical weakness of the upbeats (*ibid.*: 86).

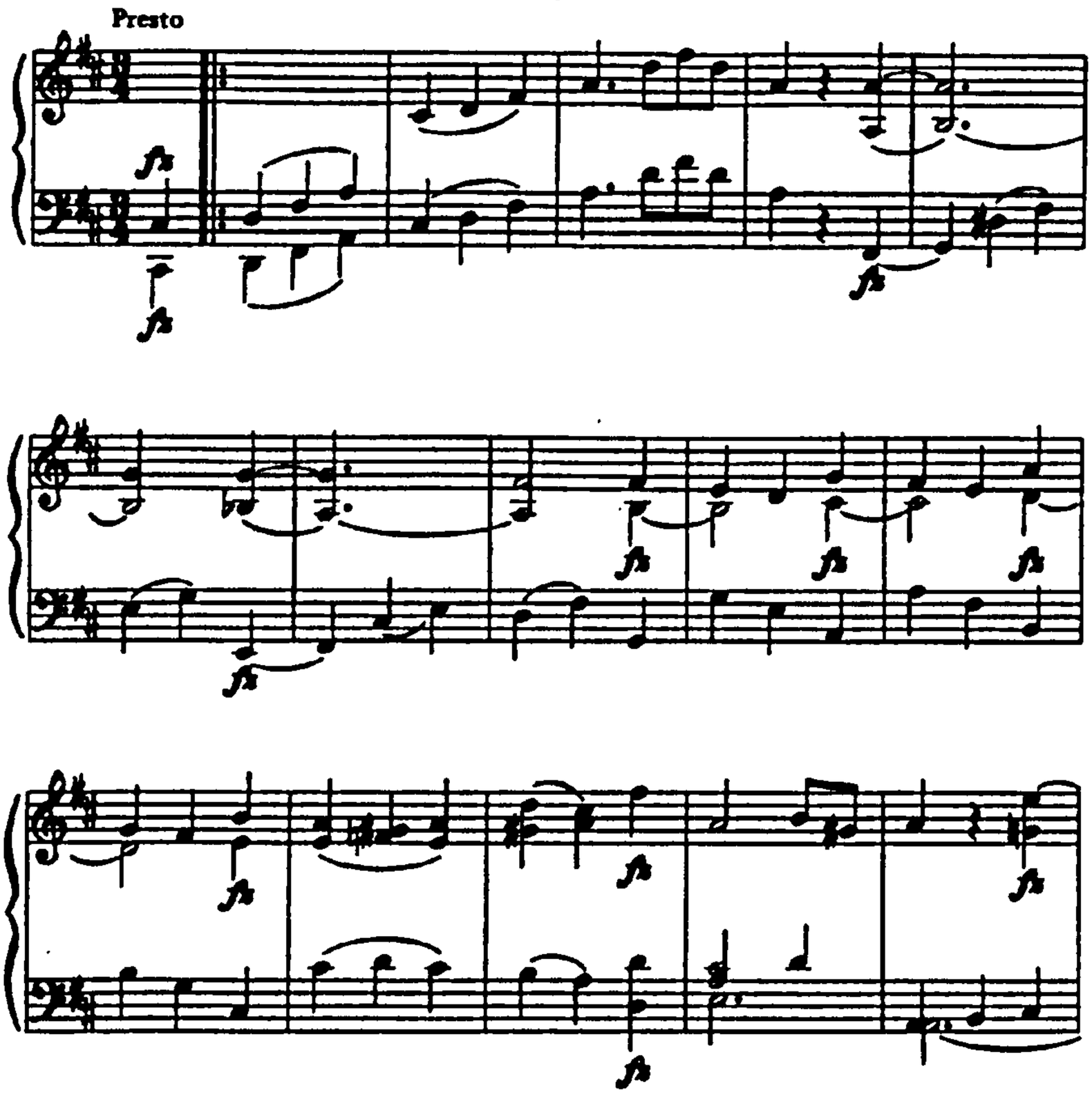


Figure I.2: *Haydn, Piano Sonata No. 61 in D Major, third movement, mm. 1-15 (Kramer 1988: 87)*

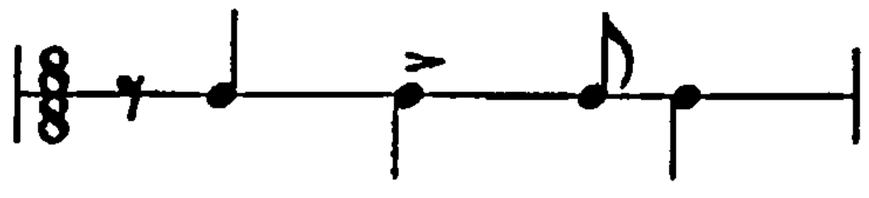
Kramer's reason (*ibid.*: 86) is that "stress accents operate primarily on the foreground." He counts stress accents as "less important than the other two [rhythmic accents and metric accents] to the determination of hypermeasures and rhythmic groups on the four-bar level." The statement Kramer makes may be the case in Western tonal music, particularly in the example he considers, but Kramer claims that the principles he has illustrated apply more broadly to music in general. This statement cannot be validated without an examination of how it acts in response to non-western music. Does the implication of counting the first beat of bar as a 'downbeat' or strong time-point exist in all kinds of music, for instance gamelan music, jazz music or African music? How does the metric perception influences the crucial decision of whether music is transcribed in groups of 2, 3 or 4 beats, or whether a higher-level grouping of 6, 8 or 12 is chosen? Assessing his theory against

all kind of non-Western music is neither practically possible nor necessary for the aim of this study. The following examples have been selected to examine how Kramer's theory responds when set against some West Asian music with which this dissertation is most concerned.

The *Ṣawt Khatm*

The *ṣawt khatm* is a song which is performed as a final section in any *ṣawt* performance. The *ṣawt* (Arabic: tune; sound in general) is a form of song in most Arabic countries around the Persian Gulf. In each state it is known by name of its region, *ṣawt baḥraynī*, *ṣawt kuwaytī*, *ṣawt qaṭarī* and so forth. In most of the regions, particularly in Bahrain and Kuwait, "it is the melody and the rhythm accompaniment, more than song text, that impart the unique character to a *ṣawt* performance" (Touma 1996: 106). A *ṣawt* consists of three melodic sections that belong to a specific *maqām*. Nonetheless, "the *ṣawt* is characterized by a unique, characteristic form of rhythmic accompaniment that is shaped by playing on the small double-headed cylinder drums, *marawis*, and by the hand-clapping, *safqah*, of two groups of men" (*ibid.*, also see Figs I.2 and I.3). *Ṣawt* is performed in different rhythmic patterns, usually beginning with a twelve time-unit cycle which is after a while changed to an eight- time-unit cycle. In both parts the hand-clapping of two groups of men marks the fundamental rhythmic beats. It is then followed, as Touma (1996: 108) reports, by different *aṣwat* (plural form of *ṣawt*) such as *ṣawt 'arubiyah* (12/8), *ṣawt shami* (8/8), *ṣawt mruba'* (12/8) and so forth, depending on the performers and the region where the song is performed. The sequence of the *aṣwat* can essentially be chosen freely, except that the

ṣawt khatm (Figure I.3) "must always be played at the conclusion of the cycle" (*ibid.*: 108). The following example is based on the rhythmic pattern of the *wazn yamani*.[6]



Note: The beats played in the middle of the drum, called *dum* (bass), are shown with descending stems (𝅗𝅥) and the beats played at the edge of the drum, called *tak*, are shown with upward stems (♩).

Figure I.3: Rhythmic cycle used in a ṣawt khatm (ibid.: *108)*

As can be seen from Figure I.3, the cycle begins with a quaver rest. Either the metric pattern of this song does not fit Kramer's theory or we are obliged to accept that the quaver rest, in spite of everything, is the most accented beat of the pattern. It also can be suggested that the cycle might start at the fourth quaver, which is accented in the pattern. However, neither of these solutions can work when we look at this cycle of *ṣawt* in the context of the views of its performers. Neither the soloist, who is considered the most professional member of the group, nor all the hand-clappers and even ordinary audience members, who at some moments participate in hand-clapping with the group of hand-clappers and sometimes sing in response to the soloist, would accept such solutions. Instead, they simply consider that the first beat is a rest and the fourth quaver is an accented beat of the cycle.[7] Only one factor remains which may possibly validate Kramer's theory as applied to this example, namely the body movements. The singer, drummer and hand-clappers move during the performance, shaking their bodies at the beginning point of each cycle. So, what can we make of it?

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[6] Wazn of the texts are based on Arabic poetic patterns called Arūẓ'Arūẓ, to be considered in the next chapter.

[7] It is seen from the way they teach children who newly joined the song with showing how to shake on the first beat and then clap in following beats.

Kramer himself does not deal with anything other than sound; here we have body movement, a gesture at the time-point marked as rhythmically/metrically important. If we accept that the performers can show the significance of the first beat not by accented sound but by silence and body movement, then even though Kramer did not cover this in his definition, his theory may still hold true.

Figure I.4: Murwas *player and clappers move their body during the performance based on rhythm, particularly shake the body at the time point of beginning of cycles. (Photo from Kerbage 1980: 27)*

Ḥasan bi zahr kosht-i shud, Ḥoseyn bi shamshīr-i jafā (Ḥasan was killed by poison, Ḥoseyn by oppression's sword)

Ḥasan bi zahr kosht-i shud, Ḥoseyn be shamshīr-i jafā is a religious song of Bushehr (a province in southern Iran on the Persian Gulf). This song belongs to the occasion of *Dah-i Moḥarram* (the first ten days of Moḥarram, the first month in the Islamic lunar calendar). The ceremony is a lamentation rite for the martyrdom of Imam Ḥoseyn (the

Prophet Mohammed's grandson) in Karbala' (Iraq) some thirteen centuries ago.[8] This ritual ceremony, called *'Āshūrā'i* lamentation song, is one of the outstanding examples of religious music in Iran.

Normally several symbolic rituals are observed along with the lamentation songs such as *sīneh-zanī* (breast beating), *zanjīr-zanī* (chain beating), *sang-zanī* or *karbzan* (stone beating), and *qameh-zanī* (dagger beating). In the lament "the wailing melody is normally sung by a solo singer (the principal mourner) and is responded to by the chorus of breast beaters, chain beaters, *Karbzans*, etc." (Darvishi 1997: 156). The accompaniment of instruments is not essential but depends on the region; folk or traditional instruments may accompany the singer and group of performers, usually wind instruments and percussion, particularly drums and cymbals.

The lamentation songs can be performed at mosques, community centres, homes where neighbours gather, at street rallies and so forth. The song transcribed in Figure I.5 is performed by a soloist with a chorus of breast beaters. This performance was not accompanied by any instrument. As can be seen from the figure, the song was transcribed in 6/8. The breast beaters beat their breasts on the first beats and sang in response to the soloist. The downbeat definitely has a crucial role as a result of breast beating at the first beats but the accents of the song are not in the first and fourth beats, where they would be expected by a Persian listener. By looking at the song text it can be seen that the accents of the song are correctly based on stressed syllables of the poem—in the second and fifth quaver. This does not change the metric pattern of

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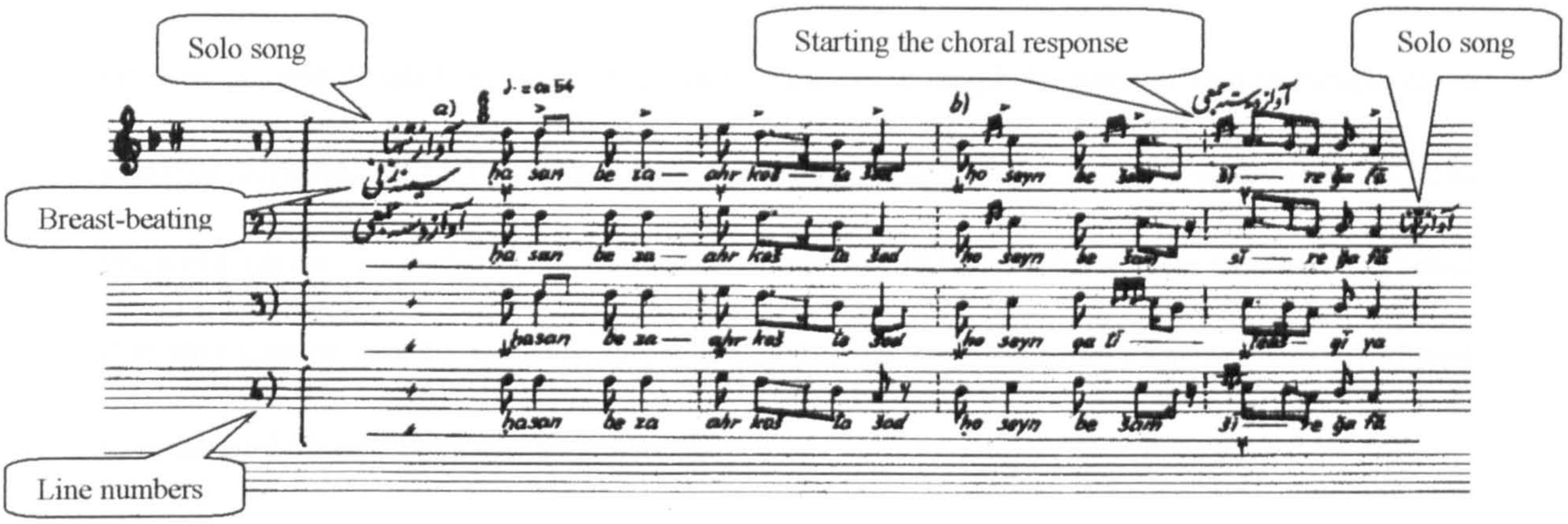
[8] This ceremony takes place over ten days, and the ninth and tenth days, the day before martyrdom and the day of martyrdom called *Tāsū'ā* and *'Āshūrā* respectively, are most significant. Imam Hoseyn is one of the most distinguished religious figures in Iran and many other Shi'ite countries.

the song, but only proves the main role of the second and fifth quaver, as Kramer claimed in similar circumstances in the Haydn example.



Note: The places of breast-beating have been shown only in the first line. The repeat of same places in the following lines have been indicated by sign (〃) in the beginning of each line.

Figure I.5: Ḥasan bi zahr kosht-i shud, Ḥoseyn bi shamshīr-i jafā*: religious song of Bushehr, recorded and transcribed by Mohammad T. Massoudieh and Josef Kuckertz at the Behbahānī mosque (1976: 113)*

The accentuation pattern of this song is dominated by that of its song text. It may be argued here that by putting the first quaver as an anacrusis and starting the bar with the first accented crotchet the usual 6/8 pattern would be followed. The question then arises, 'how about the breast beaters?' Should we take note of their beat as presently placed on the new first quaver? There is no conductor to show them where to place the breast beating, they simply beat on their breasts based on their own consciousness and they all, without exception, choose the beat currently marked as first, as indicated in the above transcription.

Contrary to what seems probable at first sight, the theory of Kramer responds accurately in this example. The time-points chosen by the breast beaters indicate that there is no need to look for another way of measuring this performance. Even though the 'stress accent' of the text builds up a pattern which emphasises the second and fifth quaver, this pattern remains, in reality, on the foreground. The 'rhythmic accent,' as Kramer puts it, can be seen in the fourth bar, where the phrase comes to stability.

Every unit of 'metric accent,' what Kramer (1988: 86) and Cone (1968: 79) call a "hyper-measure," takes four bars.

Of course, the examples presented above are not enough to answer the question as to whether Kramer's theory is adequate for examining the rhythmic structure of non-Western music in general. However, the examination of the above examples shows that this theory can be employed on a number of occasions to examine the rhythmic structure of some other music cultures.

Perception and the Concept of Grouping

To perceive grouping and metrical pattern, one should first be aware of durational pattern. Consciousness of a time interval, as James (1890: 615) points out, is a different thing from knowing whether an interval is shorter or longer than another interval. As London (2001: 279) suggests, the first judgment to be made regarding two successive durations is whether they are the same or different. In the second stage other parameters such as ordering (whether the longer note comes first or last), pitch proximity and loudness make their effect. Nonetheless, if one tries to compare two non-successive durations (for instance, the first note with the third one) rather than comparing the second interval directly with the first one, the way of perception changes.

According to London (2001: 280), "Two or more musical durations may cohere into a larger unit, termed a *rhythmic group*." The basic musical shape of a piece is established through the process of configuring rhythmic groups to project a sense that some notes go with other notes, and that these groups themselves form larger units. What we need for configuring rhythmic groups are 'similarity' and 'differences.' Regarding 'similarity' and 'difference' as the two fundamental qualities in rhythm,

Cooper and Meyer (1960: 9) suggest (see also Meyer 1956; Lerdahl and Jackendoff 1983; Handel 1989; and Bregman 1990):

> Grouping on all architectonic levels is a product of similarity and difference, proximity and separation of the sounds perceived by the senses and organized by the mind. If tones are in no way differentiated from one another—whether in pitch, range, instrumentation and timbre, duration, intensity, texture, or dynamics—then there can be no rhythm or grouping.

Nevertheless, neither proximity nor separation can go too far. In fact, on the one hand, if proximity reaches the stage when human sense cannot make a distinction between intervals, then there will be no perception.[9] On the other hand, "if the successive stimuli are so different from one another or so separate in time or pitch that the mind cannot relate them to one another, there will be no impression of rhythm. The stimuli will then be perceived as separate, isolated tones" (Cooper and Meyer (1960: 9).

As London (2001: 280) reports, once the boundaries of a group have been established one may describe its internal structure, though often these two issues are interdependent.[10] In comparison with Cooper and Meyer's (1960) fixed classification of groupings (iamb, trochee, dactyl, anapest and amphibrach), Lerdahl and Jackendoff

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[9] Some physical aspects limit the perceiving of duration and succession. Generally, we need to distinguish and perceive two onsets. Hirsh (1959) demonstrated that two onsets must be separated by at least two milliseconds (ms) in order to be distinctly perceived, and that at least 15-20ms are required to determine which onset came first (see further Westergaard 1975; Van Noorden 1975; Roederer 1979; Handel 1989; Hirsh *et al.* 1990; Bergman 1990; and Repp 1995).

[10] Curt Sachs (1953) gives his general definition of 'rhythmic grouping' based on Western music and tries to give a provisional description of 'grouping' for non-western musics such as East and West Asian. He does not indicate any motivation for these discussions and whether it is possible to give a description for musical grouping in general. He also does not mention any advantage or disadvantage for splitting up the world in this way.

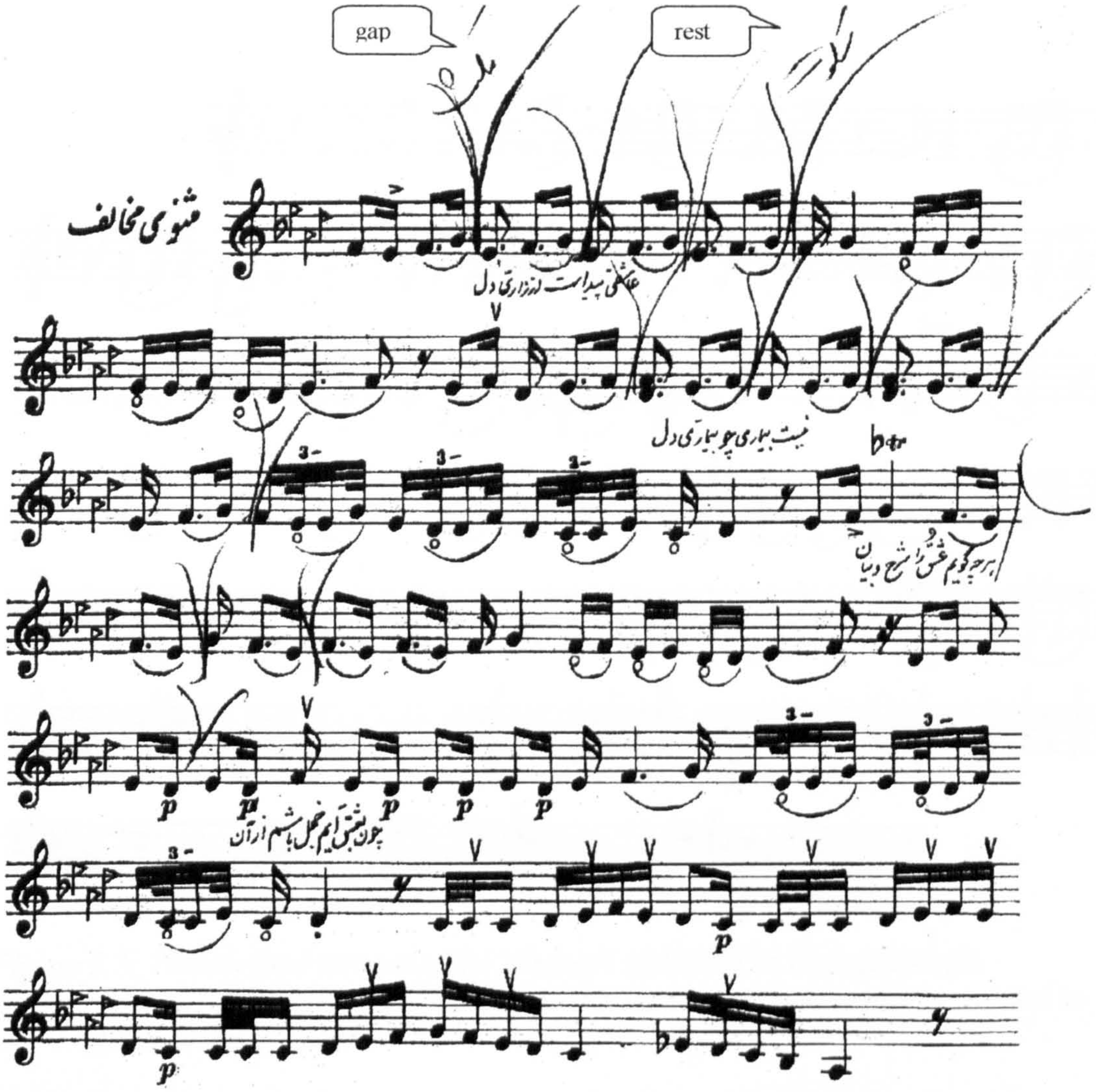
(1983) do not employ durational archetypes in their analysis of rhythmic grouping; rather, they focus on the determination of group boundaries and on the hierarchical nesting of subgroups, which has less problems in the consideration of non-western music.

The significance of the human sense of hearing, perceiving and distinguishing between intervals has been taken into account by psychologists. Psychological studies on metric interpretation suggest that the process is far more complex than might otherwise have been assumed. In fact, on the contrary, metre depends for its existence on the agency of a human interpreter, i.e. "the ability of arranging, dividing, grouping the phænomena into equal sections" (Wallaschek 1895: 29; see also Clarke 1987; Dowling and Harwood 1986).

If we accept the basic musical elements (duration, pitch, harmony, instrumentation, etc.) as the material that produces musical stimuli in general, the way of using them is marked by differences of society and musical habits. In other words, music theorists share the idea that sounds or groups of sounds which are similar (in timbre, volume, etc.) and near to each other (in time, pitch, etc.) form unified rhythmic patterns, while different sounds or groups of sounds tend to be perceived as separate rhythmic patterns. However, there is too little consideration of social background and the variation of musical habits between and within different societies. A Persian listener, for instance, demands long gaps between motives and musical phrases in order to consider the philosophical and sophisticated meanings which the musician is trying to deliver. During my own education as a student of Persian music, I was frequently commanded by performance teachers to consider placing sufficient gaps between motives and phrases, and was expected to learn the ability to distinguish the proper

places for gaps. I was asked to think and understand the meaning of poems I had to sing while playing, in order to deliver a proper sound to listeners and avoid breaking down the picture which the listener tries to make from previous materials. This idea somewhat brings the suggestion of Cooper and Meyer (1960: 1) to mind: "to experience rhythm is to group separate sounds into structured patterns." The intention of the Persian master performer is guide the listener's attempts to perceive rhythmic patterns.

These gaps in Persian music are so obvious to native expert musicians that they do not usually obligate themselves to show all of them in notation. At the beginning, as a student of Persian music, I had the problem that I just followed the notation. This once made my teacher angry and he crossed the notation with his ball pen to show where and how I had to consider gaps. It worked. A copy of that piece with my teacher's indications of proper places for gaps can be seen in Figure I.6. To demonstrate the differences between the prescribed version of this piece and the way it is perceived in reality by a native performer I transcribed my own performance of this piece on *santur* in Figure I.7 (CD1 #01).



Translation of the poem (Whinfield: 1887):[11]

A true lover is proved such by his pain of heart;
No sickness is there like sickness of heart.
However much we describe and explain love,
When we fall in love we are ashamed of our words.

Figure I.6: Prescribed version of Masnavī mokhālef *in* Dastgāh Segāh *from the* radīf *of Sabā (1980: 20) corrections by Mr. Naimimanesh (Isfahan conservatory 7 May 1985)*

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[11] The Prince and the Handmaid: "A prince, while engaged on a hunting excursion, espied a fair maiden, and by promises of gold induced her to accompany him. After a time she fell sick, and the prince had her tended by divers physicians. As, however, they all omitted to say, "God willing, we will cure her," their treatment was of no avail. So the prince offered prayer, and in answer thereto a physician was sent from heaven. He at once condemned his predecessors' view of the case, and by a very skilful diagnosis, discovered that the real cause of the maiden's illness was her love for a certain goldsmith of Samarkand. In accordance with the physician's advice, the prince sent to Samarkand and fetched the goldsmith, and married him to the lovesick maiden, and for six months the pair lived together in the utmost harmony and happiness. At the end of that period the physician, by divine command, gave the goldsmith a poisonous draught, which caused his strength and beauty to decay, and he then lost favour with the maiden, and she was reunited to the prince. This Divine command was precisely similar to God's command to Abraham to slay his son Ishmael, and to the act of the angel in slaying the servant of Moses, and is therefore beyond human criticism" (Whinfield 1887, for complete story see *Masnavī* by Molavi, twelfth-century Persian poet).

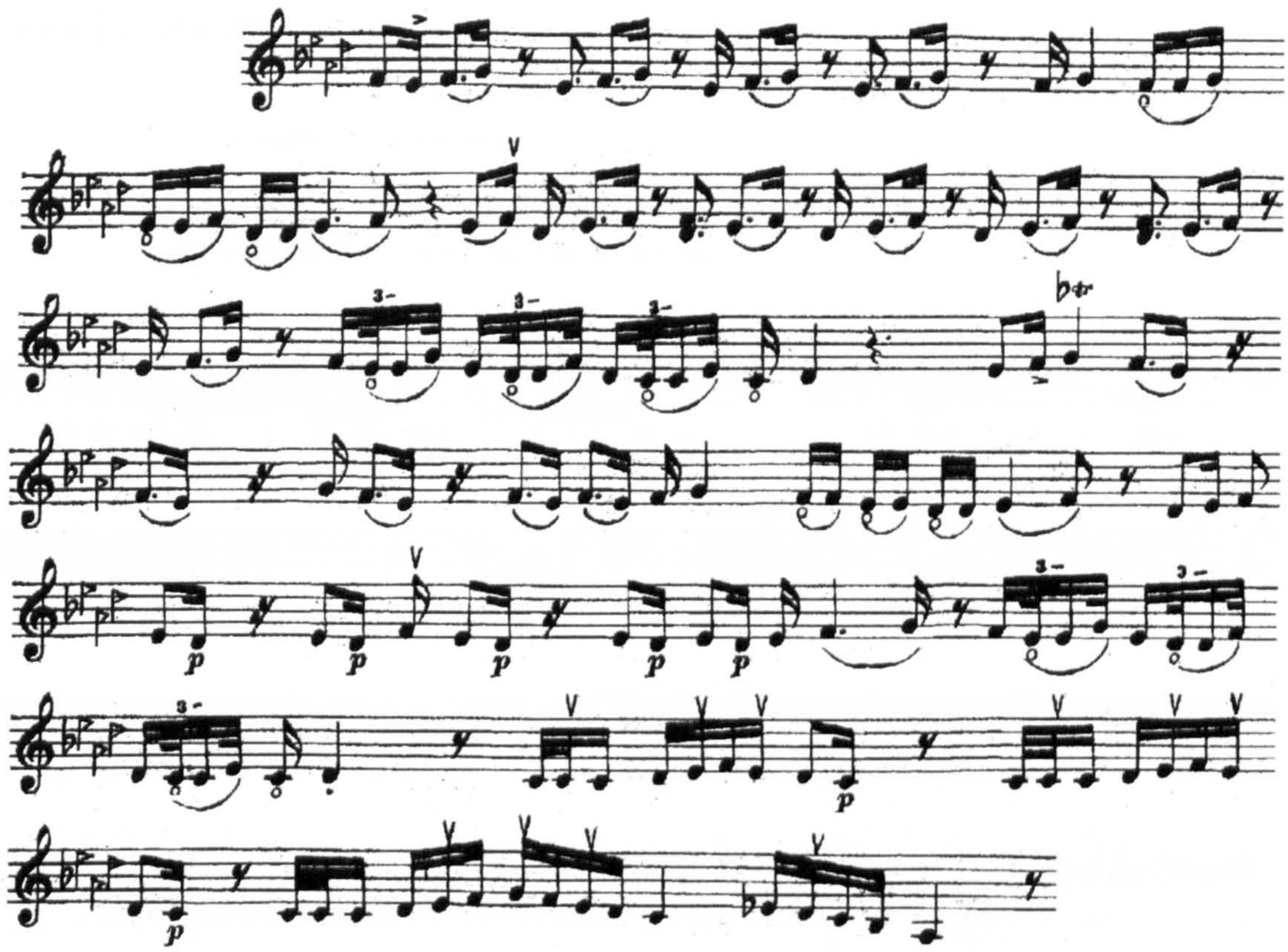

Figure I.7: *Transcribed version of the* Maṣnavī mokhālef *in* Dastgāh Segāh *performed by M. Azadehfar (compare with the prescribed version presented in Figure I.6); also CD1 #01*

As I mentioned earlier, the aim of a performer may also influence the perception of a listener. Sometimes a performer decides that the listener should focus attention on a particular part or level of his performance and uses his abilities to put that level at the centre of the listener's attention. The following example, Sūrat Yūsuf (The Verses of Joseph), from the holy Quran, presented by Shaikh 'Abd al-Bāset 'Abd al-Samad (CD2 #01) shows how the performer tries to direct the attention of listeners to the meaning of the text (Figure I.8). In this example the performer avoids making a regular metre so that the listener follows the meaning of the words rather than simply following a rhythmic cycle. Jonathan Stock (1996: 46) in this respect comments that "this is not deemed a musical activity, so there are no set rules on melodic style other

than the avoidance of popular tunes and the insistence that the Arabic text [the text of Quran] is important, not the tune."

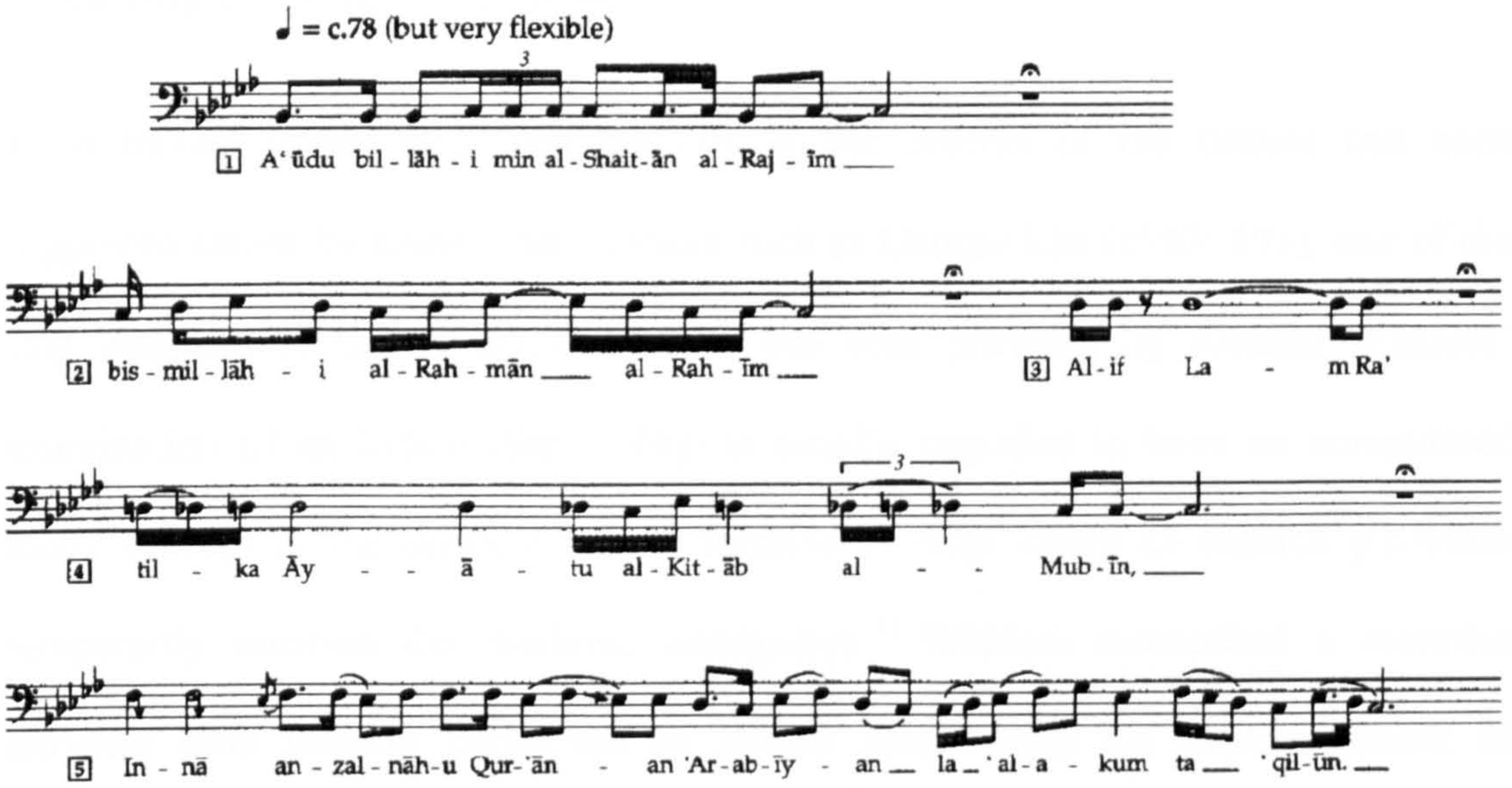

Figure I.8: *Sūrat Yūsuf (The Verses of Joseph), Quran (12/1-5) presented by Shaikh 'Abd al-Bāset 'Abd al-Samad (transcription: Stock 1996b: 41)*

In musical analysis and the deliberation of perception, psychologists sometimes consider the perspective of the performer and more often that of the listener. The following example shows how involving a native performer in transcribing and analysing music from his or her own cultural background leads to a result that cannot be gained without such a close collaboration.

Grouping in Ālāp and Widdess's Approach

Rhythm in Indian music, whether South or North India, has attracted the attention of many ethnomusicologists and music theorists (see, for instance, Brown 1965; Kuckertz 1970; Widdess 1981 and 1994; Sanyal 1986 and Clayton 2000). What makes the studies by ethnomusicologists differ from other music studies is that they aim to take into account the senses and principles of the society as directly reported by musicians and listeners. Those extra windows opened by ethnomusicologists toward

music sometimes bring results which cannot be seen through the conventional windows of music theory. Among them is a way of discovering regularity in irregularity and pulses in non-pulses.

Even though transcription and analysis in the context of the culture had been suggested earlier by some other scholars such as George List (1963: 193), one of the first instances of this in actual practice has been provided by Richard Widdess' examination of an Indian *ālāp*.[12] *Ālāp* is usually regarded to have an unregulated metre (except in the periodic *mohrā* formula of *ālāp* where an explicit pulsation temporarily resolves the rhythmic ambiguity).[13] Widdess transcribed a recorded *dhrupad* from Banaras performed by Ritwik Sanyal with the accompaniment of Ashok Tagore on the *pakhāvaj* (horizontal double-conical drum). He collaborated in writing up his representation of the song with the singer and drummer several times. What he learned about grouping and pulse in *ālāp* rhythms was a direct result of this cooperation. For instance, Sanyal told Widdess that he maintained an internal beat during the *ālāp*, even though it appears to be presented in a free metre. "While listening to the recording, Sanyal indicated the pulse by beating time. Where his beats coincided with a notated melodic or rhythmic event, a note was made in the transcription" (*ibid.*: 66). Widdess indicated these beats by adding 'V' on the top of stressed notes. He measured the length of each note and each group of notes in the

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[12] The approach of involving the performer in transcription and analysis has also been suggested by Sloboda (1985: 149-50). He recommended playing back a recorded improvisation to its performer, with as many pauses and backtrack as the performer requires, to reach more accurate results.

[13] *Ālāp* is a structured improvisation on a chosen *rāg* which is the first part of any *dhrupad* (ancient vocal form of Hindustani music). *Dhrupad* typically consists three stages: *ālāp*, *bandis* and *laykarī*. After some improvisation in the *ālāp*, the performer plays a *bandis* which is a composed song set to the same *rāg* and based on the cyclic structure of *tāl*, and finally *laykarī*, variations combining the text of the song with improvised cross-rhythms against the *tāl* (for more information see Widdess 1994 and Clayton 2000).

extract, in order to test further for the existence of a pulse, and to eliminate as far as possible the subjectivity of either investigator. The result surprised Widdess and changed his assumptions about the rhythmical structure of the song. He could discover a pulsation that was otherwise out-of-sight. The final result of his work is seen in Figure I.9.

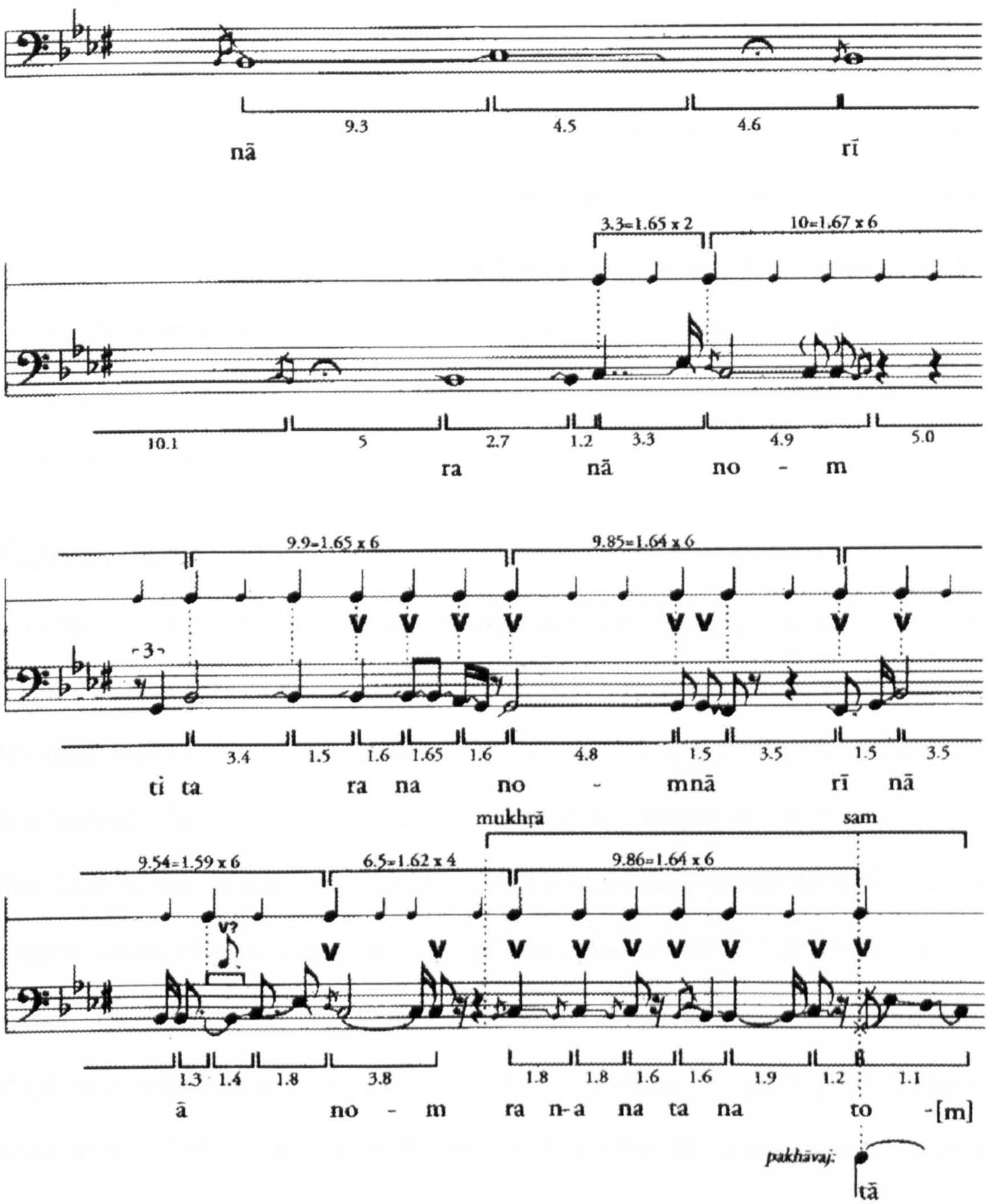

***Figure I.9**: Illustration of pulse in the beginning of* ālāp *by involving the performer for transcription and analysis (transcription: Richard Widdess 1994:67).*

Having a consideration of the performers' interpretations led Widdess to understanding of hidden aspects of the rhythmic structure *ālāp*. Ter Ellingson (2001) in "Transcription" considers the collaborative approach of Widdess as one of the new approaches in transcription and analysis of the twentieth century. Of course, Widdess's approach contains some limitations. The background and the relationship between researcher and performer directly affects the final result. For instance, Ritwik Sanyal is a professional *dhrupad* singer who also has knowledge of Western music theory, a situation which does not necessarily apply in all similar researches. Collaboration will not properly work if the performer is unsympathetic to the use of western notation and the questions raised from a western way of thinking about his music. Another limitation is the long time it takes to reach the final outcome. Nevertheless, it is practical and it can provide a precise picture which may not be available otherwise.

Conclusion

Coming to some sort of a universal description of the concept of metre has been of interest to many theorists, particularly music psychologists and ethnomusicologists. We have considered some of the hypotheses of scholars such as Kramer, and Lerdahl and Jackendoff and tried to show their advantages and limitations. It seems, after all, that there is sufficient shared ground among the scholars to permit discussion of the general issues. This includes a set of fundamental issues such as time, rhythm, metre, accent, group perception and so forth. I use this shared language in the following chapters to examine the theory of rhythm in Iranian music. It will help the reader to make sense of the principles in the theory of rhythm in Iranian music which is necessary in the examination of the rhythmic structure of Iranian music.

PART ONE

Chapter 1
Rhythmic Structure in Persian Poetry

Music is in the first place speech
and rhythm and only lastly, tone.
Plato

Introduction

To understand the rhythmic structure of Persian music it is necessary to have knowledge of the structure of Persian poetry. The interaction between Persian classical music and poetry has been abundantly documented by Curt Sachs (1953), Hormoz Farhat (1965, 1973, 1990), Parviz Nattel Khānlarī (1967), Gen'ichi Tsuge (1970), Bruno Nettl (1972, 1978, 1992), Ḥoseyn Ali Mallāh (1988), Ruh-Allah Khāliqi (1991), Lloyd Miller (1999) and Ḥoseyn Dehlavi (2000). To give a single illustration, Sachs cites Rouanet as follows: "Still as late as the ninth century A.D., Zaryāb, a famous singer-composer, impressed this general rule on his pupils: in studying a song, to memorize first the rhythm of the text, then to beat it out on a drum, and only in the third and final place to learn the melody proper" (Rouanet 1922: vol. V., p. 2696, quoted by Sachs, 1953: 84).

It would be impossible to write a thesis on the rhythmic structure of Iranian music which would give an accurate picture without considering Persian poetry and its authority over music. The purpose of this chapter is to offer preliminary knowledge of the structure of Persian language and poetry which is essential for analysis of rhythmic structure of this music. The first section of this chapter provides an introduction to different rhythmical systems of poetry including the numerical, accentual, quantitative and tonic systems. There follows a section on technical issues of Persian poetry, such as the significance of vowel, consonant, syllable and stress. The last section of this chapter is a study of *'Arūẓ*, the collection of main cyclic patterns of Persian poetry, and the way that the rhythmic patterns of quantitative poems are represented in the *'Arūẓi* system.

Categorisation of Poetic Rhythmic Systems and Place of Persian Poetry

Before engaging directly with the main subject of this chapter it is worth enumerating briefly the most common rhythmic systems of poetry and illustrating the place of Persian poetry among them. One of the main features in most poetic systems is the number of the syllables. In addition, each poetic system employs some other specifications to give unity to the poems that are created in that system.

In a general sense, poetic rhythmic systems can be classified in numerical, qualitative and quantitative systems. In the numerical system, the poetic pattern is based on the number of syllables in each line without being much concerned about the length of the syllables themselves. This system is common in French, Italian and Spanish poetry. The qualitative system is divided to two classifications, accentual and tonic. The rhythm in accentual system is mostly based on the quality of the accentual pattern of lines. This system is used in a wide range of English and German poetry. In the tonic

system, rhythmical poetry is based on the pitches of syllables. This system is used in Chinese and Vietnamese poetry. Finally, in the quantitative system the key factor is the duration of the syllables that makes up the feet, without regard for accents or stresses. Quantitative verse is made up of long and short syllables, the duration of which is determined by the amount of time needed for pronunciation. The poetic rhythm of Persian, Arabic, Sanskrit, Greek and Latin is in the quantitative metrical system.

The structure of the texts used in traditional Persian song depends on a complex quantitative metric system, into which the various words of the texts must fit. "The poem gives rise to a recurrent rhythmic structure in what initially appears to be a completely free performance" (Zonis 1965: 645). Studying the quantitative poetic system can provide us a better understanding of the nature of rhythmical structure in Persian poetry and consequently Iranian music. It also supplies a grasp to the structure of the song texts in the past, as it is believed that the system survived unchanged. Elwell-Sutton (1976: ix) in this regard suggests: "the very fact that this system has lasted unchanged for so long is in itself evidence that it is closely bound up with the genius of Persian language, and is unlikely to be influenced by an alien tongue."[1]

Theoretical aspects in Persian quantitative metre

How can the metre of a poem influence the movement of melody in a song? How much freedom does melody have within the restricted metrical range/sphere of a poem? To answer these questions the nature of the Persian language and its

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[1] For discussion of historical issues in Persian and Arabic poetry see: Ab al-Faraj Isfahani 1869 [d. 988]; Ibn 'Abd Rabbih 1887; Al-Masūdi 1894; Farmer 1926, 1929 and 1967; Najib-ullah 1963; Nicholson 1966; Elwell-Sutton 1976; Shamissa 1987; Wright 1979; Touma 1996.

rhythmical aspects has to be examined. In this section, which is generally about the technical aspects of the quantitative system of Persian poetry, I start by assessing the primary aspects of the Persian language, including its use of vowel, consonant, syllable and stress. Then, the contemporary categorisation of Persian poetry will be considered.

Vowel and Consonant

Every verse in Persian poetry consists of various words, and each word is formed by consonants and vowels. In the Persian language, most of the alphabetical letters are consonants and there are three short vowels (Figure 1.1), which give them movement. Short vowels are not considered as main members of the 32 Persian alphabetic letters. However, it is obvious that pronouncing a word without any vowel is impossible.

Persian Short vowels	Equal in UK English
ـَ as in تَن (tan)	a as in hat
ـِ as in دِل (dil)	i as in ten
ـُ as in بُن (bun)	u as in go

***Figure 1.1:** Short vowels*

There are also three long vowels (Figure 1.2) which help in pronouncing consonants as well. Persian linguists also call vowels 'stimulants' or 'motors' as they help in the pronunciation of other letters.

The quantitative system of poetry totally depends on the pattern of vowels and consonants to make auxiliaries, words and phrases.

Persian Long vowels	Equal in UK English
آ as in آرام (Ārām)	ā as in arm
ای as in شیر (shīr)	ī as in see
او as in کوه (kūh)	ū as in too

***Figure 1.2:** Long vowels*

Syllable

It is quite rare to find two or more consonants without any vowel between them in modern Persian. However, in Old Persian as well as some other languages it may occur, as in the word 'stop' where there is no vowel between 's' and 't'. These consonant clusters usually do not happen at the start of the words in the contemporary Persian language, although they are found in some cases when preceded by either another consonant and a vowel or by one long vowel without any consonant.

Even when syllables beginning with consonant clusters occur, all but the last consonant must be regarded as belonging to the previous syllable. This rule has a basis in the phonetic structure of Persian, which does not permit of a word beginning with more than one consonant. "We are not faced in Persian with the difficulty presented in English by the fact that words such as 'eat', 'teat', 'treat', 'street' are all monosyllabic and therefore of the same quantitative length" (Elwell-Sutton 1976: 84).

1. Short Syllables

A short syllable consists of a consonant leading to a short vowel. '*Ka*' in the word '*kamān*' (bow [noun]) is a short syllable.

2. Long Syllable

There are two different ways to form a long syllable:

1. Two consonants with a short vowel between them. '*Tan*' (body) is a long syllable in which the vowel 'a' is inserted between two consonants, 't' and 'n'.

2. Using just a long vowel after a consonant. '*Bū*' in the word '*būdan*' (to exist) is a long syllable.

3. Over-long Syllable

There are two ways to form longer syllables.

1. Three consonants with a short vowel between first and second, as in '*ranj*' (pain).
2. A long vowel followed by a consonant, as in '*āh*' (oh!).

4. Extremely Long Syllable

By using four letters of which the second is a long vowel the syllable becomes extremely long, as in the word '*rāst*' (true). In poems, extremely long syllables often are pronounced like over-long syllables, but not always.

Thus the theoretical proportion of short, long and over-long syllable in Persian poetry is 1:2:3, and the whole quantitative system is based on these relations. Other than the optional addition of a single mora (ᴗ) to the length of a final long syllable or of a preliminary short syllable, all lines of a poem are of precisely the same quantitative length. Any change in the quantitative length of any other syllable must be balanced by a consequent diminution or increase in the total number of the syllables in the hemstitch.

5. Diphthong Vowel

As well as short and long syllables, there are some diphthongs in Persian, as in '*sheypūr*' (horn). In Persian poetic patterns every diphthong equals an over-long syllable.

Before leaving the section on syllable length I should only add that different regions in Iran have different dialects. The lengths of syllables in each word very much

depends on where the speaker comes from. This thesis deals with Iranian classical music, which mainly uses the dialect spoken in the capital, Tehran. There are also some differences between the metric organisation in Persian classical poetry and establishment of metre in folk poems, which vary depending on different regions. Yarshater (1974: 64-5) considers folk poetry to be "primarily governed by the number of rhythmically prominent accents, each of which binds a number of syllables into a foot." Based on this view, the number of feet is constant whereas the number of syllables per foot is not. Such lines appear to be unequal when read but seem regular when put in a musical context. Yarshater, nonetheless, does not clarify which region he is referring to in his discussion. For researchers interested on examining regional songs, it would be essential to consider the principle of syllable length in relation to the particular dialect of the region in question.

Stress

In the qualitative system of poetry, such as English and German poetry, stress is the main feature of poetic pattern. In the Persian poetic system and all other languages which use quantitative metric systems, even though the length of syllables and their place in the line is the main factor, considering the pattern of stresses is necessary as well. Likewise, in the qualitative system, the length of syllables cannot be forgotten.

Changing the position of stress in a certain word can change its meaning; for instance, '*cherā*' with a stress on the first syllable means 'why', while, if the stress is changed to the second syllable it means 'pasture'. By changing the position of stress, grammatical function also changes. For instance, '*shīrī*' with a stress on the first syllable is a concrete noun (a lion) but by changing the stress to the second syllable it becomes an abstract noun (brave, intrepid).

Nattel Khānlarī (a Persian linguist and musician) says of stress in contemporary Persian language:

> About stress in the current Persian language which Western linguists call "accent d'intensité", I have done some detailed research at the phonetic library of Paris of which the results are being published in French. According to that research, stress in the current Persian language is not, as Western linguists believe, due to intensity but due to changes in the pitch. In fact, stress in Persian happens by raising pitch (Khānlarī 1967, quoted by Dehlavi 2000: 141).

Khānlarī's suggestion extends to most of the dialects related to the Farsi language. This characteristic of the Persian language makes it somewhat difficult to analyse the rhythmical structure of Persian songs without considering pitch. Based on this particular feature, in the following chapters whenever vocal songs need to be examined, they will be presented with their melodic patterns. In Figure 1.3 the melodic movement of three different words are analysed to illustrate this point.

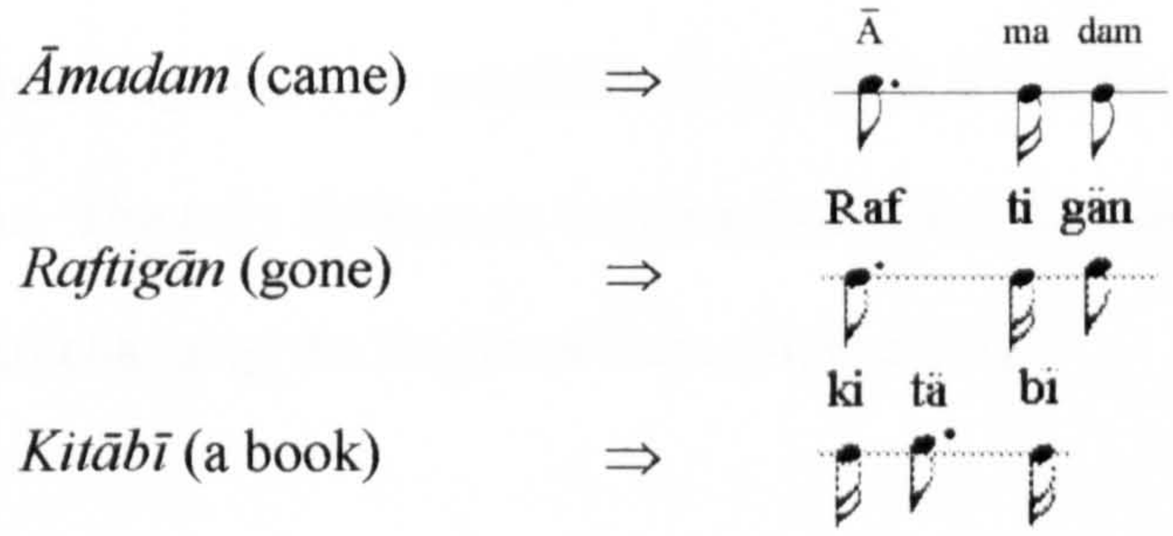

Figure 1.3: *Using vertical positioning to show main pattern of melodic movement (after Dehlavi 2000: 142)*

Contemporary Categorisation of Persian Poems

Persian poetry can be categorised in three styles with regard to metrical organisation. The main style with which this chapter is concerned is "classical Persian poetry". In this style, the rhythmic pattern is configured within the regular repetition of short and long syllables in a fixed order (Figure 1.4).

اگر آن ترک شیرازی به دست آرد دل ما را
به خال هندویش بخشم سمرقند و بخارا را

Agar ān turk-i Shīrāzi bidast ārad dil-i mārā
Bikhāl-i hindu-ash bakhsham Samarqand o Bukhārā rā.

(Poet: Ḥāfiz)

Translation (McCarthy 1893: 39):[2]
If that angel of Shiraz would take my heart in hand,
I would give for her dark mole Samarkand and Bokhara.

1st Hemistich:	A	gar	ān	tur	ki	Shī	rā	zi	bi	das	tā	rad	di	li	mā	rā
	∪	–	–	–	∪	–	–	–	∪	–	–	–	∪	–	–	–
2nd Hemistich:	Bi	khā	li	hin	du	ash	bakh	sham	Sa	mar	qan	do	Bu	khā	rā	rā
	∪	–	–	–	∪	–	–	–	∪	–	–	–	∪	–	–	–

***Figure 1.4:** An example of the metric pattern of a Persian classical poem*

As can be seen from the above example, the number of syllables in each hemistich is 16 and the order of short and long syllables is identical (1, 5, 9 and 13 are short and the others long). This pattern is kept in the ensuing lines until the end of poem.

In addition to classical poetry, there are two modern poetic systems, *Nimā'ī* and *Sepīd*.[3] The Nimā'ī system was established by Nimā Youshij (1896-1960) based on classical Persian. The only difference between Nimā's system and the classical one is the possibility of changing the length of lines (Figure 1.5).

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[2] All translations of Ḥāfiz's poems in this chapter use the edition translated by Justin Huntly McCarthy (1893). Those poems not found in McCarthy's translation have been reported from the translation by Henry Wilberforce Clarke (1998 [1840-1905]).

[3] Most of the songs performed by the Persian singers employ the classical poems; nonetheless, contemporary singers, including a number of traditional singers such as Mohammad Reza Shajarian and Shahrām Nāzeri, use modern poetic systems in some of their repertories. The above example, a modern poem by *Akhavān Sālis*, performed by Mohammad Reza Shajarian accompanied by Ḥosyen Alizādeh, Keyvān Kalhur and Humāyūn Shajarian in a series of concerts in different cities in USA in 2002. The programme later was published in form of a commercial cassette called *Zemestān Ast*.

سلا مت را نمی خواهند پاسخ گفت
سرها در گریبان است.
کسی سر برنیارد کرد پاسخ گفتن و دیدار یاران را.
نگه جز پیش پا را دید نتواند
که ره تاریک و لغزان است.

Salāmat rā nemīkhāhand pāsukh guft
Sarhā dar garībān ast.
Kasī sar barnayārad kard pāsukh guftan-o dīdār-i yārān rā.
Negah joz pīsh-i pā rā dīd natvānad
Ke rah tārīk-o laghzān ast.

(Poet: Akhavān Sālis)

Translation:

They are not likely to reply your hello,
Their heads are in their collars.
Nobody raises his head to reply and see.
Eyes cannot see more than a foot-step.
The road is dark and rickety.

Sa lā mat rā ne mī khā han d(o) pā sukh guft
∪ – – – ∪ – – – ∪ – – –

Sar hā dar ga rī bān ast.
– – – ∪ – – –

Ka sī sar bar na yā rad kar d(o) pā sukh guf ta no dī dā ri yā rān rā.
∪ – – – ∪ – – – ∪ – – – ∪ – – – ∪ – – –

Ne gah joz pī shi pā rā dī d(o) nat vā nad
∪ – – – ∪ – – – ∪ – – –

Ke rah tā rī ko lagh zān ast.
∪ – – – ∪ – – –

***Figure 1.5:** An example of the metric pattern in a* Nimā'ī *poem*

The second system, *Sepīd*, is not concerned with quantity and length of syllables. In fact, the followers of this school believe in some kind of internal and qualitative musicality in the words they choose to build the poetic lines (Figure 1.6).

خانه دوست کجاست؟

در فلق بود که پرسید سوار

آسمان مکثی کرد

رهگذر شاخه ی نوری که به لب داشت به تاریکی شنها بخشید

...

Khāneh-i dūst kujāst?

Dar falaq būd ki pursīd savār

Āsiman maksi kard

Rahguzar shākheh-i nūrī ki bilab dāsht bi tāriki-i shinhā bakhshīd

(Poet: Sohrāb Sepehri)

Translation:

Where is the friend's house?

It was at dawn that a rider asked.

The sky came to a temporary halt.

The passenger gave a beam of light from his lips to the darkness of the sands.

Khā neh i dūst ko jāst
– ⏑ – – ⏑ –

Dar fa laq būd ki pur sīd sa vār
– ⏑ – – ⏑ – – ⏑ –

Ā si man mak si kard
– ⏑ – – – –

Rah gu zar shā kheh i nū rī ki bi lab dāsht be tā ri ki i shen hā bakh shīd
– ⏑ – – ⏑ – – – ⏑ ⏑ – – ⏑ – – – – –

***Figure 1.6:** An example of the metric pattern in a* Sepīd *poem*

ʻArūẓ

Classical Persian poetry is based on the *ʻArūẓ* system. The use of quantitative poetry, through the history of the Persians and the Arabs, led to the formation of this system. *ʻArūẓ* has been explained in several different ways. For instance, and according to Sīrūs Shamissa, "*ʻArūẓ* is a word in past participle function, meaning the system to which a poem is fitted to ascertain whether its rhythm is right or not" (Shamissa

1987:11). In fact, for our purposes in this study, *'Arūẓ* can be understood as a collection of certain patterns for organising the number and order of short and long syllables in each hemistich.

Every main metrical pattern of *'Arūẓ* is called a *baḥr* (plural: *buḥūr*). The number of *buḥūr* in Persian and Arabic *'Arūẓ* is 19. However, each *baḥr* has the potential of varying to new patterns by means of a slight change. For instance, the main metrical pattern of *Ramal* can be changed by removing a long syllable from its last motif as follows:

Ramal: — ∪ — — — ∪ — — — ∪ — — — ∪ — —

Variation of Ramal: — ∪ — — — ∪ — — — ∪ — — — ∪ —

The other variations of *buḥūr* can be seen in Figure 1.7. These variations, usually created by losing some syllables from the original *baḥr*, are called *zeḥāf* (plural: *azāḥif*). An Arabic or Persian poem is composed of couplets (*bayt*, pl. *abyāt*) each composed of two hemistichs (*miṣra'*), each of which is composed of from two to four (rarely one) *arkān* (feet). The metres are made up of *arkān* in various combinations. *Arkān* are of two kinds, *munfarid* (all of the feet the same) and *murakkab* (feet of two kinds).

The metres actually used by the poets (*wazn*), as opposed to the theoretical *buḥūr*, are derived from these by the various modifications and also by reducing the number of feet (Elwell-Sutton 1976: 42). A metre that follows the standard pattern is called *sālim*; if it is modified in some way, it is *qayr-i sālim* or *zeḥāf*.

Buḥūr of ʻArūẓ

Arkāns murakkab (Compound Metre)

Moẓāreʻ:	∪--- -∪-- ∪--- -∪-- --∪ -∪-- --∪ -∪-- --∪ -∪-∪ ∪--∪ -∪- --∪ -∪-- --∪ -∪-∪ --∪ -∪-∪ ∪--∪ - --∪ -∪-∪ ∪---
Khafīf:	∪∪-- ∪-∪- ∪∪- ∪∪-- ∪-∪- ∪∪-- ∪-∪- -∪-- ∪-∪- -∪-- ∪-∪-
Monsarih:	-∪∪- -∪- -∪∪- -∪∪- -∪-∪ -∪∪-- -∪∪- -∪- -∪∪- -∪-∪
Madīd:	-∪-- -∪- -∪-- -∪- -∪-- -- -∪-- --
Basīt:	--∪- -∪- --∪- -∪-
Sarīʻ:	-∪∪- -∪∪- -∪- -∪∪- -∪∪- -∪-- -∪∪- -∪∪- -∪∪-
Ṭavīl:	∪-- ∪--- ∪-- ∪--- ∪-∪ ∪-∪- ∪-∪ ∪-∪-
Jadid:	∪--- ∪--- -∪--
Qarib:	-∪-- -∪-- --∪-
Mashakil:	-∪-- ∪--- ∪---
Moqtaẓib:	-∪-∪ -∪∪- -∪-∪ -∪∪- ∪--∪ -∪∪- ∪--∪ -∪∪-
Mojtas:	∪-∪- ∪∪-- ∪-∪- ∪∪-- ∪-∪- ∪∪-- ∪-∪- ∪∪- ∪-∪- ∪∪-- ∪-∪- ∪- ∪-∪- ∪∪-- ∪-∪- -- ∪-∪- ∪∪-- ∪-∪- -

Arkāns munfarid (Simple Metre)

Hazaj:	∪--- ∪--- ∪--- ∪--- ∪--- ∪--- ∪--- ∪-- ∪--- ∪--- ∪--- ∪--- ∪--- ∪-- ∪--- ∪--- ∪--- ∪-- --- ∪--- ∪--- ∪--- ∪--∪ ∪--∪ ∪--∪ ∪--∪ ∪--∪ ∪-∪- ∪--∪ ∪-∪- --∪ ∪--∪ ∪--∪ ∪-- --∪ ∪--∪ ∪--∪ ∪- --∪ ∪--- --∪ ∪--- --∪ ∪-∪- ∪-- ∪-∪- ∪-- ∪-∪- ∪--
Ramal:	-∪-- -∪-- -∪-- -∪-- -∪-- -∪-- -∪-- -∪- -∪-- -∪-- -∪--- -∪-- -∪-- -∪-- -∪-- -∪-- -∪- -∪-- -∪-- - -∪-- -∪-- -∪-- -∪- ∪∪-- ∪∪-- ∪∪-- ∪∪-- ∪∪-- ∪∪--- ∪∪-- ∪∪-- ∪∪-- ∪∪- ∪∪-- ∪∪-- ∪∪-- ∪∪-- ∪∪-∪ -∪-- ∪∪-∪ -∪-- -∪- -∪-- -∪- -∪--
Rajaz:	--∪- --∪- --∪- --∪ - --∪- --∪- --∪- --- --∪- --∪- --∪-- --∪- --∪- --∪- --∪- --∪- --- --∪- --∪-- --∪- --∪- --∪- --- --∪- --- --∪- --- ∪-- --∪- -∪--- -∪-- -∪-- -∪∪- -∪∪- -∪∪- -∪∪- -∪∪- ∪-∪- -∪∪- ∪-∪- ∪-∪- -∪∪- ∪-∪- -∪∪- ∪∪-- ∪∪-- ∪∪-- ∪∪--
Motaqārib:	∪-- ∪-- ∪-- ∪-- ∪-- ∪-- ∪-- ∪- -- ∪-- ∪-- ∪-- ∪∪-- ∪∪-- ∪∪-- ∪∪--
Motadārik:	-∪- -∪- -∪- -∪- ∪∪- ∪∪- ∪∪- ∪∪-
Kāmil:	∪∪-∪- ∪∪-∪- ∪∪-∪- ∪∪-∪-
Vāfir:	∪-∪∪- ∪-∪∪- ∪-∪∪- ∪-∪∪-

Figure 1.7: Buḥūr *of* ʻArūẓ

To show the rhythmical pattern of quantitative poems, the first stage is to identify the short and long syllables of each line. Then, it is decided which note length to consider as equivalent to each syllable length. An example will illustrate this process. The syllables of the below poem in the *baḥr* of *Hazaj* (with *Arkān* of *munfarid)* can be divided into shorts and longs as indicated in Figure 1.8.

به مژگان سیه کردی هزاران رخنه در دینم
بیا کز چشـــم بیمارت هزاران درد برچینم

Bi mozhgān-i sīyah kardī hizārān rikhneh dar dīnam
Biyā kaz chahm-i bīmārat hizārān dard(o) barchīnam

(Poet: Ḥāfiz)

Translation (McCarthy 1893: 132):
Through the black eyelashes thou hast made a thousand breaches in my faith:
Come, that from thy alluring eye I may pluck a thousand pains.

Bi	mozh	gā	ni	sī	yah	kar	dī	hi	zā	rān	rikh	neh	dar	dī	nam
⏑	—	—	—	⏑	—	—	—	⏑	—	—	—	⏑	—	—	—
Bi	yā	kaz	chah	mi	bī	mā	rat	hi	zā	rān	dar	d(o)	bar	chī	nam
⏑	—	—	—	⏑	—	—	—	⏑	—	—	—	⏑	—	—	—

Figure 1.8: *Analysis of the pattern of shorts and longs in a poem in* baḥr *of* Hazaj

The basic way is to express short and long syllables as 1:2 in rhythmic duration. For instance, quavers are used for long syllables and semiquavers for short ones, as follows:

Bi	mozh	gā	ni	sī	yah	kar	dī	hi	zā	rān	rikh	neh	dar	dī	nam
Bi	yā	kaz	chah	mi	bī	mā	rat	hi	zā	rān	dar	d(o)	bar	chī	nam

Figure 1.9: *Short and long syllables shown as 1:2 rhythmic values*

At the most simple level, a time signature of 7/16 can be considered for the above pattern. However, in Persian music the rhythmic pattern of poems is usually not set so

simply and, as we shall see in following chapters, more often the rhythmic pattern hardly fits barlines with a consistent time signature. Two ways that the poem might be set to music in actual practice are introduced in Figure 1.10.

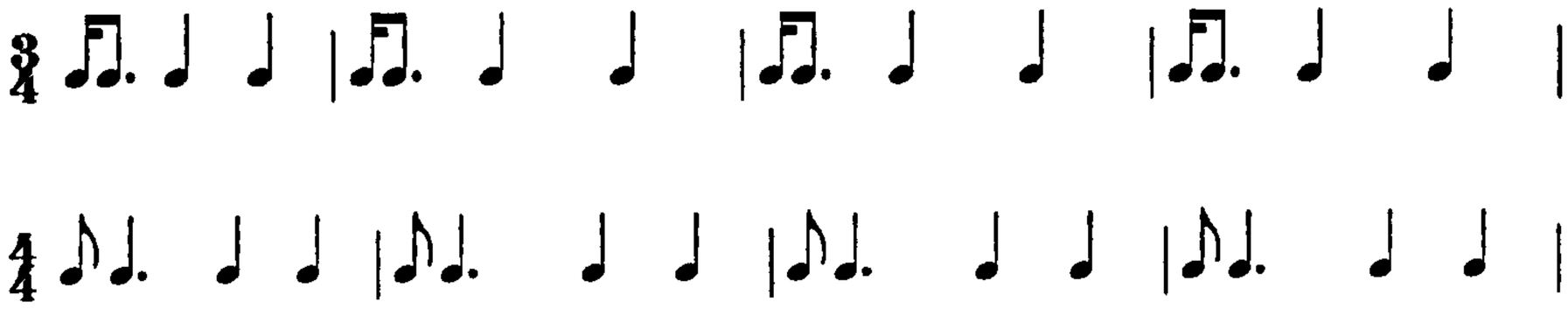

Figure 1.10: *Variations of the previous example*

A second example will make the process clearer. This is a poem in one the *azāḥif* (variations) of *baḥr* of *Rajaz*, which consists of two kinds of motifs (Figure 1.11).

سـرو چمان من چرا میـل چمن نمی کند
همدم گل نمی شود یاد سمن نمی کند

Sarv-i chamān-i man cherā meyl-i chaman nemī kunad
Hamdam-i gul nemī shavad yād-i saman nemī kunad

(Poet: Ḥāfiz)

Translation (Clarke 1998: 187):

Inclination for the sward, the cypress of my sward, wherefore marketh not?
The fellow-companion of the rose, becometh not? Memory of the lily marketh not?

Sar	vi	cha	mā	ne	man	che	rā	mey	li	cha	man	ne	mī	ku	nad
—	∪	∪	—	∪	—	∪	—	—	∪	∪	—	∪	—	∪	—
Ham	da	mi	gul	ne	mī	sha	vad	yā	di	sa	man	ne	mī	ku	nad
—	∪	∪	—	∪	—	∪	—	—	∪	∪	—	∪	—	∪	—

Figure 1.11: *Analysis of the pattern of shorts and longs in a poem in one of the* Azāḥif *of* baḥr *of* Rajaz

As can be seen from the above syllabic divisions, two different motifs comprise the rhythmic structure of this poem. The basic pattern can be considered as follows (Figure 1.12).

Figure 1.12: *Representing the basic pattern of short and long syllables as 1:2*

As is seen from the above notation (Figure 1.12), this pattern would directly fit a 6/8 or, by slight changes, to a 2/4 time signature (Figure 1.13).

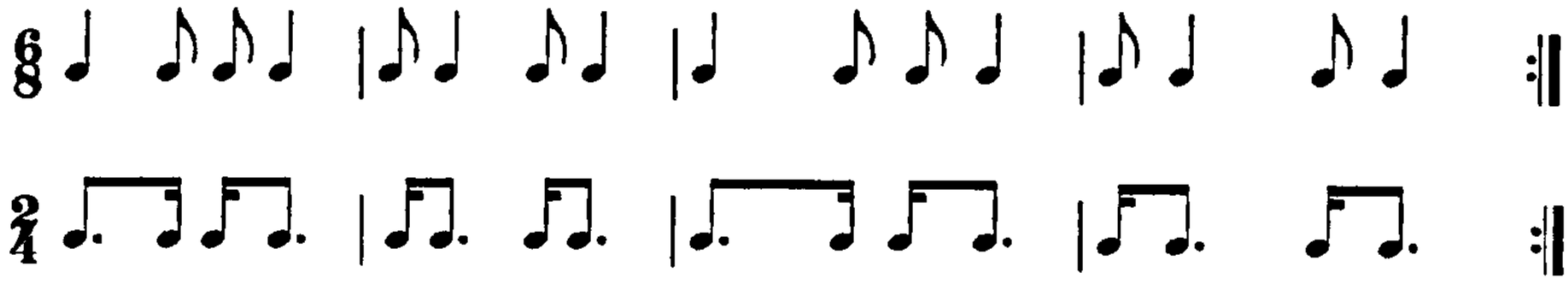

***Figure 1.13:** Transferring the short and long pattern of the previous example to fixed-metre of 6/8 and 2/4*

Even though the metrical division of *buḥūr* seems simple to fit to basic barlines, practice in actual Persian classical and folk music, as already mentioned, does not usually remain so simple. As we shall see, it is difficult to predict how a singer or performer will create a new variation of the rhythm on a poem while he improvises. In fact, in music the 1:2 durational relationships of short and long syllables is not the only virtual division; the norm in *āvāz* performance, as we shall see, can be anything up to 1:8.

The key issue of this chapter was to introduce the quantitative metrical system of poetry and its impact in the construction of Persian poetry, this as an essential prerequisite to approaching the rhythmic structure of Iranian music. Now that this principle of Persian poetry has been established, it is possible to consider the rhythmic cycles in Iranian music.

Chapter 2
The Rhythmic Cycles

Introduction

In philosophy, the engagement of time and music has long been one of the ways of describing and illustrating the complicated nature of 'time' itself. Regarding time and motion as intertwined values, of which either one describes the other, Barkechli (1978) in *Andīshehā-i 'Ilmi-i Fārābī darbāreh-i Mūsīqī* (Fārābī's scientific ideas about music) cites a quotation from Fārābī (d. 950) which suggests that one of the clues in comprehending the notion of motion is tiredness. According to this view, while listening to music we are taken by the vehicle of music and so do not feel the passing of time, hence we do not get as tired as when we are not listening to music.

Although the perception of time is considered to lie in the experience of change, and change, as mentioned above, comes to exist with motion, musical time differs from

scientific time in several ways. Jeff Pressing (1993: 105) categorises the differences and similarities of musical time with scientific time:

> [Musical time] is composed rather than received; its subjective interpretation is not necessarily bound by physical experience; it can be regarded as multidimensional; it has intrinsic cyclic aspects, and interpersonal interaction in performance. Its similarities [to scientific time] include: the property of ordering of events; measurability; divisibility; the existence of characteristic time scales; relationships with numbers.

As can be seen from the above categorisation, cyclicity is a specification of musical time. The notion of the cycle is also a shared concept among Persian scholars for describing rhythmic patterns. Cyclicity of time is also a belief within the philosophy of Sufism. From the point of view of Sufism the whole universe is a unique mechanism that is governed by the law of rhythm. Cycles of the rhythm of the universe—from the smallest atom to the largest solar systems—endorse the whole of creation in their being. Nevertheless, cyclic metre is neither a specification of Sufi music nor is it unique to Iranian, Indian, Turkish and Arabic music, the areas of strongest Sufi influence. The Western music theorist Christopher Hasty (1997: 107-8), for instance, writes that, "the decision to group beats metrically is a decision to regard new beginnings as continuations and expansions of a presently emerging (and reproducible) durational quantity."

The previous chapter looked at what we could learn about the Persian poetic structure as a vital aspect of Iranian music. This chapter examines a different body of material, namely rhythmic cycles in treatises written between the time of Ṣafī al-Dīn Urmawī[1]

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[1] Urmawī: from Urūmiya, an area in the Northwest of Iran.

(d. 1294) and Abd al-Raḥmān Jāmī[2] (1414-92). It is by no means claimed in this thesis that the rhythmic cycles reported by Ṣafī al-Dīn and his successors are still the main source of rhythmic structure in Iranian music. Instead, this part of the thesis is mainly inquisitive about whether there still exist any possible signs of such rhythmic cycles in today's Iranian music.

Before examining the rhythmic cycles, an introduction to the systems of representation and transcription of rhythm in Iranian music is provided in the first section. As a matter of economy in presentation, the two most popular systems of representing rhythm are presented in this section and the rest summarised in Appendix 1. The examination of every system takes place through examples which clarify each system in turn. It is followed in the next section by an analysis of the documented rhythmic cycles in the period of Ṣafī al-Dīn Urmawī to Abd al-Raḥmān Jāmī. The broader implications of rhythmic cyclicity and its significance in music in general will be discussed in the conclusion of this chapter.

Two Systems of Representation and Transcription of Rhythm in Iranian Music

The long-standing argument as to whether Western notation is a proper way of representing non-Western music remains an unresolved challenge for ethnomusicologists today. One suggested solution is that of employing the approach of the group or nation whose music is to be analysed; nonetheless, in spite of all the arguments, it is very rare to find ethnomusicological studies using this approach as their main analytical tool.

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[2] Jāmī: from Jām, an area in the Northeast of Iran.

There are several methods in Persian scholarly works—most of which are shared with approaches used in Arabic music—for the representation of rhythmic modes. Some of these methods are oral and others are written. The oral way of showing rhythms in Persian music—unlike poetry, of course—has not been standardised and does not follow a set of generally accepted rules, as exists in Indian music, for example. Instead, each master has his own way of signifying rhythms for his or her students in speech. The writing down of these rhythms has been developed by music scholars in various ways that in most cases share the principles used in transcribing poetic rhythms, although here too the approach used by different scholars in different periods varies. Among various approaches and methods of representation and transcription of rhythm in Iranian music, two methods namely *atānīn* and *adwār* (cycles) are examined here. These represent the range of approaches, from the simplest to the most graphic, found in the documents of this period. (Other approaches are described in Appendix 1.)

Atānīn

The *atānīn* is a system for defining rhythmic patterns by employing the nonsense syllables *ta*, *na* (each equivalent to one time unit) and *tan*, *nan* (each equivalent to two time units). In this system, the rhythmic cycle is divided into feet of two to four time units, *ta* and *tan* always being initial in a foot, *na* medial, and *nan* final. A representation such as Tanan Tanan Tananan Tan Tananan suggests, accordingly, an internal 3 + 3 + 4 + 2 + 4 division and an associated distribution of percussion, with the initial time unit in a foot always sounded, the final one almost always not sounded, and any medial ones generally optionally sounded. (Some musicians prefer to use Tatan instead of Tanan, Tatatan instead of Tananan, and so forth. The start of each time unit is marked with a capital letter in this dissertation for visual clarity.)

One of the oldest sources that uses this *atānīn* style is the *Dānish Nāmeh Alā'ī*.[3] Ibn Sīnā in the music section of *Dānish Nāmeh Alā'ī* distinguishes three fundamental *atānīn*: Tan, Tanan and Tananan which he called *Khefāf*, *Theqāl-i Khafīf* and *Theqāl* respectively (other scholars used the terms *sabab*, *vatad* and *fāseleh*, see Appendix 1). 'Abd al-Qādir Marāghī[4] (*ca.* 1367-1435) in *Maqāṣid al-Alḥān* distinguishes one additional *atānīn*—compared to Ibn Sīnā's—and placed it before the first *atānīn* used by Ibn Sīnā. This additional *atānīn* consists of two short vowels represented by Tana.

It is generally believed among contemporary scholars that whereas *afā'īl* is mostly used for poetry, *atānīn* is only employed to represent the rhythm of music (see, for instance, Zonis 1973: 205). However, I have several times seen Iranian scholars use *atānīn* to describe the rhythm of poems as well. Learning and using *atānīn* is very easy. If Tan or nan is used to show long durations and Ta or na short durations then rhythm can be easily described by this system. Figure 2.1 is a representation of the rhythmic pattern of a verse of a folk song from Būshehr called "*Sharveh*" (CD2 #02) by identifying its constituent *atānīn*:

Bi Majnūn guft rūzī sāribānī	به مجنون گفت روزی ساربانی
Cherā Bihūdeh dar ṣahrā ravānī?	چرا بیهوده در صحرا روانی
Agar bā Leyli at bāshad sar o kār	اگر با لیلی ات باشد سروکار
Shud ān bīvafā bā dīgarī yār.	شد(بود) آن بی وفا با دیگری یار

Translation:

A camel driver asked Majnūn:
Why are you bewildered in the desert?
If you are seeking Leyli,

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[3] *Dānish Nāmeh Alā'ī* is one of the books written by Ibn Sīnā (974-1037) in Persian discussing mathematics, music and several other issues. One of the manuscripts of this book is in the Persian Manuscripts Collection of the British Museum. Two other manuscripts are in the library of Astan Qods Razavi in Mashhad and in the library of Majlis in Tehran (this particular copy does not have the part on mathematics and music).

[4] *Marāghī*: from Maragheh, city in northwest Iran.

Now that jilt [Leyli] is the sweetheart of somebody else.

Bi	Maj	nūn	guf	t(o)	rū	zī	sā	ri	bā	nī
Ta	nan	Tan	Tan	Ta	nan	Tan	Tan	Ta	nan	Tan
Ch	erā	bi	hū	deh	dar	sah	rā	ra	vā	nī
Ta	nan	Tan	Tan	Ta	nan	Tan	Tan	Ta	nan	Tan
A	gar	bā	Ley	li	at	bā	shad	sa	ro	kār
Ta	nan	Tan	Tan	Ta	nan	Tan	Tan	Ta	nan	Tan
Shud*		ān	bī	va	fā	bā	dī	ga	rī	yār
Tan		Tan	Tan	Ta	nan	Tan	Tan	Ta	nan	Tan

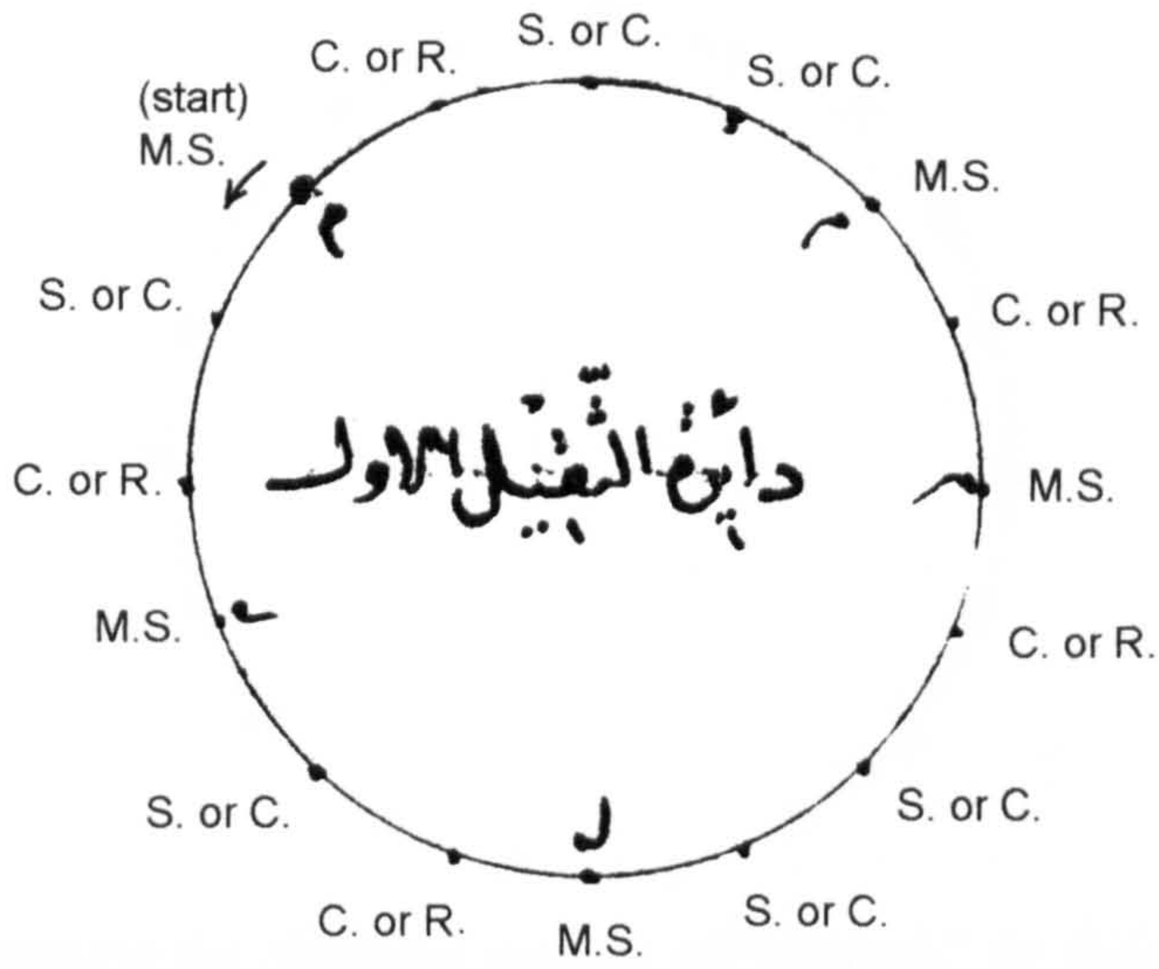
*** Note:** The singer sang his own version of the poem, using "shud" instead of the correct form "*bovad*". This hemistich has one syllable less than the others because of this change.

Figure 2.1: *Representing the rhythmic pattern of* "Sharveh" *with* atānīn *(CD2 #02)*

Adwār (Circles/Cycles)

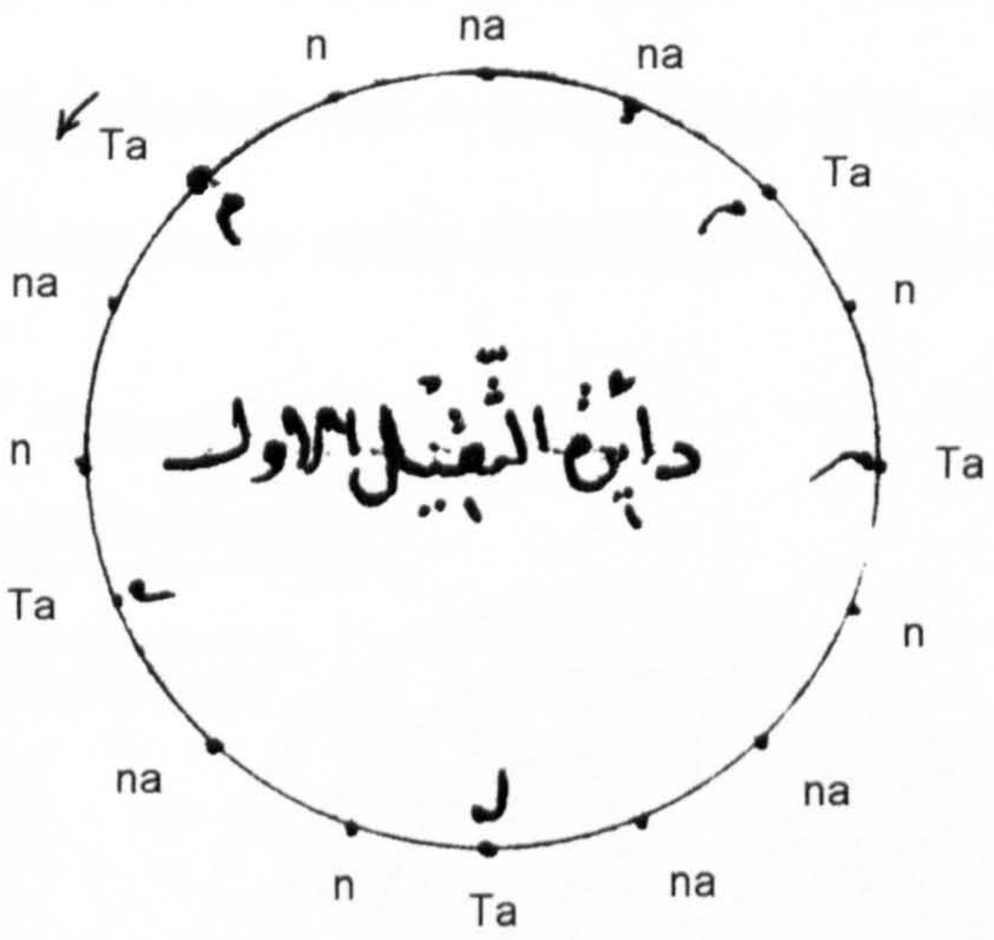
A unique way of describing rhythmic patterns, mentioned in almost all the music theory sources from this period, is *adwār* or *dawāyer* (pl. of *dāyereh*), a term that reinforces the cyclic nature of rhythm. *Adwār* may represent both interval patterns (mode or scales) and rhythmic patterns. Its principle is to use a cycle to show the divisions of a larger structure; however, there are different methods of marking those divisions.

The approach which Ṣafī al-Dīn and 'Abd al-Qādir use is to show the main struck beats with the letter (م) [M] and the other beats with dots. In this system dots are either a stroke relating to the internal divisions of the cycle or continuation of a stroke (or rest). In this system the last dot, which leads to a م, is always a continuation of a stroke or a rest. Figure 2.2 shoes the status of م and dots in a cycle called *thaqīl awwal* from the manuscript of *al-Adwār* (page 80). Figure 2.3 illustrates the equivalent of every sign in this system with the *atānīn* system.



Notes:
M. S.: main stroke
S. or C.: stroke or continuation of stroke
C. or R.: continuation of stroke or rest.

Figure 2.2: *Dividing the cycle by م and dots, the approach used by Ṣafī al-Dīn and ʻAbd al-Qādir*



Note: *this cycle can be represented by* atānīn *as: Tanan Tanan Tananan Tan Tananan*

Figure 2.3: *Comparing the cyclic system with the system of atānīn*

In Figure 2.4 the rhythm of *"Sharveh"* is represented by a circle in the approach of Ṣafī al-Dīn and ʻAbd al-Qādir:

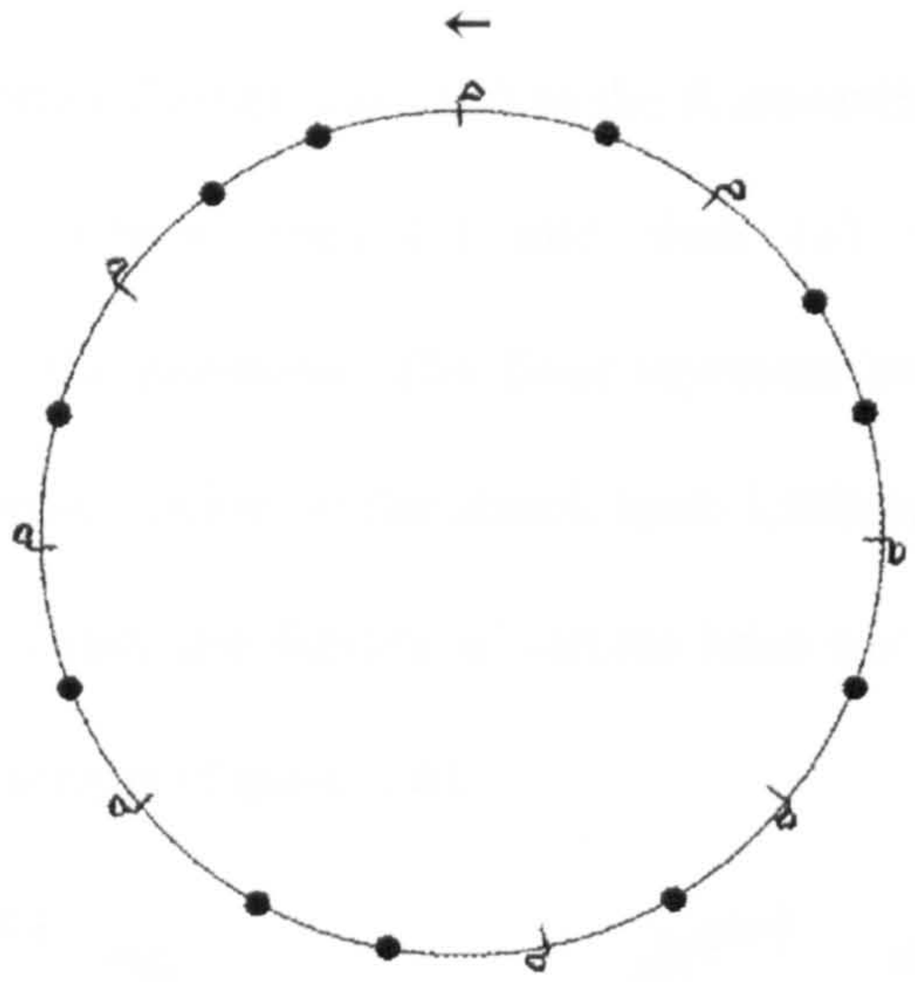


Figure 2.4: *Representing the rhythmic pattern of* "Sharveh" *by the* adwāri *approach*

One variant of this method used in *Durrat al-Tāj* by Quṭb al-Dīn Shīrāzī[5] (1236-1311) involves dividing the circle into a pie diagram. In a rhythmic example the long lines represent the main stroke, the medium lines stand for secondary strokes (optional strokes) and short lines symbolise rests or continuation of the struck beats. Figure 2.5 is an example derived from *Durrat al-Tāj* (Mishkāt 1945: 139).

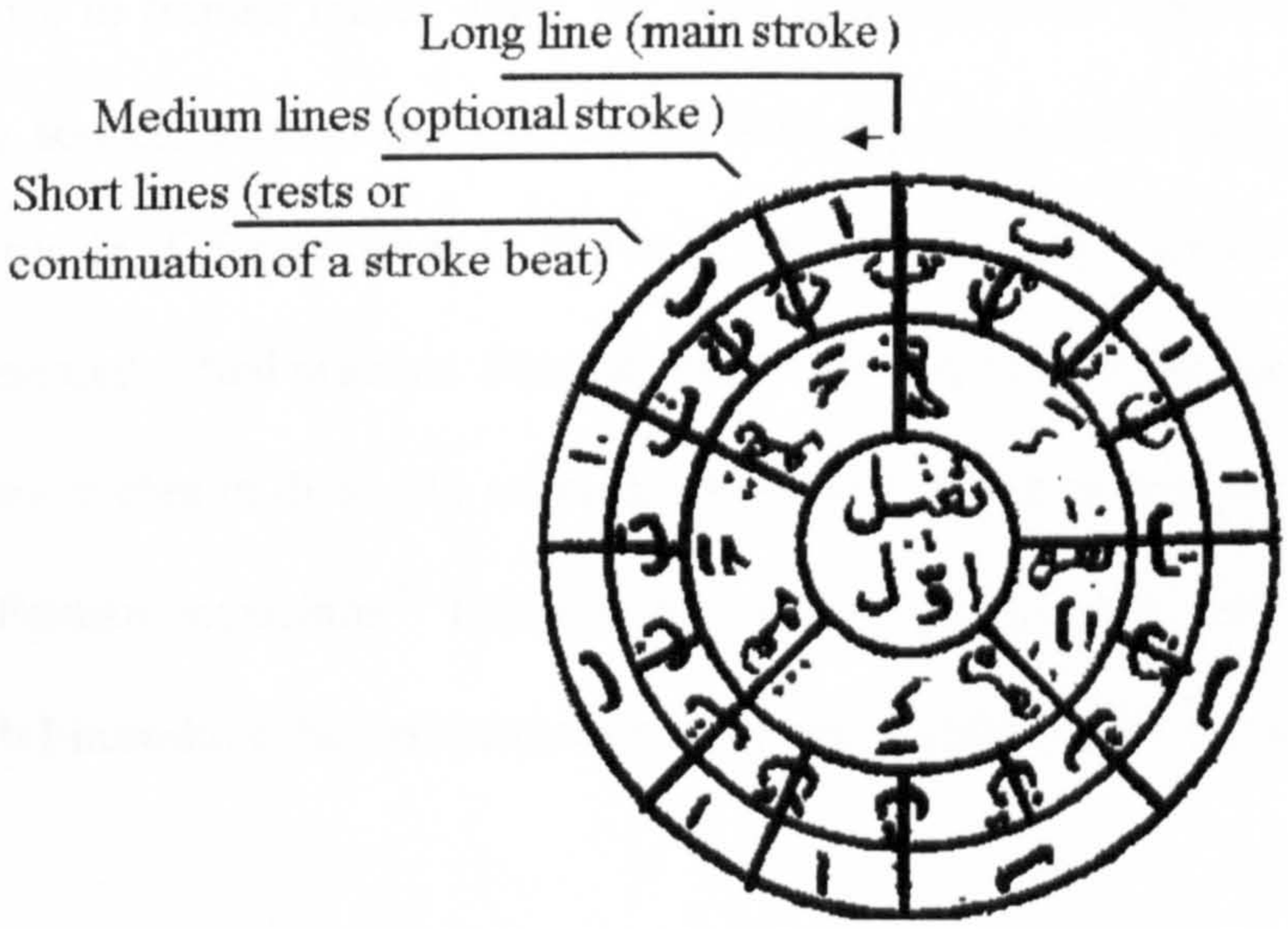


Figure 2.5 *Dividing the cycle using three different lines, the approach of Quṭb al-Dīn Shīrāzī in* Durrat al-Tāj

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[5] *Sihīrāzī*: from Shiraz, city in central Iran.

The same method in another format was used in the fourteenth-century *Kanz al-Tuḥaf* (Binesh 1992: 110-11) where lines (|) and dots (•) are employed on the circumference to signify the divisions. The lines represent struck beats and the dots either show a rest or a continuation of the struck beat. Unfortunately, in the available manuscripts of *Kanz al-Tuḥaf* the figures of circles have not been drawn strictly by the copyists of the manuscripts (Figure 2.6).

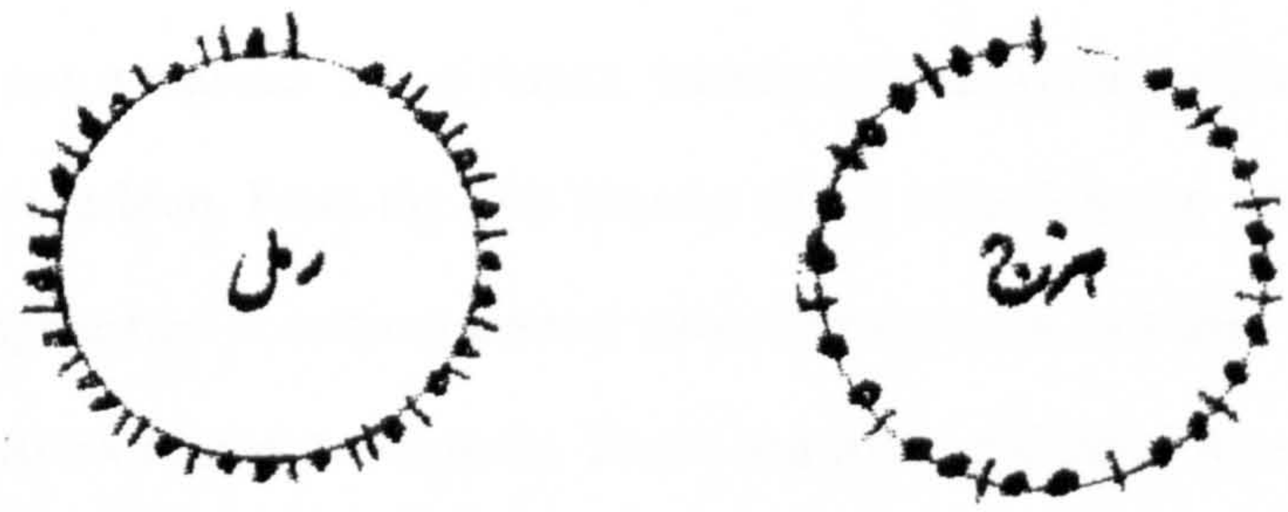

Figure 2.6 *Dividing the cycle by line and dots, as presented in* Kanz al-Tuḥaf *(Binesh 1992: 110-11)*

The Documented Rhythmic Cycles

There are two major challenges in forming an assessment of historical rhythmic practice in Iranian music. First, the main cycles are not reported in the same way in every source. That means that cycles with the same name may be found in various patterns in different sources and it is difficult to judge which version or versions represented actual practice. Second, there is no explicit border between the Arabic and Persian cycles in these old sources, since most of the cycles were used by both Arab and Persian musicians.[6] This second point requires some further elaboration, after which I introduce the main treatises from which information has been derived.

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[6] The use of shared rhythmic cycles is not limited to Persian and Arabic music. There are a considerable number of rhythmic cycles used in Turkish music too. In Turkish they may appear in slightly different pronunciations, for instance, *düyek* (*dutāyeki*), *sakil* (*thaqīl*), *darb-i fetih* (*darb-i fath or Ẓarb Fath*), *muhammes* (*mokhammas*), *remel* (*ramal*) and so forth (see more, Wright 2000: 396).

There is no way to explicitly separate the past music cultures of the areas with today's political borders of Iran, Iraq, Syria, Turkey and so forth. As Owen Wright (2001a: 297-8) suggests, from the early thirteenth century there was a process of interaction between the eastern part of the Arab world (principally Egypt, Lebanon, Syria and Iraq), the Persian and, subsequently, the Turkish:

> The precise contribution of each tradition is impossible to assess, but the eventual result was a musical *lingua franca*, tolerant of local variation but evolving in a fairly uniform fashion. From the 13th century (if not before) to the 17th it was propagated and appreciated at cultural centres stretching across a vast area from Egypt through the Fertile Crescent to Anatolia, Persia and parts of Central Asia. At different stages in its development this composite idiom was patronized at, for example, the courts of the last Abbasids in 13th-century Baghdad, the Jalairids in 14th-century Tabriz, the Timurids in 15th-century Samarkand and Herat, the Ottomans in 16th-century Istanbul and the Moghuls in 16th-century Delhi.

Central to this whole region was the Abbasid court in Baghdad (750-1258). As the capital city, Baghdad had the most significant educational institutions, and the court drew in scholars from across the whole region. The main scientific language of that time was Arabic and almost all scholars, including Iranians such as Fārābī, Ibn Sīna and Ṣafī al-Din, wrote their books in Arabic or in both Arabic and Persian.

The earliest of those important for the understanding of Persian rhythmic cycles is Ṣafī al-Dīn 'Abd al-Mu'min Urmawī. He is quoted or discussed by almost every subsequent theorist, and several commentaries on his theories were written. Eckard Neubauer (1995: 805), in *The Encyclopaedia of Islam*, notes that Ṣafī al-Dīn left Urmiya in North Iran to go to Baghdad to learn Arabic and other subjects of interest to him during the time of Musta'ṣim, the last Abbasid caliph. Neubauer describes Ṣafī

al-Dīn's great book, *al-Adwār*, as having valuable information on the practice and theory of music in the "Perso-'Irakī" area, including musical metres (*ibid*: 806). Owen Wright (1988: 2) also introduces the works of Ṣafī al-Dīn along with Quṭb al-Din Shīrāzī and 'Abd al-Qādir Marāghī as "Arabo-Persian", noting thereby that the findings of these scholars can be read as early sources on the music of this whole region, Persian as well as Arabic.

Henry George Farmer (1967: 198-9) provides a further example of the interaction between Iranian and Arabic music when discussing his categorisation of vocal forms based on 'Abd al-Qādir Marāghī's writings. Farmer writes, "among the melodies that were set to the rhythmic modes were those known as the *dastānāt* [*dasātīn*] (sing. *dastān*), the origin of which has been ascribed to Bārbad the minstrel of the Sāsānian monarch Khusrau Parwīz (d. 628)." Underlining the disagreement among the various sources which described rhythmic modes, he provides information that there still some divergences between Persian and Arabic musical practices (*ibid.* 189):

> Eight rhythmic modes are given by Ibn Sīnā and Al-Ḥusain ibn Zaila, and they are quoted on the authority of Al-Kindī and Al-Fārābī.... Agreement between them is lacking, and it is difficult even to make them conform to the rules of *Mafātīḥ al-'lūm* and Ikhwān al-Ṣafā'. In the day of Ṣafī al-Dīn 'Abd al-Mu'min only six of these rhythmic modes were current. This author informs us that the Persians had several rhythmic modes that were unknown to Arabs, and vice versa.

About the influential works on rhythmic cycles by Ṣafī al-Dīn, Owen Wright (1993: 684) says:

> A more significant contribution [as compared to modal analysis] is his analysis of rhythm, again characterised by clarity of presentation and general economy of means.

After an initial exposition of technique, using the straightforward equivalent of a prosodic foot to indicate combinations of time units (a short syllable representing one time unit, a long two), attention is concentrated on representing the basic set of common rhythmic cycles, the appropriate syllable sequence being qualified by a verbal statement of the number and the position of those time units marked by percussion.

Unfortunately, Ṣafī al-Dīn does not specify which rhythmic modes were Persian and which were Arabic, except in one cycle, named *Fākhtī*. Even in the case of *Fākhtī*, he says that very few compositions of Persian were in this particular cycle. Indeed, after nearly one century historical and analytical works on so-called Arabo-Persian music extending from Henry George Farmer and Owen Wright to latest generation of scholars no one has been able to find a way to sharply divide the Persian and Arabic rhythmic modes. One may also question whether dividing the rhythmic modes in that period, when people were living in a multicultural environment and there was no border between Neyshābūr, Isfahān, Rey, Marāgheh and Baghdad is possible or appropriate. Supporting this idea is the existence of a substantial number of Arabic names such as *Hijāzī*, *Ḥoseynī* and *Irāq* in Iranian music and Persian terms like *Zangūleh*, *Buzurg*, *Iṣfaḥān*, *Zīrafkand*, *Rāst*, *Norūz* and *Shahnāz* in Arabic music. Some names even contain consonants such as پ (p), گ (g) and چ (ch) which are specifically Persian and do not exist in the Arabic alphabet (see further, *Kitāb al-adwār* and *Risālah al-Sharafiyah* by Ṣafī al-Dīn).

One further problem is that, while discussions of the issue of rhythmic cycles continues in the neighbouring musical cultures such as Turkey as late as the eighteenth century (see for instance, *Demetrius Contemir* by Owen Wright 2000), there is not much about this issue in the treatises related to Iranian music from

fifteenth century onward and so a historical snapshot based on Persian sources has to be curtailed at this point. The last sources in Persian which clearly report rhythmic cycles are *Durrat al-tāj* by Quṭb al-Dīn Shīrāzī, works of 'Abd al-Qādir Marāghī and the music treatise of Abd al-Raḥmān Jāmī, *Risāleh Mūsīqī*.[7] We do not know the reason for the omission of rhythmic cycles in the treatises after this period. There is also no evidence that performers stopped using the rhythmic cycles along with the omission of this section in Persian music theory books.

In addition to the above sources, there is one treatise in Persian with a section on rhythmic cycles called *Risāleh Mūsīqī Bihjat al-Rūḥ*. The author of this treatise introduces himself as 'Abd al-Mu'min ibn Ṣafī al-Dīn. This cannot be true as the author quotes the writers such as 'Abd al-Qādir Marāghī born several years after Ṣafī al-Dīn's death. Commenting on this treatise, Rabino de Borgomale (1967: 12) notes a quotation from Mohammad Qazvīnī, suggesting that it might have been written some time in the early seventeenth century. This suggestion seems quite possible when one examines the style of writing in this treatise. If this is true, then the existence of the cycles in Iranian music practice can be inferred as late as the seventeenth century. The problem is, however, that the pattern of the cycles reported in this book is not clear and cannot be directly used in examining the structure of rhythmic cycles in this chapter.

Therefore, this section examines the rhythmic cycles in treatises written between the time of Ṣafī al-Dīn Urmawī (d. 1294) and Abd al-Raḥmān Jāmī (1414-92). In this analysis a comparative study of seven old manuscripts will be carried out: two

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[7] There are two manuscripts of *Risāleh Musiq* available in Tehran, one in The Library of Ostād Minuvi and the other one in The Library of Saltanati. Ḥoseyn Ali Mallah collected available copies and after comparison and editing published them in 1966.

treatises by Ṣafī al-Dīn Urmawī, *Kitāb al-Adwār* (The Book of cycles) and *Risālah al-Sharafiyah* (The Sharafian treatise); the music section of *Durrat al-tāj* (Pearl of the crown) by Quṭb al-Dīn Shīrāzī; works of 'Abd al-Qādir Marāghī including *Maqāṣid al-Alḥān* (Purports of melodies), *Djāmi' al- Alḥān* (Compendium of melodies) and *Sharḥ-i Adwār* (Commentary on the *Kitāb al-adwār*); and the music treatise of Abd al-Raḥmān Jāmī called *Risāleh Mūsīqī* (Music treatise) written in 1489.

Of these, the earliest is the works done by Ṣafī al-Dīn 'Abd al-Mu'min Urmawī namely *Kitāb al-adwār* and *Risālah al-Sharafiyah*. The works of Ṣafī al-Dīn were extended by Quṭb al-Dīn Shīrāzī and 'Abd al-Qādir Marāghī. Quṭb al-Dīn Shīrāzī's treatise is important because of the clearity of presentation and the extencive versions of the rhythmic cycles he introduces. Three different treatises of 'Abd al-Qādir Marāghī provides the possibility of comparing the cycles wich have reported differently in various sources. Finally, *Risāleh Mūsīqī* by Abd al-Raḥmān Jāmī forms an appropriate endpoint for this investigation because it is the last treatise extensively and clearly deals with the rhythmic cycles in the fifteenth century in Persian language.

Thaqīl Awwal

There is a general agreement about the main structure of the cycle *Thaqīl awwal* (the first *thaqīl*) or *Varshān* in different treatises by Ṣafī al-Dīn, Quṭb al-Dīn, 'Abd al-Qādir and Jāmī. The cycle of *Thaqīl awwal* consists of sixteen *naqarāt*[8] in the order of Tanan Tanan Tananan Tan Tananan or Mafā'elon Fa'elon Mofta'elon (Figure 2.7)

Number of naqarāt	1-3	4-6	7-10	11-12	13-16
Atānīn	Tanan	Tanan	Tananan	Tan	Tananan
Afā'īl	Mafā'	elon	Fa'elon	Mof	ta'elon
Pattern of shorts and longs	′⏑ –	′⏑ –	′⏑⏑ –	′–	′⏑⏑ –

Figure 2.7: Thaqīl awwal

[8] *Naqarāt*: (pl. of *naqareh*), measurement of note values; smallest time unit in a rhythmic cycle.

In the manuscript of *Sharḥ-i Adwār* 'Abd al-Qādir describes *Thaqīl awwal* very briefly. "*Thaqīl awwal* is an Arabic term for this cycle. Persians call this cycle *varshān* [a kind of bird]. The total value of the cycle is equal to sixteen *naqarāt*. However, the professional performers leave eleven *naqarāt* [silent] and play only the remaining five naqarāt" (Binesh 1991: 259). The same description with slight differences has been reported in another book of 'Abd al-Qādir, *Maqāṣid al-Alḥān*.

Quṭb al-Dīn Shīrāzī in *Durrat al-Tāj* gives more details of this cycle and confirms that the cycle had been popular during his time (thirteenth century). He says that the 16 *naqarāt* of this cycle are grouped in five *fuṣlūl* (pl. of *faṣl*; part; division; here means distinguishable motif). For the purpose of emphasising the status of the main *naqararāt*, the first *naqareh* of each *faṣl* may be struck harder by the performer. He adds, however, the professional performers put the accents on the first *naqareh* of the first *faṣl* and the first *naqareh* of the last *faṣl* (first and thirteenth *naqarāt*, represented in Figure 2.7 with bold symbols ′). Besides the accented *naqarāt* described above, the performer is free to put accents on any other *naqarāt* based on his taste.

Figures 2.8 and 2.9 are the cycles of *Thaqīl awwal* as presented in al-*Adwār* and Durrat al-Tāj.

Note: The translation of text inside the circle is: "the cycle of Thaqīl awwal"

Figure 2.8: *The cycle of Thaqīl awwal in manuscript of* al-Adwār *page 80*

Note: The translation of text inside the circle is: "*Thaqīl awwal*." The pattern of *atānin*, *abjad* and main *naqarāt* also indicated by initials (the long lines represent the main *naqarāt*, the medium lines the secondary *naqarāt* and the short lines a rest or continuation of the previous stroke).

Figure 2.9: *The cycle of Thaqīl awwal in manuscript of* Durrat al-Tāj *(Mishkāt 1945: 139)*

Jāmī also reports that during the rehearsal the performer usually claps or beats at the *naqarāt* of *laḥnīye* (stressed ones) or counts to keep the cycle properly. Based on Jāmī's view *naqarāt* have different functions, and some of them are more significant than others. He counts five different kinds of *naqarāt* and describes them based on *atānīn* as follows: the voweled "Ta" (تَـ), which is considered to have the main launch-point of the foot; the consonanted "N" (ن), which is considered to be a point of rhythmic inactivity; and the voweled "Na" (نَـ) called *modarrajāt*, which is played by melodic instruments and normally ignored by percussion players (see further, Jāmī 1489). The significance of different kinds of *naqarāt* as described by Jāmī is clearly seen in the way Quṭb al-Dīn Shīrāzī marks different *naqarāt* on the circle with three different lines (long line for "Ta", medium line for "Na" and short line for "N").

Thaqīl thānī

Apart from Quṭb al-Dīn Shīrāzī, there is an agreement between sources by Ṣafī al-Dīn, 'Abd al-Qādir and Jāmī about the number of *naqarāt* and the main pattern of the

Thaqīl thānī (*Thaqīl* the second). In this view the number of *naqarāt* in *Thaqīl thānī*, similar to *Thaqīl awwal*, is sixteen. The pattern of shorts and longs in *Thaqīl thānī* is Tanan Tanan Tan Tanan Tanan Tan or Mafā'elāton Mafā'elāton (Figure 2.10).

Number of naqarāt	1-3	4-6	7-8	9-11	12-14	15-16
Atānīn	Tanan	Tanan	Tan	Tanan	Tanan	Tan
Afā'īl	Mafā'	elā	ton	Mafā'	elā	ton
Pattern of shorts and longs	′⏑ –	′⏑ –	′–	′⏑ –	′⏑ –	′–

Figure 2.10: Thaqīl thānī

Quṭb al-Dīn Shīrāzī, however, reports *Thaqīl thānī* as having eight *naqarāt* in shape of Tanan Tanan Tan. It seems that because in the version reported above the first eight *naqarāt* exactly repeat in the second half of the cycle, Quṭb al-Dīn reduced the pattern to a simpler form of eight *naqarāt*, which by its repeating it becomes exactly the same as the version reported above. Ṣafī al-Dīn in *al-Adwār* (pp. 81-2) suggests that the main *naqarāt* in this cycle are six *naqarāt* including the first, fourth, seventh, ninth, twelfth and fourteenth. Figure 2.11 and 2.12 are the cycles of *Thaqīl thānī* as presented in al-*Adwār* and *Durrat al-Tāj*.

Figure 2.11: *The cycle of* Thaqīl thānī *in the manuscript of* al-Adwār *(p. 82)*

Figure 2.12: *The cycle of Thaqīl thānī in the manuscript of* Durrat al-Tāj *(Mishkāt 1945: 139)*

Khafīf Thaqīl

There is a disagreement among different sources regarding the pattern of *Khafīf thaqīl*. This disagreement is even seen in two treatises by Ṣafī al-Dīn, *al-Adwār* and *Risālah al-Sharafiyah*. Nonetheless, the report of this cycle by 'Abd al-Qādir in his three treatises, *Maqāṣid al-Alḥān*, *Djāmi' al-Alḥān* and *Sharḥ-i Adwār* is similar to the version of *Khafīf thaqīl* reported by Jāmī. Based on this report, the number of *naqarāt* in the cycle of *Khafīf thaqīl* is sixteen, the same as the *thaqīl awwal* and *Thaqīl thānī*, but the pattern of the *naqarāt* is shaped as Tan Tana Tan Tana Tan Tana Tan Tana or Fā'elo, Fā'elo, Fā'elo, Fā'elo. According to 'Abd al-Qādir the accented *naqarāt* are the first and the thirteenth, the same place reported by Ṣafī al-Dīn in al-Adwār (see Figure 2.13). However, Jāmī reports the places of accents differently identifying them as occurring on the first and ninth *naqarāt*.

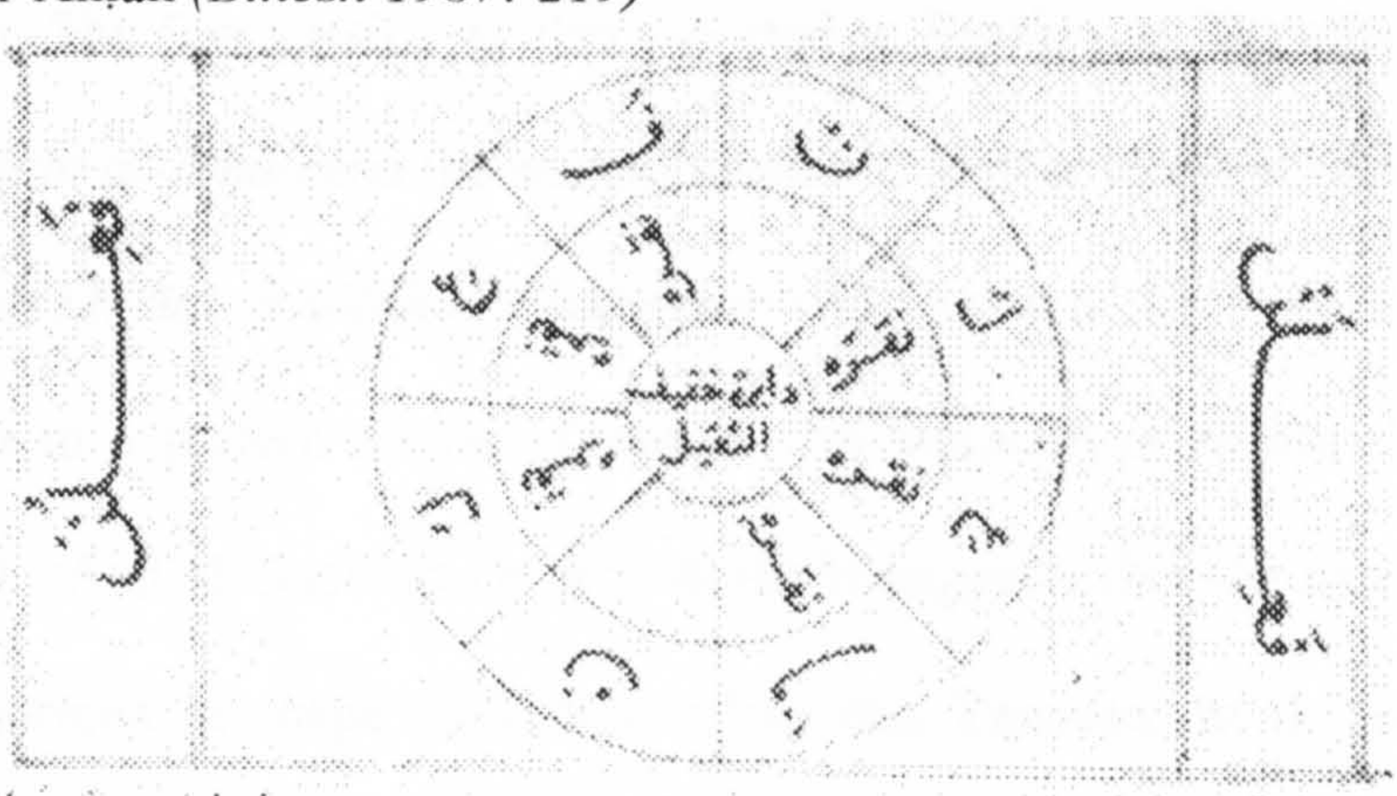
Number of naqarāt	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16
Atānīn	Tan	Tana	Tan	Tana	Tan	Tana	Tan	Tana
Afā'īl	Fā'	elo	Fā'	elo	Fā'	elo	Fā'	elo
Pattern of shorts and longs	′–	⏑⏑	–	⏑⏑	〇–	⏑⏑	′–	⏑⏑

Figure 2.13: Khafīf thaqīl

The main difference between the description of 'Abd al-Qādir in his treatises and the report of Ṣafī al-Dīn in *al-Adwār* is that in *al-Adwār* the pattern is presented as eight times Tan rather than four times Tan Tana which means the number of *naqarāt* is still 16. However, the report in *Risālah al-Sharafiyah* and *Durrat al-Tāj* are entirely different with the above version. In *Risālah al-Sharafiyah the cycle of Khafīf thaqīl* is reported as having eight *nqarāt* in shape of Tananan Tananan or Fa'elon Fa'elon. In *Durrat al-Tāj* this cycle is reported with four naqarāt in shape of Tananan or Fa'elon which is exactly the same as the cycle presented in *Risālah al-Sharafiyah* but cut in half. Figure 2.14, 2.15 and 2.16 are three different versions of this cycle as presented in manuscripts of *Djāmi' al-Alḥān* by 'Abd al-Qādir, *Risālah al-Sharafiyah* by Ṣafī al-Dīn and Durrat al-Tāj by Quṭb al-Dīn Shīrāzī.

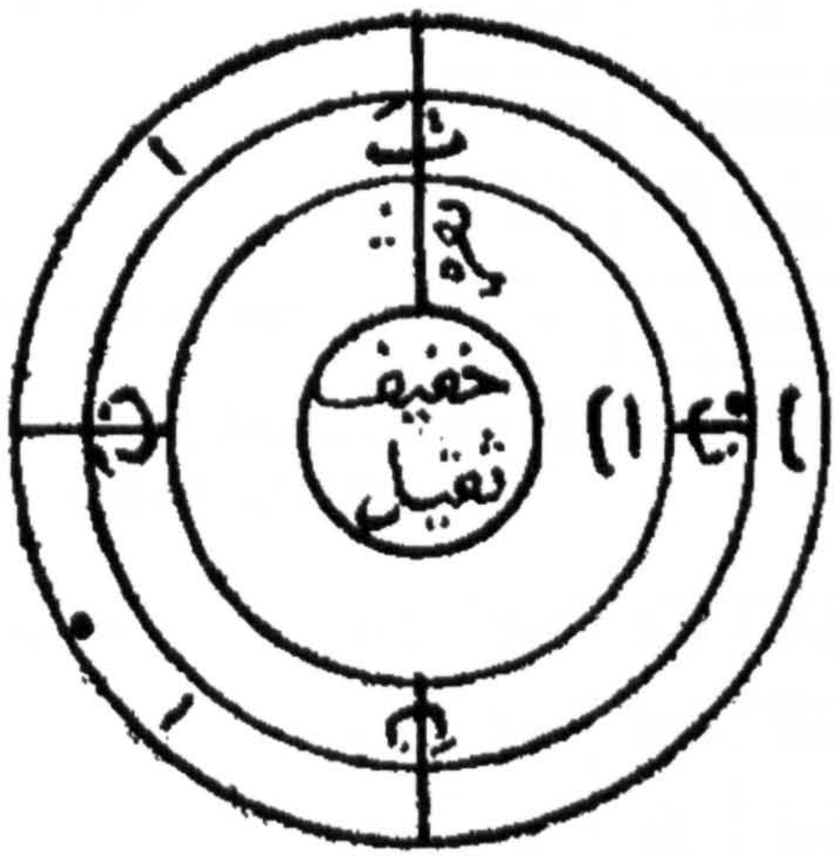
Note: *The translation of text inside the circle is:* "Khafīf Thaqīl: *Tan Tana Tan Tana Tan Tana Tan Tana.*"

Figure 2.14: *The cycle of* Khafīf thaqīl *with sixteen* naqarāt *in the manuscript of* Djāmi' al-Alḥān *(Binesh 1987: 219)*



Note: *The translation of text inside the circle is:* "Khafīf Thaqīl: *Fa'elon Fa'elon.*" The placement of the struck *naqarāt* has been represented by dividing the circle into a pie diagram and writing the initial of *naqareh*.

Figure 2.15: *The cycle of Khafīf thaqīl with eight naqarāt in the manuscript of Risālah al-Sharafiyah (p.128)*



Note: *The translation of text inside the circle is:* "Khafīf Thaqīl: *Tananan.*

Figure 2.16: *The cycle of* Khafīf thaqīl *with four* naqarāt *in the manuscript of* Durrat al Tāj *(Mishkāt 1945: 139)*

Ramal

The cycle of *Ramal* consists of twelve *naqarāt* and there is agreement between different sources about this number. However, this cycle is one of the most problematic cycles with regard to the pattern of *naqarāt*. At least four different versions of this cycle have been reported in various treatises. The version reported in *Al-Adwār* introduced the pattern of this cycle as Tan Tan Tan Tan Tan Tan. In *Djāmi' al-Alḥān* two versions are reported for this cycle. The first version is Tan Tan Tananan Tananan (Figures 2.17) and the second version is Tan Tan Tan Tan Tananan (Figures 2.18). The first version is also reported in *Risālah al-Sharafiyah*, *Durrat al Tāj*, and *Maqāṣid al-Alḥān* and the second version is similar to the version reported by Jāmī in *Risāleh Mūsīqī*. *Risālah al-Sharafiyah* and *Durrat al Tāj* have also reported a fourth version in a pattern of Tan Tananan Tan Tananan or Mofta'elāton Fa'elon (Figures 2.19). 'Abd al-Qādir in *Djāmi' al-Alḥān* suggests that the pattern of *Ramal* can be also formed in shape of Tananan Tananan Tananan. In the new form the accented *naqarāt* will be the first and the ninth *naqarāt* (Binesh 1987: 220). Nonetheless, this version is not seen in any other sources.

Number of naqarāt	1-2	3-4	5-8	9-12
Atānīn	Tan	Tan	Tananan	Tananan
Afā'īl	Fa'	lon	Fā'elon	Fā'elon
Pattern of shorts and longs	-	-	∪∪-	∪∪-

Figure 2.17: Ramal, *first version, based on the* Risālah al-Sharafiyah, Durrat al Tāj, Maqāṣid al-Alḥān *and* Djāmi' al-Alḥān

Number of naqarāt	1-2	3-4	5-6	7-8	9-12
Atānīn	Tan	Tan	Tan	Tan	Tananan
Afā'īl	Maf	ū	lā	ton	Fa'elon
Pattern of shorts and longs	'-	-	-	-	'∪∪-

Figure 2.18: Ramal, *second version, based on* Djāmi' al-Alḥān *by 'Abd al-Qādir and* Risāleh Mūsīqī *by Jāmī*

Number of naqarāt	1-2	3-6	7-8	9-12
Atānīn	Tan	Tananan	Tan	Tananan
Afā'īl	Mof	ta'elā	ton	Fa'elon
Pattern of shorts and longs	'-	∪∪-	-	'∪∪-

Figure 2.19: *Ramal, third version, based on* Risālah al-Sharafiyah *and* Durrat al Tāj

In the *Risāleh Mūsīqī*, the places of the accented *naqarāt*, are reported as being the first and the fifth *naqarāt*. However, Mallāh (1966: 58) reports, based on an old Russian translation of *Risāleh Mūsīqī*, the second accent is on the ninth *naqareh* rather than the fifth. The pattern of *Ramal* as presented in this treatise is similar to a rhythmic pattern of the dance music of some villages in Iran where it is the symbol of the attack of the army (*ibid.*: 58).

Figures 2.20 and 2.21 are two different versions of *Ramal* in treatises of *Maqāṣid al-Alḥān* and *Risālah al-Sharafiyah* (no clear figure has been presented for the other versions of *Ramal* in the other sources examined above).

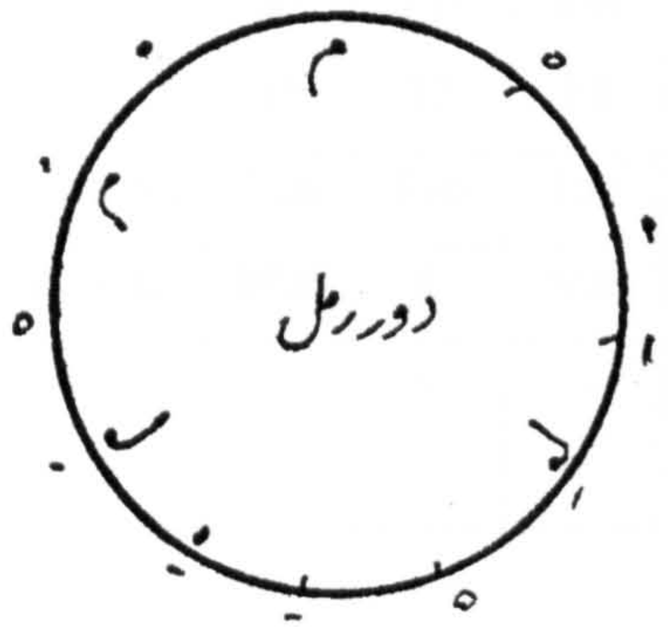


Figure 2.20: *The cycle of* Ramal *in Maqāṣid al-Alḥān by 'Abd al-Qādir (Binesh 1978: 95)*

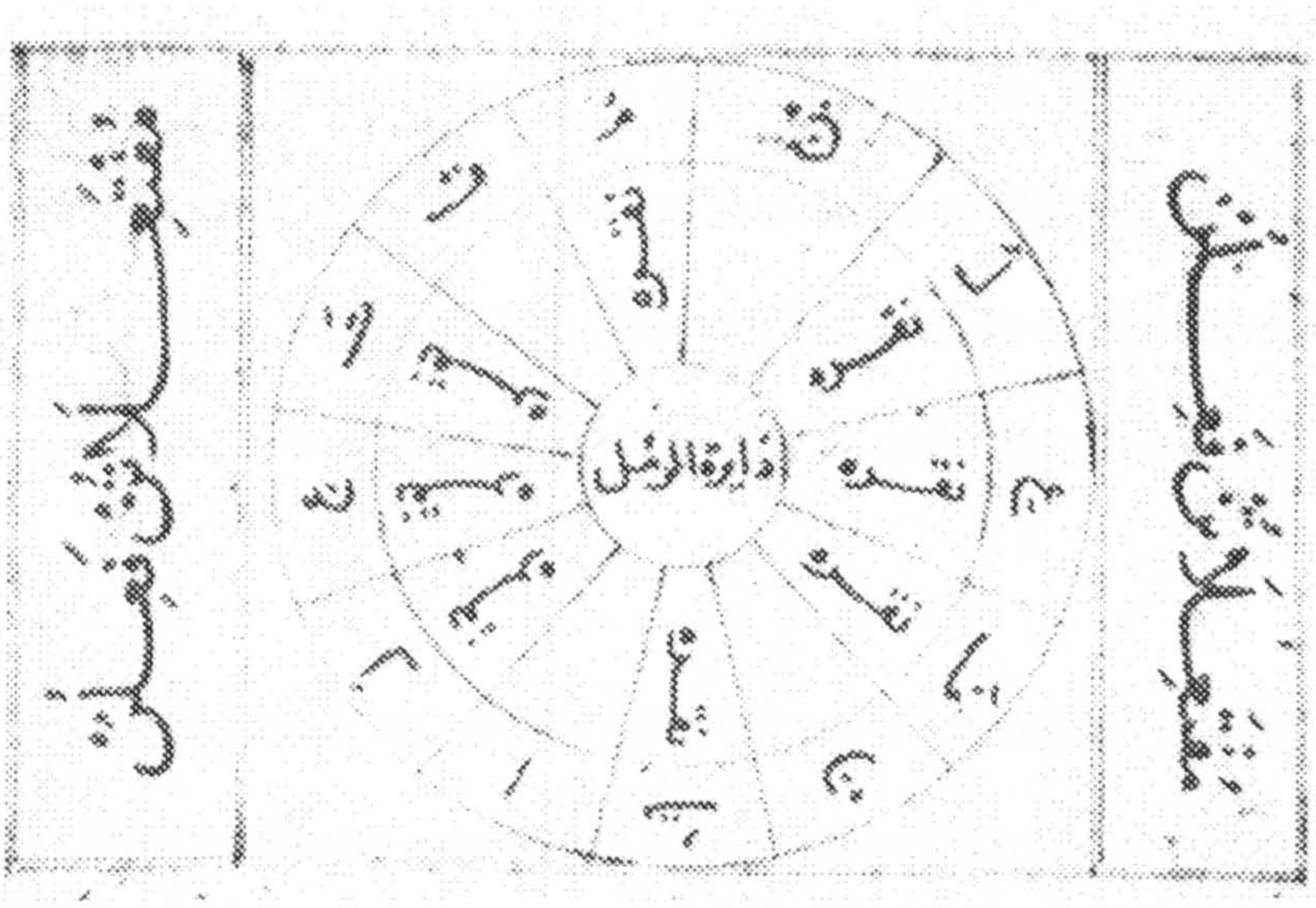


Figure 2.21: *The cycle of* Ramal *in* Risālah al-Sharafiyah *(p129)*

Thaqīl ramal

Apart from *Risālah al-Sharafiyah* and *Durrat al-Tāj*, there is an agreement about the pattern of *Thaqīl ramal* or *Ramal moẓā'af* in different sources. Based on this agreement, the basic pattern of *Thaqīl ramal* consists of twenty-four *naqarāt* (twice *Ramal*), which in practice are shaped into Tananan Tananan Tan Tan Tan Tan Tan Tan Tananan or as Jāmī describes: Motafā'elaton, Maf'ūlon, Maf'ūlon, Fa'elon (see Figure 2.22).

Naqarāt	1-4	5-8	9-10	11-12	13-14	15-16	17-18	19-20	21-24
Atānīn	Tananan	Tananan	Tan	Tan	Tan	Tan	Tan	Tan	Tananan
Afā'īl	MotaFā	'elaton	Maf	ū	lon	Maf	ū	lon	Fa'elon
Pattern of shorts and longs	′∪∪-	∪∪-	-	-	-	-	-	′-	∪∪-

Figure 2.22: Thaqīl ramal

'Abd al-Qādir reports that the accented *naqarāt* in this cycle are the first and nineteenth *naqarāt*. He comments that Persians call this cycle *ẓarb 'aṣl* (the main beat/rhythm) and that most of their tunes were composed in this cycle. This remark also has been reported in other sources such as *Risālah al-Sharafiyah* and *Durrat al-Tāj*. In *Djāmi' al-Alḥān*, 'Abd al-Qādir also confirms that he composed several pieces in this cycle and gives two varied forms of this cycle consisting forty eight and ninety six *naqarāt*.

A second version of *Thaqīl ramal* has been reported in *Risālah al-Sharafiyah* and *Durrat al-Tāj*. The number of *naqarāt* in this version is also twenty four. However, the rhythmic pattern is shaped as four times Tananan Tan, which is described in *Sharafiyah* as four times Fa'elāton. Quṭb al-Dīn Shīrāzī in *Durrat al-Tāj* reports both versions and suggests that the version consisting of Tananan Tananan Tan Tan Tan Tan Tan Tan Tan Tananan is more popular (Mishkāt 1945: 137).

Figures 2.23 and 2.24 are the two versions of the cycle of *Thaqīl ramal* as reported in *al-Adwār* and *Risālah al-Sharafiyah*.

Figure 2.23: *The cycle of* Thaqīl ramal *in the manuscript of* al-Adwār *(p. 87)*

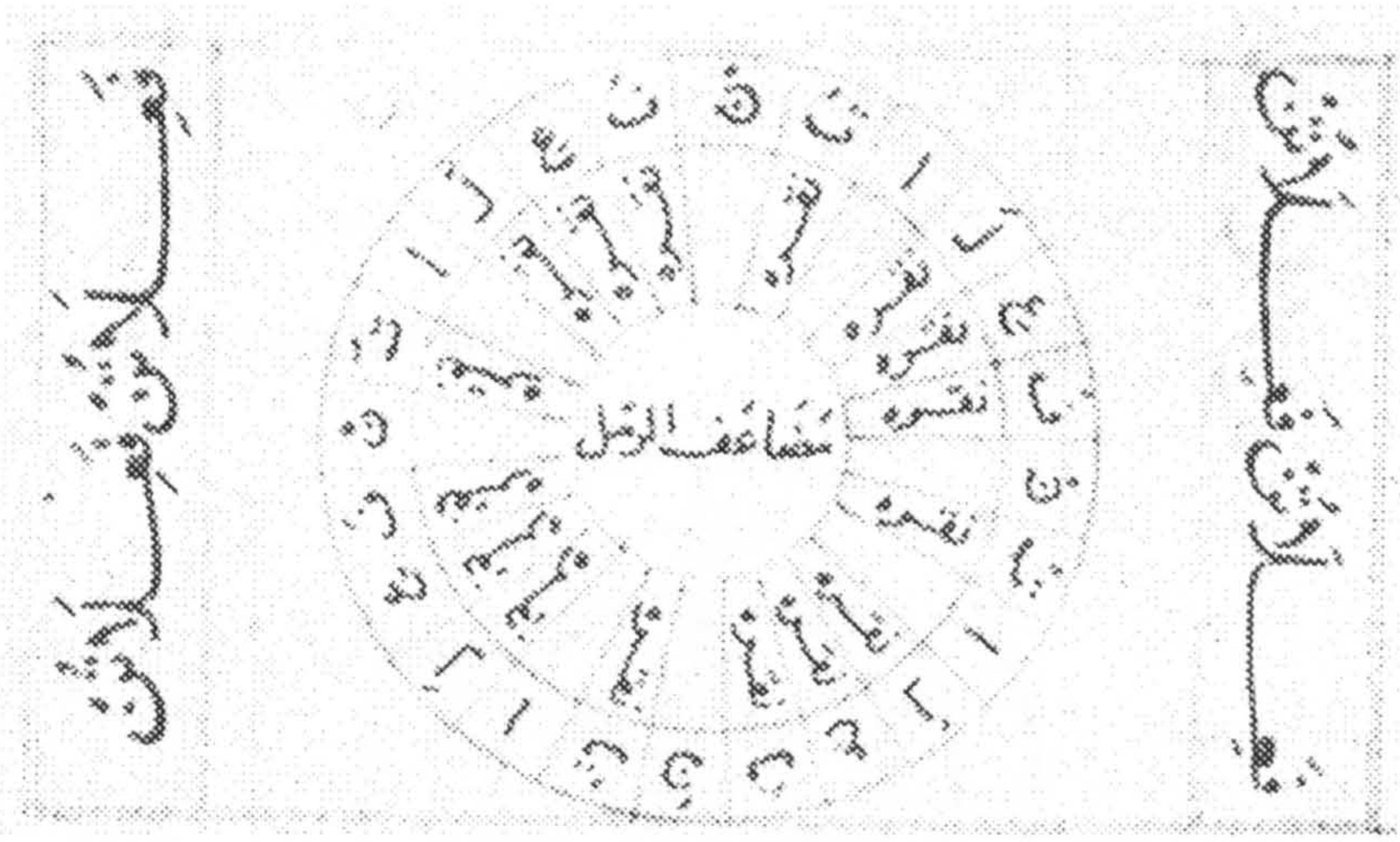


Figure 2.24: *The cycle of* Moẓā'af ramal (Thaqīl ramal) *in the manuscript of* Risālah al-Sharafiyah *(p. 130)*

Khafīf Ramal

There is a general agreement in different sources (apart from *Risālah al-Sharafiyah*) about the pattern of *Khafīf ramal*. In this view the cycle of *Khafīf ramal* is built upon ten *naqarāt* in shape of Tan Tanan Tan Tanan or Fā'elon, Fā'elon (Figure 2.25).

Number of naqarāt	1-2	3-5	6-7	8-10
Atānīn	Tan	Tanan	Tan	Tanan
Afā'īl	Fā	'elon	Fā	'elon
Pattern of shorts and longs	′-	⏑ -	-	′⏑ -

Figure 2.25: Khafīf ramal

There is no detail about this cycle in *al-Adwār*. However, *Risāleh Mūsīqī* and *Djāmi' al-Alḥān* provide more details of this cycle including the placement of the accented *naqarāt*. Both sources suggest the *ẕarb 'aṣl* in this cycle as being in the first and the eighth *naqarāt*.

The version reported in *Risālah al-Sharafiyah* contains twelve *naqarāt* instead of ten in shape of Tan Tananan Tan Tananan or Mofta'elon Mofta'elon (also, Mofta'elāton Fa'elon). Nonetheless, this version has been criticised in *Durrat al-Tāj* by Quṭb al-Dīn Shīrāzī and the first version preferred. No figure is presented in *Al-Adwār* and *Risālah al-Sharafiyah* for this cycle. Figure 2.26 is the first version of *Khafīf ramal* as reported in manuscript of *Durrat al-Tāj*.

Figure 2.26: *The cycle of* Khafīf ramal *in the manuscript of* Durrat al-Tāj *by Quṭb al-Dīn Shīrāzī (Mishkāt 1945: 140)*

Hazaj

There is an agreement among different sources that *Hazaj* has two different versions, *Hazaj awwal* (*Hazaj* the first) or *Hazaj thaqīl* (*kabīr* in *Djāmi' al-Alḥān*) and *Hazaj thānī* (*Hazaj* the second) or *Hazaj khafīf* (*ṣaghīr* in *Djāmi' al-Alḥān*). However, there is disagreement between the version of *Hazaj awwal* in *al-Adwār* and the same version reported by 'Abd al-Qādir and Quṭb al-Dīn Shīrāzī. Ṣafī al-Dīn describes the cycle of *Hazaj awwal* as having ten *naqarāt*, being thereby equal to *Khafīf ramal* by a

different pattern. He represents the pattern by *atānīn* in the form of Tanan Tanan Tanan Tan. Meanwhile, 'Abd al-Qādir and Quṭb al-Dīn both argue that the number of *naqarāt* in this representation is equal to eleven—and so it is—while in reality this cycle should have ten *naqarāt*. 'Abd al-Qādir (Binesh 1991: 264) and Quṭb al-Dīn (Mishkāt 1945: 137) both guess that this error was caused by the copyist of the manuscript rather than Ṣafī al-Dīn. 'Abd al-Qādir himself, however, does not indicate the exact pattern of *Hazaj awwal* in *Sharḥ-i Adwār* and the figure of the cycle he gives is not clear. Nonetheless, in *Djāmi' al-Alḥān* he reports the exact pattern of this version as Tanan Tan Tanan Tan or by *afā'īl* as: Fa'ūlon, Fa'ūlon. The same pattern has been reported in *Risāleh Mūsīqī* by Jāmī (Figure 2.27).

Number of naqarāt	1-3	4-5	6-8	9-10
Atānīn	Tanan	Tan	Tanan	Tan
Afā'īl	Fa'ū	lon	Fa'ū	lon
Pattern of shorts and longs	'∪ -	-	∪ '-	-

Figure 2.27: Hazaj awwal

About the second version of *Hazaj*, *Hazaj thanī*, all the sources report a unique pattern, consisting six of *naqarāt*, corresponding to Tananan Tan, or Fa'elāton (Figure 2.28).

Number of naqarāt	1-4	5-6
Atānīn	Tananan	Tan
Afā'īl	Fa'elā	ton
Pattern of shorts and longs	'∪ ∪ -	-

Figure 2.28: Hazaj thānī

'Abd al-Qādir (Binesh 1991: 263-4) comments that even though the first version of *Hazaj* is very old, the second version (see the cycles presented in manuscript of *Djāmi' al-Alḥān* in Figure 2.29) is more common and professionals use it much more than *Hazaj awwal*. Jāmī (Mallāḥ 1966: 62) suggests that this cycle is also called *Chan-bar*. This remark is also seen in *Sharḥ Adwār* by 'Abd al Qādir. He (Binesh

1991: 263-4) suggests that Azerbaijani people, particularly those from Tabriz, call this cycle *Chan-bar* and use it, with slightly different accentuation of the *naqarāt*, for their Sufi dances (*dast afshānī*). Fakhreddini (1968c: 60) also comments that by doubling the pattern of this cycle it becomes the cycle of *Rah-i Samā'* of Khorasān (a Sufi dance from Khorasān).

Note: *The translation of text inside the circles:*

Left: "Hazaj kabīr: *Tanan Tan Tanan Tan.*"

Right: "Hazaj ṣaghīr: *Tananan Tan.*"

Figure 2.29: *The cycle of* Hazaj kabīr (awwal) *and* Hazaj ṣaghīr (thānī) *from the manuscript of* Djāmi' al-Alḥān *by 'Abd al-Qādir (Binesh 1987: 231)*

Fākhtī

According to most of the sources on ancient cycles, *Fākhtī* is a special cycle used only among the Iranians. Nonetheless, in *al-Adwār* (page 89), *Risālah al-Sharafiyah* (page 130) and *Durrat al-Tāj* (Mishkāt 1945: 137) it is also suggested that even Iranian have had very few compositions in this cycle. In *Djāmi' al-Alḥān*, 'Abd al-Qādir wrote that even though the number of compositions in *Fākhtī* had been very few, it met with his favour and he composed several pieces in this cycle (Binesh 1987: 221).

Based on a legend reported by Binesh (1991: 412) the rhythmic pattern of this cycle is an imitation of the song of the fākhtī bird. This bird called "Musā-kū-Taqi" (Mūsā, where's Taqi?) in local dialect of Mashhad, which is rhythmically an imitation of the way the fākhtī sings. The story this local name refers to is about two brothers called

Mūsā and Taqi. In this legend Mūsā kills his brother but later he regrets his deed. As a result of this crime he turned into a fākhtī bird and always sings in sorrow: "Mūsā-kū-Taqi?"

In the theoretical phase, however, 'Abd al-Qādir (1991: 264-5) reports four versions of this cycle: *Fākhtī aṣghar*, which consists of five *naqarāt* (Tanan Tan); *Fākhtī ṣaghīr*, which is made up of ten *naqarāt* (Tan Tananan Tananan, in Jāmī's treatise: Tan Tanan Tan Tanan); *Fākhtī moẓā'af*, which is composed of twenty *naqarāt* (Tananan Tan Tananan Tananan Tan Tananan); and *Fākhtī aẓ'āf* which is built upon forty *naqarāt* (by the double performing of the pattern of *Fākhtī moẓā'af*). 'Abd al-Qādir (1991: 265) reports the possibility of making eighty *naqarāt* by doubling *Fākhtī aẓ'āf*, but he also mentions that listeners would have problems in perceiving such a long cycle.

In *al-Adwār* only one version of *Fākhtī*, consisting of twenty *naqarāt* has been reported. This version, which is in the shape of Tananan Tan Tananan Tananan Tan Tananan, is exactly the same as *Fākhtī moẓā'af* reported by 'Abd al-Qādir. There is no detail of the accented *naqarāt* or *ẓarb 'asl* for this cycle in al-Adwār. However, 'Abd al-Qādir (Binesh 1978: 95) in *Maqāṣid al-Alḥān* reports the *ẓarb 'asl* of this cycle as being in the first and fifteenth *naqarāt*.

In *Risālah al-Sharafiyah* two versions of *Fākhtī* have been reported. The first version is the same as *al-Adwār*'s one except that the cycle starts from the second motif: Tan Tananan Tananan Tan Tananan Tananan. The second version of *Fākhtī* in *Risālah al-Sharafiyah* is called *Fākhtī zā'id* and composed in twenty eight *naqarāt* in shape of two times Tan Tananan Tananan Tananan. This version has also been reported by 'Abd al-Qādir in *Djāmi' al-Alḥān*.

The popularity of different versions of *Fākhtī* was not the same. As is indicated in *Sharḥ-i Adwār*, the *Fākhtī aṣghar* was more in the favour of listeners as it had been made from the song of the fākhtī bird which sings *kūkū-kū* (the second *kū* is slightly longer than the first one and the third *kū* is accented and also long). More over, the *Fākhtī moẕā'af* seems to be more known as the other versions of this cycle since it has been reported in nearly all sources examined above. Figures 2.30 shows the detail of *Fākhtī moẕā'af* and Figure 2.31 is a representation of this cycle as reported in the manuscript of *Djāmi' al-Alḥān*.

Number of naqarāt	1-4	5-6	7-10	11-14	15-16	17-20
Atānīn	Tananan	Tan	Tananan	Tananan	Tan	Tananan
Afā'īl	Fa'elon	Mof	ta'elon	Fa'elon	Mof	ta'elon
Pattern of shorts and longs	′⏑⏑-	-	⏑⏑-	⏑⏑-	′-	⏑⏑-

Figure 2.30: Fākhtī moẕā'af

Note: *The translation of text inside the circle is:* "Fākhtī kabīr*: Tananan Tan Tananan Tananan Tan Tananan."*

Figure 2.31: *The cycle of* Fākhtī kabīr (moẕā'af) *in the manuscript of* Djāmi' al-Alḥān *by 'Abd al-Qādir (1987: 222)*

Turkī

The cycle of *Turkī* is not reported by Ṣafī al-Dīn. Nonetheless, because this cycle has been reported by Quṭb al-Dīn Shīrāzī in *Durrat al-Tāj*, it seems that the cycle already existed in time of Ṣafī al-Dīn and he simply did not examine it. Since the version of *Turkī* reported by Quṭb al-Dīn is very complex, it will be examined after an examination of the simple versions reported by Jāmī and 'Abd al-Qādir.

Based on the *Risāleh Mūsīqī* there are four variations of the cycle of *Turkī*: *Turkī 'aṣl ghadīm* (Tan Tananan Tananan Tananan Tananan Tan Tananan or Mofta'elon, Motafā'elaton, Fa'elāton), *Turkī 'aṣl jadīd* (Tan Tananan Tananan Tananan Tananan Tan or Mofta'elon, Motafā'elon Fa'elāton, Fa'elon), *Turkī khafīf* (Tan Tan Tananan Tananan or Fa'lon Fa'elon Fa'elon) and *Turkī sarī'* (Tanan Tanan or Mafā'elon).

The version of *Turkī 'aṣl ghadīm* (the main old *Turkī*) reported in *Risāleh Mūsīqī* and *Djāmi' al-Alḥān* are similar. Based on this version, *Turkī 'aṣl ghadīm* consists of twenty-four *naqarāt*.. 'Abd al-Qādir (Binesh 1987: 224) indicates the accented *naqarāt* of this cycle as being on the first, third, seventh, eleventh, fifteenth, nineteenth and the twenty first *naqarāt* (Figure 2.32).

Number of naqarāt	1-2	3-6	7-10	11-14	15-18	19-20	21-24
Atānīn	Tan	Tananan	Tananan	Tananan	Tanan an	Tan	Tananan
Afā'īl	Mof	ta'elon	Motafā'	elaton	Fa'elā'	ton	Fa'elon
Pattern of shorts and longs	'-	'∪∪-	'∪∪-	'∪∪-	'∪∪-	'-	'∪∪-

Figure 2.32: Turkī 'aṣl ghadīm

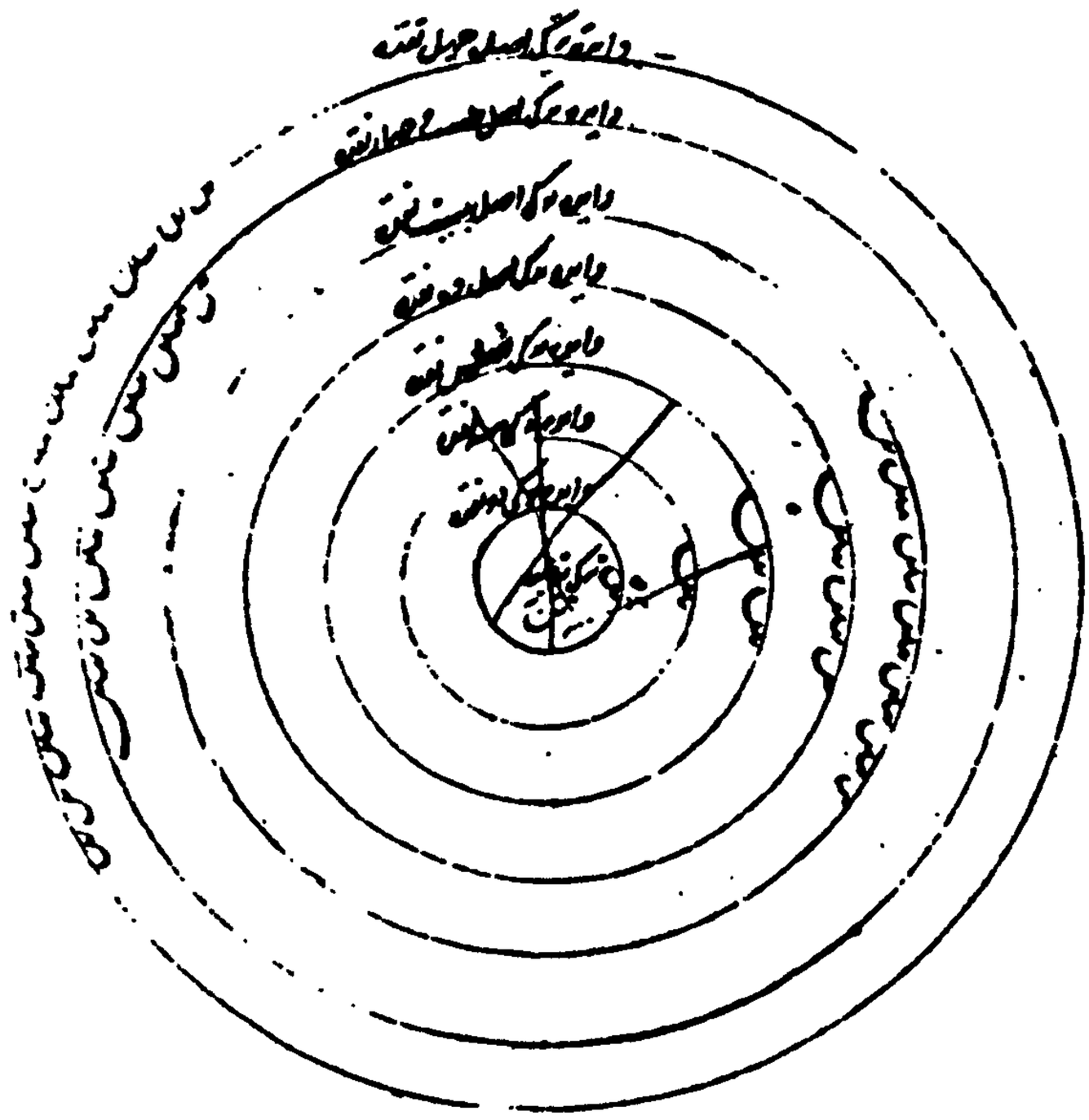
The cycle of *Turkī 'aṣl jadīd* is introduced by 'Abd al-Qādir (Binesh 1987: 224 and 1991: 266) with the general term "*Turkī 'aṣl*" (the main *Turkī*). Based on this report *Turkī 'aṣl jadīd* has a similar pattern to the *Turkī 'aṣl ghadīm* with the contrast that *jadīd* does not have the last Tananan. It means that the number of *naqarāt* in *Turkī 'aṣl jadīd* is twenty (see Figure 2.33)

Number of naqarāt	1-2	3-6	7-10	11-14	15-18	19-20
Atānīn	Tan	Tananan	Tananan	Tananan	Tananan	Tan
Afā'īl	Mof	ta'elon	Motafā'	elaton	Fa'elā	ton
Pattern of shorts and longs	-	∪∪-	∪∪-	∪∪-	∪∪-	-

Figure 2.33: Turkī 'aṣl jadīd

There is disagreement between Jāmī and 'Abd al-Qādir about the cycle of *Turkī khafīf*. 'Abd al-Qādir in *Djāmi' al-Alḥān* (Binesh 1987: 225) describes *Turkī khafīf* (in

Sharḥ-i Adwār: *Turkī far'*) in ten *naqarāt*: Tan Tananan Tananan; meanwhile, Jāmī believes that it is composed of twelve *naqarāt* in the order of Tan Tan Tananan Tananan. There is an agreement between *Risāleh Mūsīqī* and *Djāmi' al-Alḥān* over the pattern of *Turkī sarī'*. However, this similarity is not seen in *Sharḥ-i Adwār*. This cycle which is called "*Far' Far' Turkī*," in *Sharḥ-i Adwār* is reported as having five *naqarāt*, in the order of Tanan Tan rather than having six *naqarāt* in shape of Tanan Tanan. 'Abd al-Qādir provides a comprehensive diagram in *Djāmi' al-Alḥān* demonstrating eight different possibilities for the cycle of Turkī (Figure 2.34).



Translation inside the circle:
Turkī tar'īd: Tana
Turkī *two* naqareh: Tan
Turkī *three* naqareh: Tanan
Turkī *six* naqareh (sarī'):Tanan Tanan
Turkī 'aṣl *ten* naqareh: Tan Tananan Tananan
Turkī 'aṣl *twenty* naqareh: Tan Tananan Tananan Tananan Tananan Tananan Tan
Turkī 'aṣl *twenty four* naqareh: Tan Tananan Tananan Tananan Tananan Tananan Tan
Turkī 'aṣl *forty* naqareh: Tan Tan Tananan Tananan Tananan Tananan Tananan Tananan Tananan Tananan Tan Tan

Figure 2.34: *Eight different versions of* Turkī in manuscript of Djāmi' al-Alḥān *by 'Abd al-Qādir (1987: 225)*

As I mentioned earlier, the version of *Turkī* reported in *Durrat al-Tāj* contains a very complex structure. Based on Quṭb al-Dīn's report this cycle theoretically consists of twenty *naqarāt* in shape of Tanan Tanan Tananan Tananan Tanan Tanan or Fa'al Fa'al Fa'elon Fa'elon Fa'al Fa'al. However, in practice the duration of each Tanan equals two time units (equivalent with Tan) instead of being three time units, which means a ratio 3:2 or in Western terms "triplet" and the duration of each Tananan equals three time units instead of being four time units, "quadruplet." Figure 2.35 is a detail of the version of *Turkī* as reported in *Durrat al-Tāj*.

Number of naqarāt	1-2	3-4	5-6*	7-8*	9-10	11-12
Atānīn	Tanan	Tanan	Tananan	Tananan	Tanan	Tanan
Afā'īl	Mof	ta'elon	Motafā'	elaton	Fa'elā	ton
Pattern of shorts and longs	∪ – '–3–'	∪ – '–3–'	∪∪ – '—4—'	∪∪ – '—4—'	∪ – '–3–'	∪ – '–3–'

*. **. Quṭb al-Dīn considers the first and second Tananan as being three time units each. In the new situation they should be represented by three *naqarāt* which makes the total number of *naqarāt* in this cycle 14. However, he represents them with two *naqarāt*. Quṭb al-Dīn does not provide any explanation for his suggestion.

Figure 2.35: Turkī, *based on the version reported by Quṭb al-Dīn Shīrāzī* in Durrat al-Tāj

Mokhammas

As reported in *Risāleh Mūsīqī* by Jāmī and in *Djāmi' al-Alḥān* by 'Abd al-Qādir, the cycle of *Mokhammas* (in Turkish sources *Muhammes*) consists of three different variations: *Mokhammas kabīr* (the grand), *Mokhammas owsaṭ* (the medium) and *Mokhammas ṣaghīr* (the small). In *Durrat al-Tāj* and *Maqāṣid al-Alḥān* the only version which has been reported is *Mokhammas owsaṭ* consisting of eight *naqarāt*. In the *Sharḥ-i Adwār*, only the name of *Mokhammas* as one of the newly created cycles has been given without further examination.

Based on the *Risāleh Mūsīqī* and *Djāmi' al-Alḥān*, *Mokhammas kabīr* is made up of Tanan Tanan Tan Tanan Tanan Tan or Mafā'elon Fa', Mafā'elon Fa' and is equivalent to sixteen *naqarāt*. It means that the rhythmic pattern in *Mokhammas kabīr* is exactly similar to the rhythmic cycle of *Thaqīl thānī*. However, the accented beats are the first, ninth and twelfth *naqarāt*. *Mokhammas owsaṭ*, which is half of *Mokhammas kabīr* in length, consists of eight *naqarāt* in the order of Tanan Tanan Tan, and is represented by *afā'īl* as Mafā'elon Fa'. However, the accented beats are the first, fourth and seventh *naqarāt*. *Mokhammas ṣaghīr* consists of only Tananan or Fa'elan, and is equal to four *naqarāt*. The first *naqarāt* in this pattern is the accented beat. Figure 2.36 is the detail of the *Mokhammas owsaṭ* and Figure 2.37 is the cycles of three different versions of *Mokhammas* as reported in manuscript of *Djāmi' al-Alḥān* by 'Abd al-Qādir.

Number of naqarāt	1-3	4-6	7-8
Atānīn	Tanan	Tanan	Tan
Afā'īl	Mafā'	elon	Fa'
Pattern of shorts and longs	′⏑ -	′⏑ -	′-

Figure 2.36: Mokhammas owsaṭ

Translation inside the circle:
Mokhammas ṣaghīr 4: Tananan
Mokhammas owsaṭ 3 3 2: Tanan Tanan Tan
Mokhammas kabīr 3 3 2 3 3 2: Tanan Tanan Tan Tanan Tanan Tan

Figure 2.37: *Cycle of three different versions of* Mokhammas *in manuscript of* Djāmi' al-Alḥān *by 'Abd al-Qādir (Binesh 1987: 226)*

Chahār ẓarb

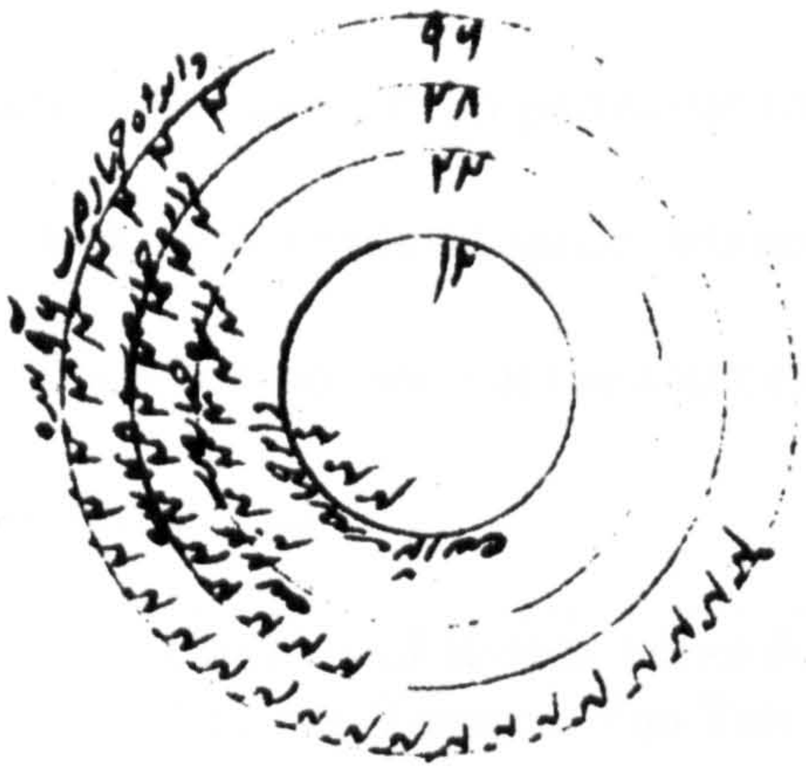
The cycle of *Chahār ẓarb* does not exist in the Ṣafī al-Dīn's treatises. 'Abd al-Qādir (1991: 264) suggests that this cycle was created by somebody called Mohammad Shāh Rabānī [or Robābī, i.e. performer of the robāb (a kind of lute)] after the period of Ṣafī al-Dīn. However, a cycle with the name of *Chahār ẓarb* (with the same number of *naqarāt* but a different pattern) already existed in *Durrat al-Tāj*, which means this cycle was either created just after Ṣafī al-Dīn's death or it already existed in a different format.

The main version of *Chahār ẓarb* consists of twenty-four *naqarāt*, equal to Tananan Tananan Tananan Tananan Tananan Tananan or Motafā'elaton, Motafā'elaton, Motafā'elaton. The accented *naqarāt* are the first, thirteenth, seventeenth and twenty-second *naqarāt*. 'Abd al-Qādir creates some new variations of this cycle. In addition to the basic *Chahār ẓarb*, he introduces cycles of six, twelve, forty-eight and ninety-six *naqarāt*. However, he comments that *Chahār ẓarb* of six and ninety-six *naqarāt* are not popular, whereas *Chahār ẓarb* in twenty-four and forty-eight *naqarāt* are very delightful to the listener.

Figures 2.38 is a detail of the main version of the *Chahār ẓarb* as reported by 'Abd al-Qādir and Jāmī and Figure 2.39 is the cycle of different versions of *Chahār ẓarb* as presented in manuscript of *Djāmi' al-Alḥān*.

Number of naqarāt	1-4	5-8	9-12	13-16	17-20	21-24
Atānīn	Tananan	Tananan	Tananan	Tananan	Tananan	Tananan
Afā'īl	Motafā'	elaton	Motafā'	elaton	Motafā'	elaton
Pattern of shorts and longs	ˈ⏑⏑–	⏑⏑–	⏑⏑–	ˈ⏑⏑–	ˈ⏑⏑–	⏑ˈ⏑–

Figure 2.38: Chahār ẓarb *with 24 naqarāt*



Translation inside the circle:
Chahār ẓarb *12* naqarāt*: 4 4 4*
Chahār ẓarb *24* naqarāt*: 4 4 4 4 4 4*
Chahār ẓarb *48* naqarāt*: 4 4 4 4 4 4 4 4 4 4 4 4*
Chahār ẓarb *96* naqarāt*: 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4*

Figure 2.39: *Extended pattern of* Chahār ẓarb *by 'Abd al-Qādir in* Djāmi' al-Alḥān *(Binesh 1987: 224)*

Other Cycles

In addition to the above cycles that are more or less reported as the fundamental cycles in the old treatises, there are a number of cycles which are exclusively reported by Quṭb al-Dīn Shīrāzī and 'Abd al-Qādir Marāghī. In this section first I examine the cycles reported by Quṭb al-Dīn and then those reported by 'Abd al-Qādir from which some of them are believed to be invented by himself.[9]

Quṭb al-Dīn (Mishkāt 1945: 137) comments that there are a number of cycles which are very well known but it is not known why previous sources such as *al-adwār* and *Risālah al-Sharafiyah* neglected to include them. Those cycles include: *Khafīf*,

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[9] Adding to the cycles reported by Quṭb al-Dīn Shīrāzī and 'Abd al-Qādir, a number of cycles have been reported in *Risāleh Mūsīqī Bihjat al-Rūḥ* (writer unknown) which seems more recent. Unfortunately, the patterns of the cycles are not very clear in this treatise. The cycles include: *Barafshān, Owfar, Dowr davāzdah ẓarb, Owsat, Do-yik, Panj ẓarb, Moqaddam, Shāhnāmeh, Ākul, Far', Dowr-i Ravān, Samā'ī, Dowr Hifdah ẓarb, Ẓarb al-Qadīm* and *Ẓarb al-Mulūk*. The author claims that he also created a number of cycles including *Qalandarī, Akhlātī* (or *Ikhlāṣī*) and *Ẓarb pānzdah ẓarb*.

Mokhammas, *Ẓarb 'aṣl* or *Ẓarb rāst*, *Chahār ẓarb*, a special version of *Turkī* and a cycles with ten *naqarāt*, which he says has no particular name. Some of these cycles such as *Mokhammas* and *Chahār ẓarb* became quite famous after the time of Quṭb al-Dīn. However, a number of them are not seen in the sources written after Quṭb al-Dīn. Figure 3.40 is a summary of those cycles.

Khafīf	Consists of sixteen *naqarāt* Tan Tan Tananan Tan Tan Tananan - - ∪∪- - - ∪∪-
Ẓarb 'aṣl* or *Ẓarb rāst	Consists of twelve *naqarāt* Tan Tan Tan Tan Tananan - - - - ∪∪-
Unnamed cycle	Consists of ten *naqarāt* Tanan Tanan Tananan ∪- ∪- ∪∪-

Figure 2.40: *Three cycles exclusively reported by Quṭb al-Dīn Shīrāzī in Durrat al-Tāj*

In *Djāmi' al-Alḥān* (Binesh 1987: 227), 'Abd al-Qādir writes that he created twenty new cycles and composed many pieces in those cycles. He mentions five of them in *Maqāṣid al-Alḥān* and *Djāmi' al-Alḥān* and refers to *Kanz al-Alḥān* for the rest of them and also some of the pieces. Unfortunately, *Kanz al-Alḥān* has been lost and now only those five cycles mentioned in *Maqāṣid al-Alḥān* and *Djāmi' al-Alḥān* are accessible, namely *Ẓarb Fatḥ*, *Dour-i Shāhī*, *Qumrī-ye*, *Ẓarb Jadīd* and *Dour-i Ma'atayn* (see Figure 2.41).

Ẓarb Fatḥ	Consists of fifty *naqarāt* Tanan Tanan Tananan Tananan Tanan Tanan Tananan Tanan ∪- ∪- ∪∪- ∪∪- ∪- ∪- ∪∪- ∪- Tanan Tananan Tananan Tananan Tananan Tananan ∪ - ∪∪- ∪∪- ∪∪- ∪∪- ′∪∪-
Dour-i Shāhī	Consists of thirty *naqarāt** Tananan Tanan Tan Tan Tanan Tananan Tananan Tan Tan Tanan ∪∪- ∪ - - - ∪- ∪∪- ∪∪- - - ∪- Tanan Tan ∪- -
Qumrī-ye	Consists of five *naqarāt* Tan Tanan ′- ∪-

Ẓarb Jadīd	Consists of fourteen *naqarāt* Tananan Tananan Tanan Tanan ⏑⏑- ⏑⏑- ⏑- ⏑-
Dour-i Ma'atayn	This cycle consists of two-hundred *naqarāt*. There are three suggestions for the structure of this cycle in *Djāmi' al-Alḥān* as follows: Tan × 100 - Tanan × 66 + Tan ⏑- - (accented *naqarāt*: 1st and 197th) Tananan × 50 ⏑⏑-

* As the editor of the *Djāmi' al-Alḥān* reports it seems that there was a mistake by the copier of the manuscript in reporting the detail of the *Dour-i Shāhī*. The cycle should have thirty *naqarāt* while the *atānīn* equals thirty-four. It means there is one extra Tananan in the report which should be left out.

Figure 2.41: *Five cycles created by 'Abd al-Qādir Marāghī*

General Discussions and Conclusion

To provide a possibility of comparing different rhythmic cycles presented in this chapter first I provide a summary of the cycles. This summary is formed based on the number of *naqarāt*. The pattern of every cycle presented here is presented based on an overall agreement of reports in various sources. The cycles which are reported only in one source are indicated by the name of the source in parenthesis.

Name of cycle	Naqarāt	Pattern of cycle
Khafīf thaqīl (Durrat)	4	Tananan ⏑⏑-
Mokhammas ṣaghīr	4	Tananan '⏑⏑-
Fākhtī aṣghar	5	Tanan Tan ⏑- -
Far' Far' Turkī (Sharḥ-i Adwār)	5	Tanan Tan ⏑- -

Ẓarb Fath (Djāmi' al-Alḥān)	5	Tan Tanan - ∪-
Hazaj thānī	6	Tananan Tan '∪∪- -
Turkī sarī'	6	Tanan Tanan ∪- ∪-
Khafīf thaqīl (Sharafiyah)	8	Tananan Tananan ∪∪- ∪∪-
Mokhammas owsat	8	Tanan Tanan Tan '∪- '∪- '-
Khafīf ramal	10	Tan Tanan Tan Tanan '- ∪- - '∪-
Hazaj awwal	10	Tanan Tan Tanan Tan '∪- - ∪ '- -
Fākhtī ṣaghīr	10	Tan Tananan Tananan - ∪∪- ∪∪-
Turkī khafīf (Djāmi' al-Alḥān)	10	Tan Tananan Tananan - ∪∪- ∪∪-
Unnamed cycle (*Durrat*)	10	Tanan Tanan Tananan ∪- ∪- ∪∪-
Turkī (Durrat)	12 (10)	Tanan Tanan Tananan Tananan Tanan Tanan ∪- ∪- ∪∪- ∪∪- ∪- ∪- '–3–' '–3–' '—4—' '—4—' '–3–' '–3–'
Ramal (version 1)	12	Tan Tan Tananan Tananan - - ∪∪- ∪∪-
Ramal (version 2)	12	Tan Tan Tan Tan Tananan '- - - - '∪∪-
Ramal (version 3, in Sharafiyah: khafīf ramal)	12	Tan Tananan Tan Tananan '- ∪∪- - '∪∪-
Ramal (Adwār)	12	Tan Tan Tan Tan Tan Tan - - - - - -
Turkī khafīf (Risāleh Mūsīqī)	12	Tan Tan Tananan Tananan - - ∪∪- ∪∪-
Ẓarb 'aṣl or Ẓarb rāst (Durrat)	12	Tan Tan Tan Tan Tananan - - - - ∪∪-

Ẓarb Jadīd (Djāmi' al-Alḥān)	14	Tananan Tananan Tanan Tanan ∪∪- ∪∪- ∪- ∪-
Thaqīl awwal	16	Tanan Tanan Tananan Tan Tananan '∪- '∪- '∪∪- '- '∪∪-
Thaqīl thānī	16	Tanan Tanan Tan Tanan Tanan Tan '∪- '∪- '- '∪- '∪- '-
Khafīf thaqīl	16	Tan Tana Tan Tana Tan Tana Tan Tana '- ∪∪ - ∪∪ - ∪∪ '- ∪∪
Mokhammas kabīr	16	Tanan Tanan Tan Tanan Tanan Tan '∪- ∪- - '∪- '∪- -
Khafīf (Durrat)	16	Tan Tan Tananan Tan Tan Tananan - - ∪∪- - - ∪∪-
Fākhtī moẓā'af	20	Tananan Tan Tananan Tananan Tan Tananan '∪∪- - ∪∪- ∪∪- '- ∪∪-
Turkī 'aṣl jadīd	20	Tan Tananan Tananan Tananan Tananan Tan - ∪∪- ∪∪- ∪∪- ∪∪- -
Thaqīl ramal	24	Tananan Tananan Tan Tan Tan Tan Tan Tan Tananan '∪∪- ∪∪- - - - - - '- ∪∪-
Thaqīl ramal (Sharafiyah, Durrat)	24	Tananan Tan Tananan Tan Tananan Tan Tananan Tan ∪∪- - ∪∪- - ∪∪- - ∪∪- -
Turkī 'aṣl ghadīm	24	Tan Tananan Tananan Tananan Tananan Tan Tananan '- '∪∪- '∪∪- '∪∪- '∪∪- '- '∪∪-
Chahār ẓarb	24	Tananan Tananan Tananan Tananan Tananan Tananan '∪∪- ∪∪- ∪∪- '∪∪- '∪∪- ∪'∪-
Fākhtī aẓ'āf	40	Tananan Tan Tananan Tananan Tan Tananan '∪∪- - ∪∪- ∪∪- '- ∪∪- × 2
Dour-i Ma'atayn (Djāmi' al-Alḥān)	200	Tan × 100 - or Tanan × 66 + Tan ∪- - or (accented *naqarāt*: 1st and 197th) Tananan × 50 ∪∪-

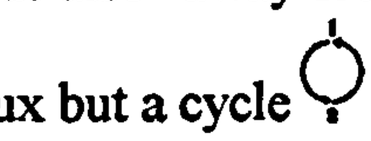
***Figure 2.42:** Summary of rhythmic cycles*

As is seen from the summary of cycles above there are three kinds of similarities found among the cycles. First are cycles which have exactly similar pattern of short and longs but different names, such as the *Thaqīl thānī* and *Mokhammas kbīr* (Tanan Tanan Tan Tanan Tanan Tan) which are only different in accentuation. The second kind of similarity is seen in cycles in which one is made by doubling the pattern of another, such as *Fākhtī aṣghar* (Tanan Tan) and *Hazaj awwal* (Tanan Tan Tanan Tan). The third kind of similarity is seen in the cycles in which the overall patterns are similar and the difference is only in starting point, such as *Khafīf ramal* (Tan Tanan Tan Tanan) and *Hazaj awwal* (Tanan Tan Tanan Tan). More similarities can be seen by comparing the pattern of cycles summarized in Figure 2.39.

Every rhythmic cycle can be used as a framework to make music. Even though at first sight it seems that adaptation of a limited number of cycles may not give the musician enough freedom to go as far as he/she wishes, these cycles and their vast number of variations potentially provide a huge framework within which the musician can explore his or her musical material. Of course, the knowledge of these cycles does not mean that a musician cannot or is not allowed to create new cycles. Nearly all of the sources examined above gave their approval to the possibility of establishing new cycles. In *Risāleh Mūsīqī*, for instance, Jāmī (1996: 70) suggests:

> Some current musicians have also made other cycles and there is no limitation on that. Everybody may create as many cycles with as many *naqarāt* as he wishes. The only thing he has to bear in mind is that rhythmic patterns should not become unbalanced and should not be so long that performer and listener lose their timing.

Zuckerkandl (1956: 168) considers the notion of the rhythmic cycle as an essential element of musical being. He describes this vital characteristic of rhythm by way of counting beats:

> To be able to come back one must have gone away; now we also understand why we count one-*two*, and not one-*one*. Here two does not mean simply 'beat number 2', but also 'away from'. The entire process is therefore an 'away from-back to' not a flux but a cycle  a constantly repeated cycle, for the 'one' that closes one cycle simultaneously begins another.

Two views can be considered with the intention of finding out what the significance of the cycle is and how it is used in music making. In the first view cyclic metre is seen as a tool to be used for building up the music which is removed by the time the music is completed. In the second view cyclic metre is used to build up the music and stays with it after its creation. Here, the cycle is a skeleton to which the musical material conforms, one that becomes somehow invisible by the time the music is completed. Zuckerkandl (*ibid.*: 160) gives the example of scaffolding for the first idea: "like the scaffolding that is necessary to the construction of a building but is removed when the building is completed" and the example of the geometrical figure for the second idea: "like the geometrical figures that many painters use as the scaffolding for a composition, but that disappear behind the forms and figures of the completed picture." Perhaps the second impression is that more likely to be accepted by the Persian musician, seeing that the Persian musical cycle could disappear under surface-level of sonic details, but it could not be removed without the whole musical construction being liable to collapse.

A question that then arises from the presence of metrical cycles is whether or not we hear metre as cyclic. There might be different ways of answering this question. For

one thing, whether we notice cyclic metre or not, we are able to feel its absence immediately if it is removed. On the other hand, whether a cyclic metre is audible in a certain music or not, what we do hear in any case is shorter and longer tones in temporal succession; consequently, we can feel the cycles to which tones conform. The way Zuckerkandl (1956: 162) examines the perception of measure in Western music is very likely to fit in term of Persian cycles also: "since the tones in their motions conform to a temporal measure, and we, as listeners, sympathetically participate in their motions, we are able to feel the measure to which they conform." Of course the cycle is a larger unit than the Western measure—a cycle may consist of several measures, as it were—but the principal of perceiving is the same in both cycles and measures.

In closing this chapter I should add that the recognition of pulse, and of its grouping, is the essential elements in systems of representing and transcribing rhythm in Persian music theory. The way to representing this pulsation and grouping in Iranian methods focuses on the notion of cycles, regardless of the detailed components of pulses and groups of pulses, an approach which suits a music built on improvisation. Keeping the master cycle without being concerned about the secondary levels gives a freedom which is a necessity for improvisation. The existence of the old rhythmic cycles in the contemporary *radīf* of Iranian music may not be easily recognisable. Along with the examination of the rhythmic structures of Iranian classical music in the next part, we also assess them against the collection of the old rhythmic cycles provided in this chapter to see if there is any sign of those rhythmic cycles in the contemporary practice of Iranian music.

PART TWO

Introduction to Part Two

This part undertakes the study of the rhythmic structure in Iranian classical music and consists of two chapters. The first chapter is about the rhythmic structure of the *radīf* and mainly deals with improvised music, and the second chapter is an examination of rhythmic structure in pre-composed Iranian classical music. The first chapter of this part includes five major sections. The first section provides a broad introduction to the concept of the *radīf* and improvisation in Iranian classical music. In a general classification in this chapter, I distinguish three kinds of rhythmic structure in the *radīf*: fixed metre, free metre and stretchable or elastic metre. The analysis of the rhythmic structure of the *radīf* in any of the above three categories takes place in two steps. The first step is to present and analyse different musical examples from various *radīf-ha* in order to draw out the main rhythmic formation of each *gūsheh*. In the second step, the key rhythmic pattern of every *gūsheh* will be compared with the standard Persian poetic patterns and the rhythmic cycles analysed in the previous chapters. In the fifth section of this chapter the significance of the *taḥrīr* in the rhythmic structure of Iranian music is examined.

The second chapter of this part examines the rhythmic structure of four main pre-composed genres in contemporary Iranian classical music: *pīshdarāmad*, *chahārmeẓrāb*, *taṣnīf* and *reng*. This chapter begins with a short introduction about the impact of the social, economical and political situation of Iran on the establishment and development of new musical genres. Each subsequent section in this chapter is then opened by an introduction to one of the pre-composed genres followed by analysis of musical examples.

Chapter 3

Rhythmic Structure of the *Radīf* and Improvisation-based Music

Improvisation and the Concept of the *Radīf*

Introduction

Persian classical music—referred to as *mūsīqī-i aṣīl* (genuine music), *mūsīqī-i sonnatī* (traditional music), *mūsīqī-i radīfi* and *mūsīqī-i dastgāhi*—is based on a large collection of *gūsheh-ha* (melody types) organised in seven *dastgāh-ha* and five auxiliary systems, *āvāz-ha*. This collection is known as the *radīf* (to be examined shortly). For a performance of traditional music, a performer selects a number of *gūsheh-ha* from one specific *dastgāh* or *āvāz* to use as a framework for his or her improvisation. *Bedāheh navāzī* (instrumental improvisation) and *bedāheh sarā'ī* (vocal improvisation) are two phrase which are interchangeably used as equivalent to the English 'improvisation.' "*Bedāheh sarāi* originates from the realm of poetry, where the tradition of extempore recitation of poems apparently existed in the courts

of the pre-Islamic Sassanian, and related terminology has been applied to music since the early part of this century [20th century]" (Nooshin 1988: 70). Improvised music is very well-regarded in Persian musicianship, as Nettl (1998:7) observes: "in Iran, the area of my experience, the most desirable and acceptable music is improvised, and within the improvised genres, those lacking metric structure and thus rhythmic predictability are the most prestigious." Improvisation is in fact such a natural and almost self-evident procedure for the Persian theorist that he does not feel the need to explain it. Hence, there is a lack of methodology to analyse improvised music in Persian theory.

Indeed, in ethnomusicology, even though improvised music has comprised much of the subject matter of this discipline for over a century, the study of improvisation as a specific practice developed as late as the 1960s and 1970s (see, for instance, Rycroft 1962; and Malm 1975). There is as yet no indication that a generally applicable approach has been achieved. In the introduction of his edited volume entitled "An Art Neglected in Scholarship," Nettl (1998: 12) summarises eight specifications of improvisation from the outlook of Western art music culture, one of which regards improvisation as "a process that cannot be explained or analyzed." Part of the difficulty in dealing with improvisation, of course, is that the term—where it occurs—is used and understood quite variously. This problem has existed since very early studies. A pioneering figure in the study of improvisation, Ernst Ferand (1887-1972), provides an outline distinguishing six aspects of improvisation, most of which appear to apply to composed music too (1957: 1094, cited in Nettl 1998: 6):

Medium:	vocal or instrumental
Personnel:	solo or ensemble
Texture:	monophonic or multivoiced

Technique:	e.g., ornamentation, or addition of independent voices
Degree	total partial, absolute or relative improvisation
Form	a large category, contrasting free and bound structure

Ferand is quoted frequently in many sources that deal with the notion of improvisation. The approach he suggested for the analysis of improvised music was later used as a methodology for the classification and analysis of the music of different cultures in many ethnomusicological and anthropological studies, such as Alan Lomax's works (see, for instance, *Cantometrics* in 1976 and "A Worldwide Evolutionary Classification of Cultures" in 1977). Nonetheless, neither Ferand's approach nor the methods developed later based on his classification can be broadly applied to the entire spectrum of improvised music, whether from a psychologically or an ethnologically informed point of view, since what happens in the minds of different improvisers in the course of performance differs from one location, musician and tradition to another.

For those scholars who investigate the process of creating music this is the central question: "What is it that actually happens in the mind of improviser?" To answer this involves carrying out a psychological study of the performer's attitude and behaviour before and within the process of improvisation. Ali Jihad Racy in "Improvisation, Ecstasy, and Performance Dynamics in Arabic Music" (1998) draws a comparison between Sabāh Fakhrī (b. 1933), a recognised expert in traditional Arab singing, and Western composers such as Hector Berlioz and Schoenberg. In this comparison, Racy quotes Fakhrī's description of how improvisation is influenced by the interaction between performer and audience during the period of performance:

> As a matter of fact, I [Fakhrī] delight when I see people understanding me and judiciously following what I am performing (*bīhāsbūnī*). Indeed, I prefer an audience

> that is fully able to fathom my music, one that is artistically enlightened. First and foremost, a listener has to love music because the more he loves it, if he is also able to understand the words and the tune, the more his presence delights me... I like the lights in the performance hall to remain on so that I can see the listeners and interact with them (Racy 1998: 95-6).

A contrary view comes from one of Berlioz's letter which Racy quotes as follows:

> I [Berlioz] got up with the intention of working exclusively at my score today; my fire was lighted and my door shut; there was no chance of importunate callers fools of any kind... nobody knows about my score, no callousness can reach me through the impression of anybody else. Even if you, yourself, were here, I would not show you anything. I am too much afraid of being frightened (Dunstan 1882: 247, 278-9, cited *ibid.*: 95-6)

Racy demonstrates two different models of creating music here. In the first model the creative process is largely based on a lucid responsiveness to the role of audiences and places within an attainable social environment, while in the second model the creative effort takes place within an exclusive and reverent atmosphere. Racy's approach is successful in showing the influence of environment on musical creativity in each model, and it offers a good response to Jeff Pressing who, in some of his works (e.g., 1984, 1988, and 1998) focuses on the concept of improvisation as something that can be analysed outside the context of specific cultural environment. In the end, however, Racy's approach still does not address the actual creation of musical structures.

One approach Nettl (1998: 13-15; 2001: 96-8) suggests that helps understanding the improvisatory processes of individual performances as well as established practices, is the identification of a "point of departure" which the improviser uses as basis for his

improvisation. He believes that no improvised performance is totally without stylistic commonalities and an overall framework. The number and kinds of features which are set as obligatory elements (referred to here as the "framework" in general) vary by culture and genre. Some cultures have developed advanced systems for this purpose that have become inseparable characteristics of their music. In some societies improvisation is central to music education: "South Indian musicians learn a series of exercises intended to help them juxtapose rhythmic and melodic structures with the melodic grammar of *rāga*" (Nettl 2001: 96-7). In Arabic music the art of *taqsīm* is in fact a complete model of improvisation which is seriously followed by the student.[1]

One well-established model for improvisation is the advanced system of the *radīf* found in Iranian music. Nettl (1998: 14) describes some specifications of the *radīf* as follows:

> It is unique in the sense that it has become a revered canon, a body of specific and memorized music (and associated concepts), which functions as the fundamental repertory and a corpus of pedagogical material, as well as a guide to improvisatory techniques, formal patterns, and overall structure of performances. It is a point of departure for improvisation as a whole, but its individual components provide guidance for various types of improvisation.

In some respects, the Persian *radīf* is comparable to the themes or tunes sometimes used in Western art music; in other ways, it corresponds to *rāgā*, or to *maqāmat* in

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[1] Netll (1998: 15) summarises the concept of improvisation in Arabic *taqsīm* as comprising the following building blocks:

1) Drawing typical sequences of orders of tones of *maqām* from the *taqsīm* principal

2) Motifs of three to four tones associated with each *maqām* that must appear at least occasionally

3) A *taqsīm* is composed of different kinds of sections, most easily characterised by their length (see also Racy 2000).

Arabic music. In order to describe it clearly, however, *radīf* needs to be examined on its own.

The Concept of Radīf

In order to better understand the complex rhythmic structure in Iranian art music, it is essential to consider the concept of *radīf* and the nature of improvisation on which Iranian art music is based. Unfortunately there is no shortcut to understanding *radīf*. *Radīf*—literally meaning model and series—is the foundation of melodic composition and improvisation in Persian music. Nevertheless, endeavours to describe or define it often reflect the ambivalence of the concept; "Existing as a basic repertory upon which Persian art music is created, the *radīf* may be thought of as a layer between theory and practice, for it is the *radīf* that the performer learns as a student" (Zonis 1973: 51). On the one hand, we may describe it as containing the characteristic of the Persian art music including intervals, rhythms and other theoretical aspects, and on the other, the ways of performing this music, the ways of fitting poems to music and other practical issues. One of the most comprehensive descriptions of the *radīf* has been given by Laudan Nooshin (1998: 71) in her article "The Song of the Nightingale: Processes of Improvisation in *dastgāh Segāh*":

> *"Radif"* (literally, "row" or "series") refers to the complete repertoire of Iranian classical music as taught by a master (ostād) to his pupils, and which subsequently forms the basis for improvised performance. This repertoire, which exist in a number of different versions, comprises approximately 400 short pieces known as *gusheh* (literally, "corner") which are distinguished both by mode and by characteristic melodies and motifs, and which are arranged into twelve modal systems called dastgāh (literally, "system").

Defining *radīf*, Jean During (1991: 61) distinguishes two levels: first, a broad meaning referring to the traditional repertory; and second, a restricted meaning referring to the collection of *gūsheh-ha* arranged by various masters. In broad terms, he describes *radīf* as a collection of pieces, generally non-measured, classified according to modal affinities into twelve modal systems, and supposed to be played in a certain order. In this view it is also a teaching model which permits one to learn the following skills and abilities:

a) The repertory of melodic types (*gūshehs* and certain unchanging canonic pieces such as *reng* or certain *gūshehs*);

b) The classification of modes and modulations, their structure, their typical features;

c) The instrumental techniques, the classical style, the aesthetic principles, the implicit rules of composition and improvisation.

In its restricted meaning, *radīf* is defined as:

a) The content of a *dastgāh* or *āvāz* as defined by a master or a school;

b) The particular and fixed versions of the ensemble of the *gūshehs* forming the twelve modal systems *dastgāh* or *āvāz* that a master teaches to his students, corresponding to an original style or a specific instrument.

Some definitions concentrate on the cosmological quality of historical classification relating *radīf* and, in particular, *gūsheh-ha* to time of day, emotion and so on (e.g., *dastgāh Shūr* as a mood is described as: burning, pining, sympathetic...; as a colour it is seen as red; and as an element it is likened to fire). For now, however, to make it simple, *radīf* can be described as the collection of repertories built up by the best

singers and instrumentalists from various different cultural centres of Iran in the course of history. Each piece, *gūsheh*, was given a name, sometimes being the name of the composer or transmitter (e.g., *Naṣīrkhanī*, *Mohammad Ṣādeqkhānī*), or the name of a town, village or tribe (e.g., *Zābol, Deylamān, Bakhteyārī*). In some cases the name given is that of a poem sung (e.g., *Maṣnavī, Khosro* and *Shīrīn*); in some instances the name of the piece carries the mood of the *gūsheh* (e.g., *Sūz-o-godāz:* burning and sorrow; *Ṭarab-angīz:* cheerful); in yet other cases, the name is only an indication of the form or the stylistic feature (e.g., *darāmad:* introduction, *forūd:* conclusion, *'oj:* ascendance).[2] Ultimately, in the nineteenth century, this collection of melodic types (*gūsheh-ha*) was organised according to their modal closeness into twelve modal systems: seven *dastgāh-ha*: *Shūr*, *Segāh*, *Homāyūn*, *Chahārgāh*, *Māhūr*, *Navā* and *Rāst-panjgāh* and five *āvāz-ha*, four of which derived from *Shūr*: *Abū-atā*, *Bayāt turk*, *Afshāri* and *Dashtī* and one derived from *Homāyūn*, *Bayāt Isfahan*. This categorisation did not make it so simple, because different *dastgāh-ha*, and in particular different *gūsheh-ha*, can share melodic material.

Dastgāh

Theory tells us that a *dastgāh* is made up of special intervals and scale.[3] However, a *dastgāh* is more specific than a scale, for any number of *gūsheh-ha* can share a single collection of pitch patterns. "Unlike a Western musician, who, when asked to describe

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[2] Investigation on the roots of the *gūsheh-ha* is very interesting, as some were already in much use as early as the tenth century. Beside that, there are similarities in names and even patterns in the Arabic, Uzbek, Turkmen, Armenian, Turkish and Kurdish *maqām* repertories.

[3] Currently there are three different theories on intervals and scales of Persian music: the first one identifies a chromatic scale of 24-quarter-tones as the basis of Persian scales, presented in the 1920s by Ali Naqi Vaziri; the second one defined Persian music as based on a 22-tone scale–this theory was formulated by Persian acoustician Mehdi Barkechli in the 1940s; the third view, presented by Hormoz Farhat, isolates five intervals with which all modes are constructed, no longer recognising any basic scale (see further, Farhat 2001: 531-3).

a specific mode immediately thinks of its scale, a Persian musician thinks in terms of certain melodies" (Zonis 1973: 52). Prescribing the intervals in terms of a scale is the kind of notion that usually only the conservatory-trained Iranian musician would consider. "We must be aware that Persian music scarcely emphasizes scale structures. Scale is purely an extraction out of the melodic form rather than the reverse. A Persian musician of the old school has hardly any awareness of scale pattern as much" (Farhat 1962: 240). Nonetheless, at the theoretical stage the first characteristic feature of a *dastgāh* is the quality of its intervals—some of which do not exist in current Western music—and their specific functions within the scale of each *dastgāh*. The distribution of these intervals may influence the quality of rhythm and change the characteristic of the *dastgāh* through their relative emphasis or absence. The most identifiable tones in any *dastgāh* or *āvāz* are as follows.

- ***Pāyeh* (foundation):** the note on which an improvisation usually starts, *pāyeh* is also comparable to the tonic in Western music, with the contrast that *pāyeh* has the capability to change much more easily than the tonic in Western music.

- ***Ist* (stop):** *Ist* is the note on which melodic phrases can temporarily rest. In many cases, but not all, this note differs from *pāyeh*.

- ***Shāhid* (witness, sweetheart):** This note is the centre of attention of melodic phrases. It is comparable to the dominant in Western art music, though it is not necessarily the fifth. In some modes, the note selected as *shāhid* may also have the function of *īst* or *forūd*.

- ***Motoghayyer* (variable):** in many modes there are one or two notes which appear in two different forms, usually a quartertone down or up. *Motoghayyer* may appear

in slight modulations (e.g., in *Māhūr*) or help to define the mode (e.g., frequently changing the sixth in the *āvāz Afshāri* a quarter tone down is the distinctive character of *Afshāri*).

- **Forūd (descent, landing):** *forūd* is the pattern or phrase which is used at the end of a performance as a cadence. However, it is also the name of the note the music finally ends on. *Forūd* in most cases is the same note as *pāyeh*.

The Building Blocks

Each *gūsheh* is the smallest unit in the *radīf*, and it contains a beginning, body and ending. In a typical lesson the student plays one or two of the *gūsheh-ha* he has already memorised and learns the new ones he will memorise for the next lesson. The teacher then plays the new *gūsheh* to clarify their phrase construction and ornamentation. During a performance, specific *gūsheh-ha* may be selected from the *dastgāh*, generally in the order they appear in the *radīf*, and are used as the basis of an improvised performance. The overall contour of the *gūsheh-ha* is arch-shaped, based on an evolution of pitch levels from low (*bālā dasteh*) to high (*pā'īn dasteh, oj*) to low, within a *dastgāh*.[4]

Thus, each *gūsheh* within a *dastgāh* is less specific than a tune. "It is the individual *gusheh* which forms the basic modal unit and main conceptual unit of improvisation, and *dastgāh* comprises a series of *gushehs* in different (but related) modes" (Nooshin

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[4] Bruno Nettl (1974: 408) in his Article "Aspects of Form in the Instrumental Performance of the Persian Āvāz," summarises the specification of *gūsheh-ha* based on analysing some seventy contemporary performances of Iranian music as follows: 1) All gushehs are treated more or less in the same way: each requires about the same amount of time; there is an increase in dramatic tension from section to section; and the gushehs are presented in more or less ascending order. 2) The arrangement is symmetrical, in the sense that one gusheh—usually darāmad—dominates the performance. 3) Emphasis is on the beginning gushehs and decreases gradually; there is a tapering-off effect.

1998: 71). The *gūsheh-ha*, in fact, can be considered as the genetic materials for the creation of new pieces. The roles of *gūsheh-ha* in improvisation are to be examined later in this chapter; at first we need to consider the characteristics of *gūsheh-ha*. I would divide the characteristics of *gūsheh-ha* into five different aspects as follows:

1. **The location and the range of each:** most *gūsheh-ha* are limited to a tetrachord or slightly more and are located in a specific part of the octave.

2. **The configuration of the notes in its range:** the hierarchy of notes in each *gūsheh* is a pattern distinguished by the placement of important notes on which the melody stops (*īst*), that which receives special emphasis in the *gūsheh* (*shāhid*), and that on which temporary modulations can occur (*motoghayyer*).

3. **The melodic shape:** a certain melodic shape of each *gūsheh* remains recognisable throughout the improvisation. This feature is a central characteristic of each *gūsheh*.

4. **The rhythmic pattern:** most of the *gūsheh-ha* do not have a fixed rhythm. In fact, the rhythmic pattern is one of the very last distinct features of a *gūsheh*. "The features of rhythm that contribute to the genetic material of the *gūsheh* are far more difficult to isolate, as most *gūsheh-ha* are non-metric and are played with a very free rhythm" (Zonis 1973: 48).

5. **The relation of the *gūsheh* to the previous and next *gūsheh-ha* within the *dastgāh*:** since one *gūsheh* must lead to another, for instance in sustaining the overall contour of performance, which as mentioned above is usually arch-

shape, its adjacent *gūsheh-ha* is an important issue in performance (more explanation on this issue is given below).

Since in the rest of this dissertation I will assume that the reader is familiar with the teaching method of the *radīf*, I present an example here. This example illustrates a traditional lesson on the *radīf* and shows how musicians handle *gūsheh-ha* in practice. The session was led by Nour Ali Boroumand (1906-1978) in a private class, and was recorded by one of his students in Tehran during the 1960s or 1970s.[5]

Boroumand: It is good today to perform *Shekasteh* [a modulated *gūsheh* in *Dastgāh Māhūr*]. By performing this *gūsheh* this section of *Māhūr* will finish, then [in the following sessions] we will go to the next section which contains *Arāq*, *Rāk* and others. You may remember what was the *forūd* of *Māhūr* when we performed *Azerbaijani*.

Then, Boroumand reminded the student of the *forūd* of *Azerbaijani*, the previous *gūsheh* he taught him, by playing the cadence. He particularly emphasised the last note where the *gūsheh* finishes. He then suggested that it was good to illustrate *Shekasteh* by showing the student some improvisation based on this *gūsheh*, and he performed a few minutes without going outside the frame of *Shekasteh* (CD2 #03).

Boroumand: You notice the *pardeh-ha* [intervals] in *Shekasteh*. You should bear in mind that even though the *pardeh-ha* in *Shekasteh* are somehow similar to *Afshāri*, you should not use Re *koron* [D♭], as in *Afshāri*. Today some performers use Re *koron* in *Shekasteh* but it is not right to do so. Re has to be used in its

[5] This undated cassette was handed to me by Mr. Sabeti in 1991. The entire *radīf* of Mirzā Abdullāh performed by Boroumand was recorded by the Centre of Preservation and Propagation of Traditional Iranian Music in 1972 and later on transcribed by Jean During and published in 1991.

natural form as the *Shekasteh* has its own mood, different from *Afshāri*. Pay attention...

Boroumand then performed the entire *gūsheh* (Figure 3.1) as it was to be practised by the student for the next session. During the performance, Boroumand drew the attention of the student to the main sections, repeats and modulations back to the *pardeh-ha* of *Māhūr* (CD2 #04).

Boroumand: A good singer can sing this *gūsheh*, with its special *taḥrīr* [falsetto break, to be examined later] very nicely without attempting to go to *Afshāri*. If I had a good voice I would sing it [he laughs]. The reason for attempting to go to *Afshāri* is rooted in the nature and taste of Iranian listeners who expect the performer to change the Re to Re koron (he explains while illustrating on the *setār*).

Student: If you are tired we can finish.

Boroumand: There are also some phrases in *Shekasteh* which may take performer to *Afshāri* (he explains while performing on the *setār*).

Student: It looks like the *forūd* of *Afshāri* to me.

Boroumand: It does, but look, this is the real *forūd* of *Afshāri* (he plays and session continues on other issues).

In the end Boroumand explains about the relationship between *Shekaseh* and the *gūsheh-ha* before and after that and the state of *Shekaseh* in entire *dastgāh* of *Māhūr*.

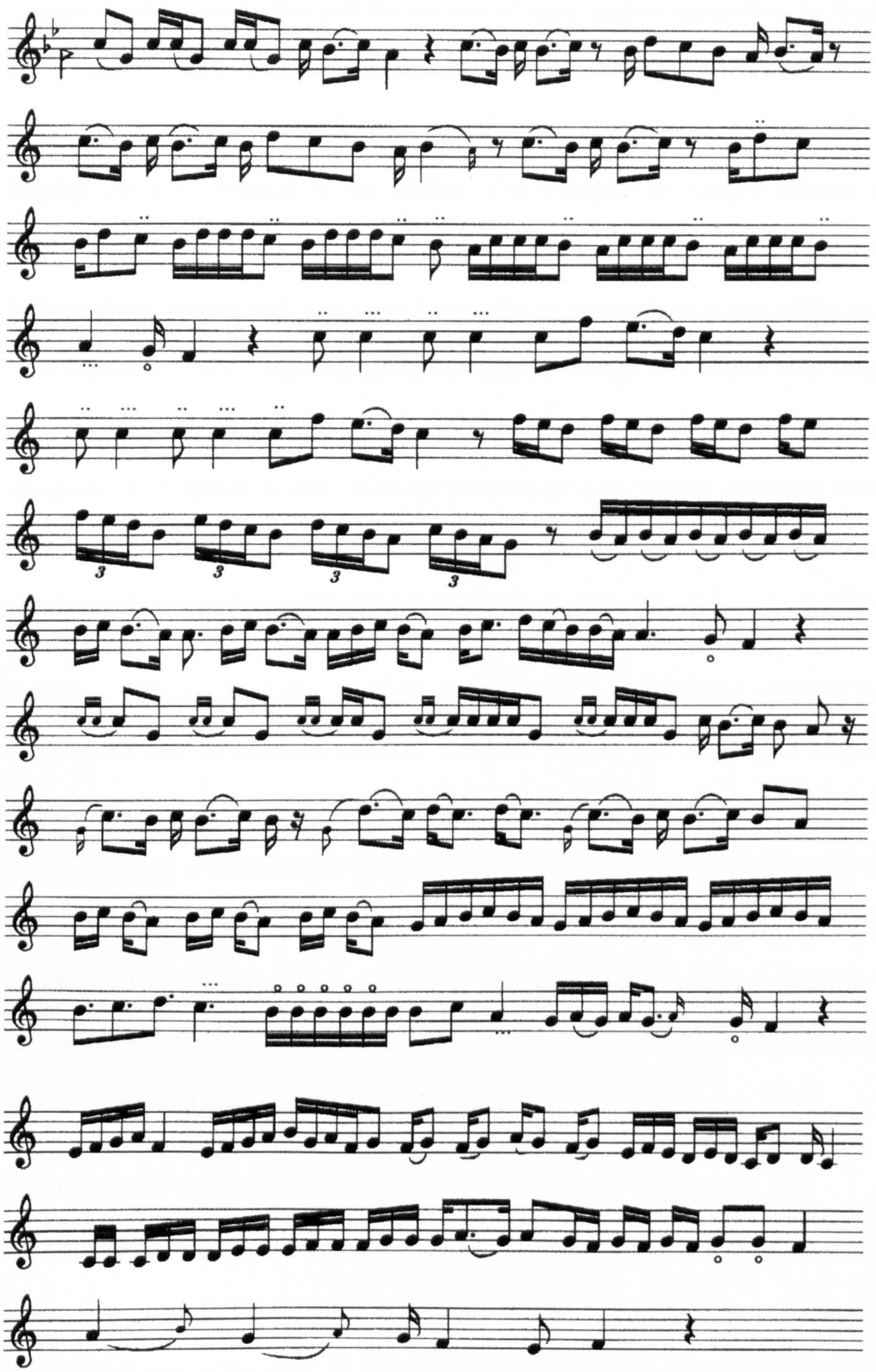


Figure 3.1: Shekasteh *presented by Nour Ali Boroumand in a private class in Tehran during the 1960s or 1970s, transcribed by Azadehfar*

Comparing this transcription and the version of same *gūsheh* transcribed by During (1991: 227-8) shows that, even though Boroumand does not have the purpose of improvisation, he performs differently in different circumstances, even in spite of keeping the main skeleton of the *gūsheh*. The dialogues exchanged between the teacher and pupil presented in this example suggests that most of the attention is given to the melodic aspects with little or no emphasise on the rhythmic aspect of the piece. This is generally true in teaching *gūsheh-ha* particularly the free-metred ones to have no discussions on rhythm but the teacher would defiantly regulates the student if he or she goes out of rhythm. In fact, this is by imitation of every pattern played by teacher over several years of practice that the student gradually becomes aware of the rhythmic principles of the *radīf* rather than any descriptions provided by the teacher.

Tradition tells us that the contents of *dastgāh-ha*, *gūsheh-ha*, emerge from composition and performance practice. Analysis tells us that although a musician adheres to these basic "rules" of the *radīf* in performance, there is yet another level of rules dictated by context (see for instance Nettl 1987; Forṣat al-Dowleh Shīrāzī 1988). That is, every *gūsheh* of each *dastgāh* may change slightly depending on the situation in which it is performed. For the listener to interpret the complexities of *dastgāh*, or for the performer to comprehend what is fixed within what is flexible, an attentiveness must be cultivated from steadfast listening and practice.

Structuring an Improvisation

In terms of its position on the continuum from tightly structured improvisation to highly free improvisation, Iranian music sets the structure of its improvisation upon the essential core of the *radīf*. In other words, improvising an overall structure while structuring the moment-to-moment details of an improvisation disturbs the musical

meaning the performer is trying to deliver, since improvising music in Persian thought is not seen as a way of exposing the extraordinary ability and skill of the performer but getting closer to an audience and delivering the musical expression as directly as possible.

Radīf may also be described as 'Framework,' as Laudan Nooshin (1996: 93) states: "The *radif* is the musical structure which underlies improvisation in Persian classical music, and to this extent is generally regarded as the 'framework' or 'model' for creative expression."

Earlier I quoted Nettl regarding of the point of departure in improvisation and later considered the building block of the *gūsheh* and here I introduced the idea of framework. Now, I wish to expand this argument to consider the practical issues of using the *radīf* as a framework or building blocks to be used as the points of departure in an improvisation.

The facilities the *radīf* provides for improvisation can be categorised in two parts: the raw musical materials and the ways they can be expanded and united. Among the first items examined here are melody type, motif, and rhythmic and dynamic pattern, and amongst the second are features that expand or bind the structure's range of tones and melodic shape. Of course the aims of this thesis are to focus on the rhythmic aspects of this issue; however, it is impossible to make sense of the rhythmic side of this argument without considering other musical aspects. The problem of having one side discussed without concerning about the other side is seen in some recent works in this subject. For instance, Laudan Nooshin (1996: 319) in an extensive section in her thesis called 'Phrase Structures and their Recreation in Performance' deals only with interval patterns without having one word said about the impact of rhythm in such

phrases. She also is not concerned about the rhythm in shaping the motives where she examines the motivic construction of *Segāh* (*ibid.*: 389). Of course, she aims to consider the so-called modal structure in the issue of creation and recreation in Iranian music; but can such an issue be understood without the rhythmic context of the *gūsheh-ha*? The same comment applies here. How can the impact of rhythmic aspects of the *gūsheh-ha* in improvisation be understood without knowing the function of the other musical aspects in this process?

Melody Type

The first facility the *radīf* provides for both improvised and precomposed music is a huge set of melody types capable of imaginative combinations and recombinations in twelve different modes. Different moods, different occasions, various regions, different epochs that remind the listener of years of drought, famine, glut, war, peace, … all these are circumstances that can be tasted from the collection of the *radīf*. The following examples have been collected from different versions of the *radīf* to demonstrate the aesthetic of melody type.

The first example is a *gūsheh* in the *dastgāh* of *Homāyūn* called *Bakhteyārī* from the *radīf* of Sabā (1959: 11). In this *gūsheh* (Figure 3.2) the melody at the beginning is configured in the first tetrachord of *Homāyūn* then echoed in the lower octave and repeated in the second tetrachord. There is then a falling contour passage which leads to the repeat of the music of the first position. The notation, as mentioned in the first chapter, is rhythmically opaque and does not precisely indicate the way of performing the *gūsheh*; in reality there are many places of emphasis and rests that a performer learns from his teacher (CD1 #02).

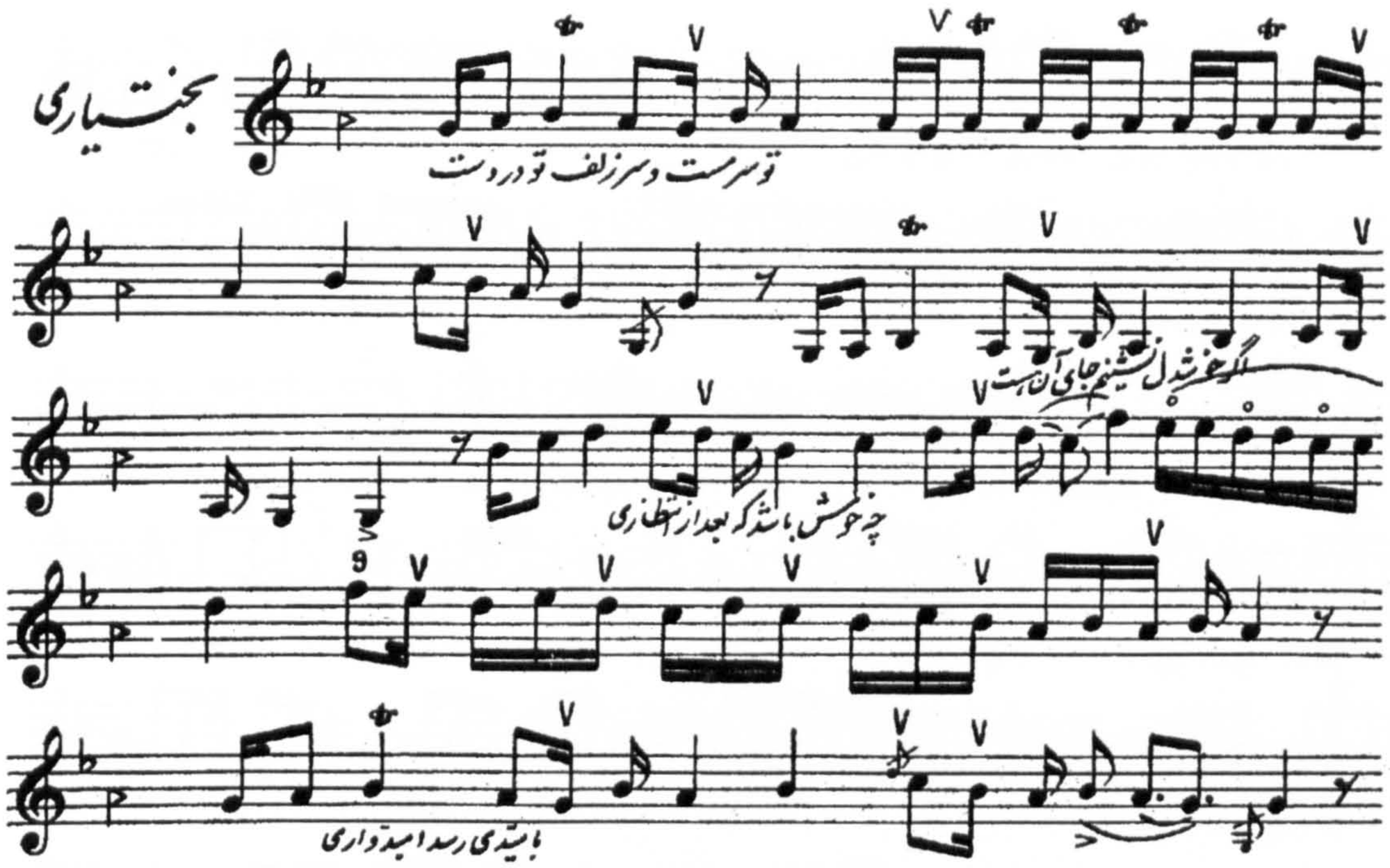
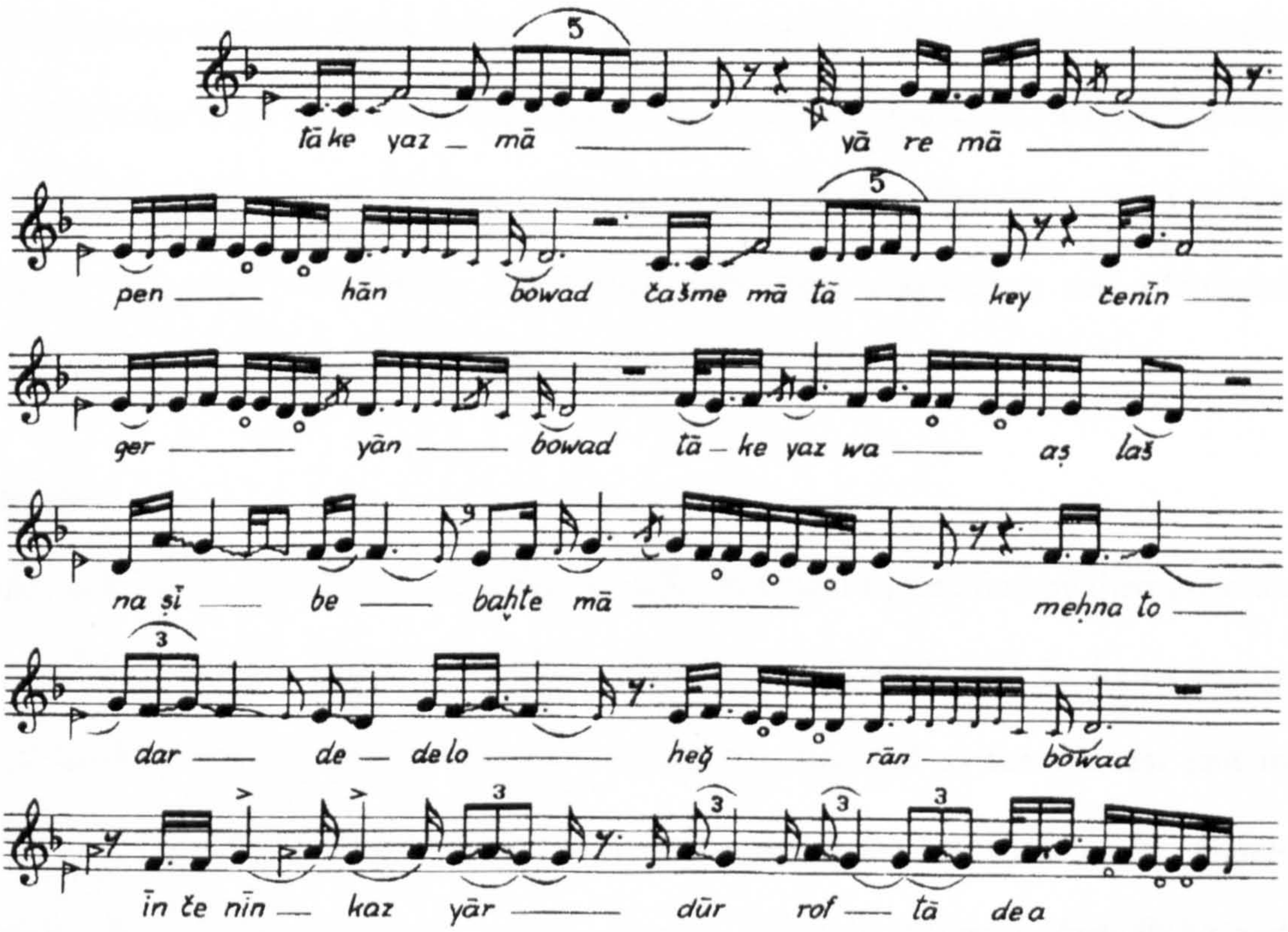


Figure 3.2: *Simple melody type and the directions to repeat at a different register and return to the base tetrachord in the* gūsheh *of* Bakhteyārī *(Sabā 1959: 11; also CD1 #02)*

The second example is *Maṣnavī* in the *dastgāh* of *Shūr* from the vocal *radīf* of Mahmud Karimi (Massoudieh 2000: 27). This example illustrates a more complex melody type and its development in various manners (Figure 3.3).



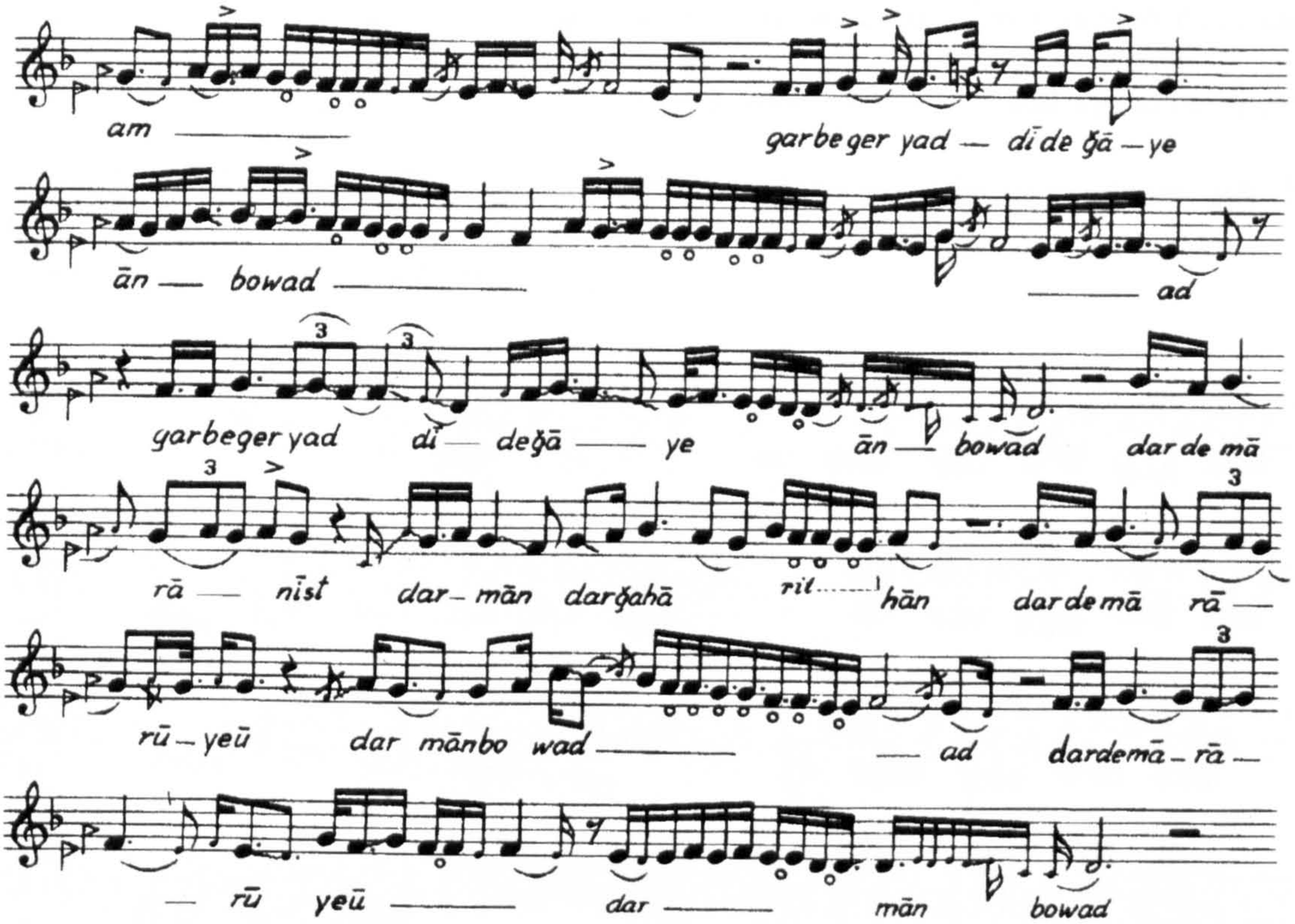


Figure 3.3: *More complex melody type of* Maṣnavī *in the* dastgāh *of* Shūr *and its decoration and modulation (Massoudieh 2000: 27; also CD2 #05 by Karimi)*

Massoudieh's transcription contains too much detail to be easily read but by listening to Karimi's performance (CD2 #05) the main body of melody and the way of its development become clearer. In this example, the melody after introducing the tonic of *Shūr* tends to go to the upper tetrachord. In the second stage, at line six, the melody modulates to *Shahnāz* (one of the well-known modulated *gūsheh-ha* in *Shūr*). In the rest of the piece, the melody is repeated with more decorations and additional passages and ends finally on the tonic of *Shūr*.

Motif

The *radīf* is full of short musical ideas, or cells, that can be identified by their melodic ideas, rhythmic ideas, or a combination of these two. A motif may be found in any size in the *radīf*, but in any case it is commonly regarded as the shortest unit in phrasing. Certain motifs sometimes come to identify some short *gūsheh-ha*. *Baste-negār*, for instance, is a very popular *gūsheh* found in different *dastgāh-ha* and

identified by its special motif. Comparison of three versions of this *gūsheh* from the *radīf* of Mirzā ‘Abdullāh (Figs. 3.4, 3.5 and 3.6; CD2 Tracks 6, 7 and 8) indicates the significance of a simple motif constructed from three notes in *Baste-negār*, which otherwise has little or no melodic interest.

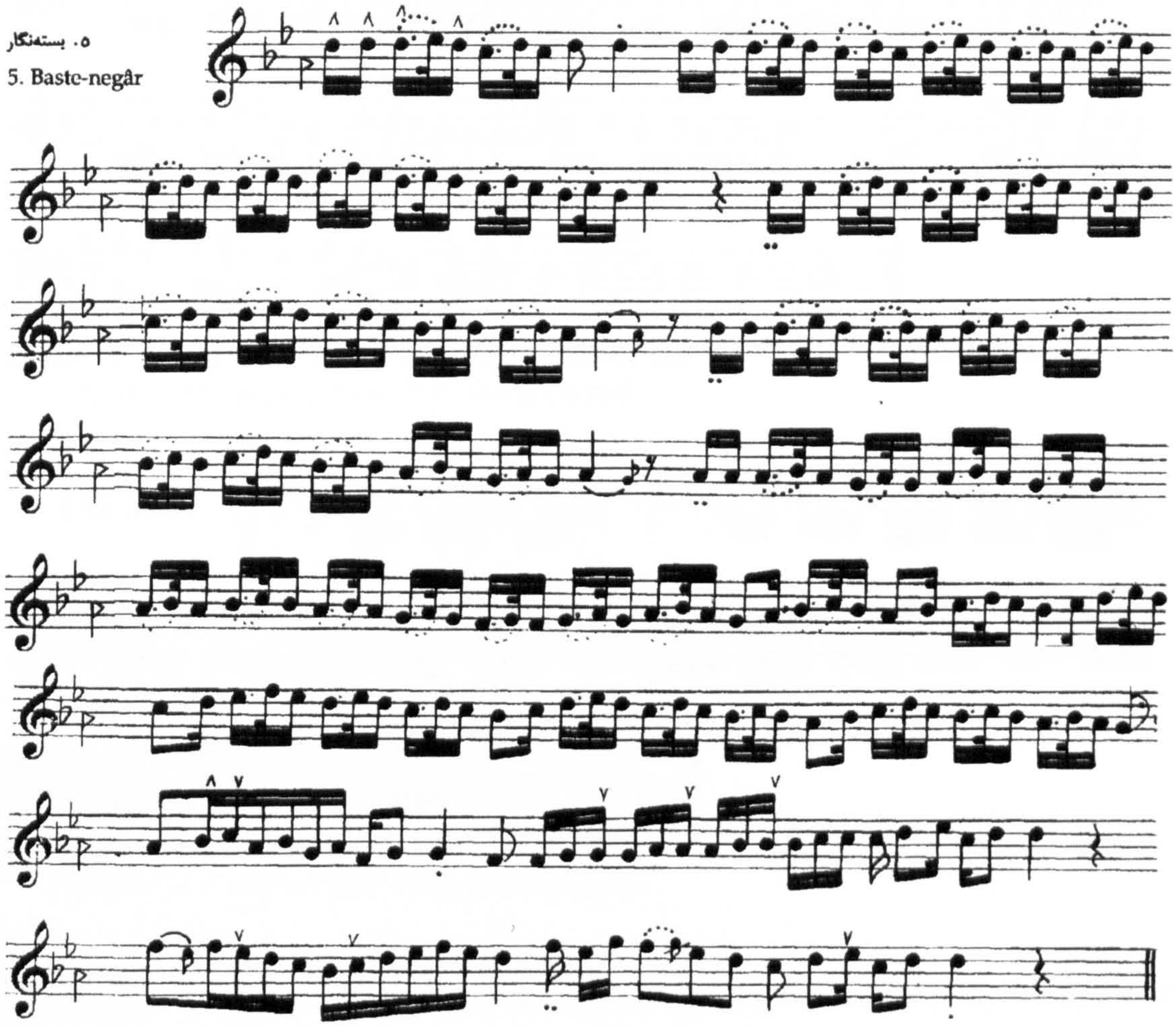


Figure 3.4: Baste-negār *in* Abū-atā *from the* radīf *of Mirzā ‘Abdullāh (During 1991: 125; also CD2 #06 by Boroumand)*

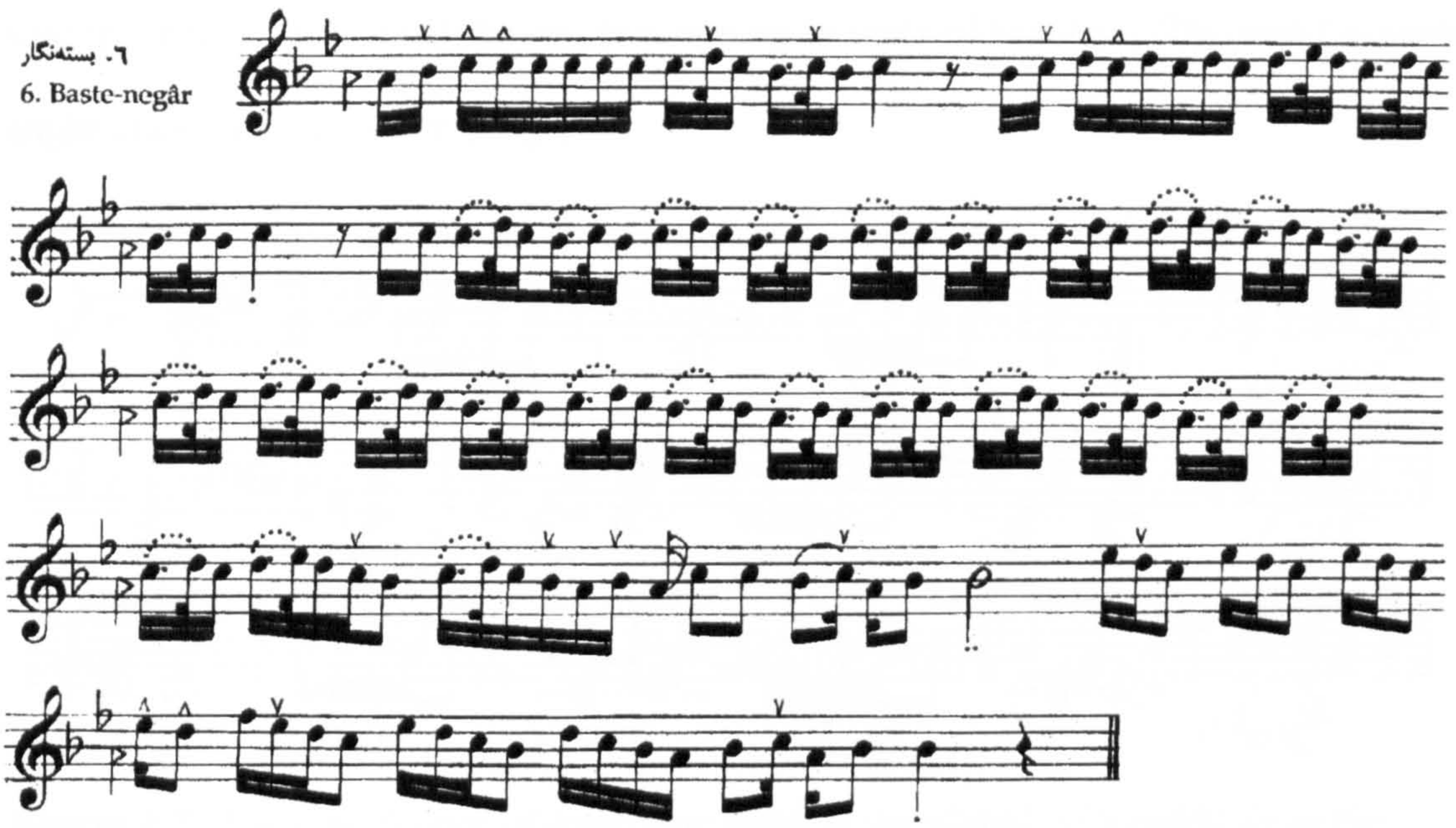


Figure 3.5: Baste-negār *in* Bayāt turk *from the* radīf *of Mirzā 'Abdullāh (During 1991: 137; also CD2 #07 by Boroumand)*

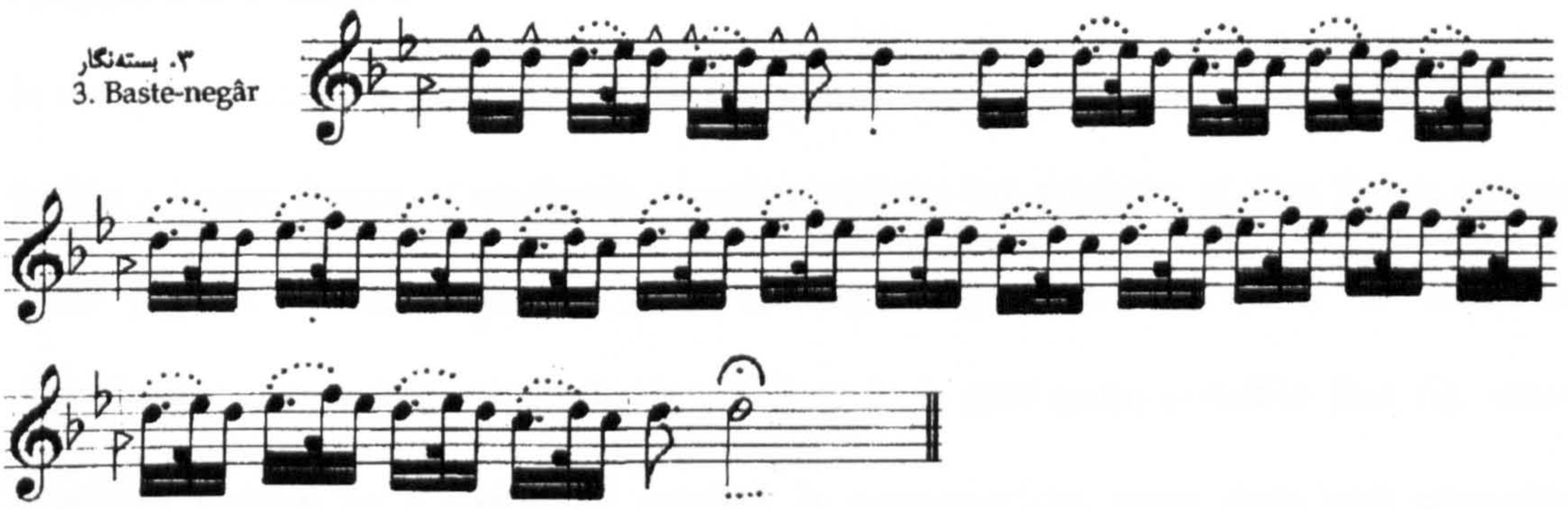


Figure 3.6: Baste-negār *in* Bayāt kord *from the* radīf *of Mirzā 'Abdullāh (During 1991: 158; also CD2 #08 By Boroumand)*

The special motif of *Baste-negār* contains specific rhythmic, melodic and dynamic shape,  . However, the rhythmic shape of this *gusheh* has more domination as the identification tag of *Baste-negār*.

There are also motifs with more melodic domination. The main motif in the *gūsheh* of *Sayakhī* from *radīf* of Sabā (Figure 3.7) is more melodic in character than the rhythmic. Nevertheless, it contains certain rhythmic shape too,  . In this

example the motif is much larger, functioning in units of two bars. The motif accepts slight changes as the piece progresses.

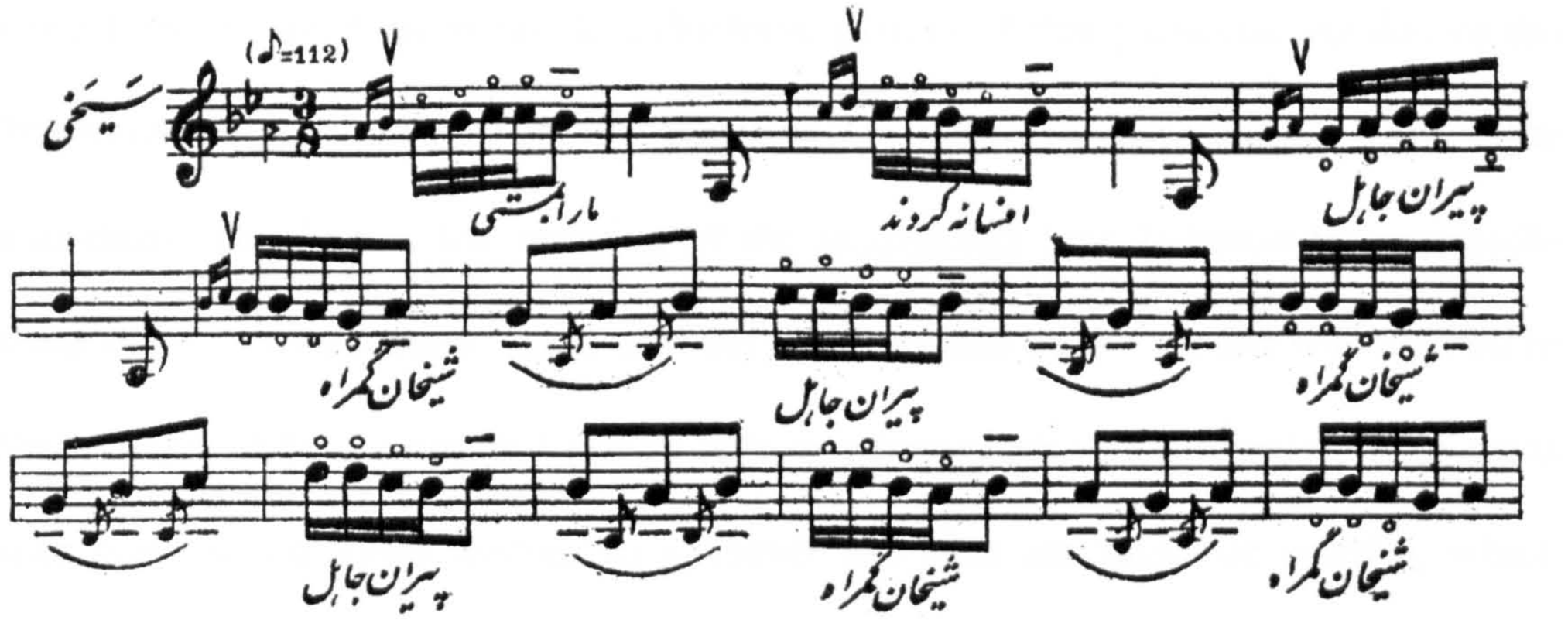


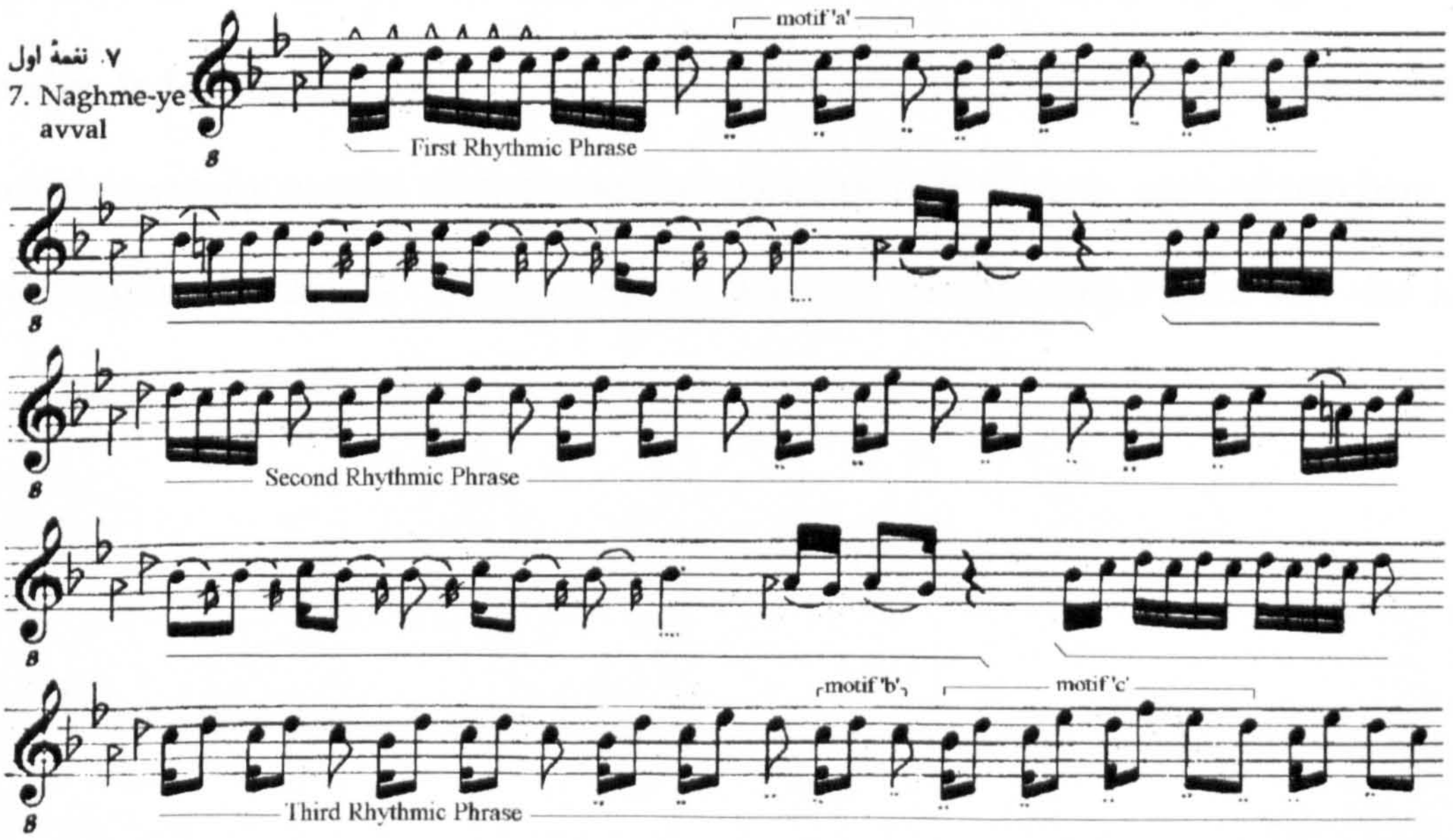
Figure 3.7: *The significance of a two-bar motif in the* gūsheh *of* Sayakhī *from the* radīf *of Sabā (1985: 11; CD1 #03 by Azadehfar)*

Rhythmic Pattern

In a rhythmic pattern the value of the individual note is communicated by its position within a larger figure of rhythmic phrasing and by the position of that figure among other figures. Smaller groups such as motifs function as typical or essential characteristics to make up rhythmic patterns. It is also quite possible that the same rhythmic pattern in a particular *gūsheh* is perceived in more than one grouping interpretation. These various groupings' interpretation may be caused by the patterning of the accompaniment, articulation and dynamics.

Even though the detail of rhythmic structure of the *radīf* will be considered in the following section, it is worth introducing some examples here to demonstrate how rhythmic patterns of *gūsheh-ha* can be used in constructing improvisations. Two *gūsheh-ha* have been selected: one free-metred *gūsheh* called *Naghmeh-i avval* in the *dastgāh* of *Shūr* from the *radīf* of Mirzā 'Abdullāh, and one fixed-metre example called *Chahār pāreh* from two different versions, those of Karimi and Mirzā 'Abdullāh.

Naghmeh-i avval (Figure 3.8) is one of the *gūsheh-ha* which is identified by its special rhythmic pattern, despite its lack of strict metre. *Naghmeh-ha* are considered to be more instrumental than vocal. The rhythmic pattern of this particular version of the *Naghmeh* has some basic elements, which are shared by those played by many other musicians. The first is the stressing of the modulating tone D-koron by repeatedly sounding it. This emphasis continues until near the end of the *gūsheh* where *forūd* to *Shūr* occurs. After an optional upbeat of two semiquavers, the rhythmic phrase starts with eight semiquavers leading to a quaver and then the rhythmic motif a, which consists of a pattern of short-long-short-long-long. Motif a is then repeated, and the repeat is then further modified and extended before a new pattern is introduced and we reach the phrase's final cadence pattern. The first repetition of the whole phrase contains slight changes. It is followed by the developing of the rhythmic idea in the third presentation of this phrase. In this repetition, in addition to introducing new rhythmic materials, motif a is also modified to its shortened form, b, and an extended form, c. The melodic and rhythmic patterns developed here themselves then undergo further variations, ending in the final pattern with modulation to the *Shūr*'s *forūd* (see Figure 3.8 and CD2 #09).



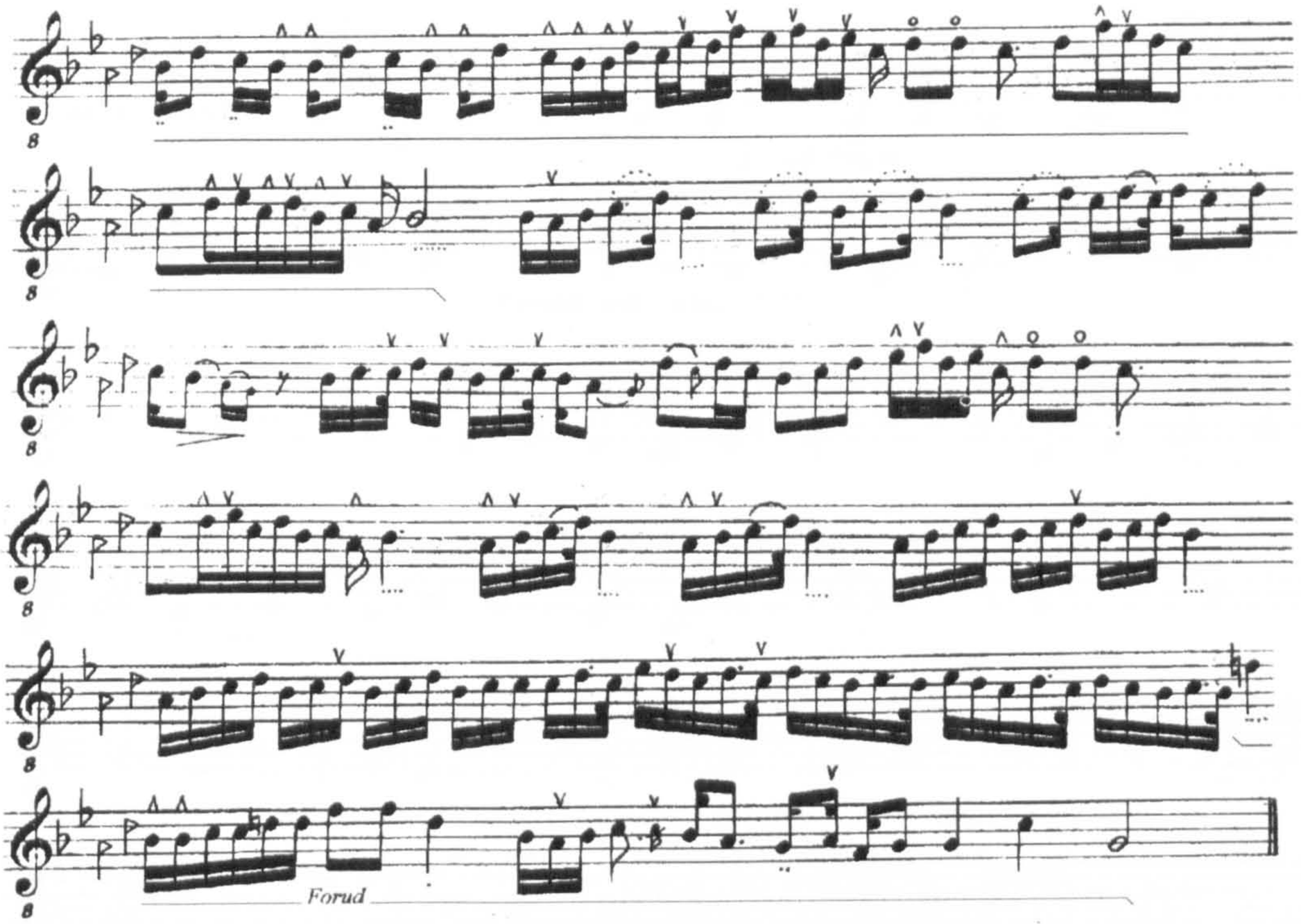


Figure 3.8: Naghmeh-i avval *in* Shūr *from the* radīf *of Mirzā 'Abdullāh (During 1991: 89-90; also CD2 #09 by Boroumand)*

The second example is *Chahār pāreh*. The rhythmic pattern of this *gūsheh*, as we shall see in the following section, is based on one of the *'Arūẓi* poetic cycles called Kāmil. I have selected two different versions of *Chahār pāreh*, the first one from the *radīf* of Mirzā 'Abdullāh and the second from the *radīf* of Mahmud Karimi. The version selected from Mirzā 'Abdullāh is in *dastgāh Māhūr* and has few ornamentations and decorations, so its rhythmic pattern can be distinguished more easily. In During's transcription rhythmic phrases are usually fitted into four-bar units, which normally consist of two more-or-less equal half-phrases, each of two bars. The whole *gūsheh* consists of four complete rhythmic phrases (see Figure 3.9; also listen to CD2 #10 by Boroumand).

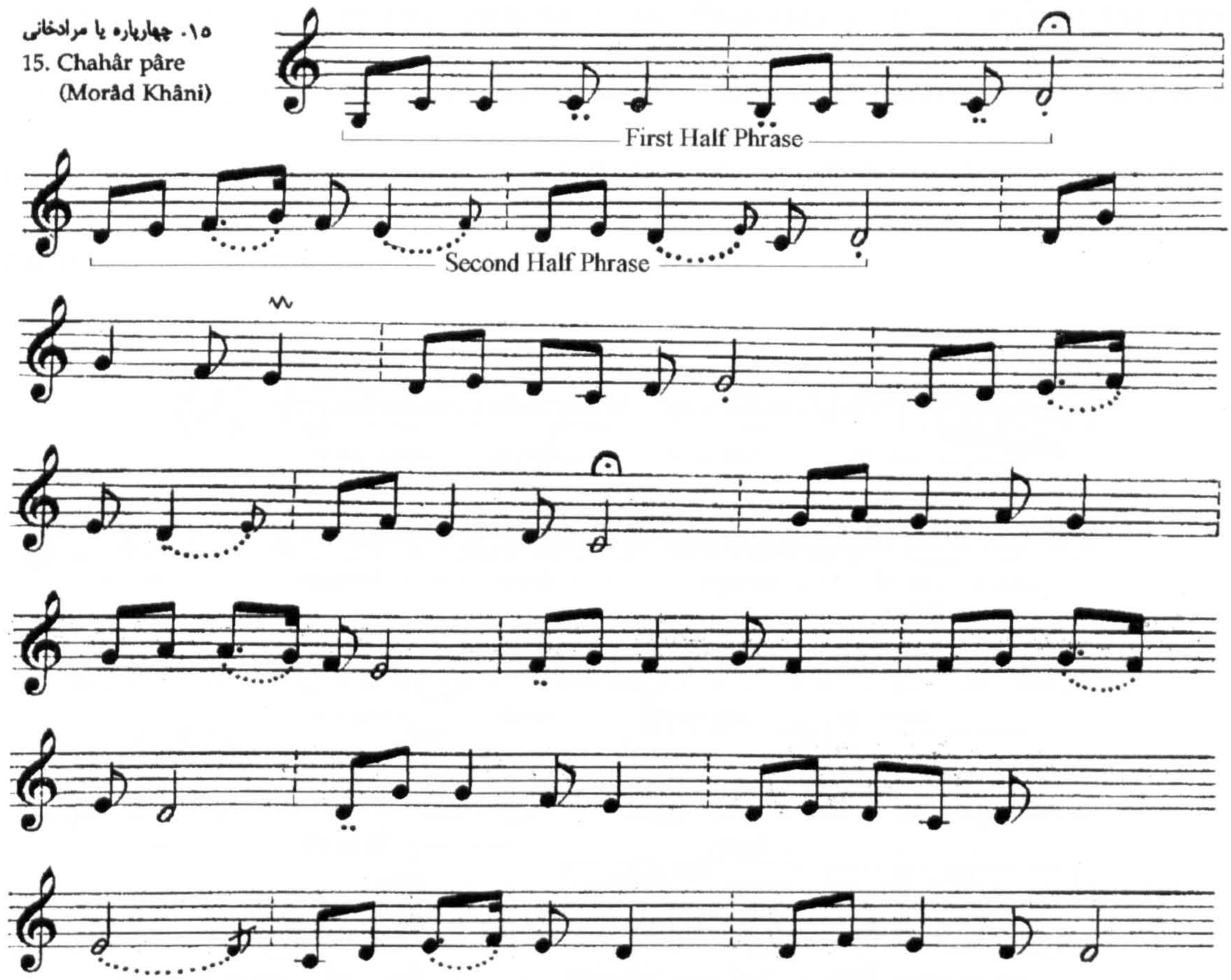
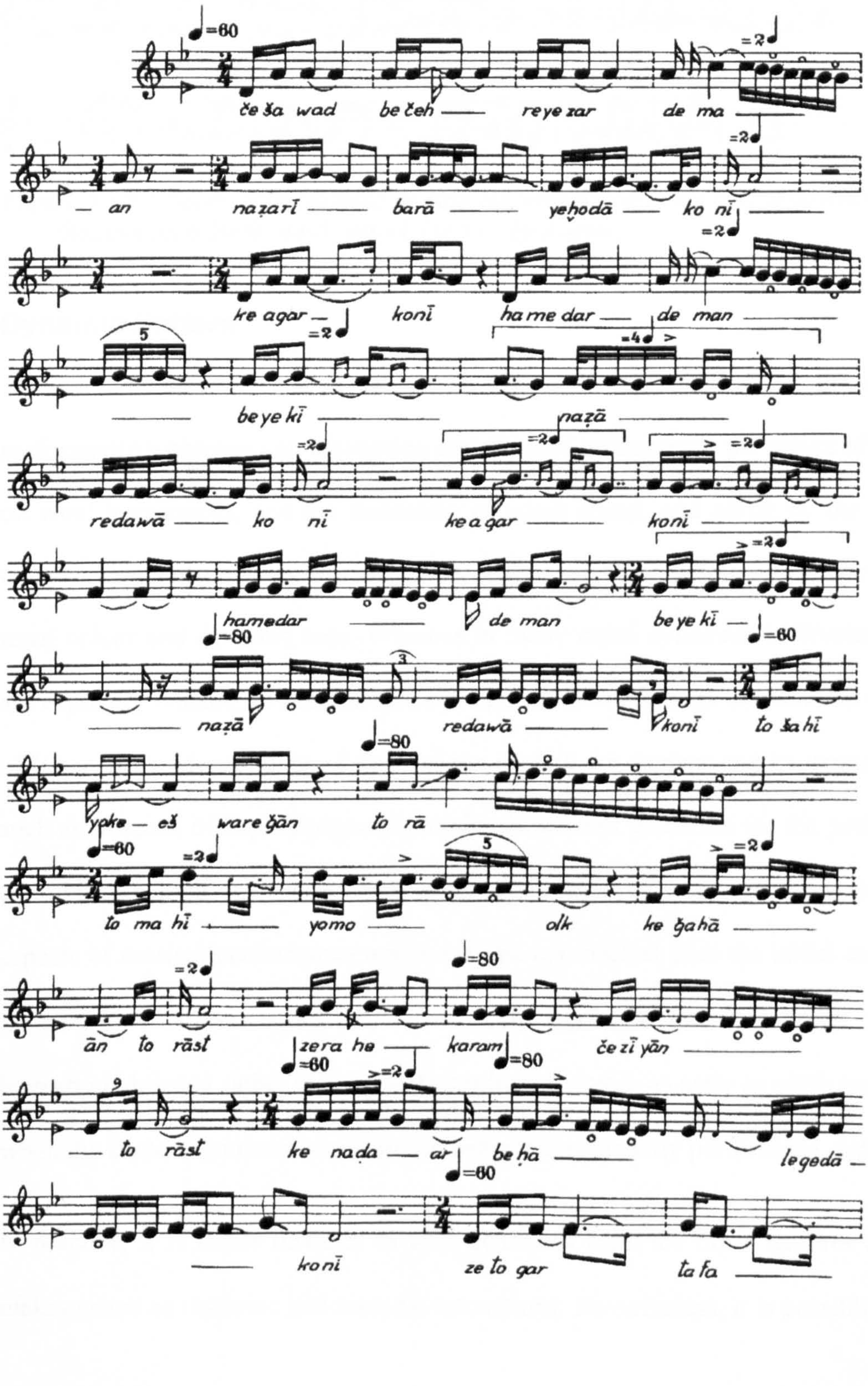


Figure 3.9: Chahār pāreh *in* Māhūr *from the radīf of Mirzā 'Abdullāh (During 1991: 221; also CD2 #10 by Boroumand)*

The other version of *Chahār pāreh* presented here is in the *āvāz* of *Abū-atā*. Karimi has performed this *gūsheh* with many more decorations, which Massoudieh tried to transcribe in detail (Figure 3.10). In this transcription, every half-phrase is described as taking four bars of notation. The nature of vocal performance of *gūsheh-ha* in Iranian music, where long rests can occur between phrases, explains why we have here more rests than in Mirzā 'Abdullāh's version. In addition, because the phrases are extremely long, rests occur at the end of each half phrase. One of the significant differences between these two versions of *Chahār pāreh* is that whereas in Mirzā 'Abdullāh's version the rhythmic pattern just accepts slight changes as it progresses and the length of the pattern remains more-or-less fixed, here we are dealing with much more rhythmic variation of the pattern itself every time it is presented, a quality that is considered to be one of the master skills of an improvisation. Another major

difference between these two versions is the flexibility of the length of the rests among the phrases in Karimi's version, which Massoudieh represented by different time signatures and tempo markings (*Chahār pāreh* will be readdressed and fully examined in next section).



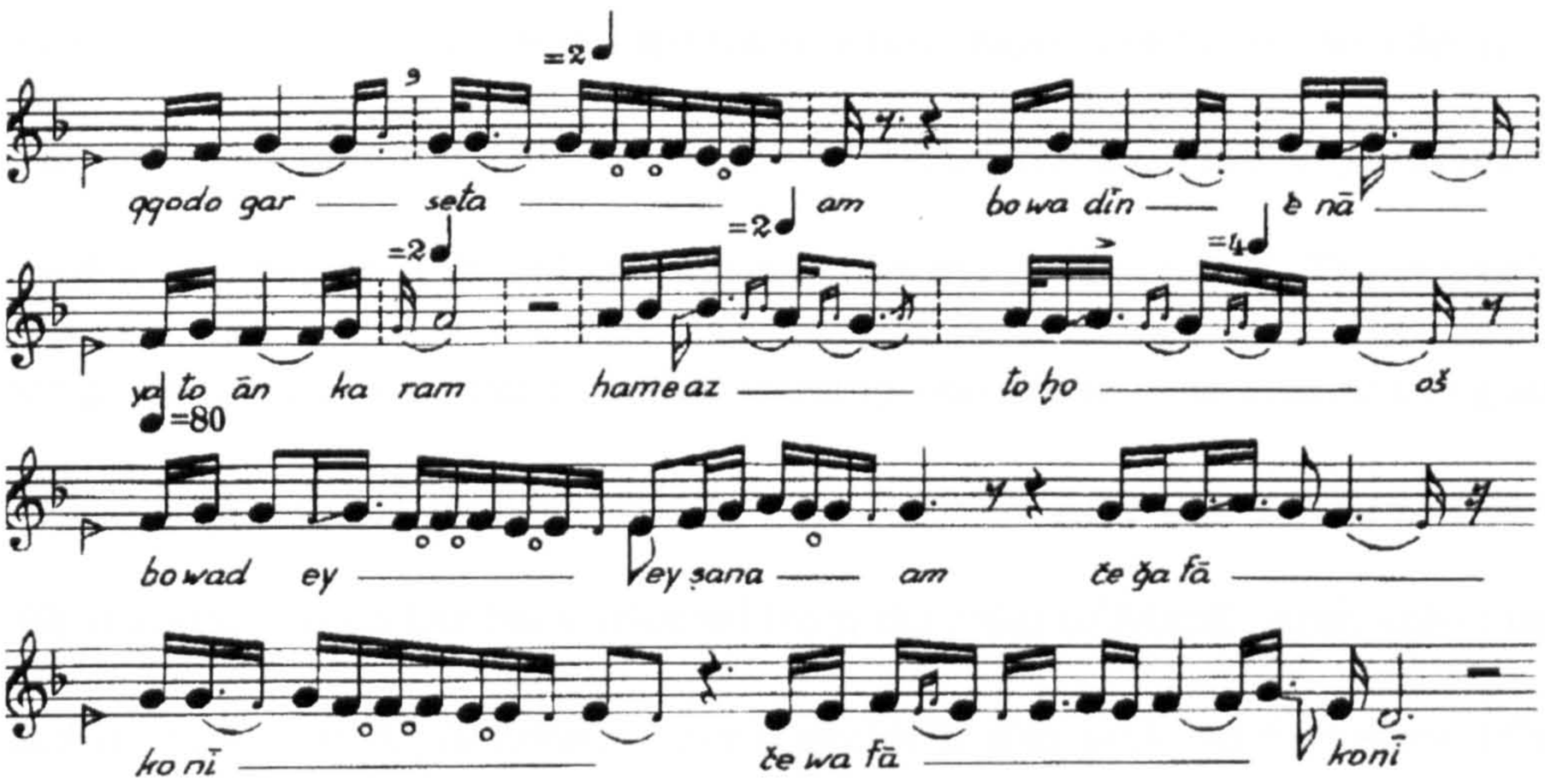


Figure 3.10: Chahār pāreh *in* āvāz *of* Abū-atā *with decorations and ornamentations (Massoudieh 2000: 44-5; also CD2 #11 by Karimi)*

Dynamic Pattern

Musical dynamics are relative values. This is partly explained by the differences in performance techniques on percussion and stringed instruments, the nature of blowing on wind instruments, and the intonation of vocal sound, and partly by the fact that every instrument operates in two, three or four registers defined by differences in tonal colour and dynamic area. Whereas in many cases dynamics in Western music are explicitly notated, in Persian music the performer must infer dynamic on the basis of his or her understanding of form of the *gūsheh*, its content and its expression. In such an absence of explicit dynamic markings the best guideline for the performer is to follow tradition and the internal sense of the music. Dynamic style is one of the aspects of musical performance which may be approached after the initial stages of a notation-based music education; however, in traditions like this where music is learned via hearing rather than by sight reading, it comes as early as pitch and rhythm when the student emulates his master in order to traditionally perform the *radīf*.

In practice, it is rather difficult to split dynamics from the other features of music making such as rhythmic and melodic intonations. Nevertheless, it is possible to draw

attention more specifically toward the dynamic pattern of the *gūsheh-ha* and make the best use of such patterns in improvisation. In fact, there are some *gūsheh-ha* which are marked out expressly based on their specific dynamic patterns. The example selected for presentation here, *Sūz o godāz* (burning and sorrow), is among the *gūsheh-ha* in which dynamics has the central role in delivering a special expression. The version of *Sūz o godāz* shown has been selected from the *radīf* of Mirzā 'Abdullāh (Figure 3.11), and is in *āvāz* of *Bayāt Isfahan*. *Sūz o godāz* is also performed in some other modes, such as the *āvāz* of *Dashtī*.

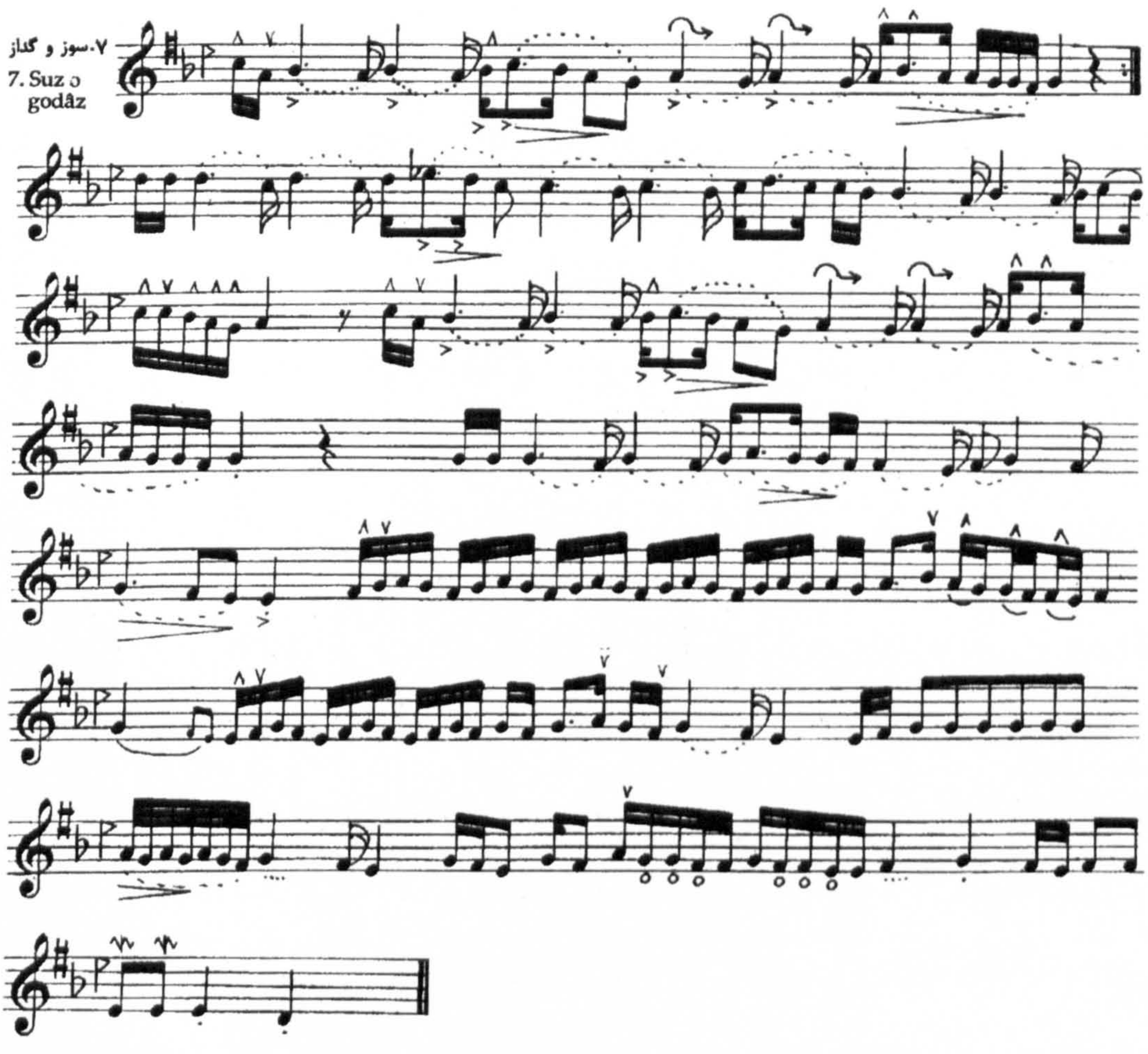


Figure 3.11: Sūz o godāz *in* Bayāt Isfahan *from the* radīf *of Mirzā 'Abdullāh (During 1991: 273; also CD2 #12 by Boroumand)*

There are two significant characteristics in the dynamic pattern of this *gūsheh*. The first one is the diminuendos that occur at the end of motives within each phrase and

the second one is that of performing tremolos very softly in the manner of legato (listen to CD2 #12 by Boroumand). Even though the *gūsheh-ha* marked by dynamic shape are not many in the *radīf*, there are still more than enough to illustrate the significance of this issue in the tradition of the *radīf* (see, for instance, *Naghmeh* in *dastgāh Chahārgāh*, and *Mehrabāni* in *āvāz* of *Bayāt turk*).

The rhythmic structure of the *radīf*

There are numerous ways of categorising the *gūsheh-ha* in the *radīf* of Iranian music, such as their placement within *dastgāh-ha* and *āvāz-ha*, the order of their performance, and their popularity. For instance Farhat (1990) categorises the *gūsheh-ha* based on the *dastgāh* in which the *gūsheh* is performed. For the purpose of this thesis, however, the most adequate way of categorisation is to classify them based on their rhythmic constructions. In such a view, *gūsheh-ha* fall into three groups, fixed metre, free metre and stretchable or elastic metre. The approach selected to analyse the rhythmic structure of each group, as mentioned earlier in the introduction of this chapter, involves two steps. The first step is presenting and analysing different musical examples from various versions of *radīf-ha* in order to establish the main rhythmic formation of every *gūsheh*. In the second step, the essential rhythmic pattern of every *gūsheh* will be compared with the standard Persian poetic patterns and the rhythmic cycles analysed in previous chapters.

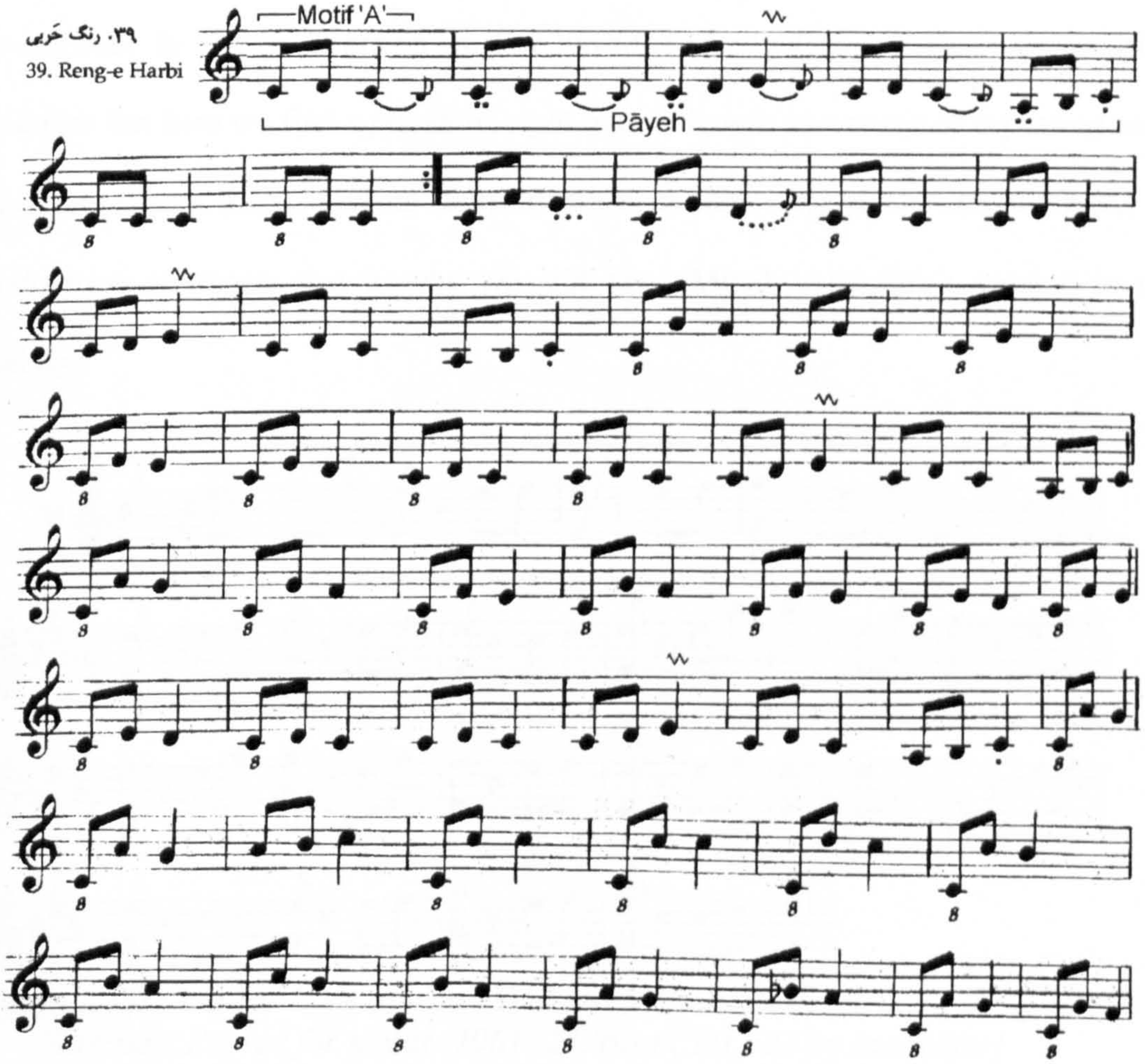
Fixed Metre

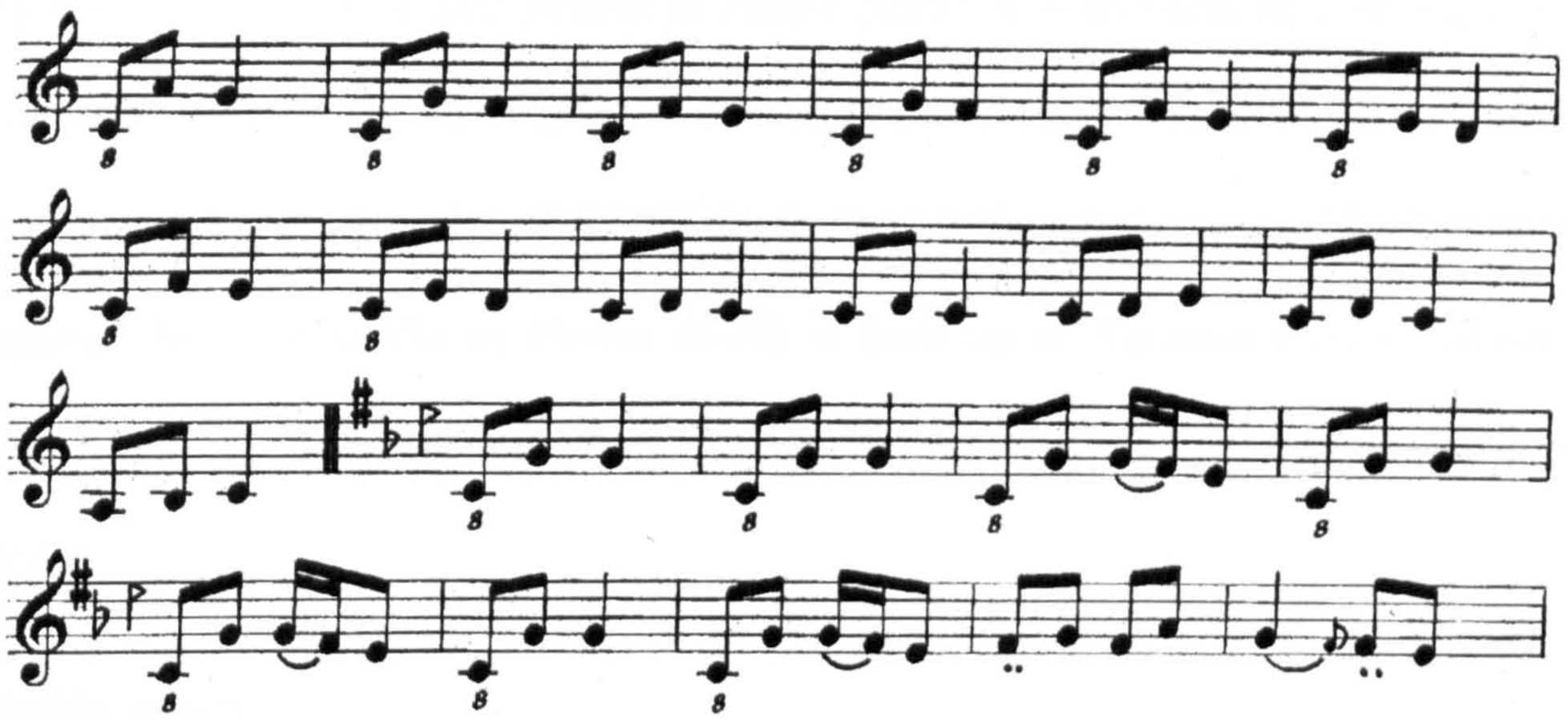
The most basic rhythmic structure found in the *radīf* is what might be called a square rhythm. By the term square rhythm, contemporary Iranian musicologists refer to the *gūsheh-ha* in which rhythmic structure subdivides into set of two beats, rather similar to the Western concept of duple or quadruple metre. By square rhythm I am referring to those *gūsheh-ha* in which this square rhythmic pattern is used either in main or in some phrases; however, the number of *gūsheh-ha* entirely based on a square rhythm are limited. The examples that have been selected for analysis here are among those *gūsheh-ha* in which this rhythmic type plays an identifiable role in their construction.

Ḥarbī

The first example here is *reng-i Ḥarbī*. *Reng* is one of the common forms in Persian music, and used to be played for dance (to be examined in the next chapter); *Ḥarbī* means 'for war.' However, there is no indication of the actual use of this piece in war. *Reng-i Ḥarbī* is an instrumental piece in the *dastgāh* of *Māhūr* (Figure 3.14). The rhythmic pattern of this *reng* is very simple, based upon a simple motif (A) repeated in melodic sequences. The piece contains a *pāyeh* (recurring phrase) of five bars (indicated in Figure 3.14), onto which every other melody descends. The departure from and return to this *pāyeh* continues until line eleven where, accompanying a modulation in the melody, the rhythmic pattern also gradually begins to become varied. Nevertheless, these variations do not affect the square shape of the rhythmic pattern.

۳۹. رنگ حَربی
39. Reng-e Harbi





Note: Pitches marked 8 are performed one octave lower.

Figure 3.14: Reng-i Ḥarbī *in* Māhūr *from the* radīf *of Mirzā 'Abdullāh (transcribed by During 1991: 235-7; also CD2 #13 by Boroumand)*

Although During has transcribed this *gūsheh* to begin on the downbeat, the second beat of each motif is more accented than the first beat. In the prescriptive transcription of Farāmarz Pāyvar (1961: 28) this problem has been avoided by shifting the notation by one beat. In Pāyvar's version we also have the same *pāyeh* repeated between other melodies but here we find a *pāyeh* of eight bars in length as a result of repeating some motives (Figure 3.15). Due to simplification in this version, we do not have the modulation anymore; that is why we still need Mirzā 'Abdullāh's version in this analysis.

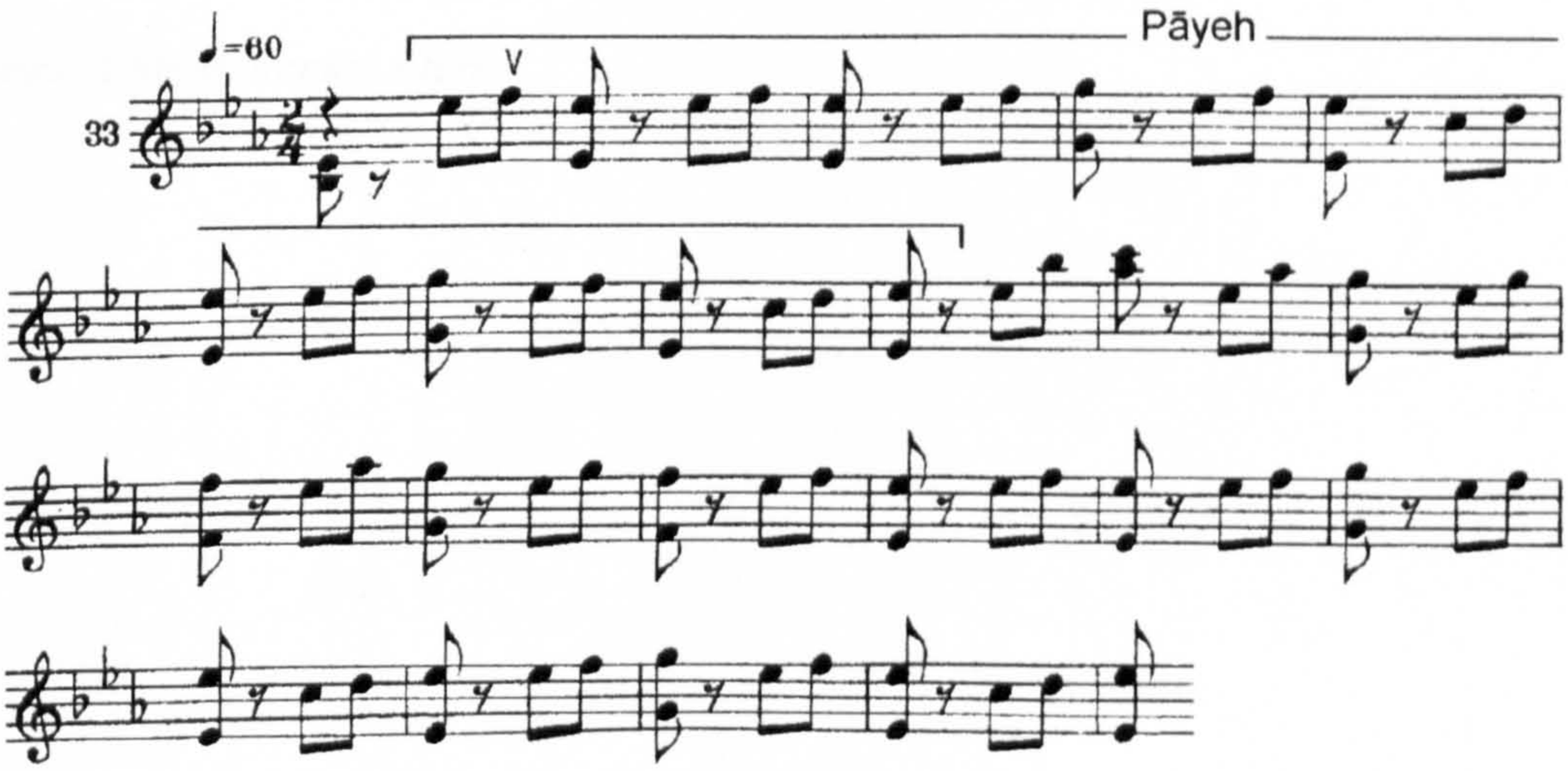
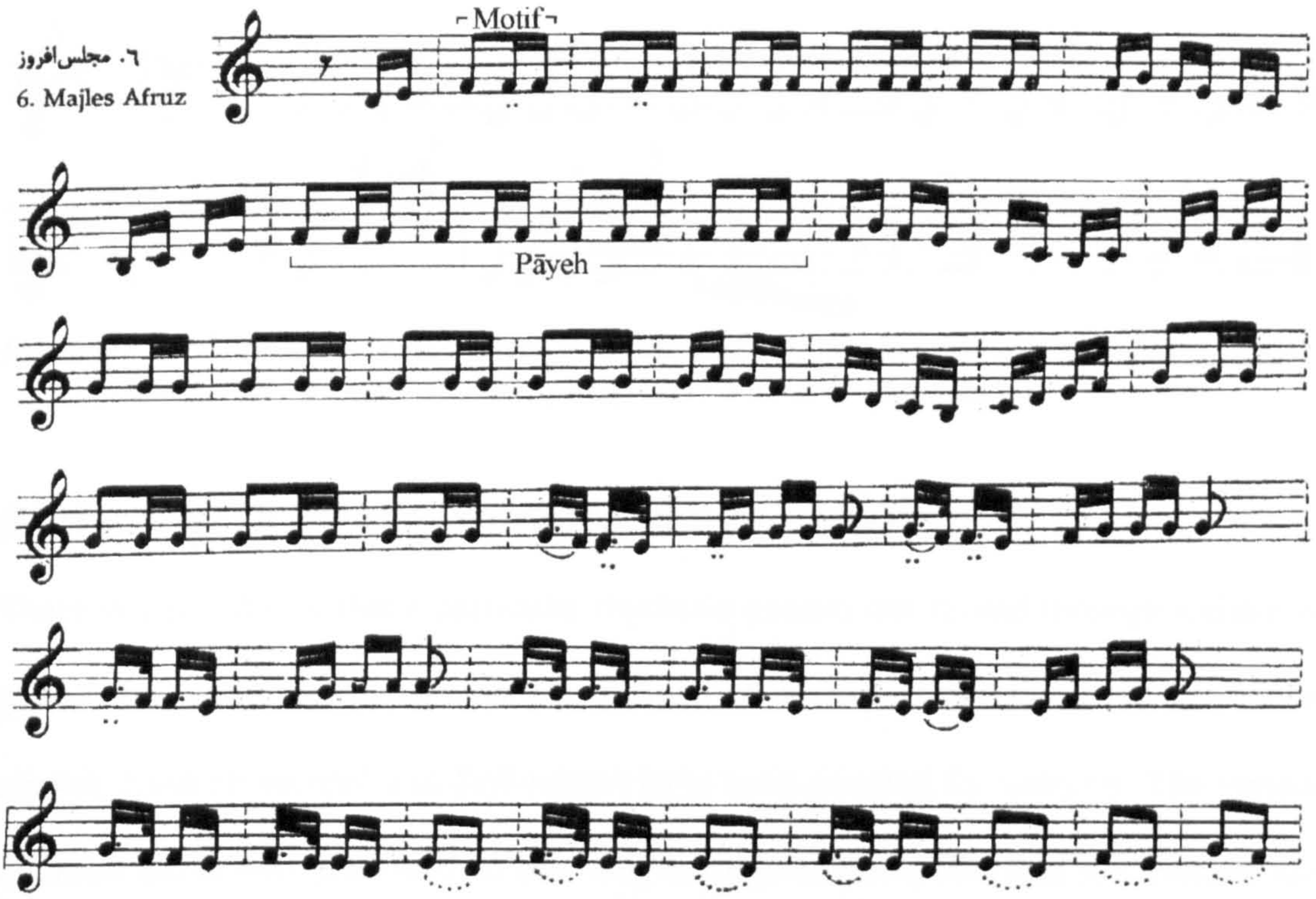


Figure 3.15: *First few lines of* reng-i Ḥarbī *in* Māhūr, *prescriptive transcription of Farāmarz Pāyvar for* santūr *(1961: 28; also CD1 #04 by Azadehfar)*

By comparing the rhythmic pattern of *reng-i Ḥarbī* in both versions with the cycles examined in the previous chapter, it can be found that the rhythmic pattern in this *reng* is similar to the cycles of *Khafīf thaqīl* and *Mokhammas ṣaghīr*. *Khafīf thaqīl* as reported by Quṭb al-Dīn in *Durrat al-Tāj* is built up of Tananan (⏑⏑-), which is exactly similar to the pattern of *Mokhammas ṣaghīr* reported by 'Abd al-Qādir and Jāmī.

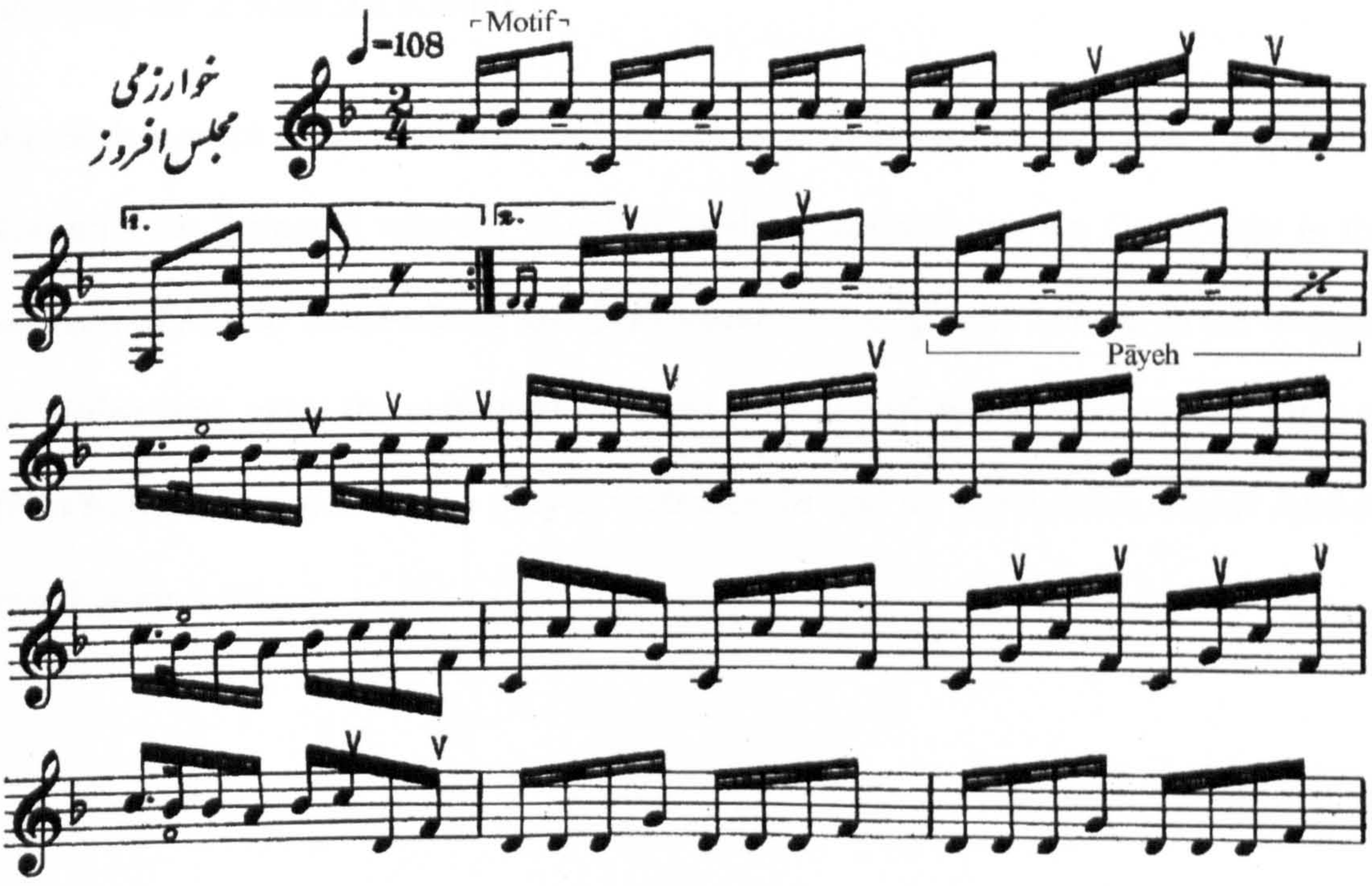
Majlis afrūz

Majlis afrūz is an instrumental piece in the *dastgāh* of *Māhūr*. The basic rhythmic pattern of the *gūsheh* is also very simple, again consisting of a single motif. The *pāyeh* in this piece is four repetitions of the motif. *Majlis afrūz* is mainly constructed on a fourth above the tonic of *Māhūr*. As mentioned above, there is no sign of this *gūsheh* in the vocal *radīf-ha*. The two versions of *Majlis afrūz* reported here are from the instrumental *radīf-ha*, the first one from the *radīf* of Mirzā 'Abdullah (Figure 3.16) and the other from the *radīf* of Sabā (Figure 3.17). There is slight difference in the accentuation of the basic motif in these two versions, which becomes clearer by listening to the examples on CD2 #14 and CD1 #05. However, in both cases the rhythmic pattern of *Majlis afrūz*, like *Ḥarbī*, is based on the cycles of *Khafīf thaqīl* and of *Mokhammas ṣaghīr*.



Note: as is seen from the figure, the main time signature of this version of *Majlis afrūz* is 2/8. However, some bars have one beat more (3/8).

Figure 3.16: Majlis afrūz *in* Māhūr *from the* radīf *of Mirzā 'Abdullāh (transcribed by During 1991: 212; also CD2 #14 by Boroumand)*



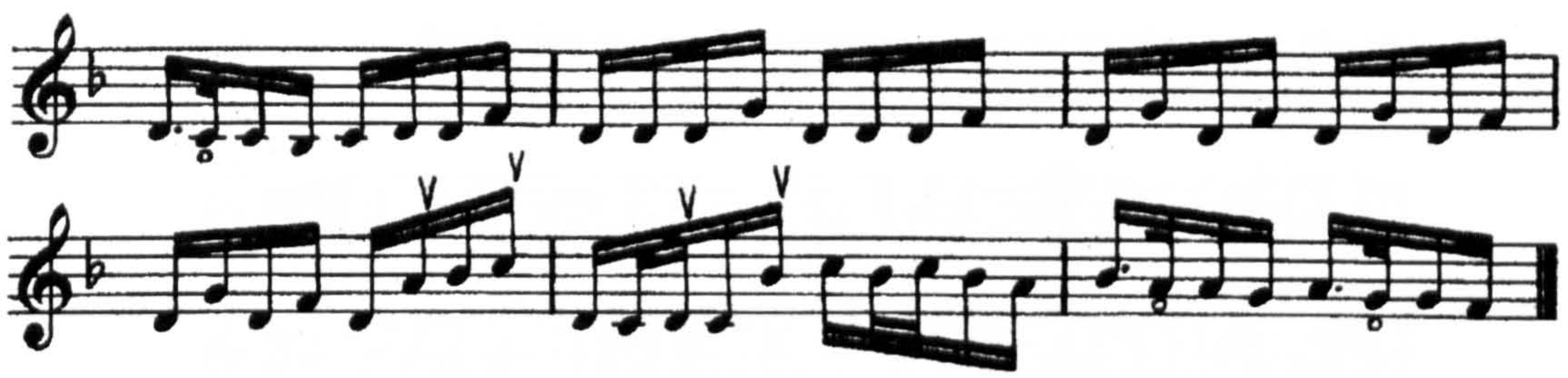


Figure 3.17: Majlis afrūz *in* Māhūr *from the* radīf *of Sabā—this gūsheh also called* Khārazmi *in this* radīf *(1981:7; also CD1 #05 by Azadehfar)*

Sāqī-nāmeh, Koshteh-mordeh and Ṣūfī-nāmeh

There is a possibility that a particular rhythmic pattern can spread through a chain of *gūsheh-ha*. In the following example, a chain of three *gūsheh-ha* consisting of *Sāqī-nāmeh*, *Koshteh-mordeh* and *Ṣūfī-nāmeh* have been selected for analysis. The version of these *gūsheh-ha* presented in the *radīf* of Mirzā 'Abdullāh does not contain any poem, which means that they are considered instrumental pieces, albeit still influenced by the structures of poetry. Since the rhythmic structure of *Sāqī-nāmeh* is one very much used in Persian classical music, I also present two other versions from the *radīf-ha* of Sabā and Karimi.

Koshteh-mordeh (murdered [by love]; lover), which occurs in some other *radīf-ha* (in Karimi's for instance) where it is called in short *Koshteh*, can be found only in the *dastgāh* of *Māhūr*. *Sāqī-nāmeh* and *Ṣūfī-nāmeh* also originally belong to the *dastgāh* of *Māhūr*, but, since the pattern of intervals used in *Ṣūfī-nāmeh* matches the scale of *Homāyūn*, this *gūsheh* is also played in *Homāyūn* and its subdivision, *Bayāt Isfahān* (see Figure 3.18).

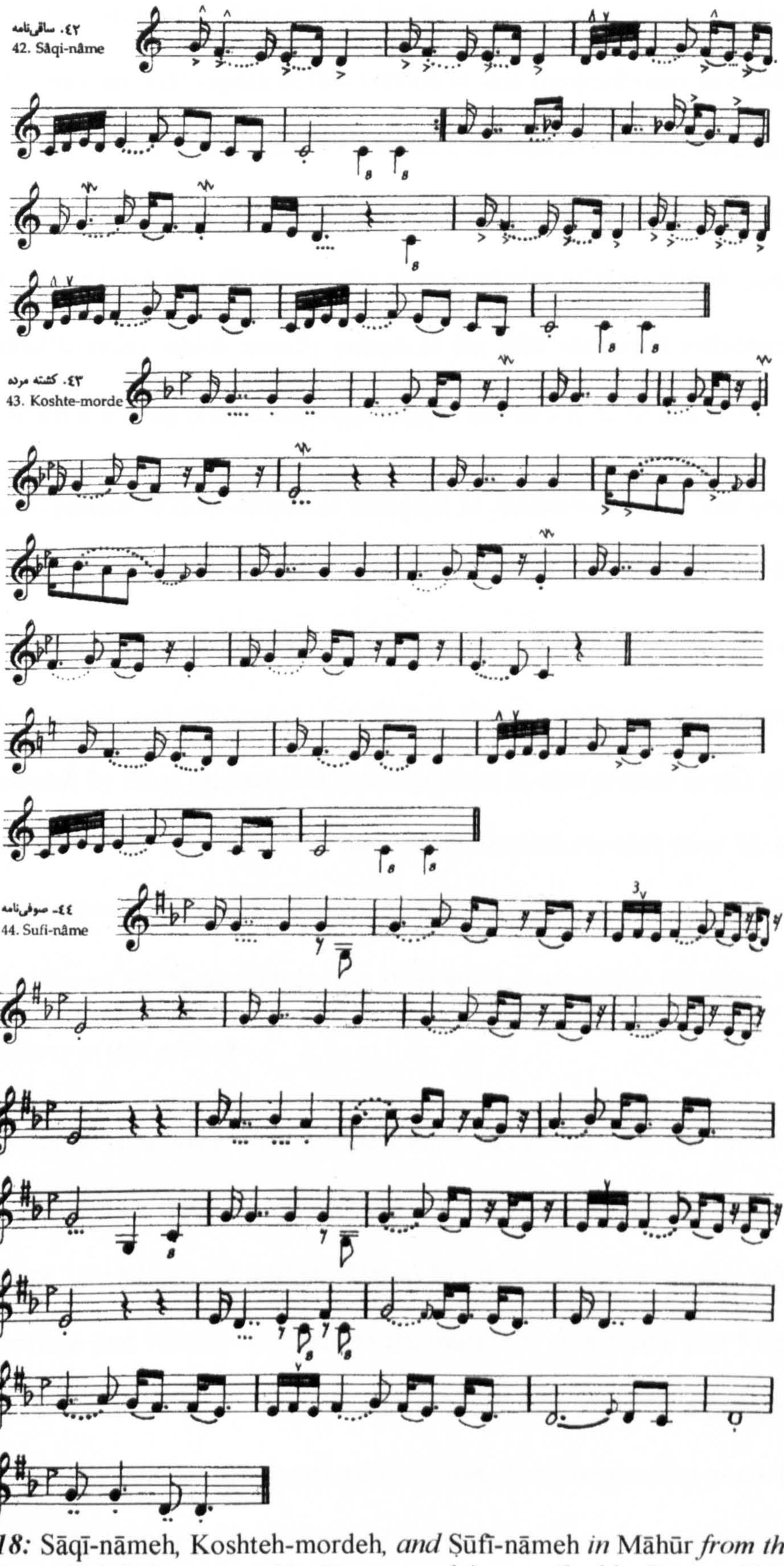


Figure 3.18: Sāqī-nāmeh, Koshteh-mordeh, *and* Ṣūfī-nāmeh *in* Māhūr *from the* radīf *of Mirzā 'Abdullāh as played by Boroumand (transcribed by During 1991: 240-41; also CD2 #15)*

Sāqī-nāmeh as presented in Figure 3.18 by Boroumand is a typical version of this *gūsheh*. The only unusual aspect of this version is that the performer has added some extra repetitions. In the first phrase, for instance, he repeats the first bar, causing the first half-phrase to become five bars instead of four. Nonetheless, this is a plain version of *Sāqī-nāmeh* that illustrates the characteristics of this *gūsheh*, such as the special embellishment which usually occurs at the fifth and eight syllables of each hemistich when it is sung (i.e., at the beginning of the bars 3, 4, 12 and 13).

The rhythmic pattern of *Sāqī-nāmeh* is followed in *Koshteh-mordeh*. The only major difference is that in *Koshteh-mordeh* a modulation occurs to a new note set including B♭ and E♭. Boroumand also plays extra repetitions in *Koshteh-mordeh*. He does not include the special embellishment, mentioned above, while in other versions of *Koshteh-mordeh* by other masters this embellishment is also present in this *gūsheh* as well. He turns back to *Sāqī-nāmeh* at the end of *Koshteh-mordeh* (line 9), and then performs *Ṣūfī-nāmeh*. Three notes change in the modulation from *Sāqī-nāmeh* to *Ṣūfī-nāmeh*, F♯, B♭ and E♭. Nevertheless, the rhythmic pattern stays the same, with no extra repetitions in this *gūsheh*.

The next example is another version of the same *gūsheh-ha* from the vocal *radīf* of Mahmud Karimi. The rhythmic characteristic of *Sāqī-nāmeh* in this version is the same as Mirzā 'Abdullāh's. However, Karimi has performed this version with much more decorations and vibrato—sometimes the vibrato is so extreme that Massoudieh attempted to transcribe it in the form of main notes (Figure 3.19). The first phrase, A, has eight bars, containing two equal half-phrases, both descending onto the note *pāyeh* (tonic). The first bar in this version is principally the same as the first bar in the previous version, with the difference that During preferred to represent the first grace

note as a main note (see Figure 3.20). In Karimi's version we also have the special embellishment at the fifth and eighth syllables, but here it occurs in the form of quintuplets with more emphasis. The major difference in the second phrase, A_1, is the occurrence of the special embellishment at the eleventh syllable of the first half-phrase (bar 12) as well as the fifth and eighth syllables.

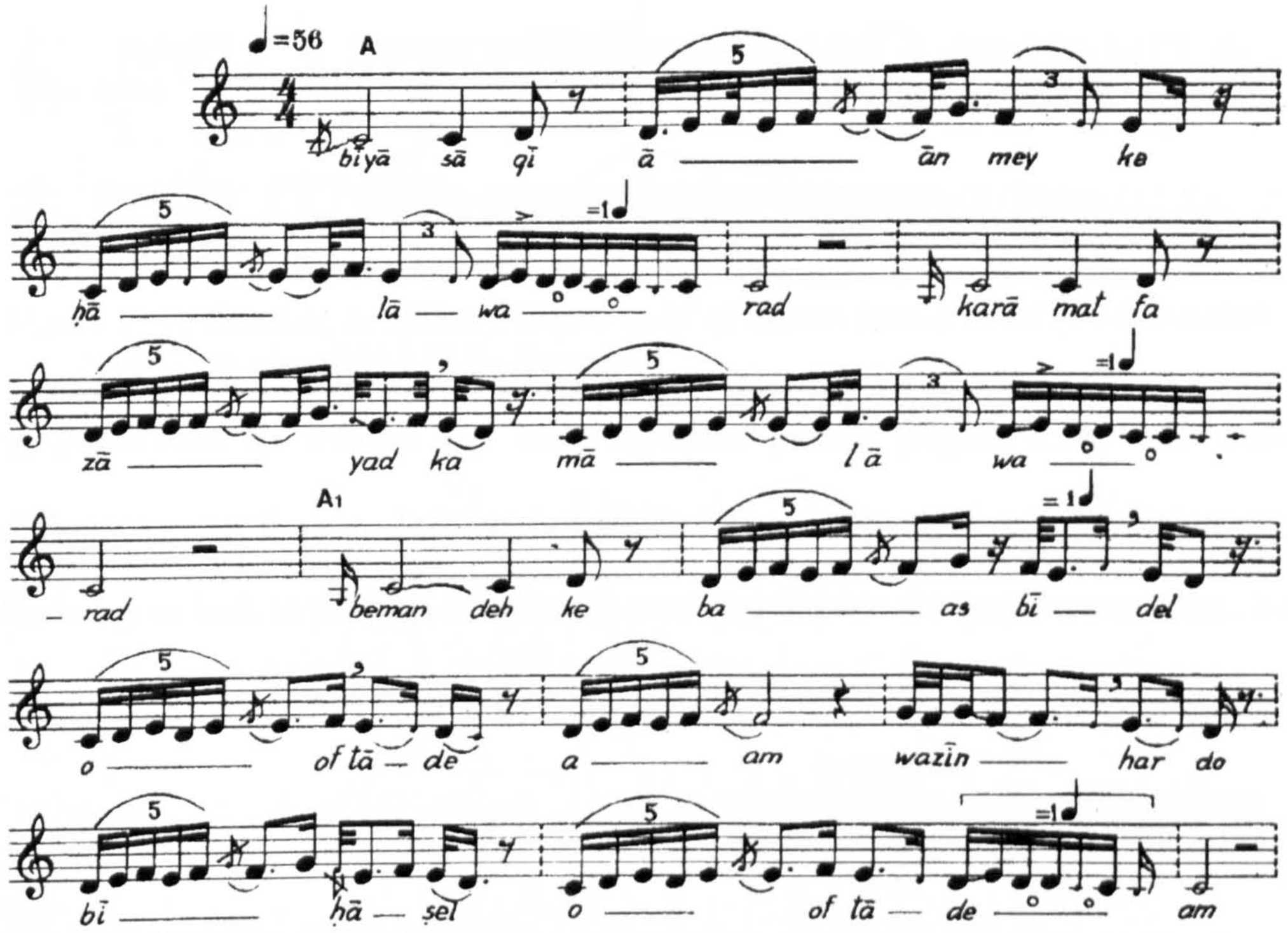


Figure 3.19: Sāqī-nāmeh *in* Māhūr *from the* radīf *of Karimi (transcribed by Massoudieh 2000: 177, also CD2 #16 By Karimi)*

Figure 3.20: *Comparison of the first bar in Mirzā 'Abdullāh's and Karimi's versions of* Sāqī-nāmeh,

Koshteh in Karimi's version has more variations in rhythm, as well as a modulation in its melodic pattern (Figure 3.21). The major difference is a change of the place of temporary cadences (i.e., the endings of half phrases), from the first to the second beats (see the second bar of line 2 and the third bar of line 3). The other apparent

difference is a changing of the status of the first syllable in each hemstitch from a grace note to a main note (line 1 bar 1; line 2 bar 3). Following his performance of *Koshteh*, Karimi returns to *Sāqī-nāmeh* and then modulates to *Ṣūfī-nāmeh*.

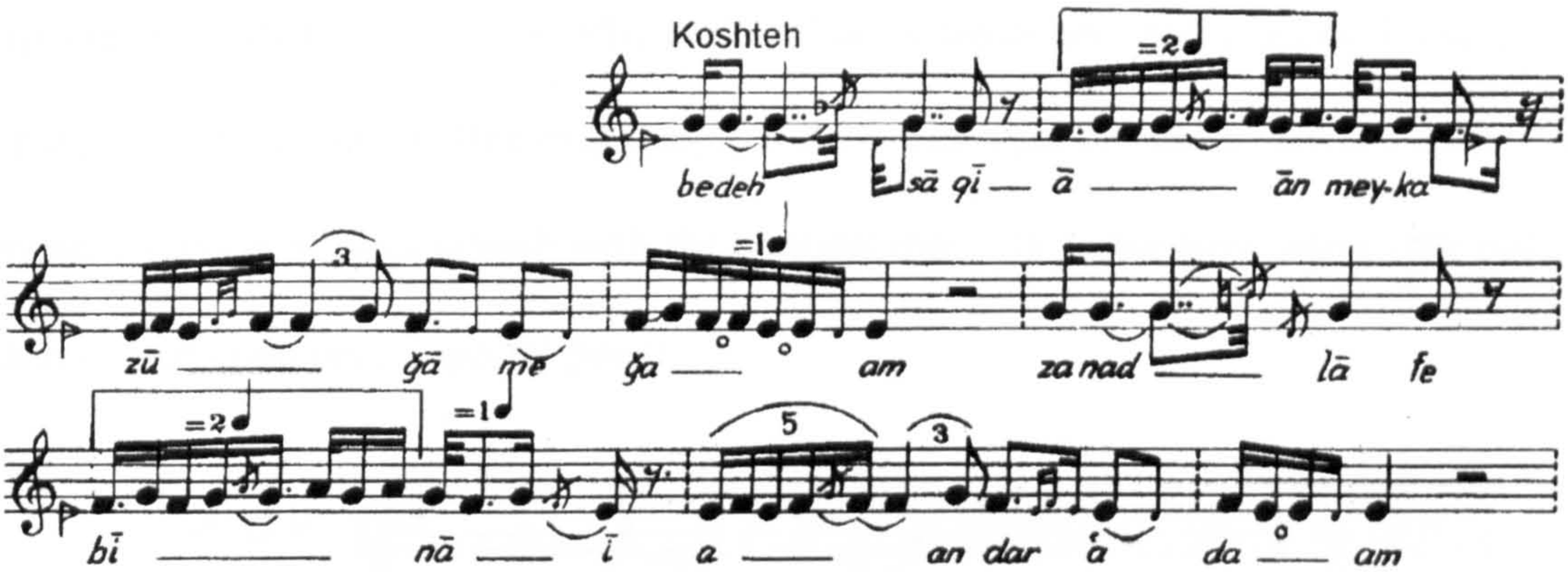


Figure 3.21: Koshteh, *in* Māhūr *from the* radīf *of Karimi (transcribed by Massoudieh 2000: 178; also CD2 #17 by Karimi)*

In *Ṣūfī-nāmeh* he follows the same rhythmic pattern (Figure 3.22). The only difference, apart from modulation, is a slight change in the shape of embellishments. Karimi goes back to the *Sāqī-nāmeh* at the end and finishes the performance where he had started.

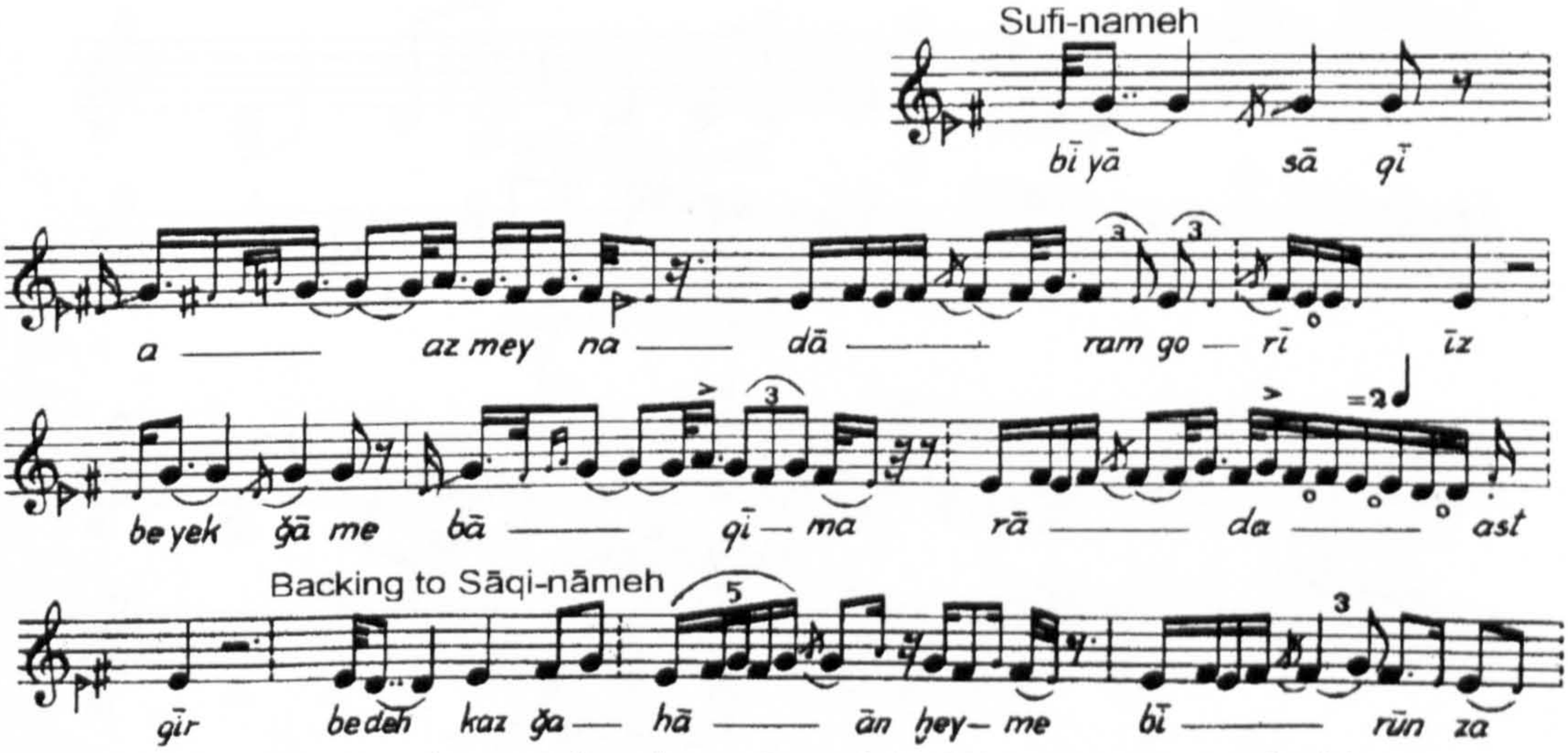


Figure 3.22: Ṣūfī-nāmeh *in* Māhūr *from the* radīf *of Karimi (transcribed by Massoudieh 2000: 178-79, also CD2 #18 By Karimi)*

The third version of *Sāqī-nāmeh* presented here belongs to the *radīf* of Sabā. This is a prescriptive version of *Sāqī-nāmeh* for *santūr* which includes the poetic text (Figure 3.23). Whereas the two previous versions were in *Māhūr* C, this version has been

notated in *Māhūr* F. The other difference is that this version has been notated in 2/4, in contrast with the two previous versions which were transcribed in 4/4. Nonetheless, as is seen from figure 3.23, the rhythmic structure is the same. We also have the special embellishment at the fifth and eighth syllables in each hemistich (see, for instance, bars 2 and 3). This example, like the version performed by Boroumand, is a typical version of *Sāqī-nāmeh* with the contrast that it does not have extra repetitions and indeed contains its special poem.

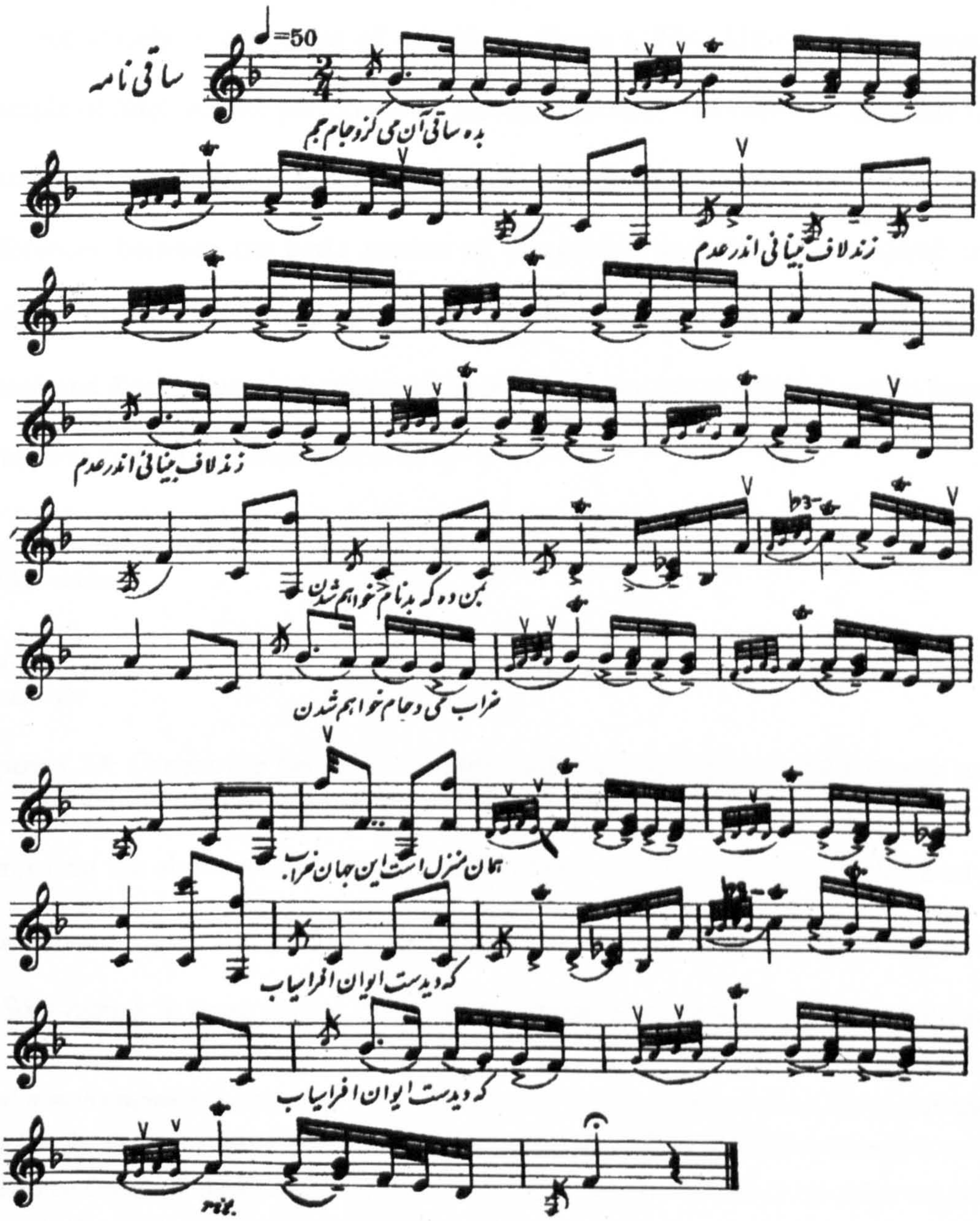


Figure 3.23: Sāqī-nāmeh *in* Māhūr *from the* radīf *of Sabā (1981: 28-9; also CD1 #06 by Azadehfar)*

Forṣat al-Dowleh Shīrāzī (1988: 319) identifies the rhythmic structure of *Sāqī-nāmeh* as being in the poetic form of *Maṣnavī* which is based on the *baḥr* of *motaqārib mothamman maqsūr*, that is Fa'ūlon, Fa'ūlon, Fa'ūlon, Fa'ūl (see Table of *'Arūẓ* in Chapter One).[6] Comparing different versions of the *gūsheh-ha* presented above shows that the rhythmic pattern used in *Ṣūfī-nāmeh* and *Koshteh-mordeh* in all versions of the *radīf-ha* follow the same pattern of longs and shorts but the rapport between the poetic metre of *motaqārib* and the pattern of the note values in the above examples is not kept closely in a number of occasions. Tsuge (1974: 238-41) also presents an example of *Sāqī–nāmeh* performed by Hoseyn Qavāmī. The rhythmic structure in his example is very similar to the examples presented above. However, he fails to spot the differences between the basic pattern of the *gūsheh* and that of *motaqārib* in his analysis. In Figure 3.24 I simplify the basic rhythmic pattern of *Sāqī-nāmeh*, *Ṣūfī-nāmeh* and *Koshteh-mordeh* presented above and compare it with the poetic metre of *motaqārib* (varied syllables indicated by *).

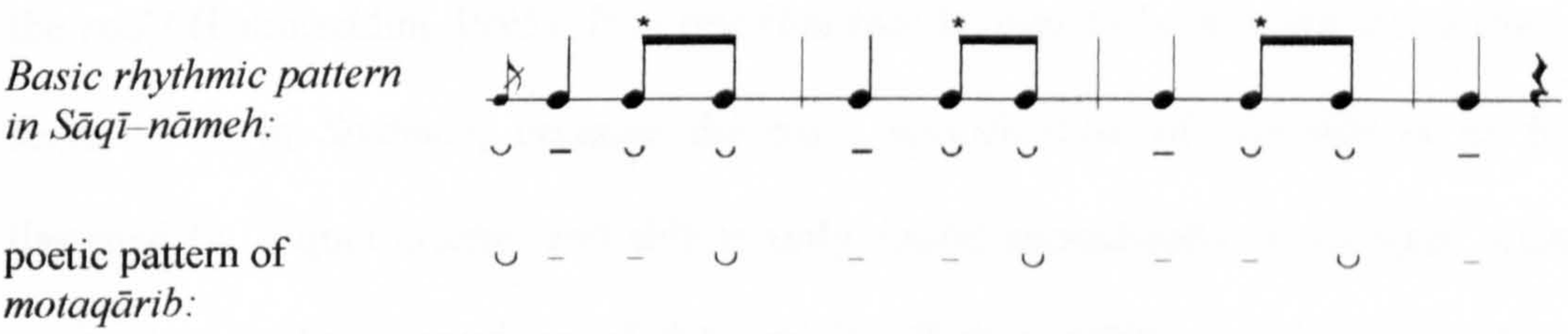


Figure 3.24: *Comparing the basic rhythmic pattern in* Sāqī-nāmeh, Ṣūfī-nāmeh *and* Koshteh-mordeh *with the poetic pattern of* motaqārib

Comparing the above simplified rhythmic pattern with the rhythmic cycles analysed in previous chapter also revealed that there is no immediately corresponding pattern for *Sāqī-nāmeh* in those cycles; however, by having a closer and deeper look it can be

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[6] *Sāqī-nāmeh* originally is one of the forms of *Maṣnavī* in which the poet calls to *sāqī* (a cupbearer, a metaphor for God who gives understanding and knowledge). Dehkhodā (2001) identifies the first person who developed the form of *Sāqī-nāmeh* as the poet Nezāmī Ganjavī (1136-1218), but Salmān Sāvojī (d. 1377) and Hāfez Shīrāzī (d. 1391) were the first to dedicate a separate chapter to *Sāqī-nāmeh* in their poem books, *Dīvān*.

seen that *Sāqī-nāmeh* fits the pattern of the *Khafīf thaqīl* with slight adjustments. If the cycle starts from the sixteenth *naqareh* and the fifteenth *naqareh* is changed to a rest, the rhythmic pattern of *Sāqī-nāmeh* perfectly matches *Khafīf thaqīl*.

Gereyli

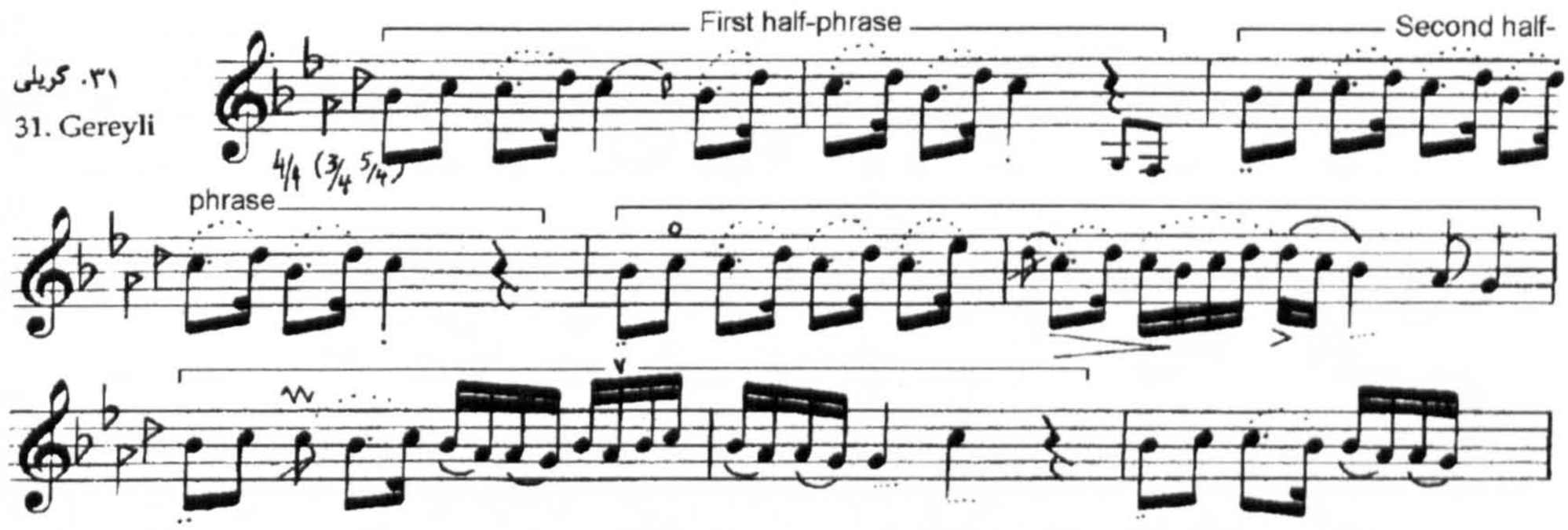
Another popular *gūsheh* with square rhythm is *Gereyli*. It is said that the name of *Gereyli* has been derived from *gerye-i Layli* (crying of Layli, the sweetheart of Majnūn, a highly symbolic character in Persian and Arabic poetry). Tsuge (1974: 243) suggests that the name of this *gūsheh* might have come from Turkic epic tradition of *Köroğlu* but he also confirms that the verses sung in this particular *gūsheh* have no connection to *Köroğlu*.

This *gūsheh* is based on the second tetrachord of *Shūr*. Some scholars believe that *Gereyli* was originally a *taṣnīf* (a compositional form, to be examined in the next chapter) in *Shahnāz*, which, with the passing of time, has been placed in the body of the *radīf* (Fakhreddini 1995). It is possible that it used to be a *taṣnīf* but it does not seem to be in *Shahnāz*, because the main specification of *Shahnāz* is its fourth flattened by a quartertone, and this is only found sporadically in *Gereyli*. Another suggestion is that *Gereyli* is of folk origin (Farhat 1990), but there is a lack of evidence for this suggestion too.

The rhythmic shape of *Gereyli* has been described in various ways. There are also slight differences between the vocal and instrumental versions of this *gūsheh*. Farhat (1990: 127) reported a simple instrumental version of *Gereyli* based on the *radīf* of Mūsā Ma'rūfī (1963: 67). Unfortunately, this version, which Farhat transcribes in 2/4 time, is not very typical of *Gereyli* more generally. For one thing, it is difficult to distinguish phrase endings in Farhat's notation (1990: 127). Sabā (1980: 26-7), on the

other hand, describes this *gūsheh* as being in free metre, but he too cites an uncommon version which is not representative of *Gereyli* in general.

A more typical version of *Gereyli* is presented in the *radīf* of Mirzā 'Abdullah (Figure 3.26). Even though this is an instrumental version of *Gereyli*, the rhythmic pattern is based on the poetic metre of the *baḥr Hazaj* consisting of four Mafā'īlon in each hemistich.



Note: As is seen from the figure, the main time signature of this version of *Gereyli* is 4/4. However, some bars have one beat less (3/4) or one beat more (5/4).

Figure 3.26: *First three lines of* Gereyli *in* Shūr *from the* radīf *of Mirzā 'Abdullāh (transcribed by During 1991: 105; also CD2 #19 by Boroumand)*

The first characteristic of this *gūsheh*, as seen from the above Figure, is that every rhythmic motif consists of a cluster of two bars (see, for instance, bars 1 and 2). The other characteristic of the rhythmic pattern of *Gereyli* is the special way of fitting the syllables of the poem onto the melody. To illustrate this characteristic of *Gereyli* I will present a vocal version of this *gūsheh*.

Figure 3.27 is the first two stanzas of *Gereyli* presented in the *radīf* of Mahmud Karimi. He performed a complete vocal version of this *gūsheh*, demonstrating all the specifications of *Gereyli*. Massoudieh transcribed this *gūsheh* in 2/4 changing some parts to 3/4. By listening to the song (CD2 #20) it becomes clear that changing the metre in some bars to 3/4 is inappropriate. For instance, in the way Karimi sings, the third beat of bar 14 is stressed while the first beat of bar 15 is not. Hence, it would

help the reliability of identification of the rhythmic pattern of the *gūsheh* to keep 2/4 in bars 14 and 15. The same comment applies to bars 37 and 38 and to many other 3/4 bars in this *gūsheh*.

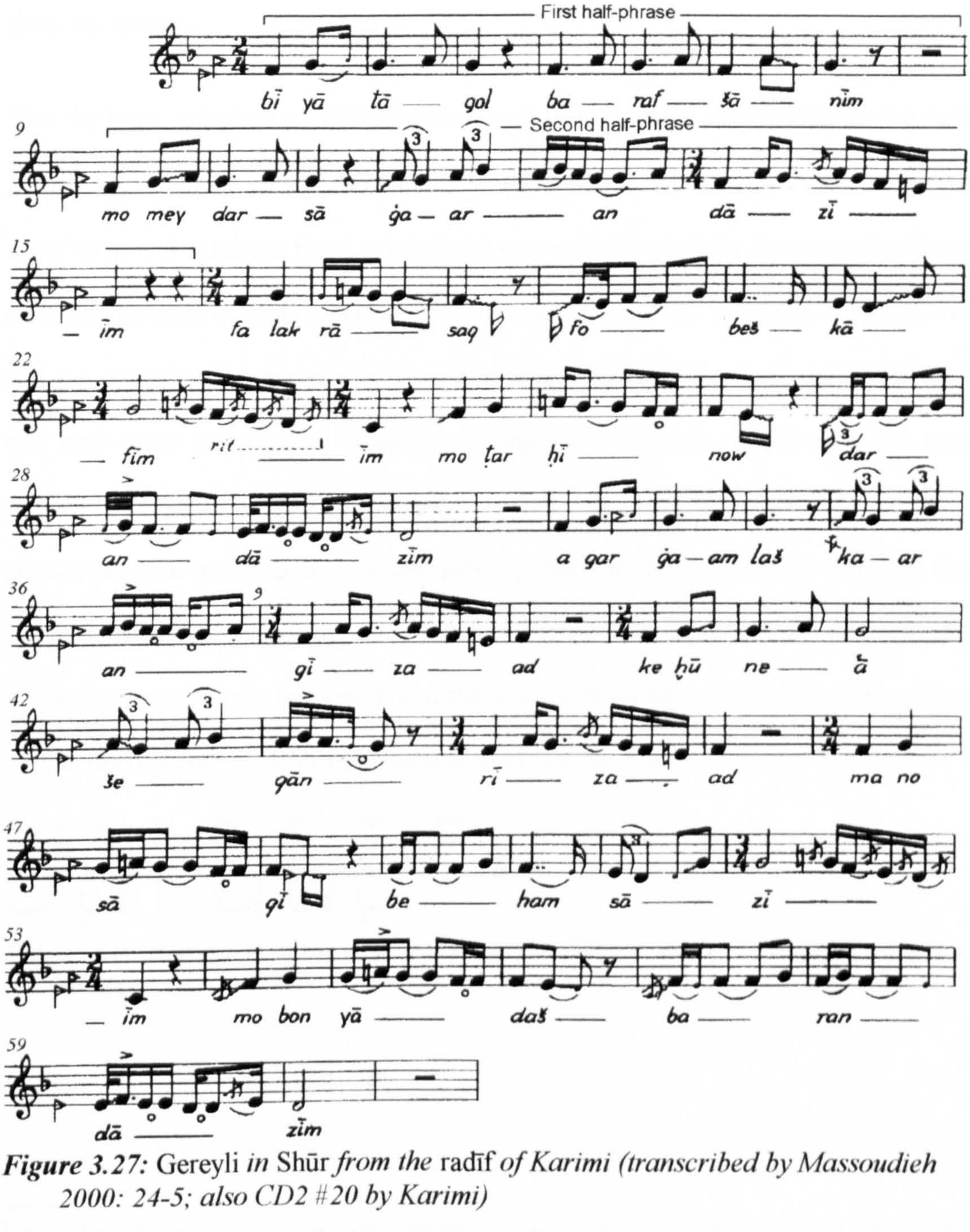


Figure 3.27: Gereyli *in* Shūr *from the* radīf *of Karimi (transcribed by Massoudieh 2000: 24-5; also CD2 #20 by Karimi)*

The reason Massoudieh faces this problem in transcribing the rhythm of this *gūsheh* is that the stress pattern of this *gūsheh* does not fit easily into Western measures. If we look thoroughly at the transcription of Massoudieh in contrast with Figure 3.26, we

find that he has expanded the metre such that most of the bars contain only one syllable of the song. Although this seems a convenient solution for the problem of text-setting, one result is that the transcription fails to represent the metric pattern of the piece clearly.

The rhythmic structure of this *gūsheh* is very much based on a poetic metre called *Hazaj*. In fact, every rhythmic motif in this *gūsheh* consists of a cluster of two Mafā'īllon and syllables fitted in a special way onto the melody. In every motif, each of which consists of eight syllables, the first, second and last syllables fit on one note and the rest of the syllables each take two notes. "Rapport between the poetic meter and note value in terms of length is no longer kept closely in this slow 2/4 meter melody" (Tsuge 1974: 246). In fact, the rhythmic cycle of this *gūsheh* is made up of sixteen *naqarāt* with a special accentuation pattern which is markedly different from the basic pattern of *Hazaj* in some distance. Figure 3.28 illustrates the simplification of the rhythmic pattern in *Gereyli* and the way each syllable is fitted to music; Figure 3.29 is the representation of the rhythmic cycle of *Gereyli*.[7]

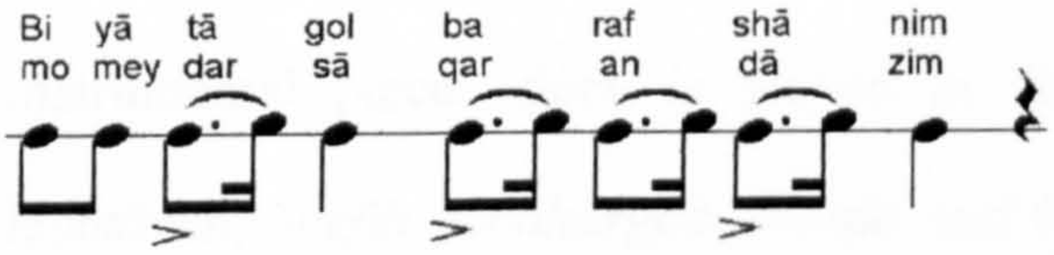


Figure 3.28: *Overview of the rhythmic pattern in* Gereyli *and the setting of syllables to notes*

[7] Apart from the versions of *Gereyli* reported above, there are also two *gūsheh-ha* played before and after *Gereyli*, both in different rhythms. The first one is called *Moqaddameh-i Gereyli* (intro-*Gereyli*) and is reported in the *radīf* of Mirzā 'Abdullāh. The other one, called *Gereyli shasti*, is found in Mūsā Ma'rūfī's and some newly published *radīf-ha*, such as Pāyvar's. *Moqaddameh-i Gereyli* and *Gereyli shastī* are entirely instrumental.

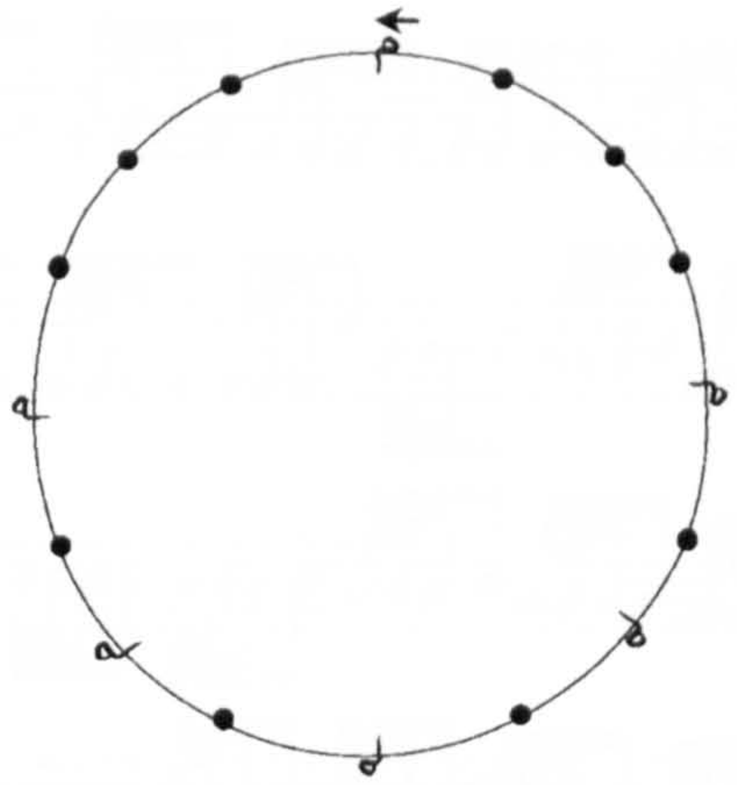
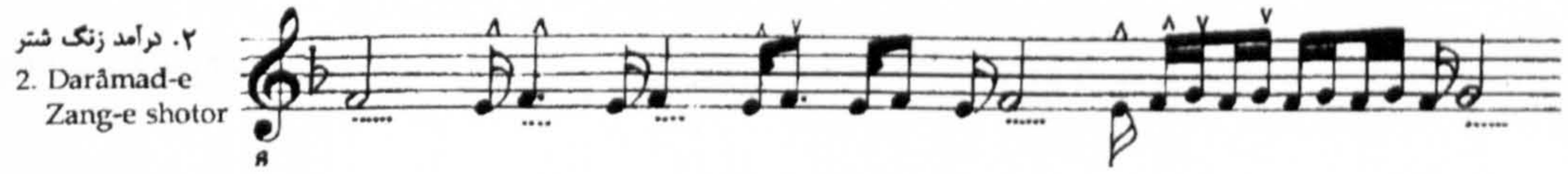


Figure 3.29: *Representing the rhythmic pattern of* Gereyli *as a cycle*

Zang-i shotor

As was mentioned at the beginning of this section, despite the fact that there are not many *gūsheh-ha* in which rhythm is organised on a square structure, there are many free-metered *gūsheh-ha* in which a square rhythm is used in some or the main part of their rhythmic phrasing. *Zang-i shotor* is a *gūsheh* which has been described as free-metred in many versions of *radīf-ha*; however, the square rhythm plays the main role in its rhythmic shape.

Zang-i shotor means camel bell and there are tales about the derivation of this *gūsheh* from the ringing of the camel's bells. *Zang-i shotor*, in the contemporary *radīf*, is an instrumental piece which is played in different *dastgāh-ha*, most commonly in *Homāyūn*, *Segāh*, *Chahārgāh*, *Māhūr* and *Rāst-panjgāh*. Figure 3.30 is a version of *Zang-i shotor* in *Rāst-panjgāh* and Figure 3.31 is a version of *Zang-i shotor* in *Homāyūn* from the *radīf* of Mirzā 'Abdullāh.



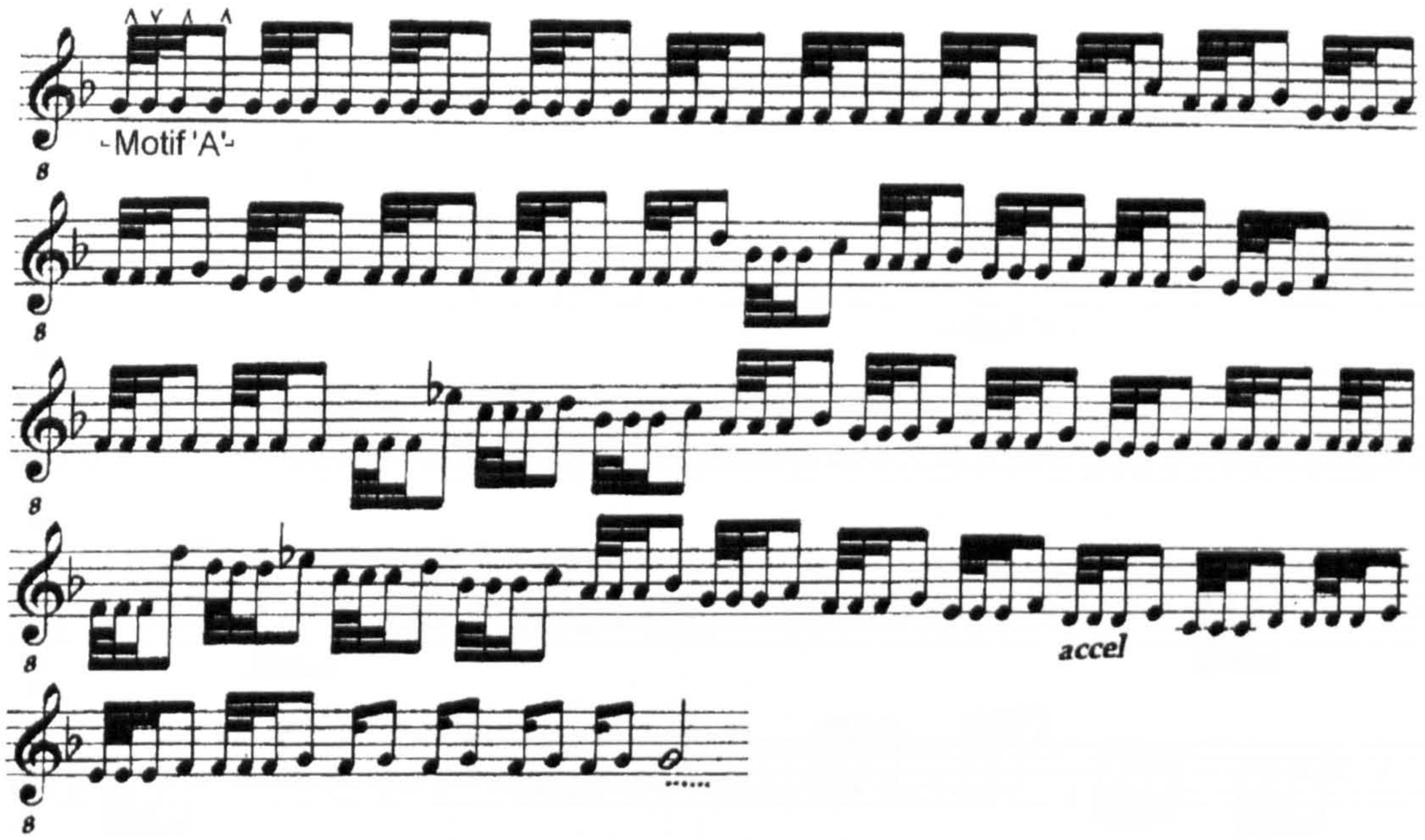


Figure 3.30: Zang-i shotor *in* Rāst-panjgāh *from the* radīf *of Mirzā 'Abdullāh (transcribed by During 1991: 298-9; also CD2 #21 by Boroumand)*

The most characteristic element in *Zang-i shotor* in both versions is a special simple motif, 'A,' which repeats in most parts of the *gūsheh* in sequences. This motif also is associated with a certain technique of left and right for hand movement on *santūr*, a special bow technique for *kamāncheh* and *qeichak*, and down and up plectrum strokes (called right and left respectively) on *tār* and *setār*. It is quite typical that this *gūsheh* starts at a ponderous tempo and gradually becomes faster.

The basic motif of this *gūsheh* can be simplified as Tananan Tan. This pattern corresponds the old cycle of *Hazaj thānī*. More over, the rhythm of this *gūsheh* also gives an impression of the sound effects of a caravan of camels running gently, especially with an increase in speed near the end of the performance (listen to CD2 #21 and #22).

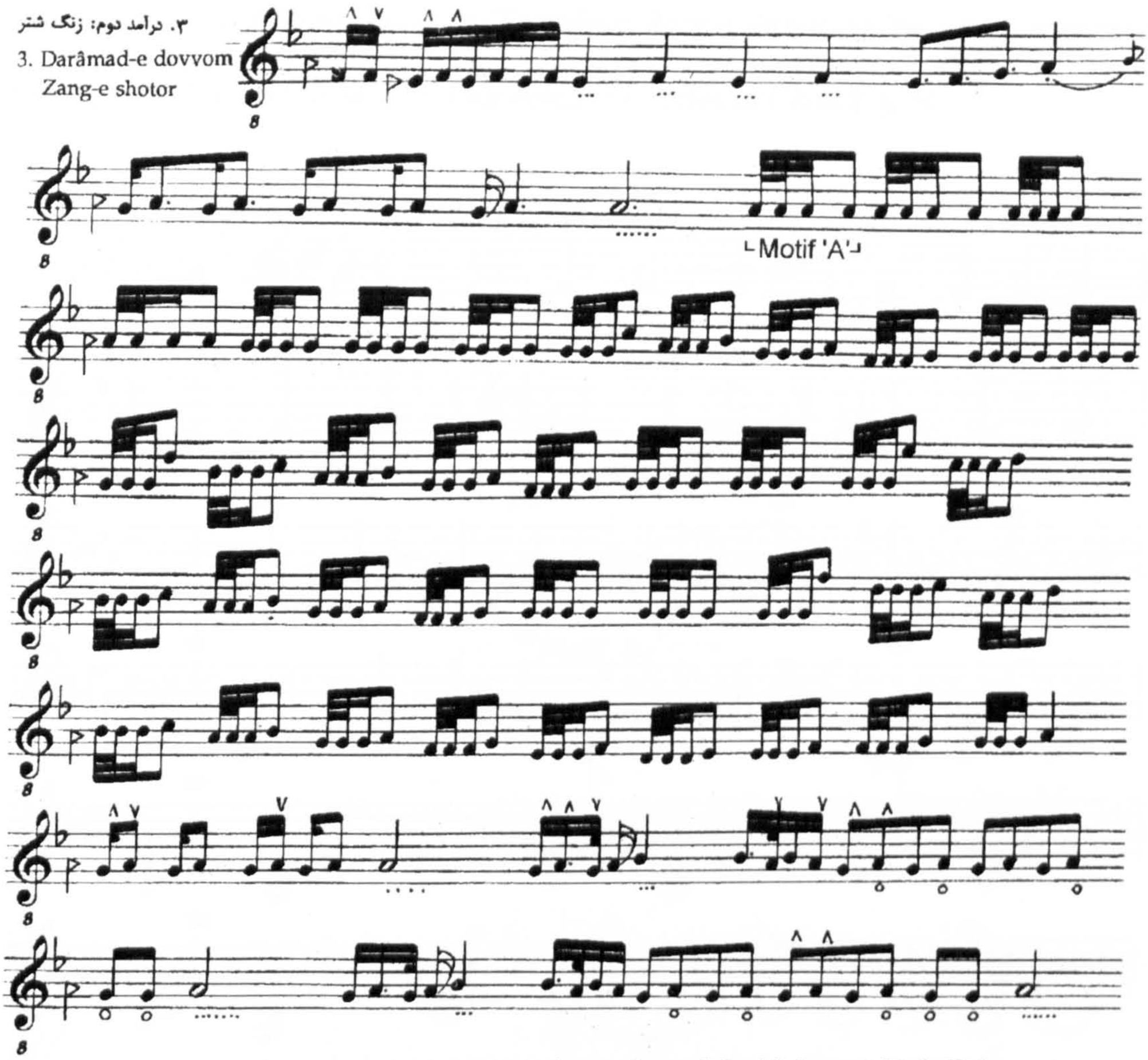


Figure 3.31: Zang-i shotor *in* Homāyūn *from the* radīf *of Mirzā 'Abdullāh (transcribed by During 1991: 245-4; also CD2 #22 by Boroumand)*

A version of this *gūsheh* called *Zang-i shotor qadīm* (old) is reported in the *radīf* of Sabā. The differences between *Zang-i shotor qadīm* and the versions presented above are so noticeable that it seems they are entirely from different roots. *Zang-i shotor qadīm* also consists of a simple but different rhythmic motif which is presented in three variations, indicated in Figure 3.32 by A_1, A_2 and A_3. This rhythmic motif is matched to the pattern of Tananan (⏑⏑-) or its equivalent values (⏑⏑⏑⏑ in A_2 and - - in A_3). This means that the rhythmic pattern of *Zang-i shotor qadīm* corresponds to the cycle of *Chahār ẕarb*. Every cycle in *Chahār ẕarb* consists of twenty-four

naqarāt equivalent to six Tananan. Therefore, *Zang-i shotor qadīm*, which consists of twenty-four Tananan, is built of four complete cycles of *Chahār ẕarb*.

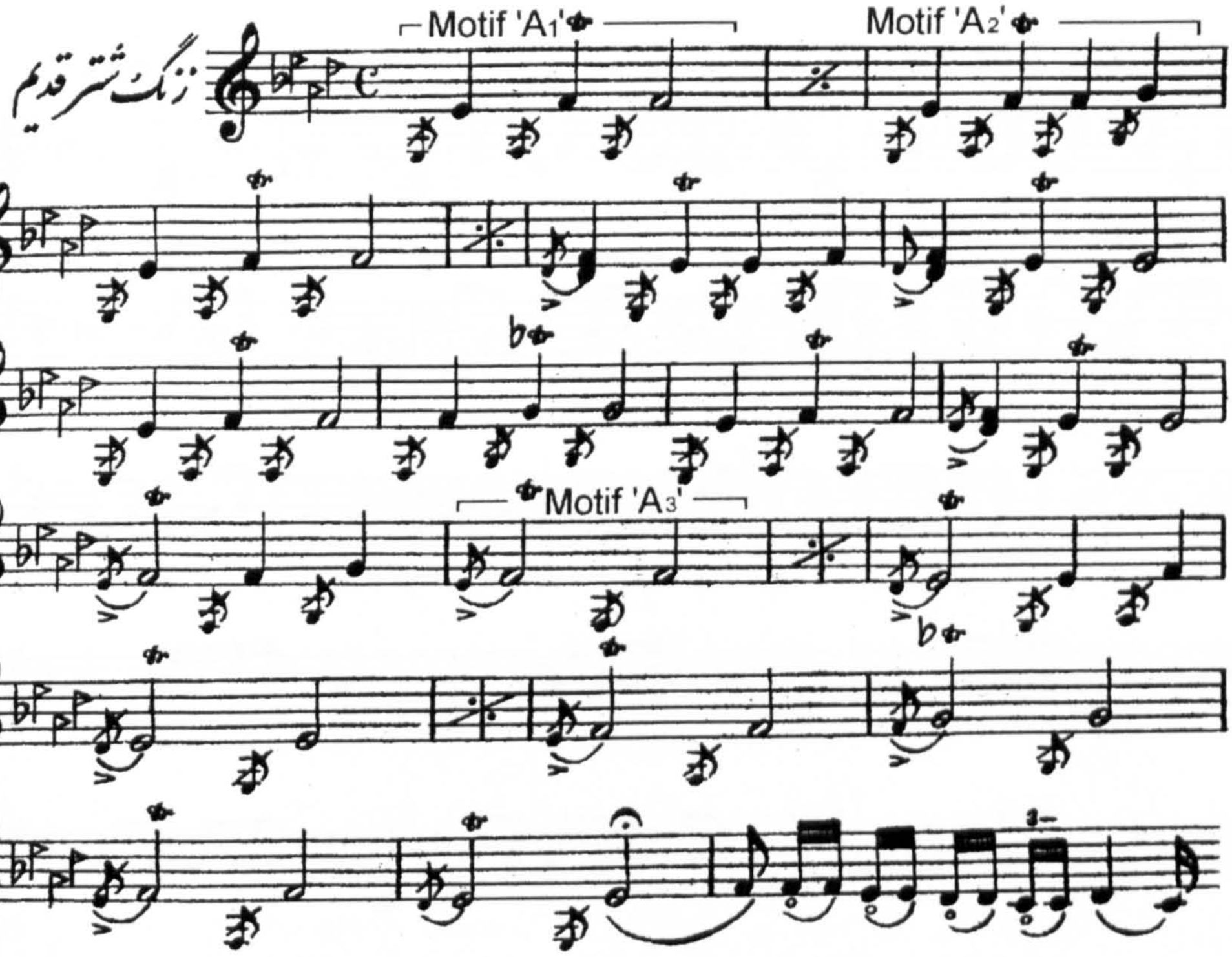
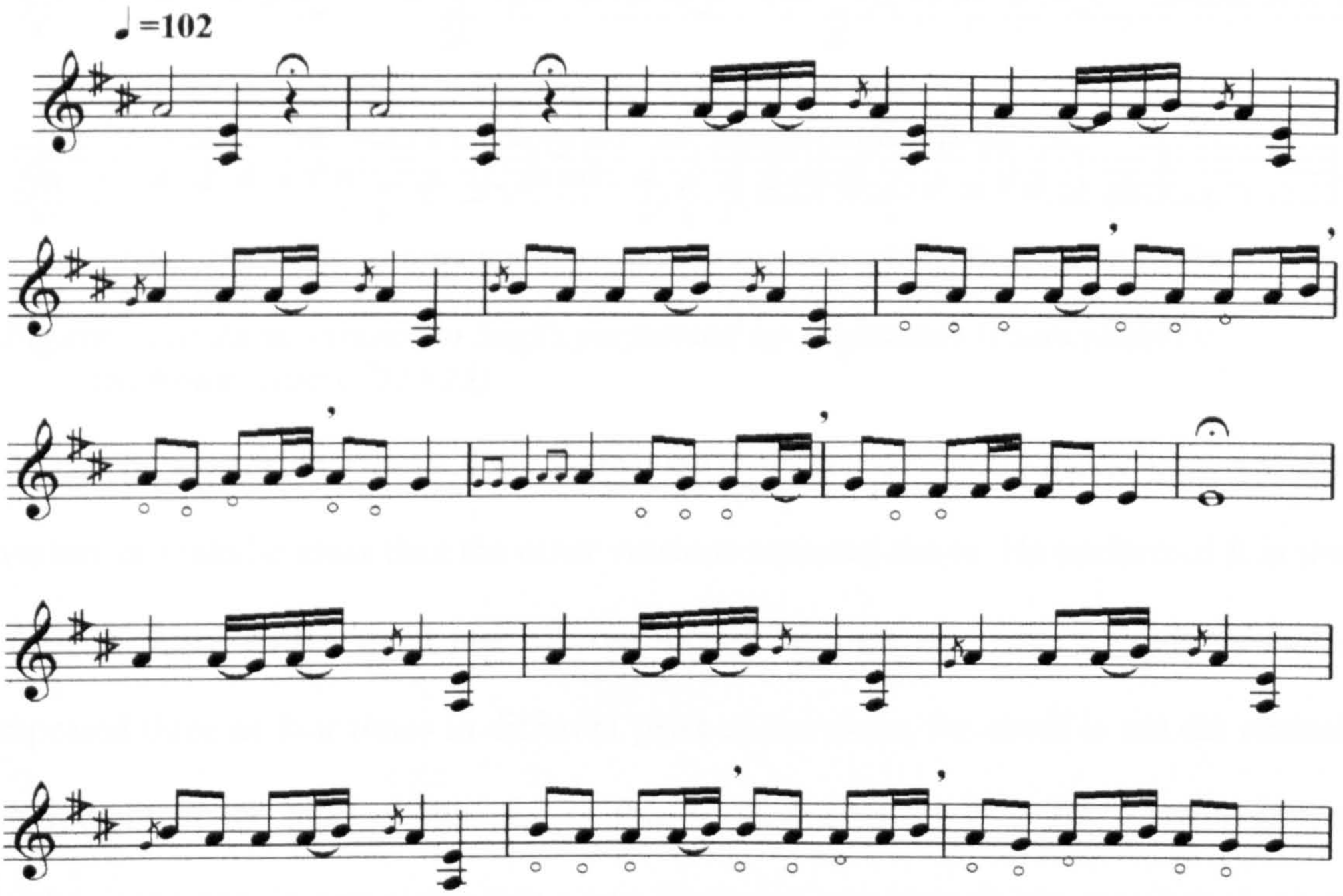


Figure 3.32: Zang-i shotor qadīm *in Segāh from the* radīf *of Sabā (1980:19; also CD1 #07 by Azadehfar)*

Persian masters believe these *gūsheh-ha* are related to the camel caravan and ask their students to imagine the noise of a camel caravan to play them properly. During my fieldwork in Bakhteyārī in the centre of Iran in February 2001 I met a well-known *kamāncheh* performer called Toghānian. He claimed that he knew a story about deriving *Zang-i shotor* from the setting camel bells by Fārābī and play it on his *kamāncheh* in a way nobody else can manage. Toghānian did not play it for me in our first meeting and only told the story.[8] At my insistence, however, he performed it on

[8] Here is the story as presented to me by Toghānian: "Fārābī made the *tār*. He was living in a very awful period when nobody respected music like these days. The ruler said to Fārābī: what have you done? What is that piece of wood [*tanbūr*] on which you have strung wire it to make noise? The ruler

my following visit and I had a chance to record it (CD2 #23). Toghānian was right. He performed it on his *kamāncheh* in a way I had never heard before (see Figure 3.33).



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decided to punish him because of making the instrument but before that Fārābī asked to justify something. He asked the ruler to order his servants not to give the cows water and just give them food for some 12 hours. The ruler accepted." Toghānian then looked at me and said: "You know what happens if a cow eats food but no drink for 12 hours. After 12 hours servants took the cows to the water. At that moment Fārābī began to play. The cows forgot to drink water and paid attention to the music. Fārābī said, 'In the land where the cows understand more than the ruler, it is not advisable to stay.'

They decided to kill him. You imagine that time; there was not any car, bicycle or airplane to run away from there. Fārābī went next to a graveyard where a caravan was resting and began to cry, as he was heavy-hearted; camel owners asked him 'what is wrong with you?' Fārābī said, 'I used to have camels, servants and every thing to travel but now just nothing.' The camel owners said him 'do not worry we can take you with us.' Fārābī thought this is a good opportunity to run away and replied: 'that's fine but please just let me fasten the bells. He so arranged and fixed the bells that within that night they ran 70 *Farsakh* (=120 miles), and then they began to die one by one because of tiredness. The camel owners blamed him and asked him how he had fixed the bells. He said, 'I have a pearl in my heart. I fixed the bells based on my pearl.' They supposed that pearl must be valuable. They killed him and split his chest but did not find any pearl there."

Note: The performer's instrument was tuned a quartertone lower than is shown in the transcription.

Figure 3.33: Zang-i shotor *in* Segāh *performed by Toghānian (transcribed by Azadehfar; also CD2 #23)*

As can be seen from Figure 3.33, Toghānian's version of *Zang-i shotor* uses a wider variety of melodic ideas than the other versions reported above. He performed it in the *dastgāh Segāh* with a fixed metre. Even though here we also have a rhythmic motif repeated three or four times in different parts of the piece, the motif is not the central ingredient of the musical material in this version; instead, it is the melodic shape which is the core in organising this piece. There are two notes fundamental to shaping the melodies, A and E. The *gūsheh* starts by introducing these two notes and continues to shape the melody, starting from A and ending on E.

The cyclic rhythm of this version equals Tan Tana Tan Tan (- ∪ ∪ - -), which does not fit any of the old rhythmic cycles. Nevertheless, this rhythmic cycle fits many contemporary rhythms played on the *tombak* and other Iranian percussion (see section on Representation of Fixed-metre Pieces on *Tombak* in Chapter 5).

Zangūleh

Zangūleh is a *gūsheh* which is mainly identified by its special triangular rhythm. By the term triangular rhythm, contemporary Iranian musicologists refer to tunes that subdivide into set of three beats, rather similar to the Western concept of triple metre

(or any metre based on units of three). *Zangūleh* means a small bell fastened on the neck of domestic animals, particularly camels and goats. *Zangūleh* is an instrumental *gūsheh* which is played in various *dastgāh-ha*, most commonly *Chahārgāh*, *Māhūr*, *Rāst-panjgāh*—there is also one version in *Bayāt turk* performed by Boroumand (see During 1991: 137-8). Three different versions of this *gūsheh* have been selected for analysis here. The first one is a version from the *radīf* of Mirzā 'Abdullāh in *dastgāh Māhūr* and the two others are from the *radīf* of Sabā, one in *Chahārgāh* and one in *Māhūr*.

Whereas *Zang-i shotor*—except Toghānian's version—was commonly based on a simple motif, *Zangūleh* contains a special melodic model. This melody conforms to a special contour within a tetrachord. The arrows indicated in Figure 3.34 show the significant melodic contour in this *gūsheh*. The rhythmic phrase of this *gūsheh* contains four short notes followed by four long notes, equal to a total of twelve *naqarāt*. In the way During transcribed this *gūsheh* (Figure 3.34), the first and last long notes are accented, and the melody takes the duration of two bars displaced by one beat.

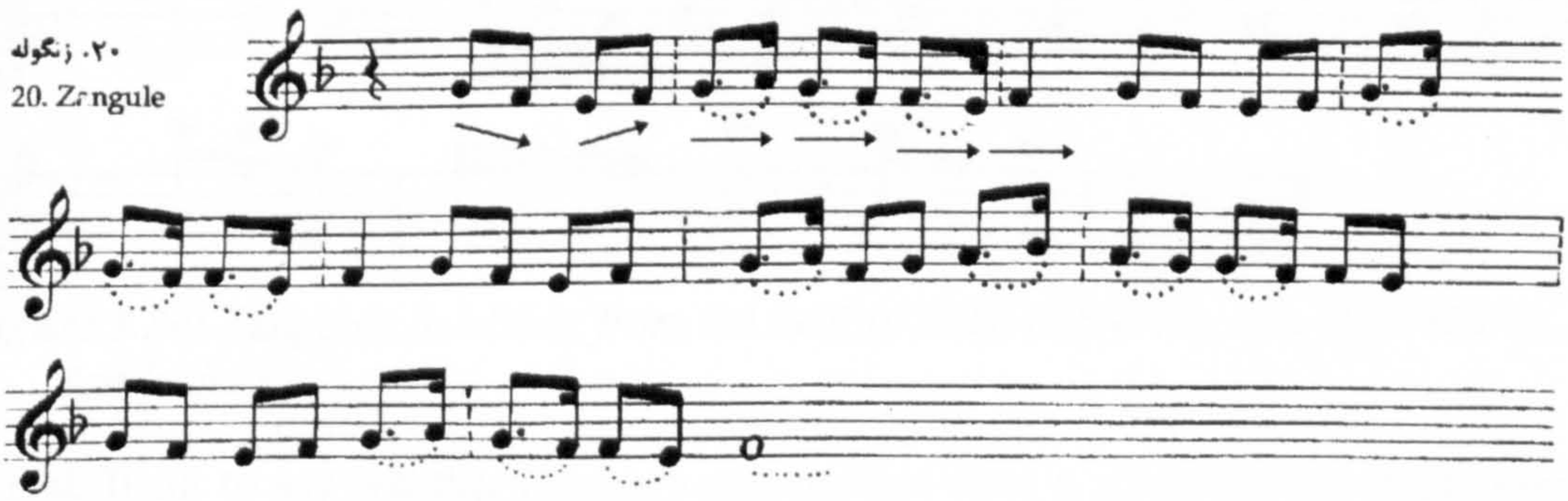

Figure 3.34: Zangūleh *in* Māhūr *from the* radīf *of Mirzā 'Abdullāh (transcribed by During 1991: 225; also CD2 #24 by Boroumand)*

The same melodic shape and the rhythmic pattern can be seen in the versions recorded in the *radīf* of Sabā (Figures 3.35 and 3.36). The only difference is that of changing the place of the accented beats in Sabā's version by starting the bar with the first

naqareh. In this version the accented beats are the first short note and the second long note. Here, the rhythmic cycle maps exactly onto two bars of notation.

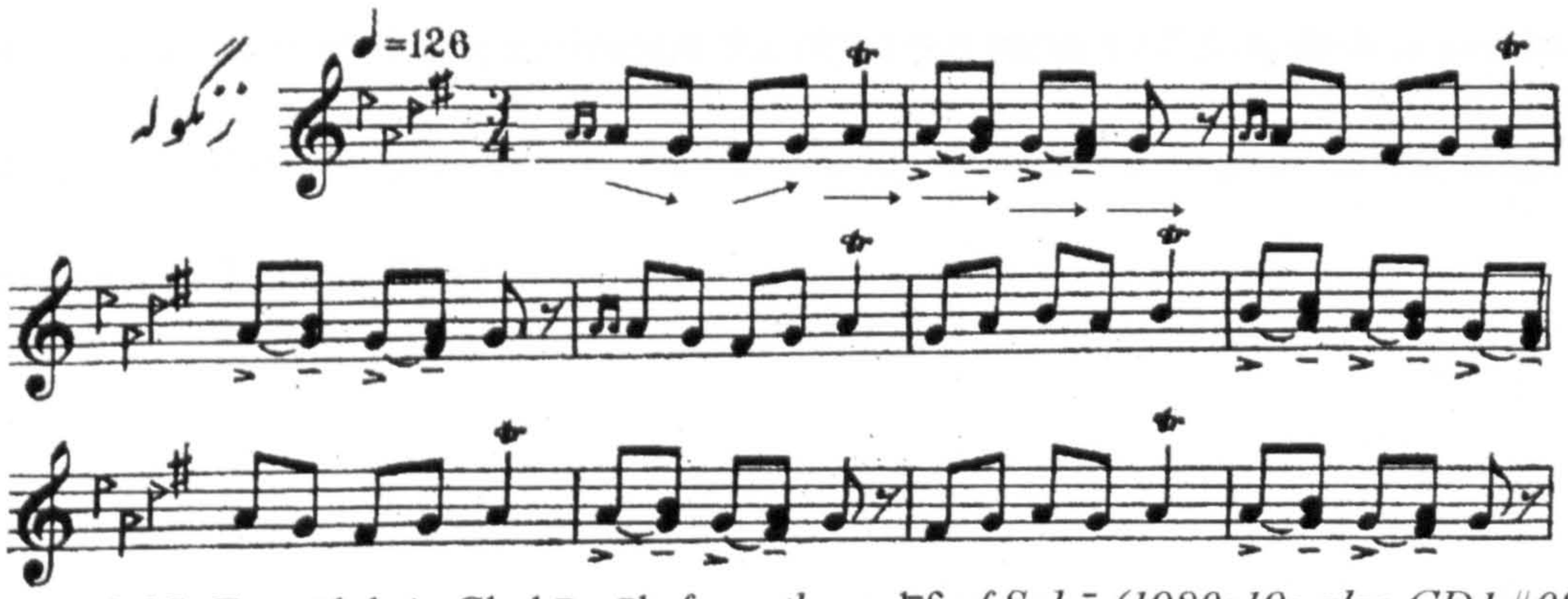

Figure 3.35: Zangūleh *in* Chahārgāh *from the* radīf *of Sabā (1980:19; also CD1 #08 by Azadehfar)*

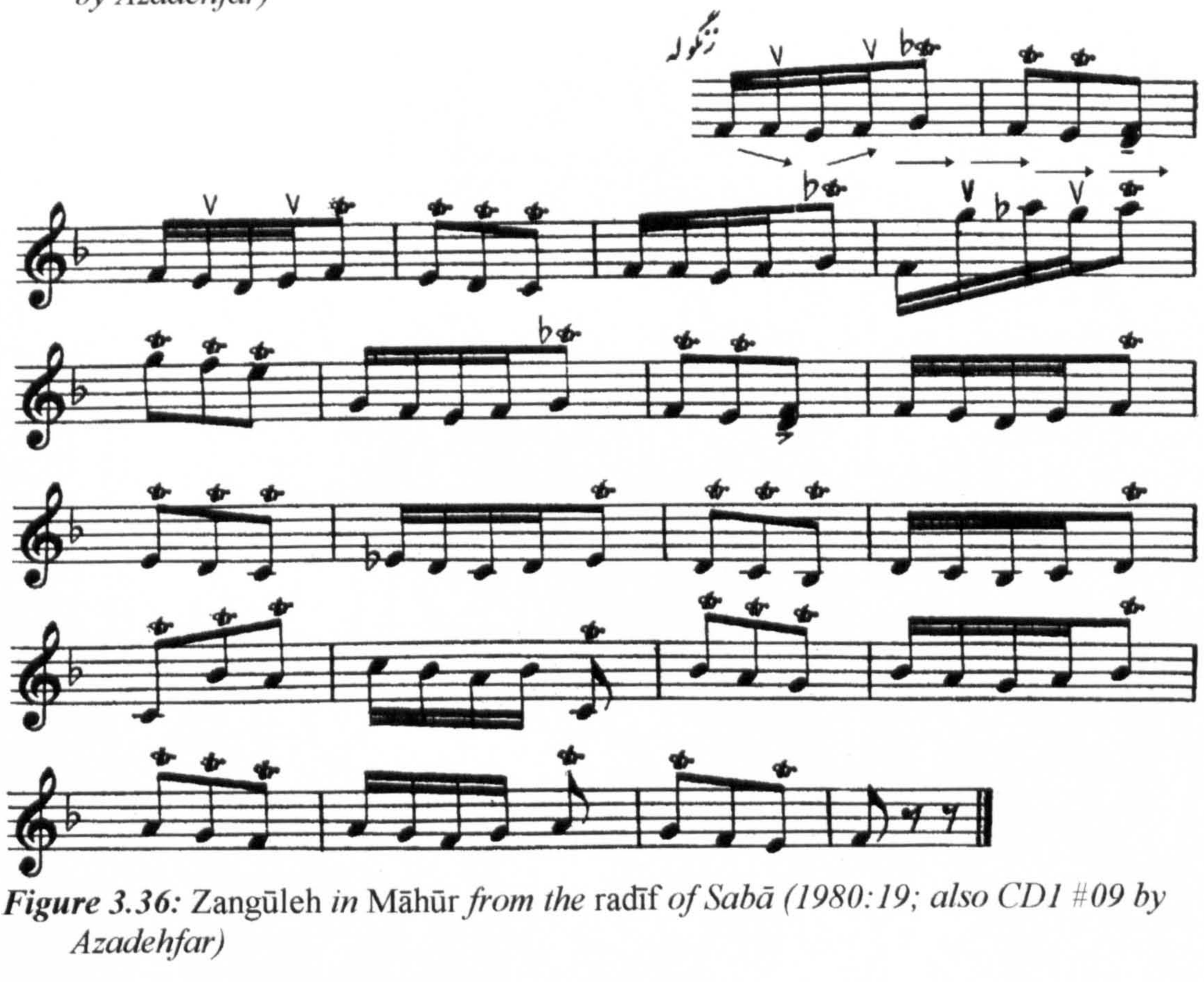

Figure 3.36: Zangūleh *in* Māhūr *from the* radīf *of Sabā (1980:19; also CD1 #09 by Azadehfar)*

It is difficult to say whether During's approach or Sabā's represents the main metric organisation; however, when this *gūsheh* is accompanied by *tombak*, it is more likely that the percussion performer will pattern the accented beats based on Sabā's version (see section on Representation of Fixed-metre Pieces on *Tombak* in Chapter 5).

The simplified pattern of *Zangūleh* is Tana Tana Tan Tan Tan Tan equivalent to 12 *naqarāt* (∪ ∪ ∪ ∪ - - - -). The second and fourth *naqarāt* are not accented in this cycle. As a result of this specification the rhythmic pattern of *Zangūleh* is similar to the cycle of *Ramal* reported in al-Adwār which contains 12 *naqarāt* in the shape of Tan Tan Tan Tan Tan Tan (- - - - - -).