Musicalization in Qualified Media of Poetry and Painting

(Inter)mediality in

šāhnāmeh and Its Illustrations

D i s s e r t a t i
o n zur
Erlangung des akademischen Grades
Doktor der Philosophie
in der Philosophischen Fakultät

der Eberhard Karls Universität
Tübingen

vorgelegt von

(Farzaneh Soorani)

Aus

(Iran)

(2018)

Acknowledgement

به نام خداوند جان و خرد   کزین برتر اندیشه برنگذرد
Great lord of life and wisdom! In thy name
Which to transcend no flight of thought may claim
(Ferdowsi)

It is my pleasure to acknowledge the roles of several individuals who were instrumental for the completion of my Ph.D. Research.

I owe my deepest gratitude to my advisor Professor Klaus Sachs-Hombach. Without his continuous optimism and support concerning this work, this study would hardly have been completed. I also express my warmest gratitude to my second supervisor Professor Ingrid Hotz-Davies, who patiently guided me during the last year.

My special appreciation goes to Dr. Brunner, for his friendship and encouragement and for providing financial assistance, which bolstered me to perform my work comfortably. He offered emotional and logistical counsel in times when I felt that earning a Ph.D. was surely the worst decision I had ever made.

Lukas Wilde was my primary adviser in the final stages of my research. The final version of the "introduction" has benefited enormously from his demand for clarity and his help constructing a strong argument. There is no doubt that some of his ideas and theoretical correction informed my thinking about intermediality.

I'd also like to take this opportunity to extend my heartfelt thanks to Niles Maxwell who contributed to the proofreading of my thesis. This thesis is made possible in part to his generous assistance in the editing and proof reading. I must thank Hamid Rahmanian for permission to use his illustrations in the dissertation.

It's my fortune to gratefully acknowledge the support of some special individuals. I wish to thank my best friends, Rahman for his love, care and moral support. He deserves special mention here for his constant support and motivation during last four years-please know that I appreciate everything that you are and do for me from bottom of my heart. I would like to thank Ali, who was a catalyst for forward momentum, and a steady source of emotional support—he has been more than merely that which "friend" can connote. Words fail me to express my appreciation to Sina for

Table of Contents

Table of Figures

Chapter 4

Chapter 5

Chapter 6

Tables

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 limitations"(Azadehfar). In the Tenth United Nations Conference on the Standardization of Geographical Names (2012), a new Persian Romanization was proposed by a group of scholars from different fields. All terms from Persian and Arabic in this thesis are transliterated according to the proposed system by National Cartographic Center (NCC) system[1].

Consonants					
ب	b	ر	r	غ	q
پ	p	ز	z	ف	f
ت	t	ژ	ž	ق	q
ث	s	س	s	ک	k
ج	j	ش	š	گ	g
چ	č	ص	s	ل	l
ح	h	ض	z	م	m
خ	x	ط	t	ن	n
د	d	ظ	z	و	v
ذ	z	ع	'	ه	h

Wovels and Diphthongs						
آ	ā	ārm		اُو	ow	Gowhardašt
اِ	e	ten		اِی	ey	Beyram
اَ	a	hat		او	u	too
اُ	o	go		ای	i	see
ي	y			ؤ	'	

Musicalization in Qualified Media of Poetry and Painting

(Inter)mediality in

šāhnāmeh and Its Illustrations

Chapter 1
Introduction

1.1. Intermediality and Musicalization of Media

> If all media were fundamentally different, it would be hard to find any interrelations at all; if they were fundamentally similar, it would be equally hard to find something that is not already interrelated. Media, however, are both different and similar, and intermediality must be understood as a bridge between medial differences that is founded on medial similarities. (Lars Elleström, 12).

Text and image have always been crucial parts of our communication practices. We read text, we see images and we communicate with both. But sometimes we also "hear" text and images in a way that stimulatingly evokes auditory or musical sensations in us. It is remarkable how **Wassily Kandinsky**[2]'s *Composition VII* is considered to be painted music because of an imitation of the polyphonic music system[3]. Among his works,

---

[2]   Wassily Kandinsky is one of the most renowned expressionist painters of all times. He believed that music is the most transcendent form of non-objective art, and musicians could evoke images in listeners' minds merely with sounds. He strove to produce similarly object-free, spiritually rich paintings that alluded to sounds and emotions through a unity of sensations. In *Composition VII,* Kandinsky tries to reflect his thoughts on the interrelation between painting and sound via an operatic and tumultuous rolling of forms around the canvas. His philosophy on the relation between painting and music was also reflected in the paintings of Abraham Walkowitz and Stuart Davis. For a detailed analysis of how Wassily Kandinsky's paintings present or refer to the aspects of music such as *Rhythm* and *Harmony*, see Griffin, Eve. "Wassily Kandinsky Artist Overview and Analysis." The Art Story Contributors http://www.theartstory.org/artist-kandinsky-wassily.htm. Accessed 29 Jul 2017 2017, Kandinsky, Wassily and Hilla Rebay. *Point and Line to Plane* Dover Publications 1979.

[3]   In western musicology, musical composition includes three different forms of textures. Morphonic, Homophonic and Polyphonic refer to the way in which melodic, rhythmic and harmonic materials are combined in a composition. Polyphonic specifically refers to a texture that comprises multiple (two or more) relatively independent melodic lines. This form of music is also referred to as any musical mixture in which two or more instruments may sound simultaneously. Wassily Kandinsky and Paul Klee- as the father of classical modernism- were heavily influenced by this music. See Salamon, Justin J. "Melody Extraction from Polyphonic Music Signals." *Universitat Pompeu Fabra*, vol. Ph.D Information and Communication Technologies, Universitat Pompeu Fabra, 8th August 2017 2013. general editor, Emilia G´omez Guti´errez.

Yellow, Red, Blue (1925) and *Composition VI (1913)* should also be noted for their beautiful transformation of musical time intervals and harmony into circuit diagrams[4]. A similar representation can be found in textual media such as "fugue stories" (e.g., Wit Szostak's "Fuga") in which the fragmentation of individual voices points to a "polyphonic play of voices" in literary narrative. "Ragamala"[5] paintings are classic examples of how the visual representation replicates, presents or imitates Indian musical notes known as *Ragas*. Also, in the Persian culture, Rumi's[6] poems or Ferdowsi's *The Book of the Kings* may offer respectable examples for the musicalization of textual media. With reference to these examples, it can be estimated that the performance and the function of verbal and visual media have been shaped by acoustic dimensions, or by features of the music.

The generalized view on the relation between media and music comes from Walter Pater: "[a]ll arts constantly aspire toward the condition of music"(86) and the succeeding scholarly claim that "art forms are inspired by music 's formal sovereignty" (Charlotte de Mille 31). This so-called *intermediality* proceeds from the assumption that every language or medium of communication is in many ways different from, yet, in its very construction similar to the others (Elleström). In a more general sense, intermediality is concerned with the combination, interaction or transgression of borders between distinct media. For example, film may represent a novel, opera may refer to film, a novel may present famous figures from the world of cinema and music, and narratives are told and designed with reference to different media.

Based on theoretical foundations of intermediality and the above assumptions on the musicalization practices of media for the unification of form and content, this work examines the influence of 'culture' in this process. It will provide an interdisciplinary investigation of a "musicalized" genre of storytelling from Persian

---

[4]   See Jormakka, Kari. *Flying Dutchmen: Motion in Architecture.* Birkhäuser 2002.
[5]   "Ragamala" is considered one of the most popular genres of Indian miniature. The first record of *Ragamala* painting comes from c.1475 in western India. *Ragamala*, in general, is a set of miniature paintings depicting various musical modes, *ragas*, of north Indian music. Raga is considered as a melodic extension of certain notes (combination of notes) of a scale or 'mode', according to certain rules of style and time (12). *Ragamala* illustrations are an attempt to express the meanings of music through the medium of pictorial art. Medieval Hindustani musicians associated each raga with a deity, naming the raga, perhaps as a means of memorizing the melodic structure (Herbert Johnston 1-16).
[6]   For more information about Rumi's life and poems see Schimmel, Annemarie. *Rumi's World: The Life and Works of the Greatest Sufi Poet.* Shambhala Publications, 2001.

culture in which the individualized media of poetry and painting present or refer to features, qualities, structures and elements of music.

1.2. The Necessary Background: Point of Departure

The origin of "intermediality" can be traced back to the work of Richard Wagner and his aesthetic ideals well known as *Gesamtkunstwerk*.[7] The approaches to historical research in art such as inter-art studies define "Gesamtkunstwerk" as a *union of arts* (See also Dayan, 2014: 456) or "aesthetic conventions between different art forms" (Oosterling 2). The entire history of inter-art studies reveals many suggested paths, multiple methods and interactional analysis of different artistic forms, such as painting/music or text/sculpture. The studies often deal with artistic aspects of production, such as the *migration* of an element from one art to the other or the *convergence* of two or more art forms in the same artistic product (Cristiá 5).

The term "intermediality" is also regarded as a sub-category of intertextuality, which was introduced by Julia Kristeva in 1970 in her article "Word, Dialogue and Novel".[8] Intertextuality refers to a relationship between one text and another text "in almost every imaginable form, from the conscious quotation to the subconscious re-activating of elements originating from already existing texts" (Goltz 7). "For Kristeva, the text is a dynamic mosaic of quotations that includes absorptions and transformations of other texts" (Eilittä vii). To such a degree, the focus of "intertextuality" is on the verbal inter-semiotic relations; every verbal text has textual layers that are in interaction with other textual layers belonging to other codifying or sign systems (Chandler 84).

---

[7]   It is said that "Gesamtkunstwerk" — total work of art — is a key concept in understanding posthuman aesthetics. In many of Wagner's theoretical writings, "Die Kunst und die Religion" (Art and Religion – 1849), "Das Kunstwerk der Zukunft" (The Artwork of the Future – 1849) and "Opera und Drama" (Opera and Drama – 1852), the concept of the 'Gesamtkunstwerk' — the totality of the work of art — became the central focus. For Wagner *Gesamtkunstwerk* is a way to reshape musical theater and recover the synthesis of the arts at the core of Greek tragedy. The central goal is regeneration of the public function of artistic creation. For more information see Colombi, Matteo and Massimo Fusillo. "Artaud, Barney, and the Total Work of Art from Avant-Garde to the Posthuman." *CLCWeb:Comparative Literature and Culture*, vol. 15, no. 7, 2013.

[8]   Kristeva develops Mikhail Bakhtin's concept of 'dialogism', as her point of departure. Intertextuality denotes a transposition of one (or several) sign system(s) into another (59-60). The concept was later adapted by scholars such as Barthes, Riffaterre, Genette and Jenny.

The frequently described quantitative increase of research in more recent works of artistic media suggest a careful modification of traditional notions of "inter-arts" and "intertextuality", as the interconnection of art forms or literary texts toward a new concept as the hypothetical sum of what happens between media. Famous scholars in the field of media studies and comparative literature, such as Christian J. Emden, Lars Elleström, Oleg Gelikman, Irina O Rajewesky, Jens Schröter, Werner Wolf, put emphasize upon the medium-ness or medial-conditions[9] of media to make 'medium' a subject of discourse. According to Lars Elleström (2010), intermediality should be understood as a complex set of relations between media (37), and for Irina Rajewsky media are combined to show a contiguity of two or more material manifestations to a "genuine" integration (52). Hence, "[i]ntermediality projects not simply a 'together-art' or any other continuation of nineteenth-century *Gesamtkunst*, but a criss-crossing between and mutual infusion of different medial modalities" (Wurth 15). Seen in this light, the concept of "intermediality"[10] is used to elaborate on the relationships between texts of different media (Wurth 7). The approach of intermediality goes some way toward a productive analysis of the relationships between diverse media types, which may lead to fascinating insights that enrich media studies.

Intermediality can be described at different levels of manifestation that offer more or less multifaceted descriptions of media co-relations. The latest terminological and conceptual changes in intermediality suggest the importance of two key factors in

[9]   The view on **medial conditions** in media interactions may lead us to the notion of "Bühnenkompositionen" (stage compositions), which was introduced by Wassily Kandinsky. Kandinsky in two essays "Über die Bühnenkomposition" and "Über die abstract Bühnensynthese" criticized Wagner's "Gesamtkunstwerk" in favor of the monumental art work of the future. He believes that each art has its own specific features which can be only manifested in theater as theatrical intermediality. While Wagner's *music drama* puts emphasize on the harmonization of word, music and dance for creation of a new form of expression, the emphasize of Kandinsky's *stage compositions* is on media particularity in media-correlations. His notions create a foundation for new Gesamtkunstwerk aesthetics, see Kattenbelt, Chiel. "Intermediality in Theatre and Performance: Definitions, Perceptions and Medial Relationships." *Culture, Language and Presentation*, vol. VI, 2008, pp. 19-29, Kobayashi-Bredenstein, Naoko. *Wassily Kandinskys Frühe Bühnenkompositionen Über Körperlichkeit Und Bewegung.* Walter de Gruyter 2012. For more information on "stage composition" and "theatrical intermediality" see Ingham, Michael. *Stage-Play and Screen-Play: The Intermediality of Theatre and Cinema.* Taylor & Francis, 2016.

[10]   One cannot ignore the inspiring combination of view-points such as, mediation (Roger Silverstone), remediation (Bolter and Grusin 1999) and media convergence (Henry Jenkins), synthesis media and (new) media metamorphosis, which enhanced the breadth of the "inter"- and its related topics, such as "transmediality" and "multimediality", and ensured its success in creating several continued themes on media relationship.

determining of intermedial process and practice. These facets can be categorized as (1) 'formula of mediality'; and (2) type of media correlations. The former makes a distinction between intermediality in terms of 'medial conditions'. There is an agreement among number of theorists (for a review, see Elleström 2010) about the relations between intermediality and medial conditions or *modality*. They believe that to grasp the change in intermediality, attention should be given to the notion of "medium". The scholars found out that the notion of "medium"[11] can have a very broad sense, supported by Marshall McLuhan for whom medium is "any extension [..] of man"(3), as well as a much narrower and mechanical meaning as used by Friedrich Kittler in his *Gramophone, film, typewriter,* in which he claims that one should "rethink media with a new and uncompressing degree of scientific rigor, focusing on the intrinsic technological logic" (2). While "medium" can be defined either in a broad or a narrow sense, the *formula of mediality* defines "medium" by a set of **medial conditions** consisting of technical, material, communicative and aesthetic features. Media, whether radio, the printed word, cinema, dance, poetry, animation, photography, computer games, painting, or a piece of music, can have a range of medial characteristics; and the potential, limitation and correlation of media can locate variety of emphasis on different medailities. It is a accepted fact that the "mediality" is not a completely separate idea from the notion of "medium", and therefore does not introduce a new path in

---

[11]   Since the beginning of media research, there is an ambiguity in the notion of the medium. The most surprising aspect is that the development of technical media has increased the medium's ambiguous character, even though many scholars have tried to bring some clarification in such ambiguity by addressing this major question: what can be a medium? Tradition approach to conceptualization of media applies a very broad view to define notion of medium. Medium in such a broad sense is simply defined as an intervening substance through which something else carried; referring to the transmission medium. The transmission medium can be referred to either a material substance such as paper or a technical device such as Radio. The simple schemata of communication encompassed the following concepts: [sender]>encoder>channel>decoder> [receiver]– tell us that channel is a mean of transmission, and, therefore, is a medium. Some scholars such as Derrida believe in the representational technology. From his point of view, the differentiation of media takes place based on language of representation (sign making), and the process of meaning making in the communication. Derridean-deconstructive view underscores the point that rather transmission medium, the language itself has potential for meaning making. "Since the late twentieth century, the key words of media change have been 'computerization' and 'digitalization', which, without question, have radically transformed media and communications environments" (Herkman 10). Famous media scholars such as Hans H. Hiebel (1997) and Friedrich Kittler use the term "medium" in a technical sense. Kittler argues that "[t]he general digitization of channels and information erases the differences among individual media…With numbers, everything goes. Modulation, transformation, synchronization; delay, storage, transposition; scrambling, scanning, mapping total media link on a digital base will erase the very concept of medium" (2).

understanding media. Rather, "mediality" is revising what we call a 'medium' via an analytical perspective on the medial conditions. Certainly, the major issue in intermediality is "medial conditions" in which different parameters of media, including aesthetic features, can be located (see among others Jill Bennett 2007; Jürgen Fohrmann, 2010; Marie-Laure Ryan 2005; Werner Wolf 1999; 2011; 215). This is more in line with the approach of Lars Elleström, who argues that intermedial practices should be specified not only by 'basic modalities' of media, consisting of material, sensory, spatiotemporal and semiotic modalities, but also by consideration of 'qualifying aspects' involved in media construction (see **Figure 1.1**). Elleström, in "The Modalities of Media: A Model for Understanding Intermedial Relations" (2010), claims that these qualifying aspects consist of **contextual** (historical, social and cultural circumstances) and **operational** (aesthetic and communicative) features (17-22). For him, modalities specify media correlations. Art forms and other cultural media types always rely on the two qualifying aspects and can hence be called "**qualified media**" (Gimber and Azcárate 5).
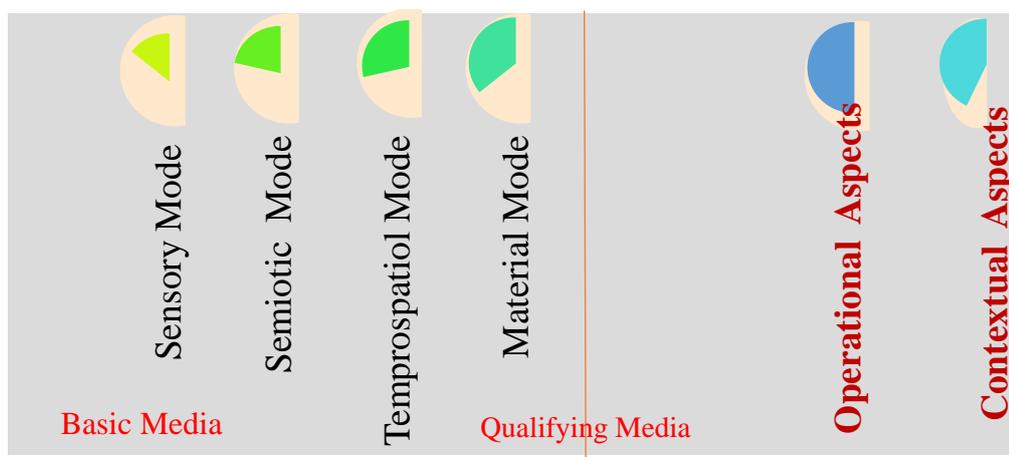
Figure1. 1. A Schematization of Medial Conditions in Basic and Qualified Media
Note: Based on Elleström's model, Intermediality is altered by the participation of *operational* and *conceptua*l aspects.

Intermediality may have more to offer than just a collaboration between basic parameters of media that does not refer to culturally specific strategies in the process of representation. As Elleström's complex model describes, intermediality should be understood in relation to materiality, technology, perception and culture. Given the above clarifications, crossing borders between media occurs within the frame of, but is

not determined by, the *basic* modalities of media. It is the motivation of *operational* and *contextual* aspects that partly determine specificity of intermedial practices. In other words, intermediality may be a result of co-relations between basic media and putting emphasis on the "fusion' of basic parameters to new forms[12], or may be a result of an "intervention of aesthetic [media] into a wider knowledge nexus" (Bennett 436), and stress upon any transgression of boundaries between conventionally distinct media.[13]Given this, a "discourse between different conventional media" may manifest intermediality in a different way (Bennett 436). Thus, one may agree with Elleström that intermediality differs partly because of modal dissimilarities and partly because of the conventionality of media borders ("The Modalities of Media" 28). Understanding media co-relations in this way promises two major functions:

1. Understanding differences and similarities among media in terms of basic modalities.

2. Individualization of intermedial practices based on operational and contextual features(See Wolf 2011, 2015; Zepetnek et all, 2011; Rajewsky 2002; Elleström 2010). From an intermedial perspective, media 'specification' strongly demands a cultural construction of media conception. This may help us to specify media in terms of a generic representation.

The second major aspect in determining the process of intermediality is concerned with the **type** of media co-relations. In recent years, the questions of media co-relations or 'together-media' across different disciplines, such as media studies, literary studies, film studies and art history, brought into focus diversity of intermedial forms and strategies (Marina Grishakova & Marie-Laure Ryan 2010; Werner wolf 2011, 2015; Winfried Nöth, 2006; Jenny Chamarette 2013). Moreover, the more variation of artistic forms along with the "developments in media and communication economies, markets, systems, structures and content" put emphasize on the specification of media forms in media correlation (Herkman et al. 11). Therefore, a significant feature of recent

---

[12]   Among others, Oleg Gelikman (211) and Henk Oosterling (2003) in their research take into account prefex 'inter' in Derrida and Foucault's philosophy to point to a "third space" or in-between [*Zwischenraum]* space in intermedial perceptions.
[13]   Werner Wolf in his studies develops a more consist terminology for the field of intermediality. His series of studies on intermediality reshapes the old concept of intermediality by focusing on the cultural aspects. He postulates the idea that conventionalized media alter and specify the intermedial practices. See his essay "(Inter)Mediality and the Study of Literature", in which he explains the different parameters of 'intermediality'.

theoretical studies is the recognition of forms and strategies of intermedial practices. The more noteworthy typologies in recent years were offered by Irina O. Rajewsky (2005), Jens Schröter (2011), and Werner Wolf (1999, 2015). The quality of intermedial involvement has made a distinction between internal or external configurations of medial conditions and has differentiated intermedial strategies based on that distinction. Werner Wolf claims that intermediality manifests itself 'intra-compositionally' within one media product or 'extra-compositionally' among different media products (1999; 2007; 20015; 20017). The implications of the differences in media co-relations are easy to recognize. One of them is internally presented as involving one medium or more in a single medium product. One is an external representation because it manifests the similar principles across diverse media products. Based on external and internal media configurations, Irina O. Rajewsky classified intermediality into four categories; (1) *medial transposition* (trans-mediality) defined as traveling conceptions and principles of a specific medium into another one; such as adaption of literacy novel in film; (2) *media combination* which is the result or the very process of combining at least two conventionally distinct media or medial forms of articulation; (3) *intermedial reference* concerned with the semiotic strategies that contribute to the media product's overall signification, such as reference in a novel to music by using specific techniques or strategies (52). Jens Schröter (2011) employs a different terminology and defines the forms of intermediality as; (1) transmedial intermediality; (2) transformational intermediality; (3) synthetic intermediality; and (4) analogical model. He claims that the term "media combination" in Rajewsky's model should be replaced with "synthetic intermediality".

1.2.1. Crossing of Medial Borders and Musicalization

Starting at the beginning of the twenty-first century, the major form of media integrations was related to "acoustic turn"[14]as a change in the production and perception

---

[14] *Acoustic turn* is considered a scientific and possibly also an artistic paradigm shift, as well a guiding discipline. It might also be considered as the new edition for the *pictorial turn*. Mayer, for example, believes that the emergence of audio culture necessitates an acoustic turn as a supplementation to the pictorial / iconic turn (2008). See also Wolf, Werner. "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1,* http://dx.doi.org/10.1515/9783110311075-026.

of media[15]. Therefore, a seemingly related body of research on sound, acoustic dimensions, rhythms and oral folklore gave attention to the role of "music" in media relations. The work done to recognize the musicalization process over the last decades has come predominantly from scholars working outside of media studies: scholars who are interested in how and why textual and visual media reflect musical features. Nevertheless, there has often been an unhealthy division between verbal and visual media in terms of musicalization practices. it is also unfortunate that the basis of their work reflects a great deal of the theoretical underpinnings of inter-arts, intertextuality, neuroscience and visual communication. The examples of this trend include several articles on art song, and the rhythmic quality of poetic text in *Essay on Literature and music (1985–2013) by Walter Bernhart*. The focus of Calvin S. Brown's comparative study, *Music and Literature* (1948/87), is on similar structural relationships between verbal arts and music, including rhythm, pitch, timbre and harmony. Drawing on media archaeology and literary theory, Philipp Schweighauser in *The Noises of American Literature* provided new insights on changing literary presentations of noise in modern American fiction (2006). There are also several essays on relationships between word and music in the book *Intermedial arts: Disrupting, Remembering, and Transforming Media ,* which was influenced by former intertextual descriptions. The book *Word and Music Studies: Essays on Performativity and on Surveying the Field* also provides rich insight by referencing the field of music-literacy. Relatively little has been written on the connection between the visual arts and music in comparison to the wealth of musicological research on the relationships between music and literature. The discussions took place in a discursive field variously referred to as 'comparative arts studies' or 'inter-art studies'.[16] I may refer to the pioneering publications (edited) by Franzsepp Würtenberger (1979); Monika Fink (1985); Elisabeth Schmierer (1995);

---

[15]   In fact, the postmodern age can be understood as an avant-garde stage in the human perception of media having occurred via an incredibly high-tech transformation of art and cultural practices. The study of media interactions has also been progressively widened in the light of 'medial' turn as an observation of turn to cultural and artistic practices. From this viewperspective, visual and verbal media correlations are studied based on medial conditions and specified through the change of their essence into aesthetically or representationally different forms.

[16]   For an overview of prominent significant literature, see, e.g., Ketteler, Rolf and Jorg Jewanski. "Musik Und Bildende Kunst " *Musik in Geschichte Und Gegenwart*, edited by Ludwig Finscher, vol. 6, Bärenreiter, 1997, pp. 745-783.

Frank Schneider (2000); Marsha Morton and Peter Schmunk (2000); Siglind Bruhn (2001); Ursula Brandstätter (2004) and Elisabeth Walde (2009).[17] More recent studies of visual-music, such as relations between painting and music, have often been linked to the field of 'cognitive' and 'behavioral neuroscience'. For example, newer studies of the human brain led to recent identification of cross-stimulation of sensory modalities or the connections between the senses of vision and hearing in media combination. We may refer to Martin Wattenberg's studies (2001), which explore a new method called "Arc Diagrams" for visual representation of acoustic networks or a piece of music in visual media. The findings of research into brain function also explores the static "images that shows clear music-making movements or gestures will have the potential to elicit a sense of both movement and the sound in the viewer 's mind" (Davison 88). In the article "Presenting Music-Making", Alan Davison also based his argument on pervious scientific studies to claim that images have the power to "elicit a response from an 'inner' ear" (88). Surprisingly enough, the emergence of scientific phenomena such as *synesthesia* (Synästhesie), *colour music* (Farblichtmusik) and *sound art* (Klangkunst) is the result of a visual understanding of music in contemporary media practices. In art-studies "musical iconography as the identification and description of musical subjects in image such as musical instruments have been also a mainstay of studies in music and the visual arts for much of the twentieth century" (Shephard and Leonard 2). The research center for music iconography (RCMI) has published fruitful books such as *Music in art: Iconography as a source for music history (2003)* in this area of research. Robert L. Kendrick 's "Iconography" explains the importance of iconography in art history and musicology by emphasizing the seventeen-century visual culture in Europe, and Mughal culture in Asia. It has been also proven by cognitive neuroscientists studies that this kind of iconography can create a specific effect in the reader's mind. A recent attempt is *The Routledge Companion to Music and Visual Culture,* which provides a

---

[17]   Karin von Maur *Vom Klang der Bilder. Die Musik in der Kunst des 20*. Jahrhunderts (Stuttgart: PrestelVerlag 1985); Monika Fink *Musik nach Bildern. Programmbezogenes Komponieren im 19. und 20. Jahrhundert* (Innsbruck: Edition Helbling, 1988); Elisabeth Schmierer *Töne- Farben – Formen. Über Musik und die bildenden Künste* (Laaber: Laaber-Verlag, 1995); Siglind Bruhn *Musical Ekphrasis: Composers Responding to Poetry and Painting* (Hillsdale, NY: Pendragon Press, 2000); Ursula Brandstätter *Bildende Kunst und Musik im Dialog. Ästhetische, zeichentheoretische und wahrnehmungspsychologische Überlegungen zu einem kunstspartenübergreifenden Konzept ästhetischer Bildung* (Augsburg: Wißner, 2004). Elisabeth Walde (ed.) Die Macht der Bilder (Innsbruck: Studienverlag GmbH, 2009).

fresh view on musical iconography and neurological synesthesia. It brings music into contact with visual arts to underline the importance of history and culture in the perception of visual music.

Due to an increased awareness of new approaches to intermediality, the study of musicalization practices have been given greater attention in recent years (Laudan, 2011; Meyer, 2008; Nöth, 2007; Petermann 2014; Smith, 2007; Thompson-Schill et al., 2013; Wagner, 2008; Wolf, 2009, 2015). Articles have provided a range of reflection on medial conditions and intermedial strategies used in the musicalization of fiction and non-fictional media. As expected, "any equivalence between word/image-music must always be *incalculable*. There can be no direct translation, and no unproblematic collaboration" (Dayan 19). It needs a very careful analysis of the specific conditions or elements of verbal or visual media by which the ways of indication of another medium can be explored.

The previous studies often scrutinized one of the two variations of *form* and *content* in this process. It has been acknowledged that quality and effect of music can be presented in media through (1) imaginary content analogies and (2) formal or structural analogies (Barska 33). To include music, the conceptual units or formal elements of music on the micro and macro levels (such as motives, rhythm or structures of theme) may appear in verbal and visual media. Having an exclusively medium-oriented point, this reveals that whether the musical aspiration leads to the emergence of new terms, such as 'synesthesia', or the never-ending examination of aesthetic practice, what is gained is how this operation of intermediality improves the signification of music for receivers. On this point, there is no clear impression of music that is perceptible on surface; instead another medium is involved in a dominant medium by way of semiotic references. Accordingly, the most fascinating aspect in musicalization of media is *frame of referenc*e, "its variety and its complexity"(Nöth "Self-Reference in the Media"). It is created by employing different forms of semiotic references, which include a range from *hetero-referential* (intertextual, iconic, symbolical) to *self* and *meta-referential (*aesthetic references) strategies.

Through hetero-referential strategies, verbal and visual media can **imitate** (show) or **thematize** (tell) the effect, structure and quality of music (Wolf 1999; 2007; 2015). Conceivably, the imitation and thematization of music can occur via

participation of medial conditions of one single medium or more than one medium, appearing as either 'mono' or 'pluri' medial conditions in a single media product. In thematizing, or a mode of **'telling',** the signifiers of the domain medium only serve as a basis of intermedial signification without being iconically related to music. In a mode of '*showing*', as opposed to thematization, music informs (a part of) a work, its signifiers, and/or the structure of its signifieds in a more substantial way (Wolf *The Musicalization of fiction* 44). Therefore, they both are similar in being indirect, however, in type of imitation, as opposed to the thematization type, identification of referent media is clear through iconic features, such as shapes, color, graphic elements (Wolf *The Musicalization of Fiction 40-50*). In fact, a dominant medium is iconically related to music and give the impression of representing it mimetically (Wolf *Selected Essays* 248). The 'showing' method is well-matched in visual media because of the potential for visual media in perception and sensory iconicity, description and metaphoric illustration (Wolf et al.). Imitation and thematization should be considered as "two poles of a continuum which allow a number of shades to extend analogies and display similarities" (45-46). To construct a strong tie between the form, meaning an respose, artsists take adavantage of both thematization and imitation methods of intermediality. The contribution of medial conditions in mono-medial and pluri-medial representation cannot replicate acoustic phenomena, but their referential dimensions may provide a valuable account of the perception of music signification (Wolf "Intermediality Revisited"). More will be said about the semiotic references in the second part of this study.

Together with the semiotic perspective, intermediality could successfully produce insightful literature on referential strategies used by verbal and visual media in the musicalization process, whether the root of musicalization is formal or conceptual in its resemblances. While in some media, such as graphic novels, the typical signs of music are materially present, in some others, such as musical novels, the typical signs of foreign medium of music are only imitated by the text (Petermann 3). In folk poetries, the acoustic networks or qualities of sound are also created without any consideration for content and by providing semiotic references to structural elements, such as rhythm, sound elements, variation and melody (Barska 33). Several articles on the rhythmic quality of poetic text in the *Essay on Literature and Music (1985–2013)* highlight the

role of similar inherent structural elements in both poetry and music such as timbre, pitch, volume and rhythm in musicalization process. Famous musicologogists, such as Steven Paul Scher, Calvin S. Brown, Carl-Filip Bruch and Walter Bernhard, also claim that verbal media imitate structural aspects such as voice, silent, generic representation, progress and regression, rhythmical ambivalence and vocalization by verbal media. Beate Schirrmacher in her contribution to sound studies, "Literacy Acoustics", offers an inspired study about the referential relationships employed in literacy texts for musical effects. With reference to John Dos Passos' novel *The Big Money* (1936), Schirrmacher explains that formal imitation creates cognitive and emotional effects. She mentions that while the entire melody of a song is not apparently embodied in Dos Passos' novel, nevertheless the *rendition* of it in italics could successfully evoke an audiovisual representation in readers' minds (481–482). There are also media that contain several referential strategies in the intermedial process. As an example, we may refer to Paul Celan's texts of *Todesfuge* (1944 or 1945) and *Engführung* (1958) in which three forms of direct and indirect semiotic references may be recognized, namely; (1) musical motif[18] (such as verbal references to *lied*); (2) intermedial individual reference[19] (such as allusions and quotations); (3) and intermedial system reference (such as system-mention) (Bánffi-Benedek).

1.3. Trajectory, Benefits, and Goals

Although the research on intermediality provides a wide range of reflections on the musicalization process, there are some aspects in the musicalization process that deserve scholarly attention. **Firstly**, in intermedial domains, there is reason to believe that as the study of intermediality in literature matures, the visual-music will be considered neither noteworthy to study, nor fundamental in examining musicalization. Most attention in intermedial studies has been paid to monomedial intermediality (one medium), while 'pluri-mediality' as the contribution of two or more media in musicalization practices deserves greater scholarly interest. W-J-T. Mitchell, in his

---

[18]   Musical motif is an intramedial category that includes all the verbal references to the *Lied*, to the act of singing as well as to any musical terminology.
[19]   Intermedial individual reference is called in German tradition *Einzelwerkreferenz* which includes a series of allusions to music.

groundbreaking book *picture theory,* claims that "[t]he image-text problem is not just something constructed "between" the arts, the media, or different forms of representation, but an avoidable issue *within* the individual arts and media" (94-95). Every medium may combine "different codes, discursive conventions, channels, sensory and cognitive modes" in the intermedial practice (WJ Thomas Mitchell 94-95). To see it from an intermedial rather than a multimodal perspective, Mitchell's statement more than controversial promise of intermedial aesthetic brings attention to the 'specificity' of media forms and the "productivity" which emerge from relationships between various media. Indeed, it is challenging where diverse medial conditions of each medium reveal themselves in the process of communication, and connect in a simultaneous manner. Currently, we may know that there are the basic concepts common to verbal and visual media, such as harmony, texture, accent, rhythm, theme and variation. We may also be aware that there are distinct interactional and semiotic relations[20] between literacy and visual media (see **Table 1.1**), such as "anchorage" or "relay"[21] (Barthes); decorational, representational, organizational, interpretational and transformational as functions of images in text (Carney and Levin); equal and unequal, expansion, and projection, or (Martinic and Salway); Additive, intersecting, parallel combination, interdependent (McCloud); filling, adding, substitution, classified (Nordenfalk); redundant, complementary, supplementary, juxta-positional, stage-setting (Schriver); reduction, elaboration, amplification, extension, complementation and alternative progress, deviation (Nikolajeva and Scott; Schwarcz); intensive,

---

[20]   Word and image relations have always been a major concern of semiotic studies, in spite of the fact that the notion of text and image have undergone a significant change. Some studies have attempted to inspect image-text semantic specification (inter-semiotic) in a systemic functionalist, or functional stylistics vein (e.g., Kress, 2009; Lemke, 1998a, 1998b, 2002; Marsh and White, 2003; Macken-Horarik, 2003a, 2004), others to develop content classification schemata in a linguistic framework. For example, in the field of multimodality, a great deal of attention has been given to text-image semiotic relations. One can refer to the work done by Kress and Van Leeuwen such as Reading Images: *The Grammar of Visual Design* (1996), and O- Toole*, the language of displayed art* (1994) which were seminal to the understanding verbal and visual media combination. There are also some studies that deal with design process by altering the system of text-image relations from content to functional based classification. They put attention on design effectiveness and tried to find a proper answer to the following key questions: what exactly motivates the link between image-text cognitively and functionality. Among them, I may refer to Bateman, John. *Multimodality and Genre: A Foundation for the Systematic Analysis of Multimodal Documents.* Springer, 2008.

[21]   Barthes argues that "Anchorage", as one can find in traditional modes of illustration, identifies the kind of relationship in which text play major role in meaning making, whereas relay emphasizes the specific situation in which text-image interrelationship is balanced (See Bateman, 2014).

possessive, circumstantial (Painter et al.). But the question of how such interactional relations may improve conceptual and structural imitation and/or thematization of music has largely remained in the shadows. Thus, by looking at pluri-medial pages, we would like to contribute to intermediality as a theoretical endeavor. Image functions as token, text functions as value, intensive, possessive, circumstantial (Unsworth and Cleirigh).

Table1. 1.A Classification of Text-Image Relations Based on Pervious Findings

Image or text: Monomeric/Monoatomic functions		Image-text: the diatomic/ complementary functions	Image-text disagreement functions	Image-text comparable functions
Function of Images in text (Image-centric)	*Function of texts in image* (Text-centric)	C1. **Complementary** C1.1. Distribution C1.2. Augmentation	D1. Divergent D2. Juxtaposition D3. Conflicting D4. Contradictory D5. Contrast	E1. Redundant E2. Symmetrical E3. Reiterate E4. Direct semantic overlap E5. Exposition
A1. Decorative A2. Dependence A3. Control	A4. Narrative A5. Illustrative A6. Interpretative	C2. Supplementary C3. Expansion C4. Mutual Identification C5. Equal (relay)		**E6. Projection** E6.1. Locution E6.2. Conjunction
Picture specific Montage	Text-specific Montage	C6. **Convergent** C6.1. amplifying C6.2. Modifying		E7. Concurrence E8. Exemplification E9. Homospatiality Instantiation
		C7. **Expansion** C7.1. extension C7.2. elaboration C7.3. enhancement		
		C8. Circumstantial C9. Interdepend C10. Transformation C11. Organization C12. Augmentation C13. Parallel C14. Due specific		

Next, and as far as the focus of this book is concerned, the question remains how the inclusion of 'culture' may alter the process of musicalization. The central assumptions of intermedial approaches to media integrations and musicalization are: (a) qualifying media may reveal some 'operational' and 'contextual aspects' which may alter the presentation of music; and (b) the musical expressions differ, and those differences are linked to differences in history and culture. The first assumption requires us to attend to the specific intermedial strategies carried by the qualifying media in a culture. As Mitchell remarks, "the names of **image [or text** do] not necessarily mean that they all have something in common" [emphasis in the original] (Mitchell 504). Werner Wolf

very precisely comments on the same point when he mentions: "the basic ontological classification (artefact vs. natural object), which frequently extends to an aesthetic classification in the sense "I am an artwork", is fundamental and functional at issue [in media integration]"(Wolf "Metareference across Media" 64). In fact, "[d]ifferent disciplines are drawn to similar problems because the concerns underlying them are highly charged within a prevailing cultural context" (Hayles xi). This will advance research in intermediality on the assumption that there are also culturally specific media forms that provide distinguishable and special references to music or acoustic networks. It seems paradoxical that on the one hand *culture*[22] is regarded as the general medial principle underlying the aspects of intermedial practices, while on the other hand, the discussion and analysis of cultural strategies in intermedial reference to music is surprisingly small. To accomplish this, it is necessary to question how visual and verbal media interrelate in terms of communicative and aesthetic discourse. Therefore, we locate our analysis historically and culturally to understand the musicalization of two media: painting and poetry in Persian culture. Here it would be sufficient to mention that to date, most of the research carried out by Persian scholars on the relation between music and verbal and visual media has also focused on intertextuality or word-literacy relationships and inter-arts studies such as Dehlavi 2015; Hasanzadeh 2006; Qaraguzlo ; Tahmasebi 2000; Tavana 2013).

The second assumption requires us to understand the expressivity of the music medium in a cultural context; as we know, media in general and the medium of music, exclusively or in association with one another, have specific characteristics in relation to their context of production and reception. In other words, certain qualities of music are culturally specific. However, it is an unfortunate fact that up to now the scholarly attempts could not meet the conditions and contributions of Middle-Eastern music in this process. We may find some proper studies concerned with cultural strategies in the musicalization, such as Emily Petermann's interpretation of contemporary novels as *jazz novels* showed in the book *The Musical Novel: Imitation of Musical Structure, Performance, and Reception in Contemporary Fiction.* She had a close look at four

---

[22]   In their studies of the mediality and intermediality, Werner Wolf and Lars Elleström have always underscored the role of culture in this process.

contemporary novels which are written based on Johann Sebastian Bach's *Goldberg Variations*. Petermann's analytical view reveals that jazz music, as a form of African music, often plays a role in the content and theme of contemporary novels. Or Joanna Barska's essay "New Story from Old Words" (31-47), which is based on the western music system, suggesting a musical reading of *Fugue*, a novel written by Wisi Szostak. In Barska's thinking, *fugue* (from Latin, "flee; chase, pursue") is based on a "polyphonic play of voices", which occurs through imitation (hetero-reference strategy), repetition and fragmentation (self-reference strategies) of individual voices. Her research explores how the polyphonic form of a contemporary literary novel can have a high potential for musically engaging the readers of the novel (36-43). Where a connection of this kind has been suggested, it is focused primarily on Western culture, European classical music, or African music. And the investigation of Middle-Eastern music and related media has slowly receded further and further into the background.

Persian culture offers a specific music system that originated from oral thoughts and traditions. Therefore, it employs the material and applied elements in relation to orality itself. For me, the major reasons for the musicalization of media in Persian culture lies in the 'orality' of culture because it offers a distinct awareness of rhythm, silence, voice, sound, etc. While Persian culture cannot be explained as a purely oral culture, even today in Persian culture, expression is heavily governed by oral methods of composition. It is very interesting that the use of oral methods and the practice of oral expression within Persian culture is nor restricted to the choice of words, the syntactical styles, or the ways of harmonizing the words and sentences. And neither is it required to limit the borders by specific literacy genres such as poetry; nor can it be captured only by mere visual ways of constructing meaning such as visual arts. Rather, the oral expression is intended to spread into different layers of an individual medium and its medial conditions. This major fact was acknowledged by the famous scholar Walter Ong around a few decades ago in his book *Orality and Literacy: The Technologizing of the World*. He claimed that in oral culture 'speech' has a noteworthy position in conveying knowledge. Media, whether visual or textual, are considered as the 'instruments of speech'. The media, in an oral culture, are organized in some ways that reflect "sounds" and acoustic organizations for readers and viewers. Hence, oral people are not much interested in text itself, neither in the symbolic aspects, nor logic of

signification, but instead, they are more concerned either with temporal or spatial processing of sound and acoustic network (Ong). Bringing the medial conditions of verbal and visual media into an incredible and implausible acoustic culture could adeptly develop our insight and discernment on the mechanism in which they interact to refer to music. We would like, therefore, to stay in this line of inquiry and have a closer look at contributions of the Persian music system in the musicalization process. **The researcher's goal** is to accentuate the interplay between oral traditions and the Persian music system in manifesting a productive musicalized media genre produced from a combination of poetry and painting.

To achieve the main goal, the research applies the theory of intermediality. The main representatives of this notion whose work supports my dissertation, are Werner Wolf and Lars Elleström. Here it becomes necessary to define my own understanding of intermediality more precisely. In this research, I will use Lars Elleström's views on intermediality and Werner Wolf's typology of intermediality to analyze conventional media correlation in the musicalization process. Intermediality in this research refers to "as any crossing of medial borders *within* a given work or media product" (27). From this definition, it is clear that I will have to concentration upon a semiotic concern of 'intera-compositional' form and meaning-constitutional strategies that contribute to the media product's overall signification. Werner wolf in his article "Literature and Music Theory" (2015) speaks of intra-compositional form as "an integral part of the signification and/or the semiotic structure of individual works, texts or performances" (463). In this context, the study the intermedial references between media will be linked to theories of semiotics. Semiotics which form an integral part of the theory of intermedia help us to clarify and differentiate types of references in text-image, music and intermediality. Our examples are limited to a specific genre of storytelling within Persian culture. It must be also considered that the notion of medium will be used more in a cultural sense and not in a narrow and technical sense. Thus, the concept of intermediality pays more attention to the continuity and discontinuity of media integration in social and cultural contexts.

As you can recognize from the definition, I will be using the term "media product" rather than "text", as the former incorporates different media in the process of musicalization. The word "text" is usually used to cover a broad zone; it refers to a unit

of language in use which may be written as well as spoken (Petermann). It may be prose or verse, dialogue or monologue, etc. (Halliday and Hasan). "Text" begins to seem as an ambiguous word, particularly when there is a visual medium under analysis such as painting. Here, I would like to emphasize that a proper distinction should be made between intermediality and the similar notion of "multimodality".[23] "Multimodality" refers to the combination and participation of semiotic resources in one single artefact. While the focus of intermediality is on the relationships between media in terms of basic and qualifying aspects, multimodality puts emphasize on the "material mode" and the role it plays in the production of meaning.

What we will have in our analysis:

1. A cultural intermedial genre produced from a combination of poetry and painting.

2. Two dominant qualified media, namely poetry (*the Book of the Kings*) and painting (old, lithograph and digital illustrations).

3. A non-dominant medium = medium of music as referenced medium which is a result of the function of dominant medium-whether it be mono-medial or plurimedial function.

The musicalization occurs via the Monomedial and Plurimedial functions. While in monomedial function, only one medium of poetry (X) or painting (Y) refers to, or

---

[23]   The ontology of the term 'mode' presupposed by the theory of "multimodality" denotes the narrower linguistic sense of the terms as a semiotic resource which highlights the centrality of the linguistic framework in understanding the form, process, and practice of signification in each semiotic entity. While the multimodal approach may provide much that is of value, it ultimately describes music through the components of language (such as paragraph, sentence, phrase, word, verb, transitivity, etc.). Nevertheless, the clear segmentation of musical units, and their identification based on language components is much more difficult to be certain about (if not impossible). Werner Wolf also does not find this a useful principle for analyzing musical structures, particularly when it comes to smaller units such as sentences and words Halliday, Michael Alexander Kirkwood and Ruqaiya Hasan. *Cohesion in English.* Routledge, 2014. *English Language Series*. It is very instructive to consider that for Elleström also the notion of 'mode' as semiotic resource is misleading. He states that multimodality refers "to a combination of, say, text, image, and sound … [but] it produces rather indistinct set of modes that are very hard to compare since they overlap in many ways that are in dire need of further theoretical discussion" Wolf, Werner. *The Musicalization of Fiction: A Study in the Theory and History of Intermediality.* vol. 35, Rodopi, 1999.

presents acoustics/ music, in the plurimedial function both media of (X-Y) collaborate in the musicalization process.

Table 0-1. Relations Between Poetry and Painting in Intra-compositional Intermediality

Mono-medial Function	*Independence of Each Other:* there is no connection between them in the process	Probability of Relations $P\,(X \cap Y) = P\,(x)\,P(y)$
Pluri-medial function	*One-way Dependence*: One media may be dependent on the other, but the latter is not dependent on the former.	Probability of relation: $P\,(X \cap Y) = P(x)$
	Two-way Dependence. Two media may be dependent to one another and complete each other in the process of musicalization	Probability of relation: $P\,(X \cap Y) = P(x) = P(y)$
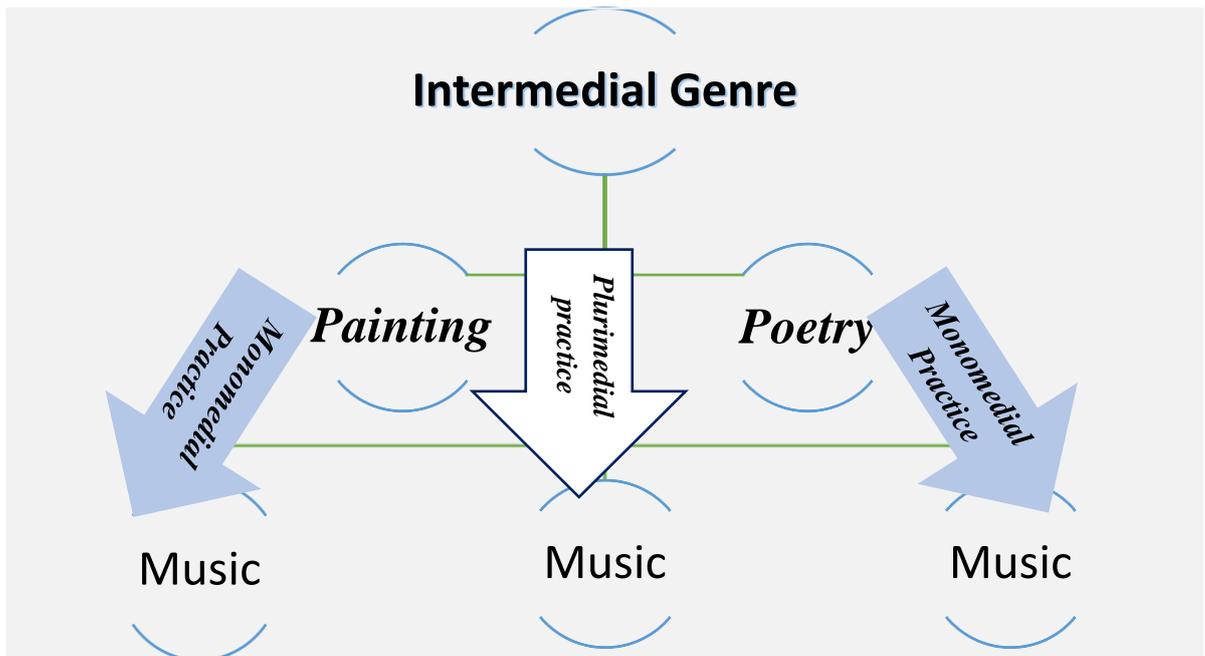
Figure1. 2.Media Specification

Dominant Media: Poetry& Painting. Non-dominant Medium: Music

1.3.2. Research aims

The researcher's goal is to accentuate the interplay between oral traditions and the Persian music system in the manifestation of a productive musicalized media genre. In this research, we try to find the proper answers for the following questions

- How do poetry and/or painting (plurimedial and monomedial forms) imitate and thematize the structure, features, and artistic effects of the medium of music?
- How does 'Persian music' particularize the intermedial references, or contribute in the musicalization process?

1.4. Choice of Material

The interrelation of cultural modes in the musicalization process and the ways the specific music systems contribute to musicalization of media require a comprehensive exploration of medial features in the given media products. As Elleström wrote, the understanding of cultural aspects of media is possible only by recognizing individual media ("The Modalities of Media").

The 'plurimedial' form of communication has a very long tradition in Persian culture. One can refer to historical forms of *Naqāali, Pardeh-dāri, Qavāli (minstrelsy), Epical Rhapsody, Pardeh- xāni, and šahnāmeh xāni.* Among such forms of representation, we do not cease to think of the combination of famous Persian poems with Persian traditional painting. The combination of these two-sister media has always been an exceptional one; whether in the choice of material and modes, the aesthetic and semantic functions, or the form in which semiotic resources appear on page. This typical pluramedial form combines Persian poems and the traditional Persian miniatures (*Negārgari* in Persian culture) to narrate heroic, mythic and dramatic stories. This unique media integration can be considered as an individual intermedial genre marked and differentiated by specific materiality, medial and forming principles. This form of representation is always considered the indication of Persian culture, semiology and aesthetics.

The specificity of combining painting and epic poetry stands in a dynamic relation to "convention", "invention" and "aesthetic", in both the production and the reception processes. I put emphasize on "invention" because they were produced by expert designers, rather than non-expert amateurs, who were aware how to structure a

proper form of representation (Drucher 5). Conventions are concerned with the historical changes and continuity in intermedial practices. In Persian culture, the emergence of each new plurimedial form of representation has been based on "de-automatization, or modification of the prevailing aesthetic norm" (Gillaerts 831–839). Very interestingly, since Persian culture has been predominantly oral (not literate), de-automatization in this culture is mostly achieved by poetic use of language; even prose is poeticized. It seems safe to assume that culture is an oral-to-written culture in which there is always a transformation of the similar principles across media: from the oral to the textual, and from the textual to the visual media. It is in this sense that any artistic practice cannot also fully be understood without grasping the oral features that determine new medial conditions in the process of intermediality.

The last emphasis is on aesthetic features in intermedial practices. As discussed in the previous part, the complexity or density of the qualifying aspects distinguish media correlations from one another. This density is achieved through the interaction of the multiple layers of contextual and operational features. This intermedial genre is created through the combination of visual and textual qualifying media or, in Jacuues Ranciere's term, "distribution of two sensible and two different aesthetic activities". Therefore, verbal and visual media continually refer to their status as poetry and painting, the qualifying media distinguished by contextual and operational aspects. Rethinking intermediality, in turn, poses questions about the ways in which the medium of painting imitates or thematizes elements, features or structure of music.

1.4.1. Qualifying Media Under Discussion
1.4.1.1. Poetry

to demonstrate some of the many ways that verbal texts present or refer to the medium of music, I ponder upon musicalization in the famous epic poetry known as *šāhnāmeh*[24] (*The Book of The Kings*). Epic poetry written by Ferdowsi (940-1025)

---

[24] Ferdowsi's *šāhnameh* has been highly communicated and transformed across multiple platforms. The adaption of this epic to film, animation, opera, puppet shows, and theater demonstrate global and local status of this epic poem. I can refer to the theater of "*Rostam* and *Sohrab*" directed by Mohamad Mosavāt, the opera of "*Rostam* and *Sohrab*" composed by Loris Kjenavorian, the animation of "*Rostam* and *Sohrab*", directed by kianush Dalvand and the puppet shows of "*Rostam* and *Sohrab*" directed by Behruz Ghribpur. This famous story was performed in different countries across the world such as in the performance of A ***trilogy of šahnāmeh in France*** 2012. *Rostam* and *Sohrāb* are national heroes in Persian culture. The selected verses for the main analysis were collected from Ferdowsi, Abuʾl-Qāsim. *Šahnāmeh*. Ghatre 2000. Collected by Saied Hamidiyan. And Ferdowsi. *Šāhnameh*. https://ganjoor.net/ferdousi/shahname/lohrasp/sh1/

divides the history of Persia into the three parts of mythical (kingdom of *Kiumars*), heroic (extending from the *Manučehr*'s region to the conquest of *Eskandar*) and historical (the *Sāsānian* Empire). Each section contains a selection of national and heroic stories of Greater Persia, such as *Tahmures, Jamšid, Zahhāk, Rostam, Bijan,* and *Farhād.* The poem that contains between 50,000 and 60,000 verses is considered to be the world's longest epic poem. It is the literary masterpiece of Persia and the model of ethno-national cultural identity for modern-day Iran, Afghanistan and Tajikistan. For the most part, the nature of the book is heroic and expressive, which explains the biography, victories and defeats of the Persian kings from the earliest period (the first king of the world, *Kiomars*) until the conquest of Persia in the seventh century (the *Sāsānian* régime). In all parts, the narrator establishes an endless contest between good and evil in his fictional world: he narrates the stories of real life. Ferdowsi employs a specific language that allows us to distinguish his narration from other coherent narratives. What makes *šāhnāmeh* always current is the function of his language as more expressive. A noticeable presence of oral features allows the possibility of experiencing an acoustic space that exists around the imaginary stories. In the musicalization process, the epic poetry not only specifies the intermedial practices in terms of the story-related musical concerns, but also in terms of form-related musical reflection. Based on oral thoughts and expression, the mono-medial contribution of the medium of poetry denotes a substantial analogy to, or an actual [formal] influence from the medium of music[25](Wolf *The Musicalization of Fiction* 51). All linguistic methods, such as the choice of words, word order, syntax and sound order, are practiced in the service of musical reading. The intermedial practices offer a uniquely transformed and changed arrangement of medial conditions and an opportunity for the reader to engage with a new musicalization method. The professionalized and particularized practice of media-correlation intends to deliver a musicalized form of storytelling. Very interestingly, musicalization practices have been profoundly altered by the Persian music system, which gains its values and intentions from oral thought and traditions.

---

[25]   Like comics, in which text and image sometimes refer to another medium such as film.

The referential strategies provide a "dialectic exchange"[26] between text and image[27] and musical messages.

1.4.1.2. Painting

"According to the scholarly value of any given image or genre of images can depend as much upon what question are asked of it as it does upon the nature of the image itself" (Davison 88). In working with various images and schemas in Persian culture, the author has acknowledged the importance of image in Iran's mixed-media culture. Nevertheless, the specific kind of painting called *Negārgari*, which supports poetic language in storytelling, confronts us with a qualified medium of another kind. From a historical point of view, Persian traditional painting, known as *Negārgari*, is a unique form of representation. The major account for the importance of the *Negārgari* –whether it reveals itself via illuminated manuscripts or printed books – in the history of Persian pictorial representation is their individualized medial system. This individualized medial system, which is marked by specific materiality, aesthetic qualities and forming principles, offers the opportunity to engage with a new imaginative world. It is distinguished by the ways in which visual resources (such as colors, lines, forms, shapes) are employed in the service of narratives. The basic and advanced graphic elements, specific colors, and unique framing technique are merged together and subjected to a coherent purpose. The basic and qualifying features have been historically developed to create an optically harmonized entity that, today, defines our understanding of a pictorial medium. During its historical progress, its combination with Persian poems created the order-giving activities that are submitted under plurimedia forms of storytelling.

Šāhnāmeh's illuminations have specific medial conditions, whether they reveal themselves via illuminated manuscripts or printed books. As one of the bases of their medical conditions, painted illustrations in *šahnāmeh* became the deliverers of intermedial qualities. *Šāhnāmeh*'s illustartions not only specify the intermedial practices in terms of the story-related intermedial concern, but also in terms of form-related

---

[26]   As W.J.T. Mitchell in *Iconology* remarks that the verbal and visual seems forever locked in a dialectic exchange.

[27]   My definition of visual images is based on W.J.T. Mitchell's (quoted in Fjellestad 2010, 12): 'any recognizable figures and likenesses, pictograms, geometrical shapes, drawings, photographs, musical notations, or doodles.'

intermedial reflection. *Negārgari* introduces a system of pictorial depiction whose means are capable of evoking a musical quality. Persian painting carries within itself some aesthetic media properties, through a musical quality, that can be allocated to narratives. With reference to both media, there are also highly recitational dimensions, such as rhythmic, metric, systemic and generic, which in one form or another involve specific **referential strategies** in their musicalization processes. Expert designers make use of creative devices of iconic, symbolic and self-references to communicate about the other medium and bring attention to the content, structure, effect and quality of music.

To clarify the intermedial strategies employed by the visual medium, the illustrations have been selected randomly from manuscript, lithograph and digital *šāhnāmeh*. The images examined in this thesis are unavoidably selective, reflecting the characteristics that I found more relevant and productive. They are selected from the most famous traditional illuminated manuscripts, including *šāhnāmeh* of *šāh Tahmāsb*[28], *šāhnāmeh of šāh Esmāil*, the second lithograph *šāhnāmeh*[29] (illustrations attributed to Mirzā Ali-qoli Xuie) and the digital *šāhnāmeh* illustrated by Hamid Rahmanian[30]. A brief look at the historical development of the illuminated manuscripts reveals that there is mostly a typical portion of verbal text along with a pictorial portion on the page. It is completely conceivable that the length of the poetic text could prevent the designer from making depictions of each letter, event or the story of the text. Therefore, in different versions of illustration, the pictorial portion has been used to

---

[28]   One of the landmark achievements of Persian miniature painting and indeed of Islamic art in general is the *šāhnāmeh* created for the Safavid ruler Tahmasp I (r. 1524-76) in present-day Tabriz, Iran. Some images of the illustrations were provided by "Museum of Golestan Palace" (Ferdowsi, Abu ʾl-Qāsim. "The Šahnāmeh of Šāh Tahmasp: The Persian Book of Kings." *The šahnāmeh of šāh Tahmasp*, edited by Cultural Heritage, Museum Of Golestan Palace 2016). Unfortunately, the curator did not allow me to access information and a detailed description of the illuminated manuscripts. Some images were downloaded from https://www.pinterest.de/. And https://islamicartreference.wordpress.com/. For more information about the illustrations and the related stories please see Candy, Soheila R. *The Shahnama of Shah Tahmasp: The Persian Book of Kings.* Metropolitan Museum of Art, 2014.

[29]   The firs lithograph *šāhnāmeh* was published in Mumbai (1846). Two years after the publication of *šāhnāmeh* in India, the king of Iran Naser al-Din šāh ordered the publication of a new lithograph *šāhnāmeh* in Iran. The version was illustrated by Mirzā Ali-qoli Xuie in 1848. Today, there are only two copies available in Iran which can be found in the manuscript collections of Dr. Jahangir Kazeruni and Farial Salašur.

[30]   "The Shahnameh in Print: The Lithographed Editions of the Persian National Epic." *Journal of M.E. Literatures*, vol. 13, no. 2, 2002, pp. 177-198.

narrate not sequential, but selected stories of *šāhnāmeh*. Lithographic print brought some changes in medial conditions of the visual medium, thus, the intermedial reference to music has been modified and reproduced. The post-modern age *šahnāmeh* has combined the old and new elements and the medial conditions in musicalization of stories. This simply implies an effect of technology on the modification of intermedial strategies. But it does not indicate the absence of a continuity between intermedial strategies, since cultures always span time and maintain a continuity between past, present and the perceived future. We want to underline the cultural transformation of musicalization and alternation of intermedial strategies during their historical transformations.

1.5. Structure of the Thesis

The aim of this thesis is to provide a rewarding read of the intermedial relations between poetry, painting and acoustics/music. The thesis is organized in such a way as to separate the analysis of musical features into different chapters. The book consists of different analytical chapters that provide a complete discussion of the musicalization process in a mixed-media genre of storytelling.

Chapter one, "Text/Image/Music Referentially & Musicalization", addresses the key questions of intermedial studies: How do different media present or signify each other? How do modality modes of media change and facilitate the presentation and signification of another media? The chapter takes a close look at the similarities and differences between the various media to clarify the connections between media in terms of signification. It then concentrates on the issues of referentially in media to map possible "intermedial references" in the musicalization process. At the end, the chapter maps a frame of reference, in both media of poetry and painting, to provide a better understanding of the media correlation in the process of intermediality.

The second chapter, "Improvisational Performance", brings an additional perspective to bear on musicalization practice in an oral culture. My interest focuses on the correlation between painting and poetry in providing intermedial references to music performance, and more specifically improvised music. The chapter offers a clear definition of improvisation in the Persian music system and the ways orality of culture

influence this form of performance. The second section focuses on parameters of performance and improvisation posed by poetry and painting in the plurimedial genre under question. It explores the different forms of references through which the plurimedial genre challenges the perception of the reader and the viewer in the framework of improvisation.

Chapter three, "Features and Elements of Vocal Style of *Avāz*", draws attention to the importance of Persian vocal music, known as *avāz*, its features and elements. It discovers the features of vocal style in the plurimedial genre under discussion. The analysis tries to find out the presentation of linear and cyclic rhythms, homophonic texture, tahrir, leading and stop notes, variations in rhythm and modal movement in the plurimedial genre under discussion.

Chapter four, "Heroic Music and A Generic Representation", focuses on media integration and configuration in terms of similar genericity. I argue that heroic music cannot be separated from epic poetry, mainly because of the cultural signals and the continuity in the cultural habit of listening. The chapter underlines how a *system of ideas* may influence the perception of a genre in media correlations. It employs this idea to comment on heroic music and its specifically recognized features in Persian culture. The analysis draws attention to the *fluctuation* character of meter, music of *Zurxāneh*, narrative music and regional dances to explore the influence of the system of ideas on the perception of heroic music in this framework.

Chapter five, "Meter and Symmetrical Balance", covers the intermedial-based relations of text and image in terms of the music concept of "symmetry". The shaping and structuring of music symmetry in narrative design, more specifically the absolute transformation, is explored. I show how epic poetry, by suggestive arrangement of the story material and events, has imitated symmetrical aspects of Persian music. It also serves to draw attention to "permutation equality", phrasing a balance and a thematic representation of poetry and painting in the musicalization process.

Works Cited

. (U.S.), Research Center for Musical Iconography. "Music in Art: Iconography as a Source for Music History." *The Ninth Conference of the Research Center for Music Iconography, Commemorating the 20th Anniversary of Death of Emanuel Winternitz (1898-1983)*, vol. 2, 2003.

Barska, Joanna. "New Story from Old Words": Word and Music Studies and the Poetics of Experience." *Ideology in Words and Music: Proceedings of the 2nd Conference of the Word and Music* edited by Beate Schirrmacher et al., vol. Stockholmer Germanistische Forschungen 79, Acta Universitatis Stockholmiensis, 2014, pp. 31-47. http://www.diva-portal.orghttp://www.diva-portal.org.

Barthes, Ronald. *Image, Music, Text.* Fontana Press 1977. Essays selected and translated and by Stephen Heath.

Bateman, John. *Multimodality and Genre: A Foundation for the Systematic Analysis of Multimodal Documents.* Springer, 2008.

Bennett, Jill. "Aesthetics of Intermediality " *Art History*, vol. 30, no. 3, 2007, pp. 432-450, doi:10.1111/j.1467-8365.2007.00554.x.

Bernhart, Walter, editor. *Word and Music Studies: Essays on Performativity and on Surveying the Field* Bril (Rodopi), 2011.

Carney, Russell N. and Joel R. Levin. "Pictorial Illustrations Still Improve Students' Learning from Text." *Educational psychology review*, vol. 14, no. 1, 2002, pp. 5-26.

Chandler, Daniel. *Semiotics: The Basic* Second edition, Routledge, 2007.

Colombi, Matteo and Massimo Fusillo. "Artaud, Barney, and the Total Work of Art from Avant-Garde to the Posthuman." *CLCWeb:Comparative Literature and Culture*, vol. 15, no. 7, 2013.

Davison, Alan. "Representing Music -Making." *The Routledge Companion to Music and Visual Vulture* Routledge 2014, pp. 87-95. Tim Shephard and Anne Leonard.

Dayan, Peter. "Introduction the Five Laws of the Interart Aesthetic." *Art as Music, Music as Poetry, Poetry as Art, from Whistler to Stravinsky and Beyond*, Ashgate, 2011, pp. 18-26.

Dehlavi, Hosein. پیوند شعر و موسیقی آوازی *[the Relation between Poetry and Vocal Music]*. موسسه فرهنگی هنری ماهور [Cultural and Artisti Institute of Mahur], 2015.

Eilittä, Leena. "Introduction: From Interdisciplinarity to Intermediality." *Intermedial Arts: Disrupting, Remembering and Transforming Media*, edited by Leena Eilittä et al., Cambridge Scholars Publishing, 2012, pp. xii-xv.

Eilittä, Leena and Liliane Louvel, editors. *Intermedial Arts: Disrupting, Remembering and Transforming Media*. Cambridge Scholars Publishing, 2011.

Elleström, Lars. "The Modalities of Media: A Model for Underestanding Intermdedial Relations." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, Palgrave Macmillan, 2010, pp. 11-48.

Gimber, Arno and Asunción López-Varela Azcárate. "About Intermedialities: A Review Article of New Work by Paech and Schröter, Chapple and Kattenbelt, and Ellerström." *CLCWeb: Comparative Literature and Culture*, vol. 12, no. 3, 2010, http://docs.lib.purdue.edu.

Goltz, Wanja Matthias Freiherr von der. "Functions of Intertextuality and Intermediality in the Simpsons." *Der Fakultät für Geisteswissenschaften*, vol. Ph.D, Philosophie, Duisburg-Essen, 8th August 2017 2011, p. 282. general editor, Josef Raab.

Griffin, Eve. "Wassily Kandinsky Artist Overview and Analysis." The Art Story Contributors http://www.theartstory.org/artist-kandinsky-wassily.htm. Accessed 29 Jul 2017 2017.

Halliday, Michael Alexander Kirkwood and Ruqaiya Hasan. *Cohesion in English.* Routledge, 2014. *English Language Series*.

Hasanzadeh, Mohamad Hosein. "رزم ابزارهاي مجازي در شاهنامه [Combat of Virtual Instruments in Šhahnāmeh]." *Kavoshnameh*, vol. 8, no. 14, 2006, pp. 107-135.

Hayles, N. Katherin. *Chaos Bound: Orderly Disorder in Contemporary Literature and Science* Cornell University Press, 1990.

Herkman, Juha et al., editors. *Intermediality and Media Change* Tampere University Press 2012.

Ingham, Michael. *Stage-Play and Screen-Play: The Intermediality of Theatre and Cinema.* Taylor & Francis, 2016.

Jormakka, Kari. *Flying Dutchmen: Motion in Architecture.* Birkhäuser 2002.

Kandinsky, Wassily and Hilla Rebay. *Point and Line to Plane* Dover Publications 1979.

Kattenbelt, Chiel. "Intermediality in Theatre and Performance: Definitions, Perceptions and Medial Relationships." *Culture, Language and Presentation*, vol. VI, 2008, pp. 19-29.

Kobayashi-Bredenstein, Naoko. *Wassily Kandinskys Frühe Bühnenkompositionen Über Körperlichkeit Und Bewegung.* Walter de Gruyter 2012.

Martinic, Radan and Andrew Salway. "A System for Image–Text Relations in New (and Old) Media." *Visual Communication*, vol. 4, no. 3, 2005, pp. 337–371, doi:10.1177/1470357205055928.

McCloud, Scott *Understanding Comics: The Invisible Art.* Mass, 1993.

Mitchell, W. J. T. *Iconology: Image, Text, Ideology.* University of Chicago Press, 2013.

---. "Showing Seeing: A Critique of Visual Culture." *Journal of Visual Culture*, vol. 1, no. 2, 2002, pp. 165-181, doi:10.1177/147041290200100202.

Mitchell, WJ Thomas. *Picture Theory: Essays on Verbal and Visual Representation. .* University of Chicago Press, 1995.

Nikolajeva, Maria and Carole Scott. *How Picturebooks Work.* Routledge, 2006.

Nordenfalk, Carl Adam Johan. *Studies in the History of Book Illumination.* Pindar Press 1992.

Nöth, Winfried. "Self-Reference in the Media: The Semiotic Framework." *Self-Reference in the Media*, Mouton de Gruyter, 2007, pp. 3-30.

Ong, Walter J. *Orality and Literacy:The Technologizing of the World* Routledge, 1982 (2002).

Painter, Clare et al. *Reading Visual Narratives: Image Analysis of Children's Picture Books.* Equinox Publishing, 2013.

Petermann, Emily. *The Musical Novel: Imitation of Musical Structure, Performance, and Reception in Contemporary Fiction.* New-Edition edition, Camden House, Boydell & Brewer, 2014. *European Studies in North American Literature and Culture*, vol. 03.

Qaraguzlo, Araš. "بحر متقارب از منظر زیبایی شناسی] Aesthetic of Moteqareb Meter [." *Parnian Soxan*, pp. 363-388.

Salamon, Justin J. "Melody Extraction from Polyphonic Music Signals." *Universitat Pompeu Fabra*, vol. Ph.D Information and Communication Technologies, Universitat Pompeu Fabra, 8th August 2017 2013. general editor, Emilia G´omez Guti´errez.

Schimmel, Annemarie. *Rumi's World: The Life and Works of the Greatest Sufi Poet.* Shambhala Publications, 2001.

Schriver, Karen A. . *Dynamics in Document Design: Creating Text for Readers.* Wiley, 1997.

Schwarcz, Joseph H *Ways of the Illustrator: Visual Communication in Children's Literature.* American Library Association, 1982.

Schweighauser, Philipp. *The Noises of American Literature 1890-1985: Toward a History of Literary Acoustics.* 1st edition edition, Library of Congress Cataloging-in-Publication Data 2006.

Shephard, Tim and Anne Leonard, editors. *The Routledge Companion to Music and Visual Culture*. Routledge, 2014.

Tahmasebi, Arshad. وزن خوانی واژگانی (*Lexical Metric Reading).* Mahur 2000.

Tavana, Akram Ahmadi. "بررسی بینامتنی نگارۀ پادشاهی جمشید از شاهنامة بایسنقری] Th Analysis of Shahname Baysonghori 'S Illustartion of Kingdom of Jamshid]." *Scientific and Cultural Journal of Nazar*, no. 25, 2013, pp. 47-54.

Unsworth, L and C Cleirigh. "Multimodality and Reading: The Construction of Meaning through Image-Text Interaction." *The Routledge Handbook of Multimodal Analysis*, edited by C. Jewitt, Routledge, 2009, pp. 151-163.

Wagner, Petra Susanne. "The Rhythm of Language and Speech: Constraining Factors, Models, Metrics and Applications

" vol. Habilitationsschrift, Humanities Rheinischen Friedrich-Wilhelms-Universitat Bonn, 2008.

Wolf, Werner, editor. *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, vol. 14. Brill, 2015.

---. "Intermediality Revisited: Reflections on Word and Music Relations in the Context of a General Typology of Intermediality." *Word and Music Studies* vol. 4, no. 1, 2002, pp. 13-34.

---. "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1,* http://dx.doi.org/10.1515/9783110311075-026.

---. "Metareference across Media: The Concept, Its Transmedial Potentials and Problems, Main Forms and Functions." *Metareference across Media: Theory and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement*, edited by Werner Wolf et al., Rodopi, 2009, pp. 1-85.

---. *The Musicalization of Fiction: A Study in the Theory and History of Intermediality.* vol. 35, Rodopi, 1999.

Wolf, Werner et al., editors. *Metareference across Media: Theory and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement*. Rodopi, 2009.

Wolf, Werner and Walter Bernhart, editors. *Description; in Literature and Other Media*. Rodopi, 2007.

Wurth, Kiene Brillenburg. "Multimediality, Intermediality, and Medially Complex Digital Poetry." *RiLUnE: Review of Literatures of the European Union*, vol. 5, 2006, pp. 1-18.

Chapter 2
Referentiality in the Musicalization of Media

2.1. Introduction

Any crossing of medial borders *within* a given work or media product is usually intra-compositionally perceived.[31] That means that intermediality is "an integral part of the signification and/or semiotic structure of the works under consideration"(Wolf "Intermediality Revisited" 21). As far as musicalization of verbal and visual media are concerned, intra-compositional intermediality includes music in the signification and/or semiotic structure of the target media of painting and poetry. What we are dealing with is a clear conjunction of media, or media interactions in the context of "signification". According to Wolf, "the reason for this is that intermedial reference exclusively operates on the basis of signifiers of the dominant 'home' medium or 'source' medium".[32] From a semiotic perspective, thus, a question remains to be answered: how do painting and poetry signify or refer to music? And how may qualified features in painting and poetry, as two that qualify, alter the musicalization process? Here, the problem revolves around the assumption that in distinct media forms "signification" appears differently, which may pose some challenge in the examination of intermedial practices. To meet the challenge posed by media while presenting each other in an intermedial practice, we need, therefore, to place attention on dimensions and conditions of 'referentiality' in the

---

[31]   The intra-compositional form of presentation can be found, for example, in the 'alphabet letters' or 'artful alphabets' in medieval manuscripts, in which Leslie Ross (2014) refers to them as a representation of 'pictures in words'(for more information on text-image relations in alphabet letters please see Elleström, Lars. "The Modalities of Media: A Model for Undereestanding Intermdedial Relations." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, Palgrave Macmillan, 2010, pp. 11-48.). Another example of this phenomenon can be found in some **rhyming recipes,** such as Salad Poems in which solo text is perceived as a visual medium.

[32]   Wolf provides a detail explanation of intracompositional intermediality in "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1,* http://dx.doi.org/10.1515/9783110311075-026. See also Wolf, Werner. "Intermediality Revisited: Reflections on Word and Music Relations in the Context of a General Typology of Intermediality." *Word and Music Studies* vol. 4, no. 1, 2002, pp. 13-34.And ---. *Selected Essays on Intermediality by Werner Wolf (1992–2014): Theory and Typology, Literature-Music Relations, Transmedial Narratology, Miscellaneous Transmedial Phenomena.* Brili, 2017.

media system. To explore this connection, we are concerned with Peircean theory of the interpretant to distinguish and connect media in the process of signification. Obviously, such consideration helps us to understand how 'medial conditions' in different media collaborate in the process of intermediality and how "culture" leads to a media specification and individualization in media integration.

2.2. Media, Signification and Referentiality

Communication is a two-sided process of 'encoding' and 'decoding'[33] a message. The encoding process demands a medium for transmission and a system of sign, and the decoding process needs a proper knowledge of the medium of transmission and of the potential sign system. In a wider spectrum, the main goal of the sender in a communication model is to achieve a successful interpretation from the side of the receiver. As Chandler also claims, "[t]he most basic task of interpretation involves the identification of what a sign represents […] and may require some degree of familiarity with the medium and the representational codes involved" (194). In media science, it is often said that in a similar process, the main function of media is to produce 'referential' meaning. In other words, identification of what a sign represents is dependent upon the 'referentiality' of the sign. Therefore, to understand the meaning of a sign, one should be aware how 'referentiality' works in the potential sign system. It is natural, now, to think of the referential relations between visual/verbal media and musical signs in the process of signification.

'Referentiality', in semiotic terms, refers to the material or factual quality of the world, which is depicted and presented by media signs. According to Kress & van Leeuwen, "[a]ny [sign] represents aspects of world that are actually experienced by humans" (42). 'Referentiality' of media has been discussed a lot in the semiotics of structuralism and constructivism. Many scholars (for example, Ronal Barthes; Noam Chomsky; Umberto Eco; Winfried Nöth; Charles Sanders Peirce; Ferdinand de

---

[33]   Everyday references to communication are based on a 'transmission' model in which a sender transmits a message to a receiver (Chandler 178). Contemporary semioticians refer to the creation and interpretation of texts as 'encoding' and 'decoding' respectively. In the context of semiotics, 'decoding' involves not simply basic recognition and comprehension of what a text 'says', but also the interpretation and evaluation of its meaning with reference to relevant codes (Chandler178). For more information see ---. *The Musicalization of Fiction: A Study in the Theory and History of Intermediality.* vol. 35, Rodopi, 1999.

Saussure; Roman Jakobson) have offered distinct and important ideas about the 'referentiality' of signs. Perhaps, the nature of this view has its root in realist philosophy in which "words have their meaning through reference (what they point to or reveal)" (Kress and Leeuwen 166).

The semiotics of structuralism is concerned with units of languages in use, the functions of those units and the structural relationships between them. Ferdinand de Saussure, as a famous semiotician, called attention to the significance of institutional and social conventions in the structural relations of signs. In his *Course in General Linguistics,* Saussure claimed that sign simply has a form (a signifier), which represents a concept (the signified). Based on this assumption, he makes a distinction between signifier/signified and *langue/parole* (language and speech). While *signified* is a concept in mind, *signifier* is recognizable by "reference". To put it simply, Saussure puts emphasize on one-to-one relations between sign and reality. His classical view defines sign as something that refers to, or stands for, something else. This semiotic model was employed by key figures in semiotics, such as Jacques Lacan, Claude Levi-Strauss, Ronald Barthes, Roman Jacobson and Umberto Eco in the study of languages and the process of signification. This model has often been the basis of recent theories of intermediality.

In contrast to Ferdinand de Saussure's semiotics, which consider only linguistic signs, Charles Sanders Peirce developed an innovative semiotic theory that includes all kinds of sign systems in the process of signification. To find a proper answer for the question "how signs contribute to the acquisition of knowledge" (Allen and Hardin 3), Charles Sanders Peirce defines a triadic relation between a sign, its object, and an interpretant (CP 6.347). According to Peirce, a sign (a representamen) "is something which stands to somebody for something in some respect or capacity… It stands for that object, not in all respects, but in reference to a sort of idea" (Jappy CP 2. 228). Nöth, by referring to Peirce's theory, mentions that a sign of any sort should not only represent some "real" object". Rather, a sign may represent a mere idea or something purely imaginary (17-28). Cultural theorist Stuart Hall in the essay "Representation, Meaning, and Language", underlines a similar point when he remarks: "[m]eaning depends on the relationship between things in the world – people, objects and events, real or fictional – and the conceptual system, which can operate as mental representations of them"

("Semiotic Foundations of Iconicity in Language and Literature" 18). Consequently, in Peirce's theory, the nature of sign action is more **relational** rather than referential. And the relation between sign and object can be constructed either dynamically on basis of the structural similarities between them, or immediately based on a hint. Peirce explained the possible relations as:

- **Indexical relation:** in an indexical sign, there is a direct relation between sign and the object it represents. In other words, the signifier makes a causal or natural relation to the signified such as pointing gestures which 'points to' or **thematize** the object. Thus, 'reference' in indexical sign is *extrinsic* because it has referentiality to the world outside itself.

- **Iconic relation:** The iconic sign constructs at least a resemblance or a similarity in terms of character or quality with the represented object; it 'shows' itself. According to Jappy, iconic sign shares at least one character or quality with the object it represents"(83). An iconic sign, instead of a direct reference to something in the world, presents or refers to its quality in terms of form, structure or effect. The visual media (such as painting) employ the mode of showing to imitate objects they present.

- **Symbolic relation:** The relation between sign and object can be symbolically defined. There is no an obvious relation between sign and the physical world object; the relation between the signifier and the signified is conventional rather natural.

Later in 1904, Peirce altered his semiotic theory by bringing attention to the "self-referentially" of the sign system in the process of signification[34]. He claimed that all categories of signs (whether iconic, indexical or symbolic) can stand for nothing but themselves. Peirce explains that a sign has two objects: its object as represented and its object in itself. There are also three types of **interpretants**: its interpretant as represented or meant to be understood, its interpretant as it is produced, and its interpretant in itself (Bernhart and Wolf 32). Broadly speaking, 'self-referentiality' refers to the "quality of signs and sign systems that point to themselves or to similar and contrasting elements within one and the same semiotic system" (Wolf *Selected Essays*

---

[34]   A detail explanation of self-referentially can be found in Jappy, Tony. *Introduction to Peipcean Visual Semiotics* Bloomsbury Academic 2013, Nöth, Winfried. "The Death of Photography in Self-Reference." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, vol. 6, Mouton de Gruyter, 2007, ---. "Self-Reference in the Media: The Semiotic Framework." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, Mouton de Gruyter, 2007, pp. 3-30.

6). By consideration of Peirce's theory, self-referentiality can also be indexically, iconically and symbolically perceived.[35]

Table 2-1. **Dimensions of Self-referentiality**

Self-referentiality	Sign-itself relation
Indexical Self-referential	Pointing to itself or its creator
Iconic Self-referential	Showing itself or its creator
Symbolic self-referential	Symbolizing icon and index

2.3. Intermediality and Paradox in Referentiality

The challenge to work out the relationship between poetry, painting and music from the intermedial perspectives is an ambitious enterprise in media and semiotic sciences. It is a tough task because we must bridge between different medial conditions in visual, verbal and aural media. **Text[36]** as a written and readable form employs a flat surface as material modality to communicate. It expresses concepts through a writing system and conventional ways of ordering language components. The arrangement of signifying units or language components take place in the temporal manners; text as a symbolic entity is unfolded in time. In contrast to linguistic signs, **image** offers the presence of the thing in its absence[37] by virtue of the fact that it shares at least one characteristic or quality with the object it represents (Lechte 83). Visual medium employs the basic elements of line, shape, value, color, texture and space to express meanings. The perception of visual medium is dependent on the sense of vision. And for iconizing or showing the world, the visual medium is encoded in space, thus, it is a spatial medium rather than a temporal one. **'Music'** is about the organization of sounds (tunes) in time; "the physical nature of music is sound-temporal" (Jappy). Music has an abstract and changing nature because it employs sound waves to communicate. In other words, in music we are merely concerned with properties of sounds such as pitch, tone, and

---

[35]   The classification was based on Peirce 's typology of signs in 1903.
[36]   For more information on 'text' and 'image' see Barthes, Ronald. *Image, Music, Text.* Fontana Press 1977. Essays selected and translated and by Stephen Heath, Peirce, Charles Sanders and Victoria Welby. *Semiotic and Significs. The Correspondence between Charles S. Peirce and Lady Victoria Welby.* Indiana University Press (Original from the University of Michigan), 1977.
[37]   See also Bateman, John. *Text and Image: A Critical Introduction to the Visual/Verbal Divide.* First edition, Routledge, 2014.

internal, dynamic, tone color, accent to create rhythm, melody and harmony, which do not show the real dynamic objects.

As shown, each medium inevitably poses its own sensory mode in terms of challenging human perception, and this is revealed in our everyday observation of different media through the perceptual rules guiding our brain, or sense faculties. While the faculty of imagination and vision are dominant in the perception of poetic and visual texts, music is predominantly perceived acoustically through the sense of hearing. As we may also notice, in visual, verbal and aural media the units of the system (patterns of media) and the basic components of defining/understanding meaning are also different. However, this distinction between media does not reject similarity, resemblance, and analogy between them. Some scholars such as Ellestöm 2010; Gelikman 2010; Wolf 2009 claim that every medium or language of communication is in its very construction like another medium. From an intermedial perspective, there should be some sort of compatibility or similarity between media. Otherwise, any intermedial relationship between media would be unthinkable.[38] This might come from a semiotic status, a certain rule in encoding and decoding practices, the sensory channels, or elements of communication. For example, "the general similarities between musical and literacy signifiers which is most frequently commented on consist in their both being originally of an acoustic nature and in the fact that they dynamically unfold on the axis of time rather than in space" (Wolf *Musicalization of Fiction* 15). This is especially clear with respect to poetry; "their signifiers share the qualities of pitch, timbre, volume and rhythm" (Wolf *Musicalization of Fiction* 15). Painting and music also have a connection by "emotional expressivity". Both media are used to communicate more inner feelings rather than inner thoughts. Jennifer Sue Shank in her doctoral dissertation, "The effect of Visual Art on Music Listening", mentions that both music and visual structures evoke human feelings by using of their own structure (21). The synthesis of senses or sound-sight[39] coordination can also create a connection between two media.

---

[38]   For Understanding the comparability between media in musicalization please see Gelikman, Oleg. "Intermediality and Aesthetic Ththeory in Shklovsky's and Adorno's Ththought." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011.

[39]   The core function of expressivity in both image and music in intermedial relations is achieved by the shared iconicity between two arts, which is perceived by the visual senses. The sense of vision has a momentous role in the perception of a musical quality. Rihard Leppert mentions that "a semiotic

To consider the different points of view on this subject, it seems that all visual, aural and textual media may contain similar and different medial conditions which challenge the crossing of medial borders. This reveals that a simple identification of analogous and disparate medial conditions does not give the proper answers to the questions related to musicalization. Instead, the more productive method is to concern oneself with the corporation of similar and dissimilar medial features in the process of signification; both from the semiotic and intermedial perspectives. Therefore, we do not get far if we claim that a clear conjunction of media or media correlation is about whole collaborative **relations**[40] between media in the context of signification. As a more representative example of this outlook, I shall quote the definition of the intra-compositional (narrow definition) form of intermediality from Werner Wolf: it refers to "a direct or indirect participation of more than one medium in the signification and/or structure of a given semiotic entity (a work) (Wolf *The Musicalization of Fiction: A Study in the Theory and History of Intermediality* 460).

To understand how different medial conditions in poetry or painting collaborate to signify, present and refer to music, we are apparently confronted with two major conflicts: ambiguity of the visual medium and the abstract nature of the medium of music in the process of signification. As we mentioned earlier, the visual medium is not an organized entity clear and free of ambiguity. As W. J. T. Mitchell claims in his article "What Is an Image?" (1984), the image has an analogical character as an ability to suggest something as "there" and "not there" at the same time[41] (510). Jenefer Robinson also states, by referring to same point, that "[w]hile image may identify a specific person or thing or event" (483), but the message it offers certainly has a polysomic nature. Thus, one cannot be ensured of a precise meaning from image. The medium of music also seems to fail 'referentially' to something outside itself. Some musicologists, such

---

uncertainly…is ultimately resolved to a significant degree via the agency of human sight" …The importance of vision to visual art is not the physiological phenomenon of seeing (animals see; they do not make art) but perceiving, which of course is governed by the eyes in conjunction with the brain and, indeed, with of the entire human organism in its relation to external reality (8-10).

[40]   According to Mitchell, the necessary subject matter is "the whole ensemble of *relation*s between media, and relations can be many other things besides similarity, resemblance, and analogy" ("Beyond Comparision: Picture, Text, And Method" in *Picture theory: essays on verbal and visual representation* 89).

[41]   For more information on analogical characteristics in the image, see Wolf, Werner. "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1*, http://dx.doi.org/10.1515/9783110311075-026.

as Theodor Adorno and Leppert, believe that "[m]usic does not form a system of signs" (113). It means we cannot assume a meaning or denotation outside it since music does not refer to a physical object in the world, which has a certain quality (ϕ is true if it reflects ϕ); there is not partial or total reflection of objects in musical signs. Viewed from a semiotic perspective, music as a language exemplifies the failure to refer to something outside itself. Saussure calls attention to a similar point when he states:

> The sound pattern is not actually a sound; for a sound is something physical. A sound pattern is the hearer's psychological impression of a sound, as given to him by the evidence of his senses. This sound pattern may be called a 'material' element only in that it is the representation of our sensory impressions. The sound pattern may thus be distinguished from the other element associated with it in a linguistic sign. This other element is generally of a more abstract kind: the concept. (1983 66; 1974 66)

Scholars such as Werner Wolf, Walter Bernhart and Ronald Barthes have also acknowledged that music is isolated within itself and does not provide a proper reference to the external world. According to Bernhart and Wolf, music may be recognized as "the most abstract and non-referential medium"(59). This is a certainly challenge for anyone who wants to study intermediality. Here, we should not forget that there are also other theoretical positions that are concerned with music as a sign system. Some scholars have expressed distinct reservations about 'referentiality' in music, arguing that music seemingly has its own semantic units (semiotic resources) in the process of signification, such as meter, rhythm, tone color, pitch, and tone in the process of signification. They believe that "music consists of complexes of discrete units in which (chain of) signifiers…are or can be related to signified or at least to particular functions and do have meanings" (Wolf *The Musicalization of Fiction* 23). Martinez, for example, observes that "[m]usic is a species of thoughts; and thus, the idea that music is sign and depends on significative process, or semiosis, is obviously true" (1). From this perspective, music is similar to language (language as a typically referential sign system) and has the ability to 'say' something (Martinez 33). For Martinez, "a musical sign could be a system, a composition or its performance, a musical form, a style, a composer, a musician, hers or his instrument, and so on" (1). To see how just in challenging both perspectives, we need to ask how music can communicate without any referential purpose. We might need to go further and ask whether musical signs can essentially include an object or not.

2.3.1. Dimensions and Conditions of Reference in Music

The celebration of the uncertainty of music in the process of signification, perhaps, comes from the focus on "referentiality" in the sign system. Merrell claims that 'referentiality' in media is always "vague, interest relative and context sensitive as we are" (Martinez xi). It would certainly be an easy solution to do away with the conflict in referentiality by using the semiotic of Peirce. There are three merits in Peirce's theory which help us to better explain the conditions of reference in intermediality. The *first* merit of Peirce 's theory is the emphasis on '**relationally**' more than '**referentially**' in the process of signification. For him the major concern is not only the *relational* character of sign, but the nature of representation and mediation. The 'reality' by nature is representational, and meaning is always mediated. To consider the semiotics of Peirce, it is necessary to accept that a sign of any sort "represent[s] its object in a variety of ways and/or in some respect or capacity" (Merrell 3). This is because sign alters its relation to reality based on a dynamic structure. For referentiality, the conditions of signs must bring together a subject or breath (via an index and information regarding the subject or depth (via the icon). For Peirce, an *indexical sign* has a reference to the world outside itself, therefore, the referent is **extrinsic**. However, an *iconic* sign has an **instinct** quality; it does not show a direct reference to the world, rather presents or refers to its quality in terms of form, structure or effect.

Regarding Peirce's theory, what is frequency misunderstood—whether in the context of pictorial signs or musical signs—are the 'dimensions and conditions of reference' in different media (Nöth *Self-reference*). An aspect that is likely to be overlooked is that media scholars are almost exclusively concerned with the 'extrinsic' quality in music signs. Whereas, in music signs also, "reference needs not to be extrinsic to the sign system but can be intrinsic" (Jappy 30). In fact, the idea behind the music sign creates an idea or a depth of the subject and is read somehow more meaningfully (Thompson 668). Werner Wolf in the *Musicalization of Fiction* drawn attention to "emotion and imagination"[42] in the the understanding of music (1-30). Scruton in a similar vein claims that "what we understand in understanding music, is not the material

---

[42]   In his book *Description in Literature and Other Media* (2007) Wolf claims that music has potential to signify through "musical iconicity" by which creates a kind of "metaphoric illustration" (63). The metaphorical illustrations in music may lead to a kind of 'metaphorical iconicity' (see Wolf and Bernhart, Description In literature and Other Media 61).

world, but the intentional object: the organization that can be heard in the experience" (221). "On this view when we say that a piece of music is expressive of sadness, we are not saying that there is anybody around who is actually expressing any sadness. It's just that the music is experienced as sounding like or moving like a person who is sad" (Scruton 483). There is now ample evidence that Wolf and Bernhart are right to claim that referentiality should be defined when any relation exists, for communicational purpose, between a sign and the meaning that is…located outside the sign system" (33). They believe that there may both intrinsic and extrinsic references existing in a sign system that together create *hetero-referentially* of potential sign system (See also Wolf 2015; Nöth 2006). William Forde Thompson in *Music in the Social and Behavioral Sciences* conceived music includes both **extramusical** and **intramusical** meanings. In a similar vein, Stephen Davies (2012) claims that "music is meaningful not only because it is rich in perceptual information, but because it is organized, and we can predict with more or less success how it will progress"(114). Their studies emphasize the role played by both extra and intra musical meanings in providing referentiality in music. The music's expressiveness is "extra" because the reference goes outside the musical work to the world of human feeling. It mostly revels itself at esthetic level which need to be interpret by listeners (Davies 114). Thompson also claims that extramusical meaning is particularly emerged from "psychological states" (action-related patterns)[43] such as emotions, moods and intentions (749). The music's expressiveness is "intra" because the reference goes within its own closed system through the establishment of patterns, repetitions, breaches with conventions, etc., which make connections to other parts of the piece or to forms and patterns shared by other pieces of music"(Petermann 213). For Thompson, the *intramusical* meaning is **internal** or iconic meaning which is emerged from the structural interconnection of musical elements, for example, the function of a chord in its harmonic context (749), or from musical sounds, musical patterns, or musical forms that resemble objects or qualities" (30). Internal semantics "encompass musical qualities, actualization of musical works, and the organizing habit of music, such as musical system" (Thompson 1). To come to the poin, while extra-musical meaning is emerged from the act of referring a musical sign to an (extra-musical)

---

[43] See also Davies, Stephen. " Questioning the Distinction between Intra- and Extra-Musical Meaning Comment on "Towards a Neural Basis for Processing Musical Semantics"." *Physics of Life Reviews*, vol. 8, no. 2, 2011, pp. 114-115; discussion 125-118 and ibid.

referent, intra-musical meaning is emerged from the act of referring a structural musical element to another structural musical element (Koelsch 154). (Koelsch) (Koelsch) (Koelsch) (Koelsch)

The *second* value in the semiotics of Peirce is the recognition of the role of **'interpretant'** in the process of musical signification. By mapping the trichotomy of signs as a sign-object and interpretant, Peirce claims that sign does not merely consist of signifiers (sign) and signified (object), but the interpretant is essential to the content of the sign (29). What makes intermediality distinct from each other is, in fact, the domination of a culture in symbolizing iconic and indexical aspects of media signs. The last point indicates that a sign may be perceived and understood differently by different interpreters since the sign's effect would be different.

The *third* merit of Peirce 's theory is the importance of self-referentiality in the meaning-making process. For Peirce, not only can extra and intra references create meanings, but also sign can refer to aspects of itself for the creation of meaning. Postmodern intermediality provides a perfect example for how to recognize the development of self-referential references in media culture. In postmodern culture, the world of media and communication is experiencing an incredible alteration through a variation of art and cultural practices. 'Text', 'image' and sound appear to us as having tremendous diversity. In addition, "the more the media interact today and turn intermedial, the more they refer to the media in self-referential loops"(Nöth "Self-reference" 6). Today indexical forms of representation have been gradually replaced by a practice in the invention of self-referential media forms. News, television shows, advertisements, films, and narratives are more and more concerned with, and speak about, features of themselves (Nöth "Self-reference" 3). The messages of media, as Nöth claims, "are about messages of media" ("Self-reference" 3). To illustrate with some examples from media, I can refer to the strategy of 'frame' in the comic genre, which increases self-referentiality in this specific medium. In fact, "frameness" is considered as the native style of visual meaning-making in comics that can distinguish comics from similar genres such as the picture book genre. Visual design in Andrei Tarkovsky's brilliant movie Stalker[44] (1979) is known as an aesthetically sophisticated

---

[44]   For more information, see Koelsch, Stefan. *Brain and Music* vol. First John Wiley & Sons, 2012. She provides a deep examination of elements of sound in Stalker such as dialogue, diegetic, and non-diegetic sounds and intervals of silence. The study reveals how Stalker offers a complex multidimensional

"painterly" or "poetic" visual style that provides a highly self-referential form of communication for viewers. In the reality show *Big Brother Brasil* (BBB) the structural nature of the show also indicates a domination of genuinely iconic-symbolic signs, rather indexical signs, increasing the possibility of self-referentiality. One can also refer to "meta-fictive-books," such as *We Are in a Book,* written by Mo Willems, in which the 'title' itself reveals the importance of self-referential strategies in the ways stories are designed. This can be considered as an approachable engagement of the medium of the book with postmodern aesthetics in the adaptation of "high art" for expressing a tale in which the referentiality is replaced by 'self-referentiality' in media functions.

2.3.2. Dimensions and Conditions of Reference in Painting and Poetry

The relation of verbal/visual media - whether qualified or basic media - to music in intra-compositional form can be also recognized indexically, iconicity or symbolically through hetero-referential and self-referential[45] strategies. In musicalization, it means that a verbal or visual sign (1) may be related to the possible objects in music (extra-meaning or indexical referentially); (2) may have musical meanings in itself (intra-meaning or iconicity; (3) may be related to its possible interpretants and the system of music in culture; or (4) may self-referentially evoke the medium of music.

2.3.2.1 Hetero-References in Musicalization

Distinct referential strategies (hetero and self-reference) tend to improve reception and presentation of the source medium in intra-compositional intermediality. In the musicalization process, extra and intra musical meanings are created via *implicit* or/and *explicit* hetero-referential strategies. In verbal media, the *explicit* form is present whenever music is mentioned or discussed ("thematized") in a text, such as the discussions on a piece of music in an artist's novel. Thus, **thematization** is used to metaphorically 'tell' about another medium or be a marker of the other medium, such as refering to a name of a musician. Whereas, **imitation** is employed to 'show' formal features of another medium by using iconicity or imitation methods. In other words, "the intermedial signification is, in [the case of imitation], the effect of a particularly unusual iconic use of the signs of the source medium"(Smith 5). Thus, the musical signification may be the effect of some kind of imitation or iconicity with regard to the

---

experience for viewers, and how the use of this complex strategy leads viewers to a unique perceptual awareness.
[45] In this thesis,"self-reflexivity" and "self-referentiality" have a similar meaning.

medium of music, at least to (some of) its features (concerning its nature, content, effect or structure) that leads to a re-presentation of the heteromedial entity in the recipient's mind (Wolf *The Musicalization of Fiction 142)*. In this way, it is clear why we say the painting of a piano or a portrait of our favorite singer has no sound, but they may still evoke a piece of music or a fantastic musical experience in the observer or interpretant. Werner Wolf, in his studies on intermediality, explains in detail a different form of implicit intermedial reference and defines three categories for it: (1) evocation; (2) partial reproduction; and (3) formal imitation.[46] The implicit reference elicits an imagination of the medium of music through reproduction, evocation or imitation of its nature, content or structure (Wolf *Selected Essays* 5).

Visual media (such as painting like some of other pictorial media) employ a visual and iconic sign system in which referentiality does not play a considerable role in the process of communication, as we certainly can not expect voice and sound from a painting. In Wolf's spirit, by employing the strategies of the iconicity variant (imitation), the painting incorporates signifiers from the medium of music. Wolf and Bernhart claims that rather than a direct reference to music, a painting markedly imitates music via a "frame of description". A frame of description describes and defines objects and parameters of music by attributing a matrix of characteristic qualities to it, or identifies and communicates sensory data that one receives/perceives from the observation of a given reality (Wolf *Selected Essays* 10-12). This does not eliminate the differences of mediality between painting and music, but it may help to demystify how intermediality influences human perception. In a similar vein Nöth mentions:

> "The object of a picture is not necessarily something existing in space and time, it can be anything that has determined the sign to represent what it does, a legend, a vision, another picture, or some real experience, whether the painter was aware of these determinants or not." (Nöth 382)

---

[46]   Wolf provide a clear classification of intermediality in different studies such as "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1,* http://dx.doi.org/10.1515/9783110311075-026. And Wolf, Werner. "(Inter)Mediality and the Study of Literature." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011, doi:10.7771/1481-4374.1789. ---. *The Musicalization of Fiction: A Study in the Theory and History of Intermediality.* vol. 35, Rodopi, 1999. ---. "Intermediality Revisited: Reflections on Word and Music Relations in the Context of a General Typology of Intermediality." *Word and Music Studies* vol. 4, no. 1, 2002, pp. 13-34. ---. *Selected Essays on Intermediality by Werner Wolf (1992–2014): Theory and Typology, Literature-Music Relations, Transmedial Narratology, Miscellaneous Transmedial Phenomena.* Brili, 2017.

In intermedial practices, image may appear to have a variation of forms that compel us to differentiate between them on the basis of medial properties as a manifestation of sensory, material, spatial, semiotic and aesthetic modality modes. We need to simplify the aspects of reference in two different kinds of images to make a border between degree and forms of intermedial references. From the point of view of the sign theory, **Figures 2.1[47]** and **Figure 2.2** provide a visual representation of *Karnāy*[48] (an Iranian musical instrument). *Karnāy* is a very old instrument in Persian culture that can challenge the process of interpretation by pointing to the contextual features of media. Both figures are recognized as a sort of image because they both host pictorial properties such as line, forms, and colors. The communication channel also is a two-dimensional space, such as a page of a book. As far as the sign and interpretation are concerned, what is clear – with regard to both images – is that despite of all differences, they can be considered as some pictorial representations that exhibit specific characteristics and refer to a possible object (not a real one)[49] such as a music instrument. They create a meaningful interconnection between sign, world, and interpreters by number of qualities or sign properties such as sizes, lines, colors, or shapes. To put it in a different way, sign brings some information about the object via the icon; here music functions as iconic. The Images can recognize (A) a group of referencing objects [class of trumpets(*Karnāy)*]; (B) a possible object being referred by A such as ["a *Karnāy* or horn", "classical *Karnāy*", "Persian *Karnāy*", "wooden *Karnāy*", the biggest or "smallest *Karnāy*" "war *Karnāy*" …]. Thus, while images do not depict a real object, they certainly show a possible object or a member of a general class (class of musical instruments). As Jappy mentions "[w]hole image 'tells' us that there exists (or existed) something like this, the 'like this' being, of course, the iconic material visible in the [image]" (Bolander 150). We should not ignore that although two

---

[47]   Iranway. "Karnay or Sorna (Woodwind Instrument)." vol. 235 × 372 15.10.2017 17 April 2010. http://en.wikipedia.org/wiki/File:Sorna2.jpg http://en.wikipedia.org/wiki/File:Sorna2.jpg.

[48]   "The Karnāy is a wind instrument with no holes in it that produces a powerful bass sound by means of the breath of the player. The instrument is made from a reed whose length varies from 2 to 4 meters or even more. Its head forms a shape of a cane, is made from a squash and is the place from which the sound emerges.

[49]   Thomas Bolander, in his article, employs the logic of mathematic to claim that the reference can be thought of as a relation R between a class of referring objects and a class of objects being referred to. R is called a reference relation, and it is characterized by the property that **(a, b) ∈ R if b is referred to by a** ("Kornay Found in Taxte Jamšid." Parse Muesuem 15.10.2017 1952. http://www.wikiwand.com/fa/هخامنشی_موزهhttp://www.wikiwand.com/fa/موزه_هخامنشی.

figures covertly carry signs indexically (as indication) and iconically (as resemblance), but the degree of indexically of the **Figure 2.2.** is more than the indexical of an instrument than in **Figure 2.1**. Figure 2.2, more clearly, stands for an object or situation that is linked to the real objects (indexical sign) outside the imaginative world. Obviously, these pictures have no sound, but the object (musical instrument) can be clearly perceived by the viewer. Sign creates an intensification of re-presentation by confronting observers with the sensory features.

Figure 2. 1.Concrete and Semi-concrete Representations of
Karnāy

2.3.2.2. Interpretant and qualifying Features in Intermediality
In intermediality, music signs may be related to its possible interpretants and the system of interpretation. In the musicalization practice, a medium may imitate or thematize the medium of music in a cultural and historical context. Or for the interpretation of sign there is a need to recognize the cultural codes or specific rules in the culture. Music signs are inherently dynamic and symbolic signs in which social norms and convention have an extreme influence on the ways they are produced and consumed. The conventions about the structure of music, its instrumentation, context of performance and meaning, are all learned. Therefore, one can find a situation in which the action of interpretation of sound or acoustic phenomena may not be related to the timbre of the (specific) instrument, nor to the melody, nor to the act of playing. It may be merely related to the interpreters of the signs to whom they belong or related to having a good knowledge of the culture. "Glommy-Sunday" as a piece of piano in C-minor which is known as the "Hungarian Suicide Song" (Vége a világnak) is a highly self-referential vocal musical piece that gains its profound blues from the interpretation of the song in its cultural context. As a further example, José Luiz Martinez (1998) refers to "Pancha Maha-Bhoota", the traditional songs in Indian culture comprised of five musical

instruments. These songs are aestheticized on the basis of symbolic representation (141-142).

The qualified aspects recognized as aesthetic and communicative features expose the internal and external structural distinctions in media forms, which makes it possible to distinguish a medium, in terms of musicalization, from some others. In qualified media, there is always an alternation in the plane of expression that is a result of correlations between pragmatic (content) and syntagmatic (formal) elements in a system of medium. The crucial aspect here is the correlation between syntagmatic and pragmatic axes is given by a difference.[50] In fact, there is a dynamic relationship between *convention* and *invention* in the fabrication of syntagmatic and pragmatic units.[51] Jakobson also claimed the importance of communicative and aesthetic features in the process of signification in his modern semiotic theory. The sheer insight inherent in Jakobson's theory is difficult to overlook. Written in an article in 1960, almost sixty years ago, his remarks are highly reflected in the current debate on intermediality. In his theory, Jakobson mainly discusses two notions of Peirce, the *icon/index/symbol* trichotomy and the importance of interpretant in the process of signification. His theory has a great deal more in common with Peirce in emphasizing the role of interpretant and "relationally" of sign in the meaning-making practice. He brought to our attention the notion of an aesthetic norm (AN)[52] in the frame of reference. To illustrate the ways

---

[50]   With respect to general syntax in language, Noam Chomsky in an interview explains the general aestheticizing process and claims that the syntagmatic alternation within symbolic or the representational system may include: (1) formal relations among the elements of these systems (e.g., rhyme and entailment, insofar as these are formal relations among internal symbolic objects); (2) model-theoretic semantics (insofar as the models are considered to be internal objects, i.e., "mental models"; (3) formal semantics based on a relation R (sometimes called "reference") holding between symbolic objects (e.g., between "London" and its "semantic value," not an entity in the world, or even the world as we conceive it to be, but of some internal system of thought that is itself related to the world) (See Brigitte Stemmer's interview with Noam Chomsky 1999: 393-401). Signs then function by virtue of a legal convention and became legisigns par excellence; there is a transformation of the genuine indexical sign into an iconically symbolic representation (See Nöth & Jungk 662).

[51]   For more information on the relations between syntagmatic and pragmatic units please see Jappy, Tony. *Introduction to Peipcean Visual Semiotics* Bloomsbury Academic 2013. And Eco, Umberto. *Semiotics and the Philosophy of Language.* vol. 398, Indiana University Press, 1986.

[52]   For more information about theory of Jakobson on "poetic language", see Andrews, Edna. "A Dialogue on the Sign: Can Peirce and Jakobson Be Reconciled?" *Semiotica* vol. 82, no. 1/2, 1990, p. 1/14, Chandler, Daniel. *Semiotics: The Basic* Second edition, Routledge, 2007, Waugh, Linda R. "The Poetic Function in the Theory of Roman Jakobson." *Poetics Today*, vol. 2, no. 1, 1980, pp. 57-82, http://www.jstor.org/stable/1772352?origin.

linguistic signs, communicate, Roman Jacobson in "Linguistics and Poetics"[53] (1960) defines the six essential communication functions in language as (1) denotative function (referential function), (2) emotive function, (3) connotative function, (4) phatic function, (5) meta-lingual function, and (6) poetic function. Jacobson believes that language functions should not be limited to cognitive function; "[r]eferential content is not always foregrounded" (Jakobson "Closing Statements: Linguistics and Poetics" 178). From a media perspective, Jacobson precisely suggests that media "qualified aspects", recognized as "cultural and aesthetic features", alter the intermedial strategies.

The prose in general can in this way be compared to poetic text that underlines - more than a pragmatic alternation - an alternation of the syntagmatic axis in its structure. In McHale's opinion, a poem is an "organization on the paradigmatic axis at the expense (to some extent) of its syntagmatic organization"(107). In common or everyday communication, we directly read concepts and significations. The main purpose of a poetic text, like other forms of media, is to communicate and express something. But, poetry is fully distinct from prose in its nature and function of communication; it is a different kind of scheme by which signification is conveyed.[54] What we read in poetry is poetry itself. Given this, the *differentia specifica* of poetic and prosaic is a functional one; within poetic language the focus is "on the message for its own sake» (McHale 356). Such alternation simply explains that the presence of concepts in a replaced situation in language is constantly defaulting, and this absence finds its situation at the presence of 'form', and the base of this function is defaulted on the replacement or substitution of signs of the language system. Consequently, concepts are not described and expressed in the text of poetry or a poem, but rather their sound, accent and the structure of their form are refurbished and remade. Therefore, the poetic positions signs into its own system and passes them through the positional relations or the system of a poem.[55]

---

[53]   The article was later published in Kraxenberger, Maria. "Jakobson Revisited: Poetic Distinctiveness, Modes of Operation, and Perception." *Rivista Italiana di Filosofia del Linguaggio*, vol. 8, no. 1, 2014, pp. 10-21, doi:4396/20140603.

[54]   Jonathan Culler also claims, "Poetry lies at the center of the literacy experience because it is the form that most clearly assert the specificity of literature." See *Structuralist Poetics: Structuralism, Linguistics and the Study of Literature.* Routledge & Kegan Paul, 1975. P.189.

[55]   For more information see Jakobson, Roman. "Linguistics and Poetics." *Language in Literature* edited by Krystyna Pomorska and Stephen Rudy, Belknap Press, 1987, pp. 62-93.

By applying a syntagmatic arrangement, image may also alter semiotic resources to offer a conventionalized pictorial medium such as painting. The medium of painting possesses its own distinct visual identity through an alternation of the pragmatic and syntagmatic axis in its structure. In fact, while there is a dominance of focus on the message, the function of pictorial language differentiates because of its conventionalized syntagmatic form (units).[56]
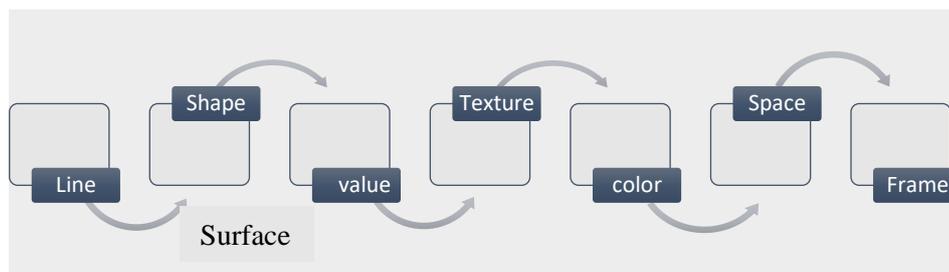
Figure 2. 2.A Syntactical Organization in Painting

Thus, it is possible that some units in painting are highly conventionalized, revealing an unexpected item or providing a specific value for a pictorial item (such as the role plays by texture in Persian painting). Like previous examples, **Figure 2.4,** which is a part of a painting from a page of *šāhnāmeh*, is a visual representation; another iconic sign. It is also clearly iconic since we can, from the lines, colors, shapes recognize it as something like an instrument, even if we have never seen a *Karnāy* similar to this. However, the nature of representation reveals that the image is semiotically much more complex than **Figure 2. 1**. and **2.2.** Whereas the previous figures very clearly indicate a possible reference of the depicted sign, Figure **2.4. (**as a painting) offers a more imaginary form of representation and less faithfully depicts entities from our common experience of the world[57]. Although the image does not offer an abstraction process in the ways elements have been depicted, "[i]t imposes constraints on the range of possible interpretation of the message" (Odmark; Rahmanian 246). The reason behind this complication is that image has appeared as more or less abstracted and isolated within itself; it manifests an

---

[56] Jakobson claims that in a broader spectrum, in qualifying media, there is always a projection of the principle of equivalence from the axis of selection [pragmatic] into the axis of combination [syntagm]" (Jakobson, 358).
[57] Eco, Umberto. "The Theory of Signs and the Role of the Reader." *The Bulletin of the Midwest Modern Language Association*, vol. 14, no. 1, 1981, pp. 35-45.

artistic sign. The interpretation, thus, is more conventional and contains too much possibility (too much flexibility from the interpretant's perspective).

Figure 2. 3. A Cultural Depiction of *Karnāy*

Figure 2. 4. Indexical Sign

Preferentiality is Partial in the Sign[58]
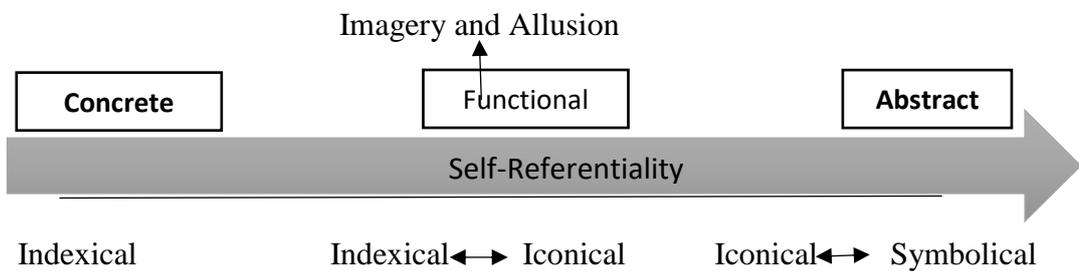
Figure 2.6. Dimensions and Conditions of Reference in Image

- **Concrete**: characterized by or belonging to immediate experience of actual thing or events; it evokes a material reality.
- **Functional:** It is functional if it has a specific task or purpose or has an intention in giving reference.
- **Abstract:** It does not provide a specific meaning: it is unclear and vague and disconnected from the reality

2.3.2.3. Self-References in Musicalization
In the musicalization process, it is possible that a relationship exists between a sign and its own elements or its own characteristics, which may be recognized as a self-

---

[58] The figure was produced by author

referential sign,[59] metasign, or metareference sign (meta-language) (See Nöth, 2009; Wolf, 2006). For example, the meanings and the interconnection of musical elements, with respect to instrumental music,[60] refer to themselves: their structure, style, creator and communication processes. According to Wolf and Bernhart:

> Music [c]onsists mainly of signs whose signification resides in their ability to point to other signifiers within the same system. (59)

For example, the master pieces created by Mozart are highly self-referential. For self-referntaility, Aldous Huxley also, in his novel *Point Counter Point* (1928), uses a musical term in the title (Wolf *Musicalization of Fiction* 3). In musicalization, degree and form of self-referentiality is different in its operational aspects (aesthetic features) in qualified media. In fact, in media and in the arts, self-referentiality can be typically encountered in the aesthetic dimension (Bernhart and Wolf). Self-referentially in 'musicalization', is a matter of levels and degrees; sign may exclusively refer to itself or to the aspects of itself, or it may be "referential to a degree that remains to be specified"(Nöth "Self-reference" 6). In a partial relationship, signs may refer to parts, aspects, constituents, or elements of themselves" (Nöth "Self-reference "8). Signs may also completely lose their connection to the existentiality of the object and "be interpreted as a sign of that object" (Nöth "The Death of Photography in Self-Reference" 141). For example, images—whether concrete or abstract—could include both referential and self-referential signs. Image sometimes may refer to nothing but itself, or its own forms and material substances (e.g., the abstract paintings of Kandinsky and Mandarian), and sometimes there is a partial relationship in sign to the material world (concert image) – which may be immediately perceived or interpreted in a dynamic process. With respects to Piet Mandarin's paintings, for example, there is always a

---

[59]   Self-referentiality is sometimes used as a synonym word for self-reflexivity. However, self-reflexivity should be considered as a form or a possible *function* of self-reference (see Goltz 93)."Maybe we could clarify things by using *referential* and *reflexive* as two different attributes: *self-referential* describes instances of a text referring to itself; *self-reflexive* denominates examples of texts discussing their own characteristics by referring to similar texts". See Odmark, John. "The Implication of Sigmatic Aspect of the Artist Sign for the Theory of Pragmatics." *Semiotics Unfolding: Proceedings of the Second Congress of the International Association for Semiotic Studies, Vienna, July 1979*, edited by Tasso Borbé, Mouton Publishers, 1983, pp. 245-251.

[60]   Vocal music is distinguished from instrumental music by its need to be 'lyrical' or through the act of 'singing'. The signs in vocal musical in suggesting reference are quite similar to literature.

"biomorphic abstraction"[61]via increase the level of self-referentially. Or if we see Kandinsky 's painting *Symphony III* for the first time without having knowledge of music, and if furthermore it had no caption, we would no doubt have problems understanding it. "Digital Photography also [provides photos] that are entirely devoid of indexical anchors in the visual world: they are highly self-referential" (Noth "The Death" 103).

There are different self-referential strategies that may be employed by distinct media in intermedial practices. In film, for example, *quotation*, *repetition* and *sameness* are used as iconic forms of self-reference. Another example could be the Iranian TV show *dorehami,* in which a frequent repetition of the anchor's name and his characters creates a unique effect on the audience. In this way, the show employs the strategy of enunciative self-reference by which the anchor becomes the topic of the message (Nöth and Bishara 20). "Any self-portrait [such as van Gogh's self-portrait] is self-referential in the same way as any product is an index of its producer" (Martinez 68). Some pictures may also refer to themselves in a narrower sense, which can be introduced as self-referential metapicture. For example "a picture of a photographer taking his own picture in front of a mirror is a self-referential metapicture" (Nöth "Metapictures and Self-Referential Pictures" 64). Self-referentially in musicalization was very deeply studied by Werner "Wolf in his book *Self-Reference: In Literature and Music*. For him self-referentiality in music should be analyzed as meta-music. He claims that "similarities, "contrast" and "ordered series" are typical strategies of "recurrence" in meta-music. Recurrence occurs when a media frequently points back to a pervious point in its own system. The musicalization in text and image may also occur via recurrence because, as Nöth also claims, a circular or loop-like return to an earlier point in the same text, in other texts, or media creates a source of aesthetic effect (Nöth "Self-reference" 21). Werner Wolf exemplifies the points by bringing in William Blake's famous poem "The

---

[61]   The idiom was associated with the philosophy of Henri Bergson (1859-1941), who believed that evolutionary processes (nature) and artistic creativity (art) derive from the same source.

Tyger" in which alliteration and rhymes have been used in a self-referential manner.[62] Textual media such as poetry may be also musicalized by drawing the reader's attention to the text as a musicalized text by means of recurrence, recursion, symmetry, rhyme, loops, stylistic and rhetoric devices (Nöth "Self-reference"18).

2.4. Musicalization Model and Type of References in *šāhnāmeh*

The type of reference in musicalization of media is related to the nature, form and identity of the given media. *šāhnāmeh* offers a cultural representation of musicalization, Illustrations of *šāhnāmeh* in different periods of time employ the distinct basic and advanced graphic elements, specific colors and textures, or unique framing technique to bring new operational features into the process of musicalization. The semiotic resources in the painting as a qualified medium may be conspicuous by the different roles they play in the process of signification. The painting employs graphical aspects and representational potentials of the visual mode to establish a musical quality. In poetry also, all linguistic methods, such as the choice of words, word order, syntax and sound order, are practiced in the service of musical reading.

What is clearly noticeable is that both media, of poetry and painting, employ several features at once to present and depict all the units of information in a very unsual way. The first noticeable fact is that there is a "mutual collaboration" of the parts and the whole in both media for constructing intermedial references to music. To approach the mediality of music, painting and poetry employ a strategy of separation-harmonization or reduction-unification for intermedial references. Owning to the hierarchical mode of the semiotic in musical counstruction and perception, they construct a connection to the medium of music through micro-macro level strategies. In particualr, with reference to intermedial evocation, macro-level strategy is used to provide the reference to a **frame of narrative**, and the micro-level organization tends to suggest the reference to a **frame of description**. In fact, *šāhnāmeh* is undeniably a

---

[62]   For a more detailed discussion of the concept of "self-reference", see Nöth, Winfried. "Metapictures and Self-Referential Pictures." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, vol. 6, Walter de Gruyter, 2007. For more information on forms and possibilities of self-references see Wolf, Werner. "Metareference across Media: The Concept, Its Transmedial Potentials and Problems, Main Forms and Functions." *Metareference across Media: Theory and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement*, edited by Werner Wolf et al., Rodopi, 2009, pp. 1-85. Wolf in this book also provides a brief analysis of self-referentiality in William Blake's famous poem "The Tyger".

more typical example of inductive-deductive realization of intermedial references. What is more important here are elements or the units of the media system, instead of the whole assembly. In this way, a degree of agreement exists between verbal, visual and aural media on the association between signifiers and signifieds. The stimulus of intermedial perception is, thus, highly dependent upon a mutual collaboration between partial and whole structures. Hence, the study of each structure seems unavoidable. It is a matter of studying elements of painting and elements of text and of trying to link the musical activity of each one to the coherence of which they are a part. There is a chain of structures by means of intermedial references that reveal themselves to readers. By considering a reduction-unification model, *šāhnāmeh* has been specified to present the medium of music at level of style, performance, structural elements and generic effect, which are recognizable conceptually, contextually and perceptually in domain media.[63]

- **Structural elements:** not only subjects and concepts are connected to aspects of music, but also formal structures, on the micro and macro levels, may imitate or thematize elements of music such as rhythm, variation, symmetry, motif. The musical elements may be perceivable on the surface (with reference to painting).

- **Quality:** The interconnection of references to specific elements of music may create a specific quality such as the performative quality.

- **Generic effect**: The perception of specific emotion directly or indirectly, such as a perception of heroic feeling, reproduces certain generic commonplaces through the references to music. Intermedial references allow for certain insights into the characteristics of the genre, or manifest a certain generic similarity.

- **Cultural manifestation of music**: The extra dimensions through musicalization are precisely localized. They are connected to the qualifying features, which should be understood in a cultural context and may alter other aspects of musicalization.

Poetry and painting have both fictional and aesthetic qualities; thus, they are referential and self-referential at the same time. To present the medium of music, both media, of painting and poetry, have been developed a complex system of possible referential relationships including *hetro-reference* and *self-reference*. On the one hand,

---

[63]   The model has developed based on the model suggested by Emily Petermann in 2014. (See Petermann 25)

higher and higher levels of hetero-references (whether implicit or explicit)[64], and on the other, self-referentiality, creates a complex and unique way of musialization in this intermedial genre. A conspicuous symptom of the increasing concern with self-reference in the *šāhnāmeh* is the interest in representing and exhibiting aesthetic features in media integration[65]. One of the phenomena that can explain such interest is the practice of 'recursion' as a unique self-referential strategy. Here, 'recursion' is reflected via strategies of "similarities," "contrast" and "ordered series" (Nöth "Metapictures and Self-Referential Pictures"). According to Bernhard and Wolf, recurrence occurs when a media frequently points back to a pervious point in its own system. The strategy of recursion as a strike form of self-reference is employed by poetry and the illustrated painting of different versions to emphasize the importance of the musicalization process. It seems that the culture as an oral culture is very much interested in **recursion strategies,** which could successfully suggest a very individual and specific form of expression. Recursion creates a different sensory motor interface, which leads to a perception of a high degree of self-referentiality in the media system. The employment of creative devices of "recursion" for certain musical structures, techniques, and effects, calls attention to particular features of Persian musical model. In this way, the messages involve references from the media to their own system, creating a kind of intramedial *déja-vu* effect that leaves those unfamiliar with the media uninvolved (Nöth 2007). This style of "high referentiality" reflects a core cognitive identity of the media system and provides a certain insight into the characteristics of intermediality in Persian culture (a culture largely considered an oral culture).

---

[64]   Indirect or implicit self-/meta-references cannot be clearly observed and need the recipient's co-operation in the process of perception. The implicit references are mostly iconic and symbolic references.
[65]   Please see Petermann, Emily. *The Musical Novel: Imitation of Musical Structure, Performance, and Reception in Contemporary Fiction.* New-Edition edition, Camden House, Boydell & Brewer, 2014. *European Studies in North American Literature and Culture*, vol. 03.
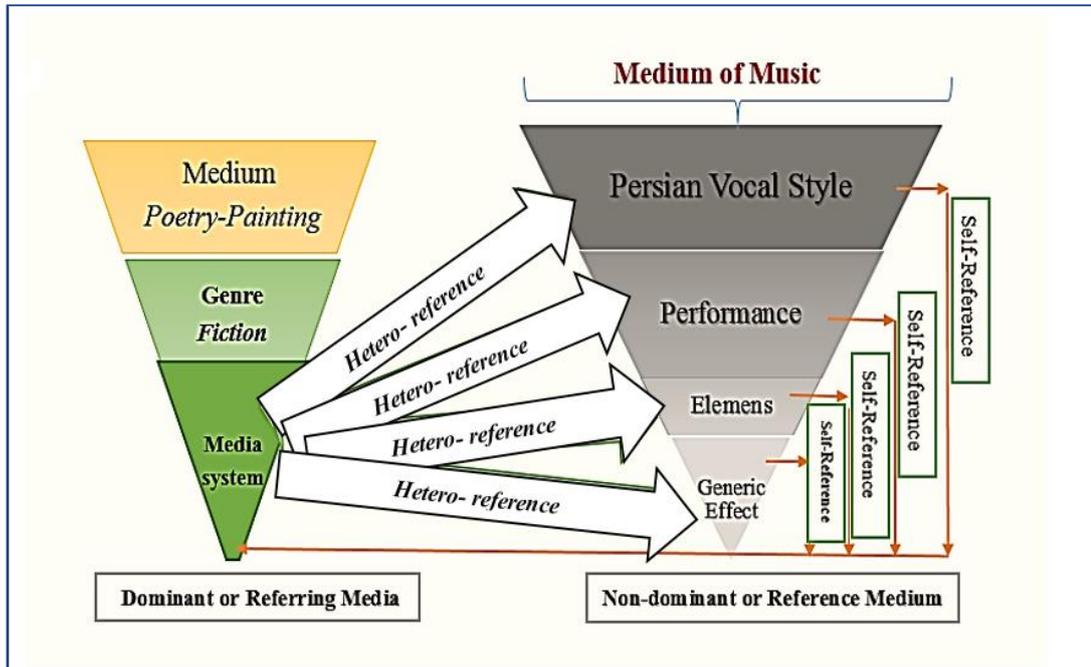
Figure 2. 5. Dimensions of References in Poetry and Painting in Intermedial Genre

Works Cited

"Kornay Found in Taxte Jamšid." Parse Muesuem 15.10.2017 1952. http://www.wikiwand.com/fa/هخامنشی_موزه‌http://www.wikiwand.com/fa/ه_موزه .خامنشی

Adorno, Theodor W. and Richard Leppert. *Essays on Music.* Univ of California Press, 2002.

Allen, David and Pamela K. Hardin. "Discourse Analysis and the Epidemiology of Meaning." *Nursing Philosophy*, vol. 2, no. 2, 2001, pp. 163-176.

Andrews, Edna. "A Dialogue on the Sign: Can Peirce and Jakobson Be Reconciled?" *Semiotica* vol. 82, no. 1/2, 1990, p. 1/14.

Arnheim, Rudolf and W. J. T. Mitchell. "Picture Theory: Essays on Verbal and Visual Representation." *Leonardo*, vol. 28, no. 1, 1995, p. 75, doi:10.2307/1576167.

Barthes, Ronald. *Image, Music, Text.* Fontana Press 1977. Essays selected and translated and by Stephen Heath.

Bateman, John. *Text and Image: A Critical Introduction to the Visual/Verbal Divide.* First edition, Routledge, 2014.

Bernhart, Walter and Werner Wolf, editors. *Self-Reference in Literature and Music.* Rodopi, 2010.

Bolander, Thomas "Self-Reference and Logic." *Phi News*, vol. 1, 2002, pp. 9-44.

Chandler, Daniel. *Semiotics: The Basic* Second edition, Routledge, 2007.

Eco, Umberto. *Semiotics and the Philosophy of Language.* vol. 398, Indiana University Press, 1986.

---. "The Theory of Signs and the Role of the Reader." *The Bulletin of the Midwest Modern Language Association*, vol. 14, no. 1, 1981, pp. 35-45.

Gelikman, Oleg. "Intermediality and Aesthetic Ththeory in Shklovsky's and Adorno's Ththought." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011.

Goltz, Wanja Matthias Freiherr von der. "Functions of Intertextuality and Intermediality in the Simpsons." *Der Fakultät für Geisteswissenschaften*, vol. Ph.D, Philosophie, Duisburg-Essen, 8th August 2017 2011, p. 282. general editor, Josef Raab.

Hall, Stuart. "Representation, Meaning, and Language." *Representation. Cultural Representations and Signifying Practices*, edited by Stuart Hall, Sage 1997, Media and Identities series Culture.

Iranway. "Karnay or Sorna (Woodwind Instrument)." vol. 235 × 372 15.10.2017 17 April 2010.http://en.wikipedia.org/wiki/File:Sorna2.jpg http://en.wikipedia.org/wiki/File:Sorna2.jpg.

Jakobson, Roman. "Closing Statements: Linguistics and Poetics." *Thomas A. Sebeok (Ed.), Style in Language*, edited by Thomas Albert Sebeok, M.I.T., 1960 (the University of Michigan), 1960, pp. 350-377.

---. "Linguistics and Poetics." *Style in language*, 1960, pp. . 350-377.

Jappy, Tony. *Introduction to Peipcean Visual Semiotics* Bloomsbury Academic 2013.

Koelsch, Stefan " Towards a Neural Basis of Music-Evoked Emotions Trends in Cognitive Sciences 14.3 (2010): 131-137." *Trends in cognitive sciences* vol. 143131-137.

Kraxenberger, Maria. "Jakobson Revisited: Poetic Distinctiveness, Modes of Operation, and Perception." *Rivista Italiana di Filosofia del Linguaggio*, vol. 8, no. 1, 2014, pp. 10-21, doi:4396/20140603.

Kress, Gunther R. and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design.* Routledge, 1996.

Lazutina, Tatiana Vladimirovna and Nicolay Konstantinovich Lazutin. "The Language of Music as a Specific Semiotic Structure." *Asian Social Science*, vol. 11, no. 7, 2015, www.ccsenet.org/ass.

Lechte, John. *Genealogy and Ontology of the Western Image and Its Digital Future.* Taylor & Francis, 2012.

Martinez, José Luiz. "A Semiotic Theory of Music: According to a Peircean Rationale " *The Sixth International Conference on Musical Signification*

1998.

McHale, Brian. *The Obligation toward the Difficult Whole: Postmodernist Long Poems.* University Alabama Press, 2004.

Merrell, Floyd. *Peirce, Signs, and Meaning (Toronto Studies in Semiotics).* University of Toronto Press, 1997.

Mitchell, W.J.T. "What Is an Image?" *New Literary History*, 1984, pp. 503-537.

Nöth, Winfried. "Metapictures and Self-Referential Pictures." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, vol. 6, Walter de Gruyter, 2007.

---. "Self-Reference in the Media: The Semiotic Framework." *Self-Reference in the Media*, Mouton de Gruyter, 2007, pp. 3-30.

---. "Semiotic Foundations of Iconicity in Language and Literature." *The Motivated Sign (Iconicity in Language and Literature 2)* edited by Olga Fischer and Max Nänny, John Benjamins Publishing Company, 2001, pp. 17-28.

Nöth, Winfried and Nina Bishara, editors. *Self-Reference in the Media*, vol. 6. Walter de Gruyter, 2007.

Nöth, Winfried and Isabel Jungk. "Peircean Visual Semiotics: Potentials to Be Explored." *Semiotica*, vol. 2015, no. 207, 2015, pp. 657-673, doi:10.1515/sem-2015-0058.

Odmark, John. "The Implication of Sigmatic Aspect of the Artist Sign for the Theory of Pragmatics." *Semiotics Unfolding: Proceedings of the Second Congress of the International Association for Semiotic Studies, Vienna, July 1979*, edited by Tasso Borbé, Mouton Publishers, 1983, pp. 245-251.

Peirce, Charles Sanders. *The Collected Papers of Charles Sanders Peirce.* edited by Charles Hartshorne et al., Cambridge, MA: Harvard University Press,

(Quoted as CP. Reference is made to vols. and paragraphs.) 1931-1958.

Peirce, Charles Sanders and Victoria Welby. *Semiotic and Significs. The Correspondence between Charles S. Peirce and Lady Victoria Welby.* Indiana University Press (Original from the University of Michigan), 1977.

Petermann, Emily. *The Musical Novel: Imitation of Musical Structure, Performance, and Reception in Contemporary Fiction.* New-Edition edition, Camden House, Boydell & Brewer, 2014. *European Studies in North American Literature and Culture*, vol. 03.

Rahmanian, Hamid. "The Epic of the Persian Kings Book: Šāhnāmeh." The Quantuck Lane   Press,   2013.

https://www.theepicofthepersiankings.com/https://www.theepicofthepersianki ngs.com/.

Robinson, Jenefer. " Music and Emotions." *Journal of Literary Theory 1.2 (2008*, vol. 1, no. 2, 2008, pp. 394-419, Link: http://nbn-resolving.de/urn:nbn:de:0222-000466

Ross, Leslie. *Text, Image, Message: Saints in Medieval Manuscript Illustrations.* Greenwood Press, 1994.

Scruton, Roger. *The Aesthetics of Music.* Clarendom Press, 1997.

Smith, Stefan. "The Edge of Perception: Sound in Tarkovsky's Stalker." *The Soundtrack*, vol. 1, no. 1, 2007, pp. 41-52.

Thompson-Schill, Sharon et al. "Multiple Levels of Structure in Language and Music." *Language, Music, and the Brain: A Mysterious Relationship*, edited by Michael A. Arbib, vol. 10, MIT Press, 2013, pp. 289-303.

Thompson, William Forde, editor. *Music in the Social and Behavioral Sciences: An Encyclopedia. .* SAGE Publications, 2014.

Waugh, Linda R. "The Poetic Function in the Theory of Roman Jakobson." *Poetics Today*, vol. 2, no. 1, 1980, pp. 57-82, http://www.jstor.org/stable/1772352?origin.

Wolf, Werner. "(Inter)Mediality and the Study of Literature." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011, doi:10.7771/1481-4374.1789.

---. "Intermediality Revisited: Reflections on Word and Music Relations in the Context of a General Typology of Intermediality." *Word and Music Studies* vol. 4, no. 1, 2002, pp. 13-34.

---. "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1,* http://dx.doi.org/10.1515/9783110311075-026.

---. "Metareference across Media: The Concept, Its Transmedial Potentials and Problems, Main Forms and Functions." *Metareference across Media: Theory and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement*, edited by Werner Wolf et al., Rodopi, 2009, pp. 1-85.

---. *The Musicalization of Fiction: A Study in the Theory and History of Intermediality.* vol. 35, Rodopi, 1999.

---. *Selected Essays on Intermediality by Werner Wolf (1992–2014): Theory and Typology, Literature-Music Relations, Transmedial Narratology, Miscellaneous Transmedial Phenomena.* Brili, 2017.

Wolf, Werner and Walter Bernhart, editors. *Description; in Literature and Other Media*. Rodopi, 2007.

Chapter 3
Improvisational Performance

3.1. Introduction

One of the most fascinating, as well as most neglected areas of musicalization in visual and verbal media is 'performance': that is, music when it is concerned with actualization of sound to draw attention to its status as a meaningful entity or a medium of communication. 'Performance' relies on a complex relationship between compositional principles, technique, musical instruments and the singer (player). "The manner in which this mixture achieved, understood, and valorized is of course cultural-specific"(Napeir "Novelty"3).[66] In this anthropological domain, improvisation has often been the least acknowledged and understood type of performance. As far as musicologists are concerned, the music is improvised when all above aspects interconnect to achieve and obtain unexpected effects or emotional communication.

The two media in question employ the Persian style of improvisation as found in story design. Storytelling of epic poetry challenges the expectations of a reader by offering hetero and self-referential strategies to essential elements of Persian improvised music. This includes (1) the activities of musical instruments, singers and performance; (2) musical figures, such as riff and lick and (3) word similarities in acoustic variation. The intermediality to improvisation is perceived via overlapping a certain trajectory, or through interplay between parts and the whole. What makes this type of musicalization unique is higher and higher levels of reference, whether indexical, iconic or self-reference, altogether with an intentional emphasize on those parameters during storytelling. More specifically, the strategies of *similarities* and

---

[66] More information on the influence of culture on improvised music can be found in Bernhart, Walter and Werner Wolf, editors. *Self-Reference in Literature and Music*. Rodopi, 2010. For a detailed discussion on Persian Improvisation please see Napier, John James. "A Subtle Novelty: Repetition, Transmission and the Valorisation of Innovation within North Indian Classical Music." *Critical Studies in Improvisation / Études critiques en improvisation*, vol. 1, no. 3, 2006, doi:10.21083/csieci.v1i3.55.

ordered series of metric motifs creates a contextual sensitization and contingencies for readers. Although, the submission of the *acoustic recurrences* via similarities and order series in musical motifs intends to present the old style of musicalization in Persian culture, the degree of references potentially renew and increase self-referentially in the context of musicalization.

What survives in the transmediality of *šāhnāmeh* into painting from one historical epoch to another is an excessive emphasis on the performance and improvisation technique. Iconic references to parameters of performance have been created via (1) visualizing singers, musical instruments, and musical activities; (2) the tone-scheme distinction of musical instruments by a sex differentiation; (3) visualizing noise in the related scenes; and (4) 'recurrence' of visualized elements. The repetition of similar parameters intends to expand and enhance the 'musicalization' offered by poetry. The intermedial practice suggested by painting can be culturally specified by a ***tone-scheme*** distinction between musical instruments, and ***visualizing noise*** in the related senses. The improvisation forms and develops in this specification. It seems the high degree of reference in the media of painting evolves the visual medium into an exclusive language.

3.2. Oral Culture and "Performative Utterance"

Oral culture is a culture that is rooted in spoken, rather that printed language (Ong). In fact, the meaning of the word "oral" has its root in 'epos' and its English equivalent 'voice' (Nooshin 16). There is no doubt that specificity of language function makes the link of oral culture to other forms of language an enormously complicated one. We are indebted to scholars such as Eric Havelock, Marshall McLuhan and Walter Ong, for their contribution of rich insights into some of these complicated features of oral culture. Crucial at issue is the dissimilarity between oral and western cultures. It can be found in the innermost part of the above discussion is the value of 'language' and the purpose of its use in communication. According to Clair, metaphors of language "differ … in their depiction of how language operates within a social milieu" (82). For oral culture, language is a means of protecting the conventionalized or collective self ('we'), and sharing an experienced reality as well as the emotions that such experiences

arouse (even if this purpose requires an exaggeration of reality itself).[67] This view breaks with the Western philosophical tradition that assigns a central role to the language as a means of affirming the individual self ('I'), and an explicit representation of the devised reality through the magnifier of semiotics. Julie Scott Meisami, as a leading scholar in Middle Eastern literature with reference to Persian Arab culture appropriately comments on the same point and mentions:

> For oral culture] reality does not lie in the ['real world' and its particularities]. It is our "reality" that is made up of particularities, organized, if at all, only by the law of physics, which also determine our mode of perception; it is we who, quite literacy, poses an "atomistic word-view" …. [Persian arts are therefore] not centered upon "experience", but upon language as a means of both knowing and expressing. (8)

Given such a distinction, the learning and knowing in oral culture demands a communal reaction: a response that can only be created in "performative utterances"[68]. It is because orality, unlike the written language which gains its potential from the discontinuity between thinking and the act of writing, takes its power of expression from the presence of the voice and its speaker. This itself majorly emphasizes the potential difference between the connotation of time and space, or points to the importance of "moment" and "improvisation" within oral culture.

---

[67]   The western view believes communication to be a linear process of transmission of a message via a channel (conduit) to a receiver. This view has been advocated most prominently by Shannon and weaver's mathematical or linear model of communication, which places conduit metaphor at the center of communication. In addition, metaphor of language as a conduit metaphor is a foundation of semiotics which is concerned about signs and the process of meaning-making. There is no doubt, as scholars of cultural studies underline, that western culture is unfamiliar with the 'cardinal metaphor' by which communication is situated in the *Sprechakt* (speech act) (Clair 82). While inner profound experiences of a self cannot be communicated in conduit metaphor, the 'cardinal metaphors' (such as metaphor of silence in Chinese culture) inextricably linked to share of emotions and feeling for creating a deep personal connection (For more details on this issue see Clair, Robert N. St. "Cultural Wisdom, Communication Theory, and the Metaphor of Resonance." Intercultural Communication Studies." *Intercultural Communication Studies VIII-1*, vol. 8, 1998-9, pp. 79-102.

[68]   John.L. Austin introduced the term in his theory knows as speech act theory. Utterance can be found…such that: "the uttering of the sentence is, or is a part of, the doing of an action, which again would not *normally* be described as, or as 'just,' saying something (235). In the beginning of 1950s, the term "performative utterances" was used for situation where doing something is more important than only saying or describing reality (For more information related to the "concept of performative" utterance please see Meisami, Julie. *Structure and Meaning in Medieval Arabic and Persian Lyric Poetry: Orient Pearls (Culture and Civilization in the Middle East).* Routledge; Reissue edition, 2011. *Culture and Civilization in the Middle East.*

3.3. Definition and Structure of Improvised Music in Persian Culture

It is obvious that to define "improvisation", one must look from the field of ethnomusicology to understand how improvised music is formed and consumed based on cultural values. We do not have to go very far back in the history of improvisation to find scholars assuming, more of less as a matter of course, that the sole business of improvised music is to be spontaneous without any previous plan. As the Harvard dictionary also suggests: 'improvisation' is an art of performing music spontaneously, without the aid of manuscript, sketches, or memory (1-2). These definitions are given with respect to the nature of performance as simultaneously embodying the absence of precise planning and of any discipline (Austin 5). In this context, one of the most critical observations among musicians is perhaps the empirical fact that improvisation as a form of performance has no preexisting compositional plan (pre-composition). It usually consists of a "simultaneous invention and acoustic realization of music" (Nettl 2-3). Jazz music, for example, is greatly performed based on the listener's reaction and without having a previous rhythmic plan or key.

Certainly, there are a great many styles of improvisation. But, the validation of improvisational practices is highly acknowledged in an Eastern musical system such as Persian[69] and Hindi (in the performances of shivkumar Sharma). In north Indian[70] music, for example, the melodies of *ragas*[71] are performed by improvisational techniques. The improvised music in Eastern musical systems tends to actualize aural messages, not only physically by help of different instruments, but expressively by reference to the form and content.[72] Improvisation can be also recognized in jazz, blues, bluegrass and folk music, which developed in African and Afro-Caribbean musical

---

[69]   It is said (not entirely accurate) that the history of improvisation in Iran was appeared by "Ali Akbar Khan Farahani".

[70]   "North Indian classical music represents the traditions of a culture that spreads across of the North Indian subcontinent where languages derived from Sanskrit— Hindi, Urdu, Marathi, Gujrati, Punjabi, Bengali, and others—are spoken. The area stretches from Bangladesh in the east across North and Central India to Pakistan and Afghanistan" (see Nettl, Bruno. "On the Concept of Improvisation in the World's Musics-an Informal Talk." *dutch journal of music theory*, vol. 13, no. 1, 2008.

[71]   Raga refers to a particular combination of sounds in which ornamentation play a crucial role in communication of emotion. According to Divya D. Arya, [t]he ragas represent nine moods, including sadness, love or devotion, heroism, laughter, anger, fear, disgust, surprise, and peace (84). See Arya, Divya D. "North Indian Classical Vocal Music for the Classroom." *Music Educators Journal*, vol. 102, no. 1, 2015, pp. 83-89.

[72]   This talk of effect points to Marshal McLuhan's famous phrase "medium is message", which underlines the significant role of 'medium' as well as its content in the effect it may create.

models during twentieth century. With respect to western classical music, there are only a few musicians who improvised well-known pieces such as the recital piece "Franz Liszt" or older works of Mozart and Beethoven. Although, we should not neglect the performances suggested by Keith Jarret, who is known as an improvisational figure of western culture.

Ong claims that improvisation in an oral culture works in the direction of orality itself (70-72). It is because in oral culture media are often employed to enter sounds that are found deep in the human feeling for existence (Ong 70-72). Therefore, while the purpose of performance within an oral culture may not be different, the scope of purpose is defined differently. It would obviously make a lot of sense to underline that because Persian culture cannot be explained as a purely oral culture. But in Persian culture, even today, the expression is largely governed by oral methods of communication. The Persian musical system gains its features from the oral tradition in which the art of improvisation plays a major role in both vocal and instrumental music. In Persian culture, the style of musical performance is directly related to reflected properties of oral thoughts. The major characteristics of traditional Persian music can be summarized as mono-melodic (one-voice), lacking nuance, a high degree of dependency between music and poetry, decorative, improvisational, and symmetrically repetitive in similar parts or sentences.

Persian classical music develops in the same manner as the spoken language. In this sense, comparable to the act of 'speaking', improvisation must occur in a true manner. Based on such assumptions, a creation of spontaneous activity in improvised music is based on Persian musical principles. This indicates that it would be a mistake to employ the word "improvisation" for a completely unintellectual, or a mere emotional activity. Strictly speaking, improvisation is a form of performance in which the Persian traditional music system is used and manipulated. The major concern in improvised music is *radif* (system) of Persian traditional music, which represents a very specified and calculated collection of melodic models (*dastgāh-ha* and *guše-ha* in Persian language) and their corresponding rhythmic compositions.
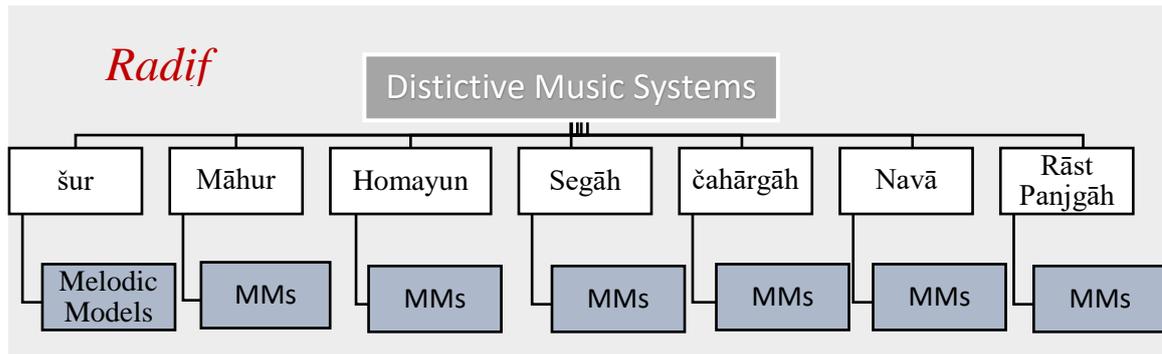
Figure 3. 1.A schematic Representation of Persian Musical Repertoire (*Radif*)

In improvised music, conventional procedure must exist to reveal a systematic and conscious form of performance. It is worthy to know that Persian classical improvisation certainly takes into account that partially is as important as entity. Persian improvised music introduces itself to us as a process in which all parameters of performance are unified via some sort of intensification. In this domain, the previously learned musical models (*radif navāzi*), scales, and rhythmic patterns are merged into an innovative and coherent form. Improvised music follows an unpredictable form in a fluid and constant manner in order to create a meaningful interaction between authority and freedom (Ong 8). By consideration of the method of performance, one may distinguish between two forms of improvisation[73] in traditional Persian music:

1. **Non-Metric Improvisation**: It is recognized as having non-metric melodic forms and unpredictable rhythmic patterns, which are performed by a soloist and a stringed instrument (call-response pattern) in the ceremonial and formal contexts. 'Ornamentation' of sounds known as "Tahrir" differentiates this form of improvisation from another. The repetition of non-melodic phrases by the soloist and the response of the player who follows creates a call-response pattern for the listener. This pattern of call-response can be established between singer and audience with some degree of variation.

2. **Metric-Improvisation**: It is used metric melodic materials such as metric solo pieces (*čāhār-mezrāb*). It is recognized as having a highly rhythmic ostinato, an instrumental composition, an entertainment value and a clear rhythmic pattern. Improvisation in *non-vocal sections* (such as char mezrāb) occurs through a high repetition in the specific metric sections, a truncation of metric pieces and an alternation of the orders. In *vocal sections*, improvisation is based on the poem's metric formula and the variation of mnemonic syllables motif and the compression of existing motif. In this form, improvisation is highly

---

[73]   See Nettl, Bruno. "On the Concept of Improvisation in the World's Musics-an Informal Talk." *dutch journal of music theory*, vol. 13, no. 1, 2008. p. 550-552

soloist, which articulates in phrases and with respect to prosodic patterns[74] (Nooshin and Widdess; Randel).

3.4. Parameters of Improvisation in the Intermedial Genre

According to Ong mentions: "[t]he works of art and literature and their constituted elements are dialogically related to contexts, contexts which motivate them and to which they response, thereby influencing, modifying or confirming them" (Nooshin 16). Oral traditions act as a bridge to protect and unify poetry and music. Thus, it is fair to claim that the poetic text in oral culture always tends to have a transition from written text to performative text, for which the act of memorizing demands a musicalization practice. Apparently, it does not come as a surprise why many scholars from Iran, albeit not all, admit *šāhnāmeh* for its musical nature: *šāhnāmeh* was truly written to be heard, rather to be read (Azadehfar et al.; Christensen; Ong). The work in question intends to apply structural and content analogies not merely for narrativity, but also for musicalizaton of narrative. The distinct allusions to different facets of improvised music is perceived via the intensification in hetero-referentially and self-referentially. By considering the aesthetic elements in the stories, it seems that improvisation can be recognized within the second category. In this form, improvisation is highly soloist, something that is articulated in phrases and with respect to prosodic patterns. Like improvised music in the second form, there is a variation of mnemonic syllables and motifs, and also a compression of existing motifs in the metric formula of the poetry. Here, *similarities* and *order series* as the major self-referential strategies are used to challenge "fascination" in the context of storytelling. The essential elements of musical performance, recognized as singer, musical instrument and player, can be perceived via overlapping a certain trajectory, or interplay between a part and the whole. To draw an intermediate summary, one can say that the improvised performance can be realized and identified by consideration of two correlated structural rules:

1. Hetero and self-references to parameter of improvised performances included (1) musical instruments, singers and performance activities; (2) musical figures such as riff, lick and (3) word similarities in an acoustic variation*; micro level organization in the intermedial practice.*

---

[74] The phrases could be also performed in monologue, dialogue and even with more voices. It is sometimes performed by an instrument soloist. However, the most common form of dialogues shape between a vocalist and an instrumentalist, between two instruments or even with one soloist playing phrases that are meant to respond to one another (usually in different registers recognized as *zir o bam*).

2. The interconnection of 'references' in both media via the parameter of improvised performance can be identified in its unified whole; ***macro level organization in the intermedial practice.***

It is a matter of studying presented elements of performance in painting, in text and of trying to link the purpose of each one to the coherence of which they are a part.

3.5. Poetry and Parameters of Improvisation

3.5.1. First Parameter: Musical instruments, Singer and Performance

There is a high admiration for and a great effort to reach the expression of acoustic properties in the book of the king. As a micro-level organization, what can be observed is the extensive employment of referential strategies, whether indexical or iconic references, for the presentation of musical instruments, singers and performance practices. Painting takes the benefits found in physical properties of musical instruments, their specific identities, and the aesthetic-schemata to creates the spatiality of medium of music in the service of narrative. In poetry, the sonic-essence of musical instruments are conceived and employed in the framework of the storytelling (time-space transformation). More specifically, there is a purposeful use of traditional musical instruments by which peculiar sound qualities, in a cultural context, are assigned and ascribed to the stories. The perceived sounds help the events, locations and characters to be recognized and distinguished. According to Wolf, this influences on the recipient's cognitive faculties permit audiences to experience musical performance in their imagination (465). The poet classifies the musical performances into two general categories, or employs them in two different positions:

a. **Compact Music**: the poetry represents a distinct group of musical instruments including horn, trumpet, Hindi resort, bell, horn and passive trachea for the creation of a specific cognitive response during storytelling.

b. **Festive Music:** in Persian culture some musical instruments are used for happiness and joy. The references to such festive musical instruments may create different psychological and cognitive effects in the process of communication.

3.5.1.1 Compact Music; Instrument and Performance

It is worth remembering that every musical instrument carries its own characteristics and sonic-essence to transfer a specific feeling to the listeners. The specific sounds result from the material in and physical construction of the musical instruments. While for musicians, musical instruments are distinguishable by the ways they create sound,

for the listeners this distinction is marked by the musical sound itself. The poet purposefully puts emphasize on the physical characteristics of musical instruments to create a border between them in terms of the form and nature of sound (sonic potential)[75]. The intentional employment of the name of *musical instruments* in poetry or depiction of instruments on the surface by painting tends to imitate specific emotions. Based on the sonic-potential, the poet prefers to present some instruments as 'compact' and others as 'festive'. Among them, the traditional wind instruments, such as *kus*, *horn*, *trumpet*, *hindi resort*, *bell*, *horn*, *passive trachea*, and *gavdam*[76], have been used amazingly in the actualization of sounds of fear, power and communication of the grandeur of the scene. The peculiar style of musicalization of *šāhnāmeh* manifests itself in the fact that, via a storyline, the names of some instruments are frequently repeated. Surprisingly, the name of specific musical instruments is attached to the "**situational contexts**" during storytelling, for example when a battle is taking place, or a character or hero is entering a battlefield. According to Ong, "[t]he distinct references are introduced uniquely into a unique situation to bring readers into respond, often vigorously" (See page 41). One of the wonderful implications of such a technique can be found in some verses of section 10, which narrates the Kingdom of *Noruz* (lines 14, 15, 16; for Persian language see footnote).[77]

> Čo xoršid tābān ze bālā begašt // koruš **tabire**[78]bar āmad ze daš
>
> Be šahr andarun kus ba **karnāy**[79]// korušidane **zang**[80]**o hendi darāy**[81]

---

[75]   You can find more information in Nemati, Akram Judi. " تناسب رنگ ها در صورخیال و هسته روایی [شاهنامه] Harmony in the Imagery and Narrative Mode of Shahnameh." *The Persian language and literature Research*, no. 11, 2007, pp. 57-82.

[76]   The instrument is comparable to horn but its physical manifestation recall oxtail in mind.

[77]   چو خورشید تابان ز بالا بگشت // خروش تبیره برآمد ز دشت
به شهر اندرون کوس با کرنای// خروشیدن زنگ و هندی درای
برآمد سپه را به هامون کشید // سراپرده و پیل بیرون کشید

[78]   *Tabire* is a kind of timpani or drum (a different name for *kus*).

[79]   *karnāy* is one of the oldest wind instruments in the world. The prevailing wind instruments are usually divided into two categories of woodwinds and brass. But, the *karnāy* is not considered a woodwind nor a brass wind instrument, rather it is constituted of both materials. The length of a *karnāy*, by consideration of both parts, can be estimated to be about 60 to 110 centimeters. It is an older as well as a bigger form of trumpet. There is reliable evidence found in excavations and discoveries of *Achaemenid civilization* that estimate an age of 2500 year for this specific instrument. According to historical documents, *Fars province* in southern Iran is considered the sole origin of this instrument. That's why most historical writings always referred to it as the Persian trumpet.

[80]   It is a supplementary instrument that was traditionally used for production of rhythm in performance. It has a soprano sound similar to the sound of an alarm.

[81]   It is a large *Nye,* which creates the bass sound.

Barāmad sepah ra be hāmun kešid// Sarāpardeo pil birun kešid

❖ **The meaning of the above verses:** when the sun was rose, a huge sound of drum was heard from desert. In the city also, the massive sounds of *Timpani* and (*zang) Horn* and *Ney* (an end-blown flute) were heard. The created sounds were so huge that provoked the scape of elephants from the shelter, and a storm of anger from army.

By suggesting the use of compact instruments in a continuous manner, epic poetry tends to follow two main goals; **firstly**, to create a constant evocation of feelings of raciness and sharpness for the readers; **next**, to recall a sense of a real musical performance (concert) in the mind of readers. The poet makes a separation between instruments in terms of the sonic-essence by creating a specific effect in the mind of readers. In Persian improvisational performance also, the collaboration of musical instruments creates distinct cognitive responses in which the solos seek to overemphasize the physical and the sonic characteristics of the musical instruments. In this fashion, we can certainly expect this continuity in actualization of musical sounds to stimulate in us an improvised music.

It is fascinating to note that "recurrence" of similar wordings and syntactical patterns are not restricted to a single story. Rather the poet extends the same strategy and style of representation in the multiple stories of the *šāhnāmeh*. In this way "[n]arrative originality lodges not in making up new stories but in managing a particular interaction with [readers]", or develop particular effects in readers' minds (Shephard and Leonard 41). As you can see in the below verse collected from section 14, the story of *siāvaš* (verses number 89), the name of musical instruments that were previously used are repeated in the same compositional manner in order increase the sound-effect of the story. The same repetition also occurs in other stories of *šāhnāme*, such as the *'kingdom of Nozar'* (section 6, verse number 4). Although the below verses (selected from two sections) employ different wording patterns, they convey a similar meaning. The story of *siāvaš* (section 14)

Bezad **kus** ruieno **hendi derāy//** Savārān suye razm kardand rāy[82]

*Meaning***:** the *kus* and *derāy* were sounded, thus the riders were headed to battle

---

[82]   بزد کوس رویین و هندی درای // سواران سوی رزم کردند رای

The kingdom *of Nozar* (section 6)

<div align="center">Xorušidan āmad ze parde sarāy// Abā naleye <u>**kuso hendi darāy**</u>[83]</div>

***Meaning*:** the *kus* and *derāy* were sounded, therefore a huge shout sound was heard.

3.5.1.2. Festive Music; Instruments and Performance

When poetry narrates about a ceremony, celebration, or any other joyful event, such as dance, there is a thematization of festive music. The celebrations usually recall and suggest by variable instruments in a sequenced manner. The sense of happiness or joy is created through a combination of (1) string instruments such as the *harp*, *bārbat* (lute)[84], *tambur*, or *Rabāb*[85]; (2) percussion instruments such as *tambourine*, *bells*; and (3) wind instrument such as *nāy*. Such complex connections can be found, for example, in the story of *Manučehr* in which the poem explains the festival of "*Zāl & Rudābeh*":

<div align="center">Befarmud ta *zango* hendi *derāy*// Zadando gošādand parde sarāy

Če āvāye ***nāyo*** če āvāye ***čang***// xorušidan ***buqo*** āvāye ***zang***[86]</div>

At the level of differentiating between sounds, the epic poetry refers to different related Persian music terminology, such as "music" (in poem *rāmoš* or *xonyā*), "singing" and "enjoyment" (such as *xonyāgar* for singer; *rāmošgar* for musician; *raqs* and *pāykubi* for dance). It should not be considered as a claim that the thematization of Persian terminology of music is a noticeable characteristic of epic poetry's intermedial practice. Notably, the most noticeable thematization is a discussion about the life of the famous

---

[83] خروشیدن آمد ز پردەسرای // ابا نالۀ کوس و هندی درای

[84] '*Barbat*' is one of the oldest musical instrument in the history of musical science. *Barbat* is considered the oldest musical instrument in the Persian culture. It is belonged to the group of wind instruments –as two stringed lute. It is said that the sound of *Barbat* and its physical properties carries in itself a feminine nature. Some of Persian scholars believe the root of the word *"Barbat"* has been taken from the name of ***Bārbod*** (musician). It is whereas, some other rejects such claim and defines the meaning of the term "*Barbat"* as duck neck.

[85] *Rabāb* is a Persian musical instrument which came into the Arab world during the Islamic era. *Rabāb* is one of the oldest stringed plectrum (wound of) Iran which was played in the East and Southeast of the country. *Rabāb* is constituted of wood, leader and yarn of nylon and has 3 or 6 pairs of wires with an elongated body and a short handle. During the last decade, the best *Rabāb* instruments were made in Kabul by Sayed Qarib, Jome Xān, Vasel and Azim Xān.

[86] بفرمود تا زنگ و هندی درای // زدند و گشادند پرده سرای
چه آوای نای و چه آوای چنگ // خروشیدن بوق و آوای زنگ

musician *Bārbod*[87], his music and personality. This occurs in the section of *Xosro parviz* in which the poet is narrating a competition between two musicians, *Bārbod* and *Sarkeš,* for a power position. On the one hand, there is an accurate and detail description of the musical instruments and pieces, on the other hand, there is an extensive 'description' of the musical experiences through which *Bārbod* is creating in the competition, comments on the classical mode of musical performance. This transposition of aesthetic conventions means that epic poetry imitates the representational principles of the medium of music[88]. Maybe because of such stylistic procedures, *šāhnāmeh* has always played and continues to play an important role in the exchange between literacy and music. To take this assumption one step further, we might say that at the level of the medium, *šāhnāmeh* is a musicalized medium.

***Thematization of the name of a famous musician*:**

Čonin goft bā baqebān **Bārbod** // Ke guie to jani va man kālbod[89]

Tematization of the name of sarkeš (a musician) and the word "musicion"(rāmošgar):

Ze ***sarkeš*** čo bešnid darbāne šāh// Ze ***rāmošgar*** sāde barbast rāh[90]

The high concentration of musical parameters and their connections contributes to the higher density, not only of musical meaning, but of effect. From an intermedial point of view, it can be said that most of the poet's intermedial practices are based on a specific poetic style and the cultural and social foundation of his time. The improvisational connection to such an application is present from the multiple appearances of similar references. The poet encourages the reader to assimilate pervious cultural experiences into the process of perception. As follows, poetry creates an

---

[87]   *Bārbod* is one of the most significant figures in the development of the Persian musical system. He was a poet and musician of the Sassanid era who lived during the rule of *Khosrow II* (590-628 AD). *Bārbod* was the first musician who organized the Persian musical system in seven "Royal Modes" called *Xosrovāni*. Bases on this system he created thirty derivative modes for each day of month and 360 melodies for each day of the year.

[88]   See for example Ong, Walter J. *Orality and Literacy:The Technologizing of the World* Routledge, 1982 (2002).

[89]   چنین گفت با باغبان بارید //که گویی تو جانی و من کالید

[90]   ز سرکش چو بشنید دربان شاه //ز رامشگر ساده بربست راه (for more information see the section of kingdom of Xosro Parviz)

eagerness in the reader to notice intentional references to parameters of performance. The reader slowly becomes familiar with the sounds, the physical properties of musical instruments and the situation in which the story may evoke a similar sound.

3.5.2. Second Parameter: 'Repetition' of Musical Figures

The fact that music of all sort can be performed and practiced in the both methods of individually (particularly in the context of spirituality) and communally is clear enough. Yet, the improvisational performance is a highly collective activity though musicians seek to create a specific effect or stimulate an emotional response from the listener. improvisational performance seeks to provide an active relationship between the player and the audience by putting the audience in unexpected situations. According to David Melcher, as a famous jazz musician:

> When we perform in clubs and other venues where you can see the audience-as opposed to concert halls or other places where you are far removed-then we use a process called 'reading the audience'. (298)

To move the audience out of their normal frame of thinking, there needs to be a sudden alteration. That being so, improvised music concentrates widely on the effect of the music by providing unexpected and complex musical structures. The one thing we must not forget is that for the act of improvisation, every culture prefers certain methods over others. But what is needed, in addition to the employment of a specific style such as alteration of tempos or levels of dynamics in improvisation, is the performance of a structural "repetition". Elizabeth Hellmuth Margulis in her studies[91] frequently underlines the power of repetition in a dramatical transformation of non-musical materials into song (5). She claims that "repetition is not only exposed via a bar, a section of music or a whole piece to us, but we also tend voluntarily to re-expose ourselves to familiar pieces, again and again and again" (*On Repeat* 4). Classical rondos, as the most popular music of the late 18th century, employs a repetitive kind of musical composition. A folk song, such as the French folk song "Au clair de la lune", offers a sectional repetition in the melody. In this context,"[r]epetition is not an arbitrary

---

[91]   Among others, see for example Hellmuth Margulis, Elizabeth *On Repeat: How Music Plays the Mind.* Oxford University 2014, Kattenbelt, Chiel. "Intermediality in Theatre and Performance: Definitions, Perceptions and Medial Relationships." *Culture, Language and Presentation*, vol. VI, 2008, pp. 19-29.

characteristic that has arisen in a particular style of music; rather, it is a fundamental characteristic of what we experience as music" (Margulis *On Repeat* 5).

In all kinds of oral performances, the repetition of words or phrases has a powerful potential to construct 'attention' and 'awareness'. In fact, in oral culture, "it is advantageous for the speaker to say the same thing, or equivalently the same thing, two or three times", consequently, the repetition creates a "collective effect", which is the main purpose of oral communication (Elizabeth Hellmuth Margulis 40). The improvisation in oral culture takes place via an extensive use of repetition in the musical figures or phrases, such as riff or lick and refrain. The repetition of musical figures or phrases such as 'refrain' (and its sub-form riff) and 'lick', which came into prominence along with jazz music, is considered today as the fragments and the signature of a certain musical style. Persian musical style in general tends to employ the strategy of 'repetition', not only for the larger musical figures, such as riff (a call-response pattern), but also for smaller units, such as motif and lick. These compositional strategies are frequently used as a device to create a "hook" to draw in the reader's attention or to ingrain something in the reader 's memory.

3.5.2.1 Representational "Riff" and "Lick" in the Epic Poetry

It is said that poetic texts and music are not perfect analogs of one another, however they are quite similar in their structural and functional units. For example, a 'musical phrase'—like a language phrase'—is a part of thought that is not complete by itself. A musical phrase is made of motifs defined as a short succession of notes that describe cadence "formulas", or produce a single impression.[92] A musical phrase is, thus, analogous to a sentence of prose or a line of poetry; all are more or less complete ideas that come to some sort of pause or closure and in music (Ong 20)**.** To look at it from this perspective, a line of poetry or a hemistich can also be comparable to a long phrase in music. They both are organizing and organized units that are related to memory, breath, and physical motion" (Spiro xiv).

Some parts of *šāhnāmeh*, such as the sixteenth section, suggest a unique musical strategy in the way story is designed. In this part, I will not be concerned with the structural analysis of musical phrases, rather my concern is how musical figures or

---

[92]   Neta Spiro in what *contributes to the perception of musical phrases in western classical music?* Seeks to define a precise and comprehensive definition for musical phrase.

phrases are employed in poetry, and how they are used in the context of storytelling for musicalization purposes. The textual phrases in the sixteenth section of *šāhnāmeh* are musicalized via repetition of (1) musical instruments, (2) aural aspects of words, and (3) acoustic aspects of narration. The combination of all these different dimensions amplifies the sound of the story. I suggest that the repetition of specific textual phrases in this section purposely formed in relationship to thematic alternation. As you may notice in the selected part the "textual phrase" of "*ze dargāh barkhāst āvāye kus*" (the sound of timpani was raised from the doorway) has been used twice: at the beginning and the end of the story.

<div dir="rtl">سپیده دمان گاه بانک خروس//ز درگاه برخاست آوای کوس</div>
Sepideh damān gah bānge xorus //Ze dargāh barkhāst āvāye kus

<div align="center">A</div>

<div dir="rtl">بر آمد خروشیدن بوق و کوس// بیک دست خسرو سپهدار طوس</div>
<div dir="rtl">چو از گنگ برخاست آوای کوس / زمین آهنین شد هوا آبنوس</div>

Čo az gang baxāst avāye kus //*zamin āhanin šod havā ābnus*

B: The repeated phrase in other section

<div dir="rtl">زمین گشت چون چادر ابنوس// ستاره غمی شد ز آوای کوس</div>
<div dir="rtl">بقلب اندر آمد سپهدار طوس // جهان پر شد از نالهٔ بوق و کوس</div>

<div dir="rtl">**بدانگه که بیدار گردد خروس//ز درگاه برخاست آوای کوس**</div>
Bedangah ke bidār gardad xorus //*Ze dargāh barkhāst āvāye*

<div align="center">A1(repeated phrase)</div>

The entire verse aims to narrate the opening moment of the battle in which a deadly silence is tied to a loud sound. In fact, the textual phrase introduces the main theme of the story in which a big battle is going to be visualized. The primary focus of the phrase is to alter audience 'attention' and 'awareness', to achieve the role of 'hook' or to be considered as a kind of *signature tune*. To do this, the repetition method tends to follow a pattern compatible to the "Black Dog" song that plays two simultaneous roles in the song: 'lick' and 'riff'. In other words, the emphasis is on the 'phrase', first as musical riff—a component of rhythmic and melodic structure—and second as representational lick—a component of musical meaning—that linked to a specific emotion. From a musicology point of view, 'riff' is an abbreviated form of 'refrain', mostly employed in

rock, funk, jazz and Latin music, which refers to a repetition in the chord progression or melodic figure. 'Riff', similar to 'refrain', can be defined as a repeated line or small set of phrases in music, but sometimes could just mean the "tag line" that repeats every once in a while. For example, the song "You Shook Me All Night Long" follows this style of repetition. Another example of a song that has a memorable riff is "Smoke on the Water", which uses a G pentatonic scale (G, A, B, D, E). One should not forget that in jazz and rock music, the riff is highly improvised in relationship to structural aspects of instrumental music. It is repeated and moved harmonically to follow the chord changes. Emily Petermann, also in referring to jazz music, defines 'riff' as "a short phrase, usually two to four long, resolving around a central tone, and is played repeatedly that leads to impression of change" (7). Petermann in *Imitation of Musical Structure, Performance and Reception in Contemporary Novel*, also follows the same method to understand the musicalization process in contemporary novels. Her benefits from the similarities between phrases in music and literature to make up the textual riffs in contemporary novels, such as Stanley Crouch's novel *Don't the Moon Look Lonesome*, or Albert Murray's *Train Whistle Guitar*.[93] He claims that musical riff is comparable to short phrases or clauses (longer than a single word) that can be "repeated in nearly identical forms" (72). For example, with reference to the novel *Train White Guitar*, he explains how the focus of the author on gradations of blue color could create a memory-based motif. In Michael Ondaatje's novel *Coming Through Slaughter*, there is a three-time repetition of the textual riff "passing we chicory that lies in the field like the sky"[94]

The first repetition of textual phrases of "*ze dargāh barkhāst āvāye kus*" in the analyzed section follows a structure comparable to a musical 'lick' in order to grab the attention of the reader to the major theme of the story. In the second appearance, it acts as a 'representational lick' to finish the story by a loud sound created by a compact instrument. Such musical figures may act as a 'lick' because they are perceived as a part of a solo, or a portion of a riff. The example of this case can be found in "Black Dog" by Led Zeppelin, in which the melodic fragment of "Black Dog" becomes the foundation of the song. Here, it seems necessary to take a closer look at the previous

---

[94]   For more information, see Petermann, Chapter 3: "Structural Patterns in Jazz Novels", p. 70-106).

phrase of "lick". Before the first appearance of the 'textual lick', the reader is faced with the phrase *sepideh damān gāh bānge xorus*, and before the second one, the phrase of *Bedāngah ke bidār gardad xorus* is recognizable. Surprisingly, while the mentioned verses seem different in their wording patterns, the meanings they convey are absolutely similar; they both literary mean: in the morning when the rooster becomes awake (metaphorically referring to the time of his singing). By suggestion through the above combination, the poet, on the one hand, puts emphasizes on the sound of a rooster (*xorus*), on the other hand underlines the sound created by *kus* as a musical instrument. As it is now clear, the pervious part (verse) of the textual licks includes thematically and semantically similar stanzas, even though there is a minor alteration in the wording patterns. In fact, the prolongation of the created effect by textual lick of *ze dargāh barkhāst āvāye kus* (the sounds of timpani were raised from the doorway) depends on the preceding phrase, *sepideh damān gāh bānge xorus* or *bedāngah ke bidār gardad xorus*. This major demonstrates that the repetition of the major musical phrase does not merely occur in the framework of rhythm or melodic pattern (as riff), but contributes semantically in the identification of sounds in the scene.

It is worthy to note that the phrase (B) in the above section plays the role of a musical riff in another section (B1). The recurrence of the same riff in the story of *Mahmude Qaznavi* (introduction part), acts as a solo to retrain into auditory memory and to arouse the same feeling. He makes use of similar words (*buq- kus-āvā*) in order to increase the effect of previous symmetrical repetition. The repetition of the same phrases occurs in different thematic structures (like the medium of music, there is a variation in the second motif). It inextricably associates the stories together and expands the musicalization by creating continuity in intertextual self-referentially.

[95]1A. Čo az gang baxāst avāye *kus*   1B. *zamin āhanin šod havā ābnus*
                                                              B1: *B in the Pervious section*

2A. Sepahbod befarmud ta givo tus   2B. be pošte sepah andar ārand kus
3A. Čo rade xorošande šod *buqo kus*   3B. xor andar pas pardeyeh ābnus

چو از گنگ برخاست آوای کوس // زمین آهنین شد هوا آبنوس[95]
سپهبد بفرمود تا گیو وطوس/ / به پشت سپه اندر آرند کوس
چو رعد خروشنده شد بوق وکوس// خور اندر پس پردهٔ آبنوس
برآمد ز هر دو سپه بوق وکوس // هوا نیلگون شد زمین آبنوس

4A. Barāmad ze har do sapah *buqo kus*   **4B**. *havā nilgun šod zamin ābnus*

C

Similar words included are

Kus = Timpani (**1A. 2B. 3A. 4A**).
Avāye kus= The sound of Timpani (**1A**).
buqo Kus = The huge sound of Timpani (**4A**).
ābnus= Ebony, which is a metaphor for black color (**1A. 3B. 4B**).

3.5.3. Third Parameter: Representational Metric and Thematic "Motifs"

From a musicology point of view, a motif can be defined as a metric section based on a melody or theme (thematic and metric motifs). The musical and intellectual qualities of the poet as a musician can be carefully evaluated in the motifs. Reading epic poetry reveals that there is an excessive repetition of specific words based on theme and melody. The acoustically distinguished words are repeated in the regular metric section, which aims to amplify and eco the specific sounds and creates an atmosphere of the moment for its readers. The way such motifs are repeated points to their purposeful application in an intermedial practice (themes).

In his effort to restore a proper knowledge of the intermedial relationship between poetry and music, the author selects the musical motif of *"āvāye kus"* (sound of timpani) in the musical phrases. Many will be surprised to explore the dramatic potential inherent in the unique rhythmic section of āvāye *kus* in the lick of analyzed sections.

Sepideh damān gah bānge xorus //***Ze dargāh barkhāst āvāye kus***

Bedangah ke bidār gardad xorus //***Ze dargāh barkhāst āvāye kus***

With respect to traditional Persian music, one may refer to the melodic model (*gūše)* of *Sayaxi* (selected from *Radīf* of *Sabā*). As you may notice, there is a two-bar motif and the approximate inverted repetitive responses in the melodic model. More specifically, a rhythmical repetition of the thematic motifs of "*šeixan gomrāh*" and "*pirāne jāhel*" tends to create a specific effect.
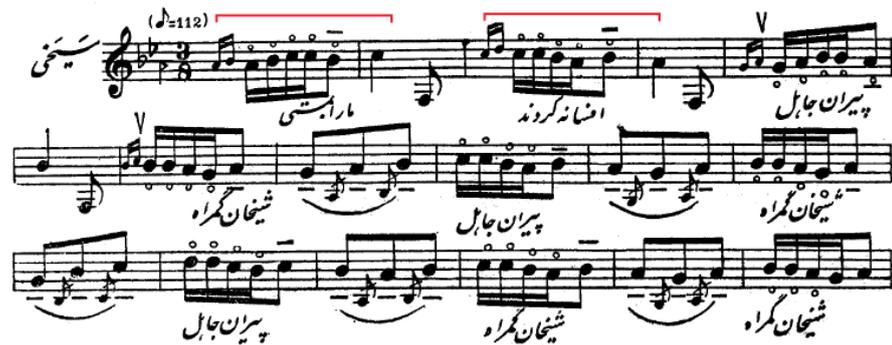
Figure 3. 2.Repetition of 'Motifs' in the Melodic Model of "Sayaxi".

The motif of **āvāye kus** has been rhythmically, melodically and thematically used throughout epic poetry. The selection of a specific motif and a frequent return to a similar motif may serve as a quasi-magical agent of musicalization in epic poetry. The first thing that the structure of the repetitive motifs, such as **āvāye kus**, brings to the mind is the intention of the poet to create a specific wording pattern. While the first word in this motif denotes sound, and comes from the act of singing, the second word, *"Kus",* refers to timpani as a musical instrument. In fact, vocal and instruamental music are meaningfully connected together. The frequent manifestation of the motif "**āvāye kus**" in the distinct stories, may in a similar situation attach a specific sound to the scenes related to battle. Several incidences of the motif *avāye kus* (sound of timpani) connect specific sounds or evoke an expectation of war in the mind of the audience. In this way, the repetition of like motifs can assign an emotional quality as it plays the role of "situational signal" in the mind of reader. The musical sound is therefore heard when there is an absence of sound, and in this sense the effect of the dramatic situation is improved for the readers. Such a typical progression of events in the story may be categorized the selected motif as "leitmotif". It means that the narrator uses such strategy to assemble a balance and contrast between melodic parts and to form a subtle sensation and recognition of sounds in the context of storytelling (see Richard Wagner).

The second point is related to an interchange of content and process in the context of storytelling. It is true that even in other parts or themes of epic poetry a similar "textual lick" and "leitmotif" can be recognized. As one can notice, the frequent return to a specific motif occurs through a consideration of variation and alteration f theme (story). Strictly speaking, the act of repetition is not merely occurring in a single story

or theme (local perception), but expanding musical perception through the linkage it provides between various stories (global perception). To take into account the relationship between parts and the whole, one may argue that this intermedial strategy is developed and perceived both "locally" and "globally". By repetition of the same motifs at a local and global level, epic poetry undergoes a process of vibration, of resonance; the word or phrase resounds or *re*-backs again. Consequently, the poet reflects the sound of the story in the stricter sense for his readers. To clarify, we can take an example from the section of *Keykavus story* (the introductory part). In this section, the poet employs metric motifs of **buq o kus** and **avāye kus** in order to increase the effect of the previous story and to expand the local musicalization to a more global one. As you can also notice in the verse below (B)—taken from the story of "Mahmud qaznavi" —there is the repetition of a simialar pharase which pervously manifested itself in verse A of "Keykavus story". The first phrases include the metric motifs of *avāye kus* (sound of timpani) and the second *buqo kus* (trumpet and Timpani).

A. چو از گنگ برخاست آوای کوس / زمین آهنین شد هوا آبنوس

Čo az gang baxāst avāye kus// ***zamin āhanin šod havā ābnus*** (Keykavus story)

//

B. برآمد ز هر دو سپه بوق و کوس / هوا نیلگوون شد زمین آبنوس

Barāmad ze har do sapah buqo kus// ***havā nilgun šod zamin ābnus*** (Mahmud qaznavi)
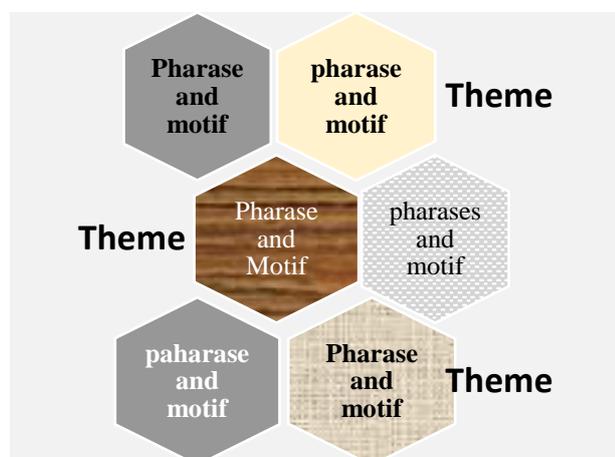
Figure 3. 3.A Schematic Representation of Local and Global Expansion of Motifs

By using this strategy, the language of the poem becomes increasingly aural, lending itself to dynamic aural perceptions. In addition, it may create a feeling of familiarity and attachment for the audience and improve the perception of "seriality". To sum up, epic poetry puts an audience in the situation of hearing the poem as a musicalized form or of participating imaginatively in the act of musicalization.

3.5.3. Forth Parameter: Words Similarities in an Acoustic Variation

Concerning improvisation in *šāhnāmeh*, the poem has also accurately and artistically benefited from a collection of pitches and a kind of stylistic norm for its musicalization aims. More importantly, it benefits from various sounds in the tumultuous arena of the epic, while for re-call it employs only one "word". More specifically, the poet expands the conceptual range of some words, implying a sound concept such that they can indicate any type of sound, including warfare, birds, animals, musical instruments, natural factors, and human beings. This proper word formation creates some kind of expectation for the hearer. It also creates some signals for the situational contexts in the mind of the audience that force them to wait for the source of sound and listen to the story, a method of "pending creation for readers". The method of resurrection is used in opposition to the listeners' expectation. To continue, by a clarification of the source of sound, the reader's mind goes through a de-familiarization process. This method of "pending creation for readers" increases the listeners' willingness to listen to the continuation of the story.

3.5.3.1. Avā (voice)

The general word of "voice"(*Avā*) has been used to present a wide range of sounds, including a drum beat, a musician, a river, a bard, the army, an anthem, bells, horns and cymbals. In this way, the readers will be attracted to realize the source of the "voice" and create some kind of expectation for approaching similar words. In the following example about the Iranian celebration of winning the *Rostam*, by referring to the word *Avā,* there is the possibility to hear any voice in the city. However, at the end only "impregnable" (*ruine xom*) is heard.

Siyah karde asbānaš geihān be som // hame šahr **avāye** ruine xom

3.5.3.2. Song (Avāz)

In *Šāhnāmeh*, for referencing various heterogeneous sounds, such as nut, cup, beep, drums, horses, elephants, lions, and wolves, are employed, including the "word" *Av*āz, which literally means: song and the verb 'singing'. Because different sounds are recognized by reference to the same word, the reader should wait to see the next word to recognize the source of the sound. In other words, when listeners are reading, they will wait for the source of the sound, such as in the following sample that is related to the resignation of "Keixosro"[96] from his kingdom.

Beraftand yeksar grohhā gruh// hame dašt lašgar bedo rāg o kuh[97]

qave nāyo **avāz** mastān ze dašt// to gofti hami az have bar gozašt

3.5.3.3.Cry (bang)

In poetry, the term *bang* (cry) is used when confronted with the sound of cymbal, horn, tabor, axe, swords, bows, rivers, melee, heads, cry, horse, rooster, chicken, anthem, etc. In the first example, the poet visualizes in the morning, the kingdom of "Xosro Parviz", dismantling of ebony and the signing of a rooster. In the second example, the heroes "Tus and Godarz" are dispatched to fight with *Pirān*; among a large army that is likely to hear any voice, the poet refers to a horse's cry.

1. čo penhān šod an čador ābnus// be guš amad az dur **bang-**e xorus
2. Baro āfarin kardo bar šod xoruš// jahā amad az **bang-**e asbān be juš

3.5.3.4. Roaring(xoruš)

In poetry, the words bell, windlass, horse, lion, army and rulers, and "roaring" are used. In the first sample, the poet visualizes the fight between "Kamous Kašani" and Iranians in spring when the "Hamun River" is clamorous. Mentioning "clamorous" in this season makes us remember the sound of thunder, storms and natural phenomenon. Then it becomes clear later on that "roaring" is used to mean the pleasant singing of lark.

čo xoršid zad panje bar pošte gāv// ze hāmun barāmad **xoruš** čakvā

---

[96]   Part 9 in the Šāhnāmeh: online version: http://www.nosokhan.com/Library/Topic/091F. The big war between keixosro and afrāsiāb.

[97] همه دشت لشکر بدو راغ و کوه   برفتند یکسر گروهاگروه

تو گفتي همي از هوا برگذشت   غو ناي و آواي مستان ز دشت

3.5.3.5. Groan (Nāleh)

In the Iranian national epic, "groaning" is the sound of sadness that is heard not only from human beings, but from birds such as the nightingale and war instruments such as the harp and barbet. So, whenever the listener is faced with such words, their whole attention is directed to the next word. For example, in the following example, that is an explanation of Iranian confrontation with people of *Turān* to revenge *Siavāš*, in fighting a battle, the loud sound of Kettledrum irritates the ears.

Ze har su barāmad sarāsar xoruš// hami kard šod az **nālehy-**e kus guš

3.6. Parameters of Improvisation in Painting

When the question of intermediality is raised, it is inherently connected to both observers and producers of media. It is a message decoded for some specific audiences, and conveyed by a specific channel (book). I would like to underline the role of culture in facilitation of this process (sender-receiver), and in the individualization of specific properties that are assigned to the image for the creation of musical quality.

To answer questions, such as how referential strategies in the painting may relate to the parameters of improvisation or how the medial dimensions of image have been employed to support medium of poetry in this context, we should firstly distinguish between mono-medial and plurimedial representation of a visual medium in the musicalization process. The paintings under discussion also depict parameters of improvisation. They describe in more detail the characteristic features of musical instruments, the spatial conditions of performance and the nature of performance. This kind of depiction sometimes suggests parameters of performance without reference to the text. And sometimes images and text have a mutual collaboration in the musicalization process. This has not to be taken as a claim that, in the reference to improvised music on a page, pictorial portions have either appeared to "**enhance and extend**" the aesthetic effect of poetry, or employed their own independent strategy to act as a "**catalytic mechanism**" in creation of a specific reaction.

3.6.1. Painting/Poetry Plurimedial Collaboration

It seems, for the representation of parameters of improvised performance, the boundary between image and text in this context is fuzzy. There is a great degree of sophistication in the exploration of the relationship from image to text in this context.

The exploration of their interaction perhaps needs a quite distinct level of knowledge, one that examines the sensory engagements, materiality, and perceptions necessary to the mastery of language, both semiotic and semantic. The cultural technique by which the segmentation of information has been shaped, and the negative and positive spaces have distributed on the page, certainly affect the reading path and the realization of the encoded messages. Beside the fact that texts, like images, have been decoded visually, the segmintivity of poems itself may influence the visual collaboration of image-text in this process. Materiality of writing and image and page size, together with their material and color also always undergoes a significant alteration Surrounded by continuous alterations what seems manifestly significant is that the image received the musicalized pattern of poetic text and employs it within its own culturally style of representation. Conceivably, we should here put aside the layout, which is completely medium-specific.

It should also be noticed that the stimulus of perception of performance from illustrations is highly depended on units of analysis. To consider these mentioned points, the visual representation may not suggest an exact reference to units of poetic text on a page in question, but if we consider the double-page spread, or the story sections as our point of departure, a complementary relationship can be clearly observed. One may claim that text and image connect together to enhance or extend the quality of a performance. It is in this sense that we can say the wholes supports, and is supported by, the parts.

To consider plurimediality, **Figure 3.4**. depicts musical activities in relationship to the poetic text (as shown in the yellow line).

Bar āmad ze dar nāleye karonāy // Sārāsar bejonbid lāšgar ze jāy

Befarmud tā kus ruien o nāy   //   biyārānd bar piše pārde sārāy

We should be aware that there is a specific concern in the painting to the distinction made by poetry in the realization of festive and compact music. As you may notice, the images of musical instruments *Karnāy*, *Kus* and *nāy* and their players have been distributed over the page to enhance the musicalization of the poetic text; the medium of painting is obviously pointing to a referential sign. On this page, the painting

provides iconic references (in terms of musical instruments and activities) not for the large section of a poem, but for the smaller unit (stanza). The interactional position of painting and poetry in **Figure 3.4**. can be understood as *complementary,* both playing the role of "contributor" or "co-operator" in the process of musicalization, even though the units of both media seem to be "…heterogeneous and necessarily remain separate from one another" (Petermann 16). They integrate to improve, in one way or another, acoustic dimensions of narratives or put emphasis on the qualities of performance.
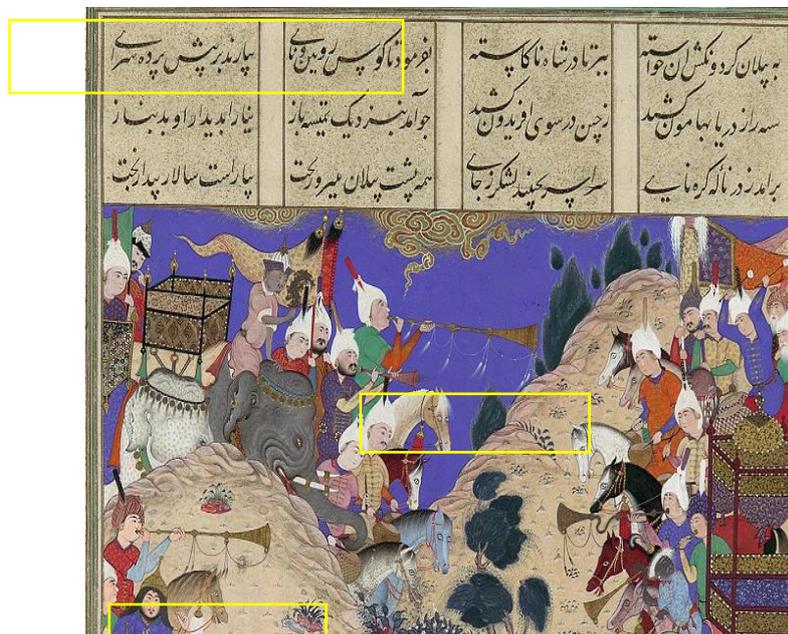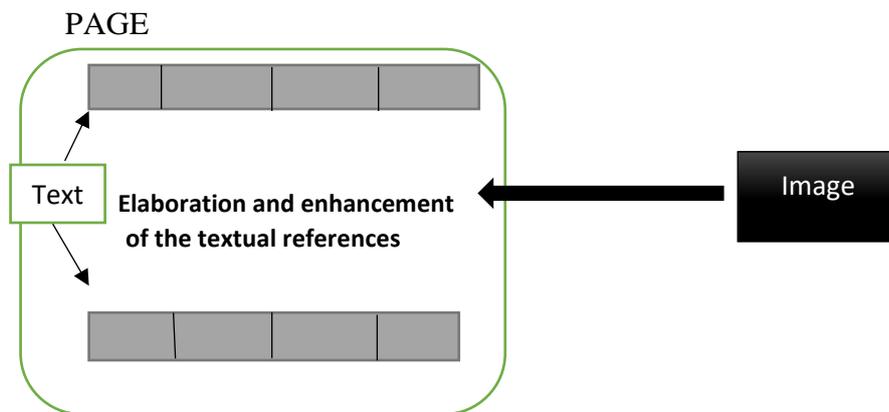
Figure 3. 4. Depiction of Musical Instruments of *Karnāy*, *Kus*

"*Feridun Embraces Manuchihr",* Folio from *šāhnāmeh of šāh Tahmasp. Date: ca. 1525.*

Historically speaking, this tendency toward the pulimedial connection in terms of parameters of performance has become a marked feature in the old manuscript illustrations, such as in **Figure 3.5. and Figure 3.6.** We may notice, by searching deep in the figure, the position of Kress and his followers regarding the separation of semiotic modes.[98] However, there is an intertwining of the media in the process of musicalization. Text and image on this page are narrating a rebellious part of a story: the black loop line indicates the same instruments that were presented by the poetic text. In the below page, the images of musical instruments have distributed over the page to enhance the musicalization of the poetic text in the verse:

<div align="center">

Barāmad ze har dow sepah **nāy-o Kus**
Hava šod ze garde sepah ābnus

</div>

Assessing such spatiotemporal and sensory modalities, the semiotic modes could not assume to be separate, and rather they were dependent upon and appertaining each other. To understand how image-text interacts together to extend the dimensions of meanings in the process of musicalization, it is essential to see text-image visual orchestration. Depiction of the instruments in the center of the top of the page plays a major role in adding musical characters and enhancing musical effects. Very interestingly, the reference to the compact music of *kus* appears only once in the selected textual information. Whereas there is an exaggeration of the quantity in the medium of painting for the representation of compact music

In another illustration, which is belonged to *šāhnāme* of "*širāz*" (Figure 3.6.), the poetic text is referring to textual motifs of *avāye kus* (sound of drum), which is one of the most repeated motifs in the epic poetry. The environs of painting in the **Figure 3.6. and 3.7. are** constituted by the text, layout and materiality of the surface; it is a unit of a unified whole. Both media have been combined to provide an enhancement in, or expansion for the perception of musical characters. The organization of semiotic modes in the medium of painting has a keen interest to provide a musical perception for the observers. The musical elements on this page have yet again appeared on the top of the page. By consideration of musical motifs, the poetic text—as mentioned earlier—makes

---

[98] See Barthes, Ronald. *Image, Music, Text.* Fontana Press 1977. Essays selected and translated and by Stephen Heath, Kress, Gunther R. *Multimodality: A Social Semiotic Approach to Contemporary Communication.* Routledge, 2010.

a connection to improvised performance. This centrality can be explored further in the medium of painting by continuity in the depiction of a similar motif in the numbers of pages, even when there is not any textual information on the page.

Figure 3. 5.The Musicalized Part of Figure 3.4.
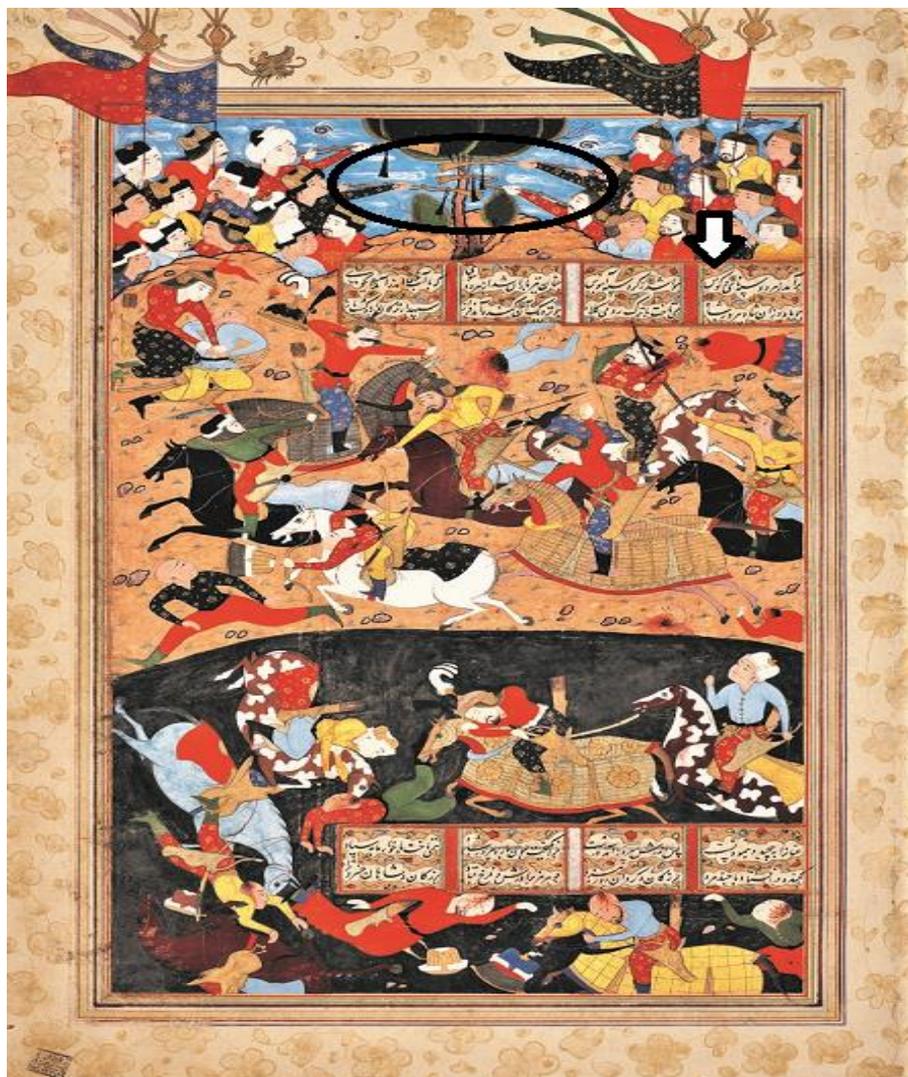
Figure 3. 6. Repetition of Textual motifs of "*avāye kus"*

šāhnāme of širāz
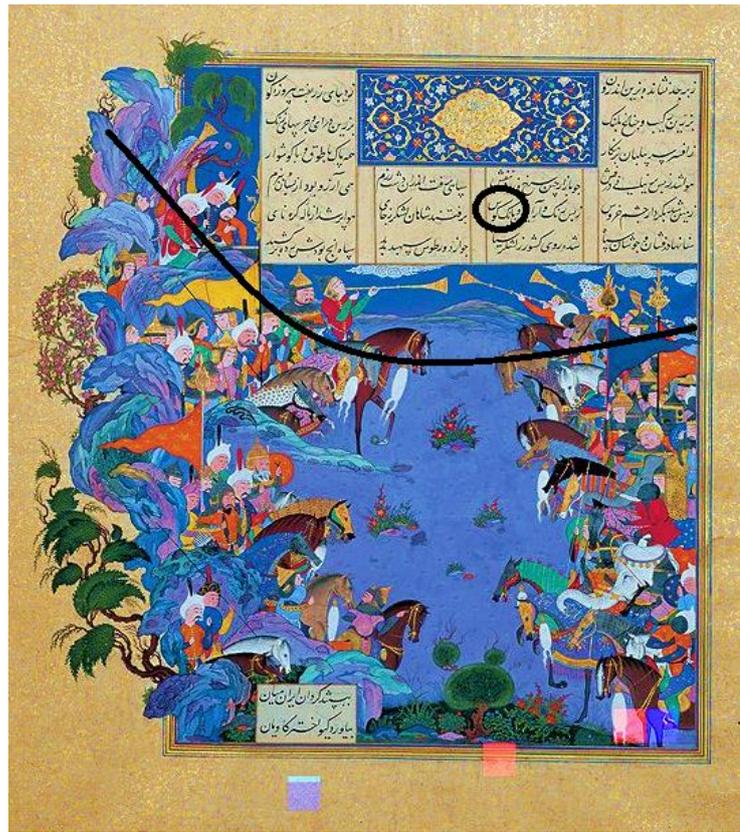
Figure 3. 7.Repetition of Textual motifs of "*avāye kus*"

šāhnāmeh of šāh Tahmāsbi.
Contemporary Museum of Art(Iran). Date: ca. 1525.

3.6.2. Painting and Monomedial Intermediality

In order to have a mono-medial concern, the medium of painting also employs its own medial condition to allocate musical quality in terms of performance. The painting as a medium also has a semiotic nature, though it reflects some degree of reality or it "provide[s] an invaluable—and often pointy hortatory—account of how and why a given people experiences music" (Kress and Leeuwen 9; Leppert). It is thus possible to describe with some precision the ways in which visual elements created and enhanced musical effects. To allocate musical quality in terms of performance, the painting employs its own specific media properties. The visualization method, along with the rhetorical or modal elements, show a certain motivation in the specialization of musical performance. Parameters of musical performance can be found in the visual medium without any provided elaboration by the textual medium.

The referential potential to parameters of improvised music in the medium of poetry develops via (1) visualizing singers, musical instruments, and musical activities; (2) the

tone-scheme distinction of musical instruments by a sex differentiation; (3) visualizing noise in the related scenes; and (4) visualizing 'recurrence'. While visual representation of instrumental music, the singer and musical activities are possibly the most explicit mode of reference to music, the third and fourth categories are more probably the implicit intermedial reference arrived at through the study of *šāhnāmeh*'s visualization method. For the sake of clarifying the central concept under discussion, first the similarities between illuminated manuscripts, lithographs and digital *šāhnāmeh* in the imitation of musical instruments, singer and performance practices shall be explained by means of four examples.

3.6.2.1. First Parameter: Visualizing Singers, Musical Instruments and Activities

According to Davison: "image can indeed provide a wealth of information relating to performing traditions and practices of the past of societies different to what of the scholar 's own (88). The evidence of such claims is found in musical iconography, which always reveals itself as a source for the history of musical instruments, design, performance practices and settings. Given the general heritage of iconography, it will not come as a surprise that many studies provide a rich awareness of musical practices in cultures (see for example, Alan Davison or Robert L. Kendrick). The visual representation of vocal and instrumental music also has a long history in the visual culture of Persia. The image of the oldest relief stamp found in *Choqāmiš* may serve as an example that is as remarkable as it is illustrative. This image obtained from *Choqāmiš,* and dating to about 3500 BC, shows a small orchestra constituted of three players and one singer. The image explicitly refers to a harp, a drum and a trumpet and a singer of the ensemble, all of which reflect the spread and use of musical instruments among the people of Iran of that period.

Figure 3. 8.A part of stamp found in *Choqāmiš*

The paintings of *šāhnāmeh*'s book also provide iconic references to musical performance, instruments and singers without a contribution of the verbal medium. The analysis of **Figure (3.9)** from the old illustrations shows the painting intending to create its own mono-medial references to music performance. The medium of painting as an individual medium depicts a musical activity on a page that is shaped by the relationship between a social group and specific musical instruments. The musical activity is not isolated in the picture and communicates with other parts of the whole structure. The painting is surrounded by the intense texts, layout and materiality of the surface; it is a unit of a unified whole.

By a diversity of human figures along with their colorful and unusual manifestation, the **Figure 3.9,** tends to evoke the power of vision. The colorful human figures are assembled in the frame without depiction of gaze cues: there is no gaze-point condition (NGP) or a shared attention gaze. This painting sends at least three messages about its musical intention:

1) It intends the musical instruments and their structure to be seen;
2) It intends the setting of the musical performance to be seen.
3) It intends the musical performance to be seen.

The respective analyses of the images of the past resemble each other right down to figurative details in the representation of a music performance; the images have the tendency to refer to a specific sound in a sense. The past artist is a demiurge whose aim is for the production of new strategies in the iconic references to music. It seems, the illustrations effortlessly explore and combine the possibilities of different modality modes to connect parameters of performance on the pages. To do this, illustrations (such as **Figure 3.9)** not only depict and describe the form of musical instruments, but also specify their setting and context of use. This descriptive characteristic of musical instruments and their setting in the painted illustrations transfer an idea of them to the receivers. Indeed, the image of a musical instrument does not make or reflect a sound. Rather, the frame of "description…serves as a substitute for sensory experience", or communicates, intensifies and stores a quasi-sensory expereince (Davison 14). Such an imaginary representation allows our mind to synthesize a sonic pattern between the form or appearance of a musical instrument and the sound it can produce. First, the image of the musical instrument, musical performance, overall setting and singer

captivate observers of the images. Then brain tries to complete the puzzle by generating the missing part of sound. As David Melcher and Massimiliano Zampini in "The Sight and Sound of Music: Audiovisual intreactionas in Science and The Arts" claims:

> "[E]ach material has a signature pattern of tone and overtone that your brain has learned to interpret through practice". (276)

Observed in this semiotic principle, the "reference to music occurs in visual art [media] not because musical sound exists but because musical sound has meaning" (Melcher and Zampini 9). The illustrations can then be read as visual music in which the only sense of 'vision' is directly inspired, and the second sense, the sense of 'hearing' is indirectly conjured via a sense of vision. The reading is supported by a cyclic arrangement of a musical performance that is surrounded by a cyclic depiction of human figures. The cyclic composition plays an important role in the aestheticization of the image in terms of the stimulation of a sense of motion and movement for the viewer. By such an alternative reading, the viewer gains a satisfactory pleasure of voice, movement and motion.
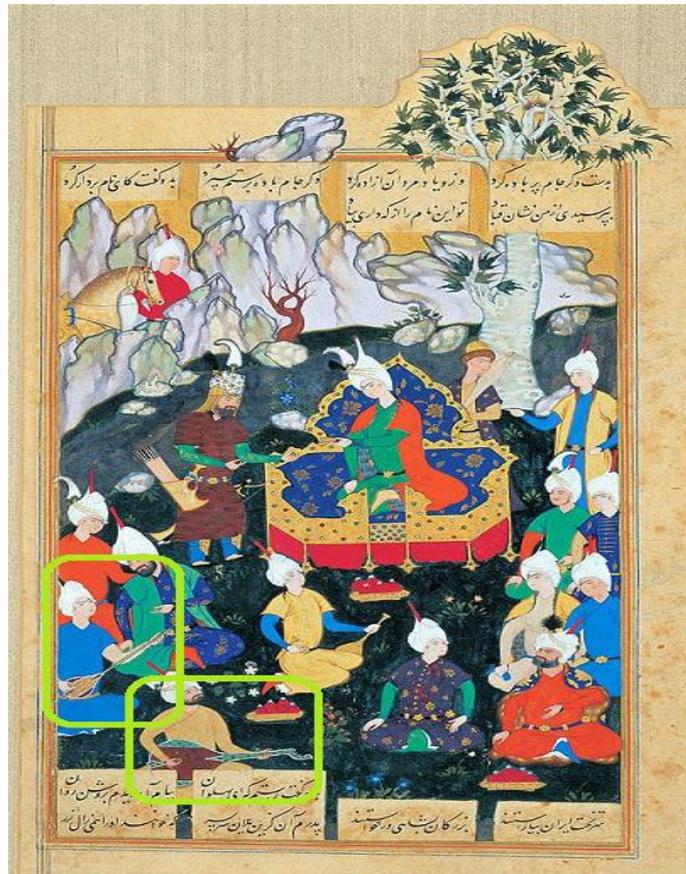
Figure 3. 9. Presentation of Music Performance

A Folio from Tahmāsbi šāhnāmeh. Date: ca. 1525.

Another source of musical inspiration due to a historical development is the **Figure 3.10** from **lithograph *šāhnāmeh.*** The similar manifestation of the signs configurations together with the similar aspects in intermedial practices lead us to specify this cultural genre in terms of qualified features and identify specific aesthetic qualities for it. The emphasis on distinction of sound in musical instruments and exclusivity in musical practice can be seen in this scene also. As you can see in the selected pages, the painting through a cultural depiction of musical instruments creates new rhetorical dimensions for the perception of musical effects. It does not follow the text, and in a mono-medial representation intent to add a huge sound to this scene. The instrument seems to be purposefully moving to the hero's hearing in a way that emphasizes the huge sounds. The instruments have been depicted as much bigger and much more recognizable. They are appearing very close to the scene while the players remain in the background.

Figure 3. 10. Monomodal Reference to Musical Instrument

Litograph *šāhnāmeh* Attributed to Aliqoli Xoie.

Over the centuries, several different styles of visual design evolved into various *šāhnāmeh* books. In the ***postmodern šāhnāmeh***, a certain visual style is especially notable for its flexibility in forms, shapes of elements and in the distribution of visual information. The visual features of postmodern *šāhnāmeh* do not have much in common with the previous books. Although one can clearly observe the influence of the previous versions in terms of the elements and the overall page design, the translation of the Persian text into the English language has a great influence on placement of information on the page. Interestingly, the order in which elements of visual and verbal media are distributed is artistic. In each page the viewer has a new experience of design because there is not a pre-estimation for vertical or horizontal hierarchy. It suggests an innovative configuration of visual and verbal media in a way that the viewer does not feel any borders on the surface in the double page spread.

The book includes a perfect creation of references, semiotic codes and a noticeable distribution of information in the context of musical activities. The artful manipulation of the visual medium in the context of musicalization is well demonstrated by many examples in the book that are drawn out to form mono-medial representations of the parameters of improvisation. It contains a series of pages on which the musical instruments, performances and singers within a complex setting have been organized. Each of these elements is subject to the same process of musicalization. From the **figure 3.11**, for example, the amplifications of the analysis are simple: the musical parameters have been used to improve the perception of first parameter in the context of musicalized performance. Indeed, they can be read as a score of improvisations, or can be individually read as the musical elements. By employing musical codes, the page creates a dialogue between text and reception to expand the scale of musicalization. The musical tension was oriented on the right page, where the verbal text narrates the story. The sound of the battle in the context of the story is heard via an ensemble of musical instruments and an orderly pattern of their repetition. The sound seems to have direction and move across the page in a way that connects two different scenes in the story. These musical instruments together have the graphic and expressive qualities of an artwork. In this way the sign tends to be perceived as an individual and unique sensory mode.

Figure 3. 11.Visualization of Musical Instruments in the Post Modern *šāhnāmeh*

Perhaps the greatest innovative strategy to improve our underwriting of musicalization in this context is to introduce the poet as a musician and narrate the stories via direct reference to him. This aspect can be well thought-out by reference to **Figure 3.12** in which an imaginative figurative representation of a player is accentuated by body movement, colors and geometric forms. A similar figure usually appeared in the beginning of new stories, which lead us to perceive the figure as the main narrator of the stories. To talk about the **Figure 3.12,** at the purely visual level, the viewer's eye is first drawn to a musician figure because it is the only visual object on the page. Only later does it move to see the accompanying page and its visual elements. The geometric forms in the background are also subordinate to the foreground visual object and perceived as a meaningful part in the process of musicalization. More specifically, the form of sitting of the human figure and the movement of the face and hand lead the viewer's eye to the beautiful recurrence of geometric forms which open the possibility to perceive them as the sound movement.

The next day Saum prepared to return to Bactria. At the moment of departure he left his son with these words of advice: "Walk only in the path of righteousness, and obey the commands of your king and the edicts of reason. Hold your hand from doing evil, and follow the path of God, for no one lives forever. I know I don't have much longer in this world."

Zaul and Rostam escorted the old knight for three milestones and returned to Zabol, where Zaul saw to the comfort and education of his son. The world was suffused with hope from the surface of the earth to the constellation of Aries.

A Hero's First Adventures

After much merrymaking one night, the young Rostam heeded the advice of his father and presented his companions with gifts of gold, garments, and horses. All retired to their quarters drunk with wine and heavy with abundant riches. They had not rested for long when their sweet slumber was marred by the din of Zaul's war elephant, which had broken its chains and was running amok.

Not one among the warriors dared approach the fuming beast. Suddenly Rostam roared into the melee. Some of the attendants tried to prevent him from confronting the rampaging elephant, but Rostam pushed aside his well-meaning minders and stood in front of the beast wielding a large mace. The furious elephant rushed the hero like a moving mountain. Rostam held his ground, swung the mace, and killed the vicious elephant. Then, as if he had performed a simple chore, the young hero turned around and went back to bed. The next morning Zaul heard of his son's daring feat. The silver-headed knight of Zabol was proud of his son, although he had lost a good war elephant. Now he knew that he could set his son on the path of glory.

Figure 3. 12.Representation of Narrator as a Singer

Figure 3. 13.A Musicalized part of Figure 3.12

3.6.2.2. Second Strategy: *Emphasize on Rhythmic Motif of "Avāye kus"*

From the point of view of semiotics, it is important to note that painting, like text, is a highly used self-referential dimension in the iconization of music performance. The illustrations from different epochs always provide a way for recognition of self-

referentially, which is particularly relevant to the compact music and performance. A particularly interesting cultural strategy in the self-referentially is the "iconic reflection" of important metric motifs of *avāye kus* and *buqe kus*. In Figures (**3.14**) and (**3.15**) from an old manuscript book, while the painting depicts and characterizes the objects as musical instruments, it employs *ordered series* strategies to draw attention or refer to itself and its specific form of representation. Here the self-referential sign is an icon-index, which, by an excessive repetition, restricts its semiotic function, and merely reveals its own qualities (Shephard and Leonard 1). Painting tries to iconically reflect the major motifs employed by poetry in the musicalization process. The similar repetition of this kind on a large scale not only merely regards compact music, but reveals that the painting simply contributes to the heroic and epic personality of the poem. They are obviously associated with an emphasis on the plot scenes, in one way and other and the personality of the epic poem as heroic, or are characterized as exciting and powerful dramatic scenes. These kinds of scenes are significant in explaining the political tension that underpins *šāhnāmeh*. The self-referential strategies, thus, consider, as one important factor, to establish a dialogue for the sharpest passages and challenge audience expectations.

In Figure (**3.16**) also, the painting conveys the impression of the same type of sound that repeats itself again and again throughout the different episodes. In this way the iconic representation of the *kus* and *kornāy* leaves its mark as a normal semiotic sign and perceives itself as highlighted and emphasized aspects of the text itself. This mode of iconic self-reference is repeated circularly and from one story to another one in order to catalyze the process of musicalization.

Figure 3. 14.An Emphasize on the Metric Motif of "*Avāye Kus*"

A folio from šāhnāmeh of Baysonqor

Figure 3. 15.The Iconicity to the Most Obvious Metric (Rhythmic Motif)

A Folio from šāhnāmeh of Baysonqor
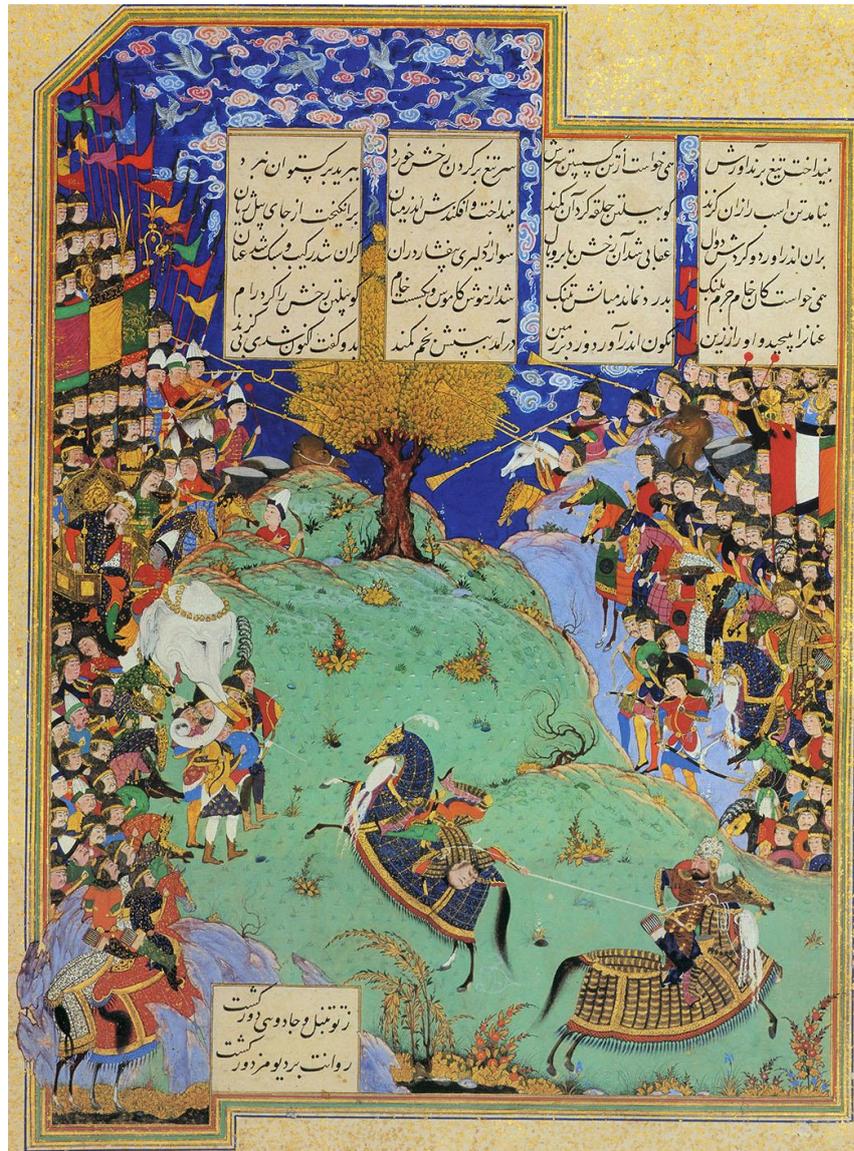
Figure 3. 16.The Iconicity to the Most Obvious Metric (Rhythmic Motif)

The postmodern illustrations reveal that the most expressive semiotic references to musical motifs occur without cooperation of a literacy medium. It is significant to realize that the recognition and usage of the image of *kus* (timpani) is initially associated with the metric motif in the text. However, there is always a continuity in/an emphasis on visual representation of this motif, which also happens when the text is not referring to the motif. We have here considered some fine examples of the visual representation of a "visual motif" in which the "textual motif" is absented in the story. The first example is the **Figure 3.17,** which comes very early in the book to be recognized as the

first attempt of visual medium for the formation of a musical effect. On the page, there is no a direct reference to musical instruments in the textual medium. And the appearance of the word "festival" is the only textual attempt in the musicalization. In this page, by putting your hand on the textual objects on the page, it is noticeable that there is no tight integration between the visual and verbal media in expression of musical dimensions, whereas the musicalization occurs in the visual medium with a greater efficiency. The visual elements on the page are usually organized in terms of a series of events containing the story. The compositional function divides the double page into two major zones or accepts the mono-medial potential of the visual medium. The excessive numbers of musical instruments suddenly attach a huge sound to another visual zone. It allows the viewer to unintentionally identify a musical character in the connection to the story

Figure 3. 17.The Iconicity to the Metric Motif (Rhythmic Motif) of "*Avāye Kus*"

A folio from Post Modern-Age *šāhnāmeh*

In later pages, the visual medium does start to frequently repeat the same musical elements: either at the top or entire of a page in a changeable sequence appear colors or

a separate black-white design. They are appearing with some alteration all of which gives the viewer a visual clue as to the fact that there is an aural meaning to be followed. The rhythmic motif in visual form repeats itself in an unpredictable patterned way and allows variation within a fixed visual framework. Most obviously, repetition of the same semiotic code systematically alters and improves the musical features of the text when we move through the page. Such visual clues come as a chain to improve self-referentially of the image through intermediately contributing a great deal of significance.
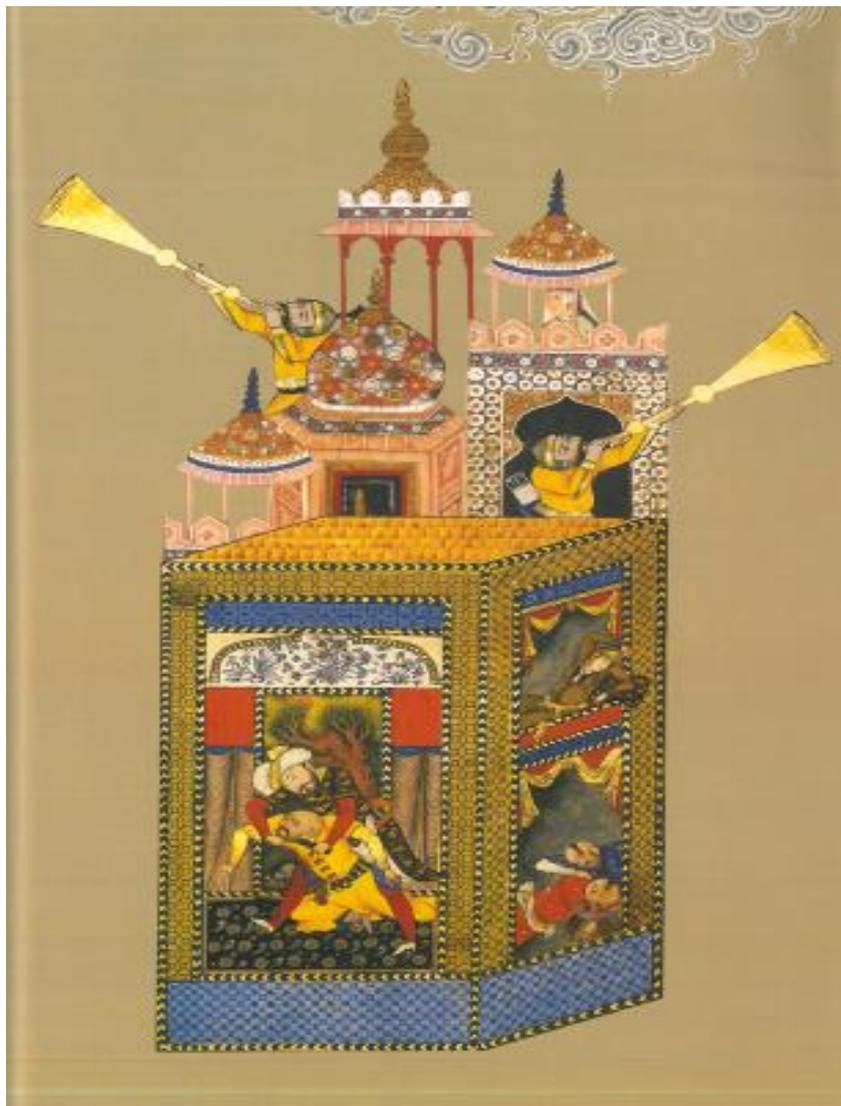
Figure 3. 18.The Iconicity to the Metric Motif (Rhythmic Motif) of
"*Avāye Kus"*

Figure 3.19. is another attempt to show the rhythmic motif through a dialogical exchange between colored and black spaces and the contrast created between them. This example is the best sample in which painting was inspired by elements of poetic texts. It is possible to construct some precise collaborations of artistic and basic modality modes in the musicalization of fiction. The separation and connection between two parts is very rich, which makes a unique and important contribution to our perception of musical motifs. For those who would hope to receive musical messages, the unique references can be found on the top of the page. While more than a few *kus* (timpani) have been repeated rhythmically and symmetrically on the top of the page, there have been few efforts to point to musical signs on the bottom of the page. The quantity of a musical instrument on the page and its symmetrical expansion on the opposite page may point to (1) a sound recognition or (2) a mirror reflection as a self-repetition strategy in this context. Although the overall mixture may remind us the old musicalization technique, by a distinction in color, the descriptive potential of the medium of painting is modified. Color has always been considered a fundamental characteristic of the musical experience. It is a perceivable element that can be culturally associated with a particular sound and provide sensory modal transportation in the context of music. This color association can be seen in the works of American composer Amy Beach, who associated melodic patterns with the colors blue, pink, and purple (Nöth "Self-Reference in the Media: The Semiotic Framework" 16). The most productive on this page is the emphasize on the black and white color, putting the musical sound in the background of a scene, thus, creating a cinematic montage. While the warm colors of red, orange, reddish, and brown in the foreground stand for war, the employment of the cold color of blue for the background creates an association with the sound of a kettledrum. Such synthesized aesthetics incorporate sounds and sight and improve musical dimensions of the story. The signifying of the sound via color is then neatly achieved.

The rhythmic motif of *Avaya Kus* has been intensely used in storytelling as a representative part of the story or as an individual part that is attached to the decorative elements of the pages. For example, in the **Figure 3.21**, the similar visual motif has been employed in connection to the title: "Avenging Rostam`s Death". It reminds the reader of the approaching war

Figure 3. 19. Self-referential Strategy to Metric Motif

Figure 3. 20.The Musical Elements of the Figure 3.19
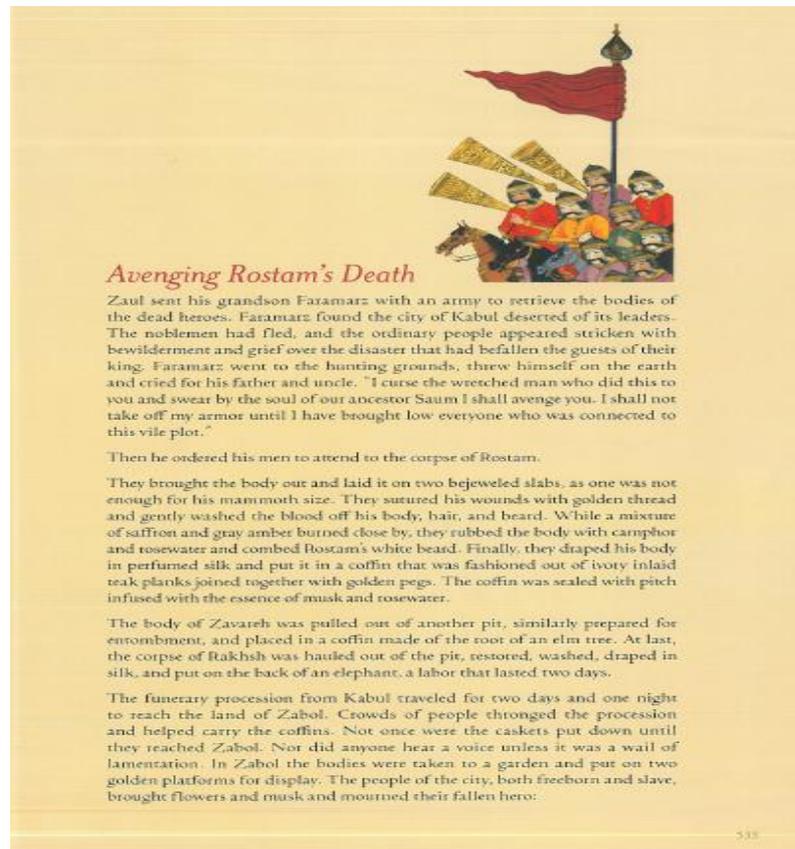
Figure 3. 21.Depiction of Musical Instrument in Connection to the "Title" of Story
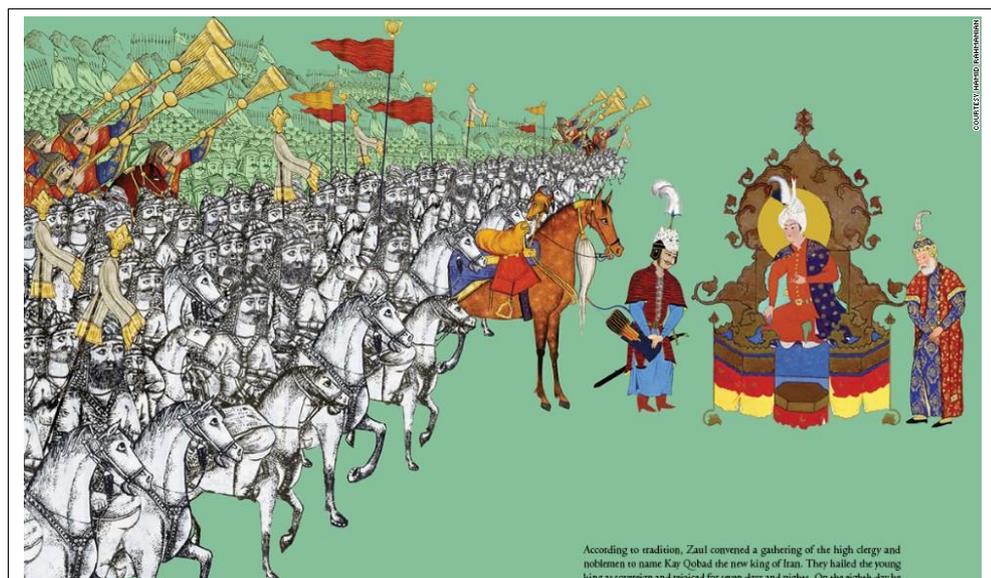
Figure 3. 22. A comment on Metric Motif of "Sound of Timpani"

3.6.2.3. *Third Strategy:* *Sound-Signals by a Sex Differentiation*

By analyzing illustrations of different stories, one can also claim that there is a specific concern in the painting in relationship to a distinction made by poetry in the realization of festive and compact music. The illustrators were aware of the intention of the poem to create a border between festive and compact performance and their related instruments. As you can notice, very interestingly, the illustrations aim to underline this border by a sex differentiation. In concerning itself with such a distinction, painting attaches features of *masculinity* to compact and *femininity* to festive music. This strategy helps the viewer perceive the instruments in relationship to the sounds of women (such as the soprano sound) and permits them make a sound distinction in the context of storytelling. The paintings depict military instruments or those that have loud and bulky sonic signals as men's instruments, thereby associating them with a masculine attitude. The men's instrument is then exclusively used in events or scenes that evoke a tone-scheme such as bass. The festive music is symbolized by feminine essences and highlights the general sound of good cheer and celebration. Very interestingly, the paintings intend to emphasize "ululation" sounds, which are typically used by women in Persian culture to create a long, wavering, high-pitched vocal sound resembling a howl with a rhythmic and melodic quality. In both Figures of **3.23**. and **3.24**, the medium in question purposefully assigns a feminine symbol to festive instruments by depicting a female character as the singer (or player). The painting, by visualizing festive instruments, evokes a sense of happiness in the viewer. As the title of story in the **Figure 3.24** shows, the main concern of the text is not something depicted in the image. The two first verses only confirm a sense of happiness by referring to the life of the character as a happy one. Image, however, transforms this meaning for viewer through the combination of dancing, body motions and iconicity to festive musical instruments.

Figure 3. 23.Iconicity of the Festive Music via Female Figure

A folio from šāhnāmeh of Tahmāsbi
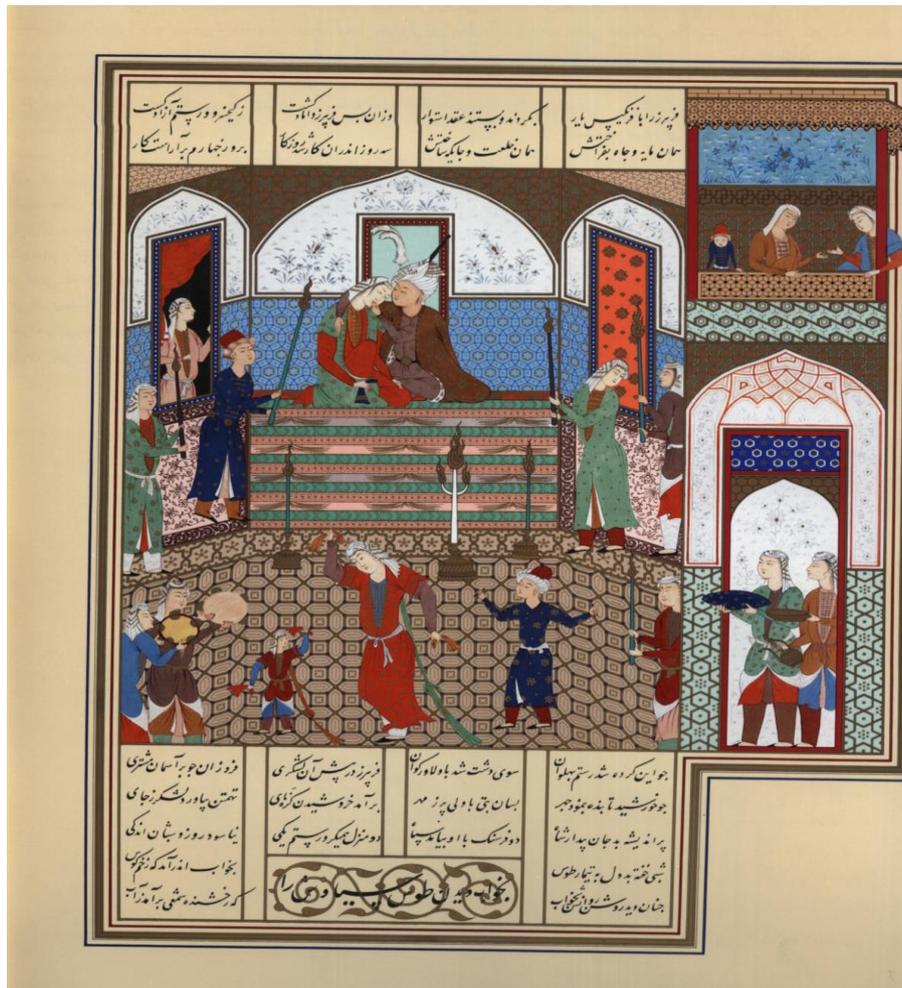
Figure 3. 24. Female Figure and References to Festive Music

In postmodern *šāhnāmeh,* the viewers enable the construction of a musical experience based on their existing knowledge structures. An analysis throughout the page number suggests that the perception of musical experience owes a great deal to the visual detail provided and to the viewers' cognitive competence.

The above strategy occurs when the medium of painting tries to represent elements of music performance. As the **Figure 3.25** shows, the specific visual style shows the big performances in which a small portion of text is located on the page. The initial reference to the music performance functions through patterns of the sitting figures, body movements, and musical instruments. Considering the involvement of the figures in the design of the page, the designer is willing to identify for the receiver the festive music through female figures, which is something modern but somehow

unusual. The female figure as the main visual information is distributed on a double page spread. They are clearly linked together via the ongoing dialogue between the musical instruments. The sounds of musical instruments thus hear using the femininity as the coded form, while such a reaction may be closely aligned to the previous reception of the similar code in which the viewer perceives a rich emphasis on the relationship between femininity and festive music. To recover the meaning, there is a relatively undemanding process that reveals the high repetition of the same elements on other pages. What is interesting from the perspective of this study is the function of a high repetition or self-referentiality in the decoding operation. The viewer in turning the page and is continuously faced with a similar code that relates her to the specific musical characters in the story-world.
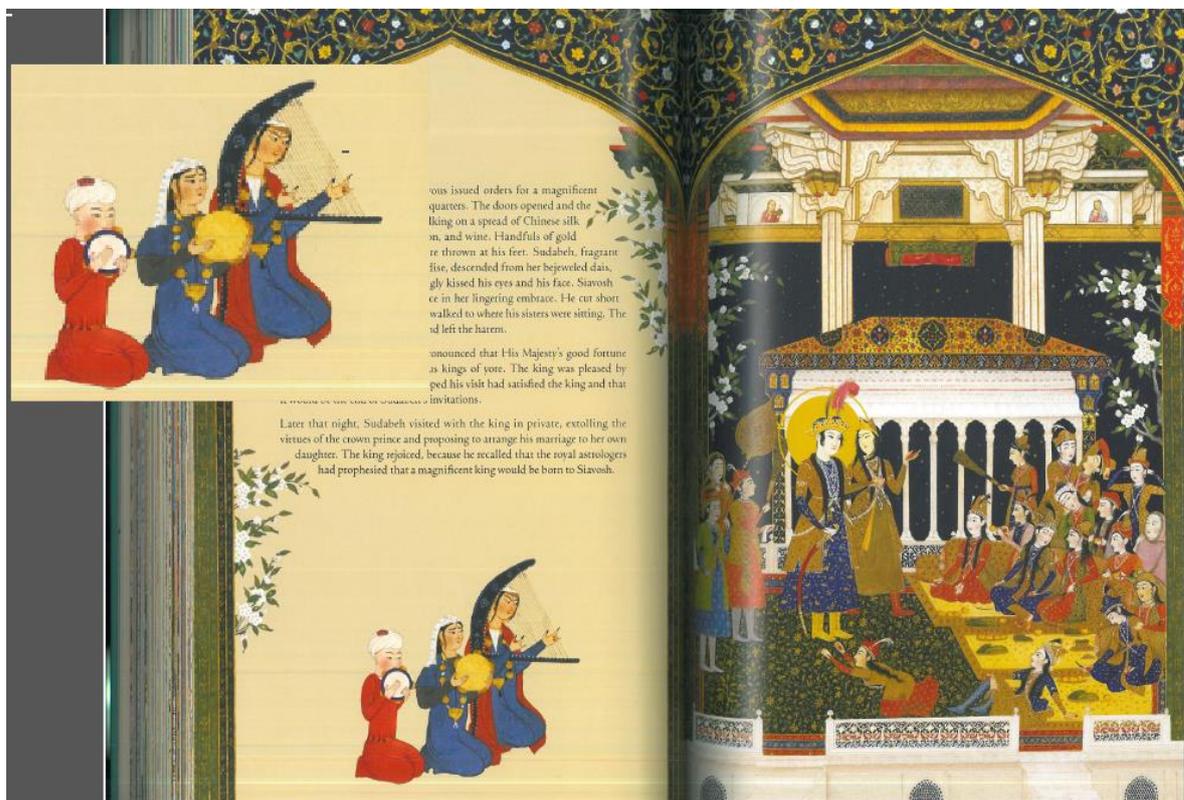
Figure 3. 25.The Depiction of Female Figure in connection to Festive Music

Further analysis also illustrates the employment of a cultural strategy known as visual textures and its significant effect on the aural message. In order to transfer the aural patterns of the festive music and the particular aural message they create, the designer benefits from the cultural method of texture. The exclusive set of patterns of Persian art,

known as *slimi* ans *Xataie,* on top of the page has indeed something to do with intermedial practices. The visual medium asks us to consider how the musical elements and constructions involved in selecting purposeful codes runs parallel to the careful selection of cultural imaginary in visual textures.
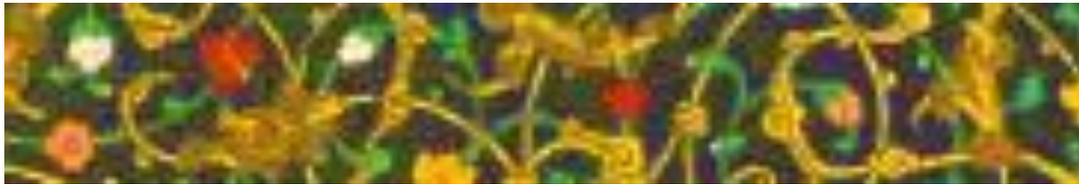
Figure 3. 26.The depicted Texture in Figure 3.25

Figure 3. 27.The Connection of Festive Music and Texture on the Page

As viewers, we are asked to more carefully consider the design of the page and choice of semiotic resources. At first glance, these forms of texture appear to be simply decorative framing devices. However—as Persian history of visual arts revels—this texture can be considered as unique sensory modality modes in the Persian visual culture, which is used often for the representation of 'movement'. The form of texture and its frequent appearance in connection to codes of festive music lead to a perception of movement which itself contributes to the general musicalization process. In fact, the aural message enriches with textural functions.
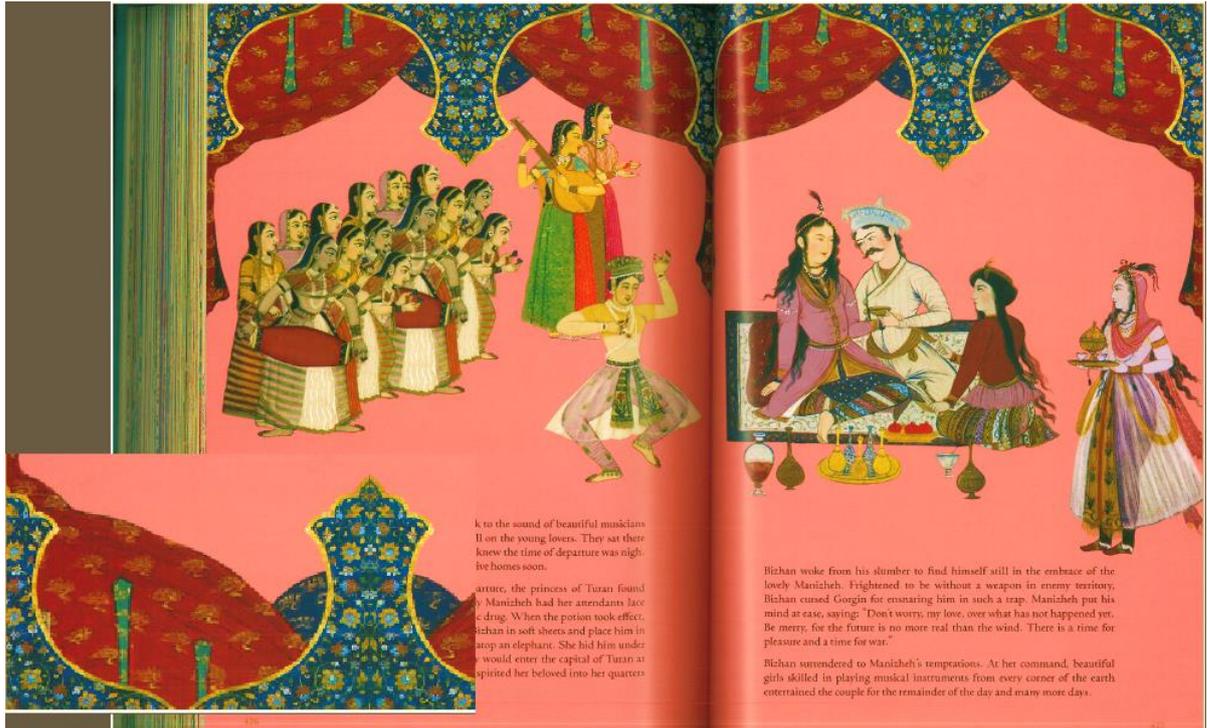
Figure 3. 28.The Sound-Signal by a Sex Differentiation in Music Performance

3.6.2.4. *Fourth Strategy: Visualization the Noise in Acoustic Variation*

Noise can be defined as "a sound, especially one that is loud or unpleasant or the causes disturbance" (Shaw-Miller 476). In the mathematical model of Shannon and Weaver, noise has a significant contribution in the of process of the communication introduced:
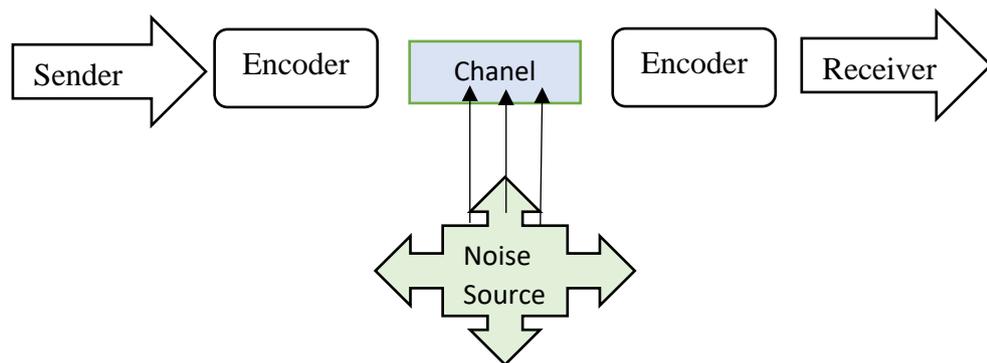
The position of "noise" in the above schemata may highlight its energetic and innovative power, which can bring new dimensions into the context of intermediality. Philipp Schweighauser, in "Literary Acoustic" (2015), believes that noise can be a valuable reference in studying an acoustic network. His fruitful article reminds us that noise is not nothing, or an unusual and purposeless entity in Shannon and Weaver's schemata of communication.

Epic poetry, in its whole progress of continuousness and excessivity, is engaged with sounds, acoustic dimensions and music. Parameters of performance perceived by viewers are due to its contribution to the plot and action of the story. To consider the specification of the medium, function and effect of musical performance are also linked to the strategy of noise employed by painting. Noise often enters in the space in which the messages about musical activities are encoded. The strategy of visualizing the noise should be considered as one of the most significant cultural contributions and aesthetic reflections of this process. Although it may see as a narrative technique, it is also a response to the musical and acoustic aspects of epic poetry. It inters into scene to create a contrast between pleasurable and displeasurable sounds. This strategy helps viewers perceive other sounds much stronger. According to Ong, when we feel that visual activity cues in sounds for us while reading, we see it primarily as a listening process, only set in motion by sight (Schweighauser 48-60).

On the selected page of old manuscripts, the structure of the musical instruments has been depicted in their context of use, which obviously attaches a specific meaning and creates expectations. The setting, in which the participants of stories are connected to each other, tries to create music for the eye by a greater emphasis on the attachment of noise into performance. The painting employs the strategy of visualizing noise to put emphasis on the meaningful sounds that can be perceived from musical instruments and musical activity.

While the singers and the players in connection to depicted instruments are creating pleasurable sounds, the other depicted human figures are bringing noise into the scene by talking to each other. There is also a noise fragments existing that do not fit into the ordered element of music: it comes over the melodic sound to assume a new significance. Repeatability of the noise fragment in the medium of painting intends to distinguish pleasurable music and melodic sound from that which is unpleasant. By supporting the process of imagination, 'noise' discloses a maximal unit of heard sound. Thus, the totality of the feeling in the story's scene is perceived through a "purposeful hearing" which consists of a specific sound realization.

Figure 3. 29. The Performance, Audience and Visualization of Noise

Figure 3. 30. Visualization of Noise in Old Manuscripts

.

Works Cited

"Kornay Found in Taxte Jamšid." Parse Muesuem 15.10.2017 1952. http://www.wikiwand.com/fa/موزه_هخامنشیhttp://www.wikiwand.com/fa/موزه_ه خامنشی.

(U.S.), Research Center for Musical Iconography. "Music in Art: Iconography as a Source for Music History." *The Ninth Conference of the Research Center for Music Iconography, Commemorating the 20th Anniversary of Death of Emanuel Winternitz (1898-1983)*, vol. 2, 2003.

Adorno, Theodor W. and Richard Leppert. *Essays on Music.* Univ of California Press, 2002.

Allen, David and Pamela K. Hardin. "Discourse Analysis and the Epidemiology of Meaning." *Nursing Philosophy*, vol. 2, no. 2, 2001, pp. 163-176.

Andrews, Edna. "A Dialogue on the Sign: Can Peirce and Jakobson Be Reconciled?" *Semiotica* vol. 82, no. 1/2, 1990, p. 1/14.

Arnheim, Rudolf and W. J. T. Mitchell. "Picture Theory: Essays on Verbal and Visual Representation." *Leonardo*, vol. 28, no. 1, 1995, p. 75, doi:10.2307/1576167.

Arya, Divya D. "North Indian Classical Vocal Music for the Classroom." *Music Educators Journal*, vol. 102, no. 1, 2015, pp. 83-89.

Austin, J. L. "Performative Utterances." *Philosophical Papers*, edited by and G. J. Warnock J. O. Urmson, 3rd edition, Oxford University Press, 1979, pp. 234-252.

Azadehfar, Mohammad Reza et al. پژوهشگران هنرو حماسه و موسیقي *[Epic and Music].* ارتباطات [Researchers of art and communication], 2011.

Barska, Joanna. "New Story from Old Words": Word and Music Studies and the Poetics of Experience." *Ideology in Words and Music: Proceedings of the 2nd Conference of the Word and Music* edited by Beate Schirrmacher et al., vol. Stockholmer Germanistische Forschungen 79, Acta Universitatis Stockholmiensis, 2014, pp. 31-47. http://www.diva-portal.orghttp://www.diva-portal.org.

Barthes, Ronald. *Image, Music, Text.* Fontana Press 1977. Essays selected and translated and by Stephen Heath.

Bateman, John. *Multimodality and Genre: A Foundation for the Systematic Analysis of Multimodal Documents.* Springer, 2008.

---. *Text and Image: A Critical Introduction to the Visual/Verbal Divide.* First edition, Routledge, 2014.

Bennett, Jill. "Aesthetics of Intermediality " *Art History*, vol. 30, no. 3, 2007, pp. 432-450, doi:10.1111/j.1467-8365.2007.00554.x.

Bernhart, Walter, editor. *Word and Music Studies: Essays on Performativity and on Surveying the Field* Bril (Rodopi), 2011.

Bernhart, Walter and Werner Wolf, editors. *Self-Reference in Literature and Music*. Rodopi, 2010.

Bolander, Thomas "Self-Reference and Logic." *Phi News*, vol. 1, 2002, pp. 9-44.

Carney, Russell N. and Joel R. Levin. "Pictorial Illustrations Still Improve Students' Learning from Text." *Educational psychology review*, vol. 14, no. 1, 2002, pp. 5-26.

Chandler, Daniel. *Semiotics: The Basic* Second edition, Routledge, 2007.

Christensen, Arthur. شعر و موسیقی در ایران *[Poem and Music in Ancient Iran]*. translated by Abbas Eqbāl, vol. I, Art & Culture 1984.

Clair, Robert N. St. "Cultural Wisdom, Communication Theory, and the Metaphor of Resonance." Intercultural Communication Studies." *Intercultural Communication Studies VIII-1*, vol. 8, 1998-9, pp. 79-102.

Colombi, Matteo and Massimo Fusillo. "Artaud, Barney, and the Total Work of Art from Avant-Garde to the Posthuman." *CLCWeb:Comparative Literature and Culture*, vol. 15, no. 7, 2013.

Davies, Stephen. " Questioning the Distinction between Intra- and Extra-Musical Meaning Comment on "Towards a Neural Basis for Processing Musical Semantics"." *Physics of Life Reviews*, vol. 8, no. 2, 2011, pp. 114-115; discussion 125-118

Davison, Alan. "Representing Music -Making." *The Routledge Companion to Music and Visual Vulture* Routledge 2014, pp. 87-95. Tim Shephard and Anne Leonard.

Dayan, Peter. "Introduction the Five Laws of the Interart Aesthetic." *Art as Music, Music as Poetry, Poetry as Art, from Whistler to Stravinsky and Beyond*, Ashgate, 2011, pp. 18-26.

Dehlavi, Hosein. پیوند شعر و موسیقی آوازی *[the Relation between Poetry and Vocal Music]*. موسسه فرهنگی هنری ماهور [Cultural and Artisti Institute of Mahur], 2015.

Eco, Umberto. *Semiotics and the Philosophy of Language.* vol. 398, Indiana University Press, 1986.

---. "The Theory of Signs and the Role of the Reader." *The Bulletin of the Midwest Modern Language Association*, vol. 14, no. 1, 1981, pp. 35-45.

Eilittä, Leena. "Introduction: From Interdisciplinarity to Intermediality." *Intermedial Arts: Disrupting, Remembering and Transforming Media*, edited by Leena Eilittä et al., Cambridge Scholars Publishing, 2012, pp. xii-xv.

Eilittä, Leena and Liliane Louvel, editors. *Intermedial Arts: Disrupting, Remembering and Transforming Media*. Cambridge Scholars Publishing, 2011.

Elleström, Lars. "The Modalities of Media: A Model for Underestanding Intermdedial Relations." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, Palgrave Macmillan, 2010, pp. 11-48.

Gelikman, Oleg. "Intermediality and Aesthetic Ththeory in Shklovsky's and Adorno's Ththought." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011.

Gimber, Arno and Asunción López-Varela Azcárate. "About Intermedialities: A Review Article of New Work by Paech and Schröter, Chapple and Kattenbelt, and Ellerström." *CLCWeb: Comparative Literature and Culture*, vol. 12, no. 3, 2010, http://docs.lib.purdue.edu.

Goltz, Wanja Matthias Freiherr von der. "Functions of Intertextuality and Intermediality in the Simpsons." *Der Fakultät für Geisteswissenschaften*, vol. Ph.D, Philosophie, Duisburg-Essen, 8th August 2017 2011, p. 282. general editor, Josef Raab.

Griffin, Eve. "Wassily Kandinsky Artist Overview and Analysis." The Art Story Contributors   http://www.theartstory.org/artist-kandinsky-wassily.htm. Accessed 29 Jul 2017 2017.

Hall, Stuart. "Representation, Meaning, and Language." *Representation. Cultural Representations and Signifying Practices*, edited by Stuart Hall, Sage 1997, Media and Identities series Culture.

Halliday, Michael Alexander Kirkwood and Ruqaiya Hasan. *Cohesion in English.* Routledge, 2014. *English Language Series*.

Hasanzadeh, Mohamad Hosein. "رزم ابزارهاي مجازي در شاهنامه [Combat of Virtual Instruments in Šhahnāmeh]." *Kavoshnameh*, vol. 8, no. 14, 2006, pp. 107-135.

Hayles, N. Katherin. *Chaos Bound: Orderly Disorder in Contemporary Literature and Science* Cornell University Press, 1990.

Hellmuth Margulis, Elizabeth. "One More Time: Why Do We Listen to Our Favourite Music over and over Again? Because Repeated Sounds Work Magic in Our Brains." 2014, https://aeon.co/essays/why-repetition-can-turn-almost-anything-into-music.

Hellmuth Margulis, Elizabeth *On Repeat: How Music Plays the Mind.* Oxford University 2014.

Herkman, Juha et al., editors. *Intermediality and Media Change* Tampere University Press 2012.

Ingham, Michael. *Stage-Play and Screen-Play: The Intermediality of Theatre and Cinema.* Taylor & Francis, 2016.

Iranway. "Karnay or Sorna (Woodwind Instrument)." vol. 235 × 372 15.10.2017 17 April   2010.   http://en.wikipedia.org/wiki/File:Sorna2.jpg http://en.wikipedia.org/wiki/File:Sorna2.jpg.

Jakobson, Roman. "Closing Statements: Linguistics and Poetics." *Style in Language*, edited by Thomas Albert Sebeok, MA: MIT Press, 1960, pp. 350-377.

---. "Linguistics and Poetics." *Language in Literature* edited by Krystyna Pomorska and Stephen Rudy, Belknap Press, 1987, pp. 62-93.

Jappy, Tony. *Introduction to Peipcean Visual Semiotics* Bloomsbury Academic 2013.

Jormakka, Kari. *Flying Dutchmen: Motion in Architecture.* Birkhäuser 2002.

Kandinsky, Wassily and Hilla Rebay. *Point and Line to Plane* Dover Publications 1979.

Kattenbelt, Chiel. "Intermediality in Theatre and Performance: Definitions, Perceptions and Medial Relationships." *Culture, Language and Presentation*, vol. VI, 2008, pp. 19-29.

Ketteler, Rolf and Jorg Jewanski. "Musik Und Bildende Kunst " *Musik in Geschichte Und Gegenwart*, edited by Ludwig Finscher, vol. 6, Bärenreiter, 1997, pp. 745-783.

Kobayashi-Bredenstein, Naoko. *Wassily Kandinskys Frühe Bühnenkompositionen Über Körperlichkeit Und Bewegung.* Walter de Gruyter 2012.

Koelsch, Stefan. *Brain and Music* vol. First John Wiley & Sons, 2012.

Kraxenberger, Maria. "Jakobson Revisited: Poetic Distinctiveness, Modes of Operation, and Perception." *Rivista Italiana di Filosofia del Linguaggio*, vol. 8, no. 1, 2014, pp. 10-21, doi:4396/20140603.

Kress, Gunther R. *Multimodality: A Social Semiotic Approach to Contemporary Communication.* Routledge, 2010.

Kress, Gunther R. and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design.* Routledge, 1996.

Lazutina, Tatiana Vladimirovna and Nicolay Konstantinovich Lazutin. "The Language of Music as a Specific Semiotic Structure." *Asian Social Science*, vol. 11, no. 7, 2015, www.ccsenet.org/ass.

Lechte, John. *Genealogy and Ontology of the Western Image and Its Digital Future.* Taylor & Francis, 2012.

Leppert, Richard. "Seeing Music." *The Routledge Companion to Music and Visual Vulture* Routledge, 2014, pp. 7-13. Tim Shephard and Anne Leonard.

Martinez, José Luiz. "A Semiotic Theory of Music: According to a Peircean Rationale " *The Sixth International Conference on Musical Signification*

1998.

Martinic, Radan and Andrew Salway. "A System for Image–Text Relations in New (and Old) Media." *Visual Communication*, vol. 4, no. 3, 2005, pp. 337–371, doi:10.1177/1470357205055928.

McCloud, Scott *Understanding Comics: The Invisible Art.* Mass, 1993.

McHale, Brian. *The Obligation toward the Difficult Whole: Postmodernist Long Poems.* University Alabama Press, 2004.

McLuhan, Marshall. "Visual and Acoustic Space." *Audio Culture*, 2004, pp. 67-72.

Meisami, Julie. *Structure and Meaning in Medieval Arabic and Persian Lyric Poetry: Orient Pearls (Culture and Civilization in the Middle East).* Routledge; Reissue edition, 2011. *Culture and Civilization in the Middle East.*

Melcher, David and Massimiliano Zampini. "The Sight and Sound of Music: Audio-Visual Interactions in Science and the Arts." *Art and the Senses*, Oxford University Press, 2011, pp. 256-292. Francesca Bacci and David Melcher

Merrell, Floyd. *Peirce, Signs, and Meaning (Toronto Studies in Semiotics).* University of Toronto Press, 1997.

Mitchell, W.J.T. "What Is an Image?" *New Literary History*, 1984, pp. 503-537.

Mitchell, WJ Thomas. *Picture Theory: Essays on Verbal and Visual Representation.* . University of Chicago Press, 1995.

Napier, John James. "A Subtle Novelty: Repetition, Transmission and the Valorisation of Innovation within North Indian Classical Music." *Critical Studies in Improvisation / Études critiques en improvisation*, vol. 1, no. 3, 2006, doi:10.21083/csieci.v1i3.55.

Nemati, Akram Judi. "تناسب رنگ ها در صورخيال و هسته روايي شاهنامه[Harmony in the Imagery and Narrative Mode of Shahnameh." *The Persian language and literature Research*, no. 11, 2007, pp. 57-82.

Nettl, Bruno. "On the Concept of Improvisation in the World's Musics-an Informal Talk." *dutch journal of music theory*, vol. 13, no. 1, 2008.

Nikolajeva, Maria and Carole Scott. *How Picturebooks Work.* Routledge, 2006.

Nooshin, Laudan. *Iranian Classical Music: The Discourses and Practice of Creativity.* Ashgate Publishing, Ltd, 2015.

Nooshin, Laudan and Richard Widdess. "Improvisation in Iranian and Indian Music." *Journal of the Indian Musicological*, 2006, pp. 1-14.

Nordenfalk, Carl Adam Johan. *Studies in the History of Book Illumination.* Pindar Press 1992.

Nöth, Winfried. "The Death of Photography in Self-Reference." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, vol. 6, Mouton de Gruyter, 2007.

---. "Metapictures and Self-Referential Pictures." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, vol. 6, Walter de Gruyter, 2007.

---. "Self-Reference in the Media: The Semiotic Framework." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, Mouton de Gruyter, 2007, pp. 3-30.

---. "Semiotic Foundations of Iconicity in Language and Literature." *The Motivated Sign (Iconicity in Language and Literature 2)* edited by Olga Fischer and Max Nänny, John Benjamins Publishing Company, 2001, pp. 17-28.

Nöth, Winfried and Isabel Jungk. "Peircean Visual Semiotics: Potentials to Be Explored." *Semiotica*, vol. 2015, no. 207, 2015, pp. 657-673, doi:10.1515/sem-2015-0058.

Odmark, John. "The Implication of Sigmatic Aspect of the Artist Sign for the Theory of Pragmatics." *Semiotics Unfolding: Proceedings of the Second Congress of the International Association for Semiotic Studies, Vienna, July 1979*, edited by Tasso Borbé, Mouton Publishers, 1983, pp. 245-251.

Ong, Walter J. *Orality and Literacy:The Technologizing of the World* Routledge, 1982 (2002).

Painter, Clare et al. *Reading Visual Narratives: Image Analysis of Children's Picture Books.* Equinox Publishing, 2013.

Peirce, Charles Sanders. *The Collected Papers of Charles Sanders Peirce*. edited by Charles Hartshorne et al., Cambridge, MA: Harvard University Press,

(Quoted as CP. Reference is made to vols. and paragraphs.) 1931-1958.

Peirce, Charles Sanders and Victoria Welby. *Semiotic and Significs. The Correspondence between Charles S. Peirce and Lady Victoria Welby.* Indiana University Press (Original from the University of Michigan), 1977.

Petermann, Emily. *The Musical Novel: Imitation of Musical Structure, Performance, and Reception in Contemporary Fiction.* New-Edition edition, Camden House, Boydell & Brewer, 2014. *European Studies in North American Literature and Culture*, vol. 03.

Qaraguzlo, Araš. "بحر متقارب از منظر زیبایی شناسي] Aesthetic of Moteqareb Meter]." *Parnian Soxan*, pp. 363-388.

Rahmanian, Hamid. "The Epic of the Persian Kings Book: Šāhnāmeh." The Quantuck Lane Press, 2013. https://www.theepicofthepersiankings.com/https://www.theepicofthepersianki ngs.com/.

Randel, Don Michael. *The Harvard Dictionary of Music (Harvard University Press Reference Library.* vol. 4th Revised edition, Harvard University Press, 2003.

Robinson, Jenefer. " Music and Emotions." *Journal of Literary Theory 1.2 (2008*, vol. 1, no. 2, 2008, pp. 394-419, Link: http://nbn-resolving.de/urn:nbn:de:0222-000466

Ross, Leslie. *Text, Image, Message: Saints in Medieval Manuscript Illustrations.* Greenwood Press, 1994.

Salamon, Justin J. "Melody Extraction from Polyphonic Music Signals." *Universitat Pompeu Fabra*, vol. Ph.D Information and Communication Technologies, Universitat Pompeu Fabra, 8th August 2017 2013. general editor, Emilia G´omez Guti´errez.

Schimmel, Annemarie. *Rumi's World: The Life and Works of the Greatest Sufi Poet.* Shambhala Publications, 2001.

Schriver, Karen A. . *Dynamics in Document Design: Creating Text for Readers.* Wiley, 1997.

Schwarcz, Joseph H *Ways of the Illustrator: Visual Communication in Children's Literature.* American Library Association, 1982.

Schweighauser, Philipp. *The Noises of American Literature 1890-1985: Toward a History of Literary Acoustics.* 1st edition edition, Library of Congress Cataloging-in-Publication Data 2006.

Scruton, Roger. *The Aesthetics of Music.* Clarendom Press, 1997 (2009).

Shaw-Miller, Simon. "Synaesthesia." *The Routledge Companion to Music and Visual Culture* edited by Tim Shephard and Anne Leonard, Routledge, 2014, pp. 13-23. *Routledge Companions*.

Shephard, Tim and Anne Leonard, editors. *The Routledge Companion to Music and Visual Culture*. Routledge, 2014.

Smith, Stefan. "The Edge of Perception: Sound in Tarkovsky's Stalker." *The Soundtrack*, vol. 1, no. 1, 2007, pp. 41-52.

Spiro, Neta. "What Contributes to the Perception of Musical Phrases in Western Classical Music?" *Institute for Logic, Language, and Computation* vol. Ph.D, University of Amsterdam, 2007, p. 499. general editor, Prof.dr. Rens Bod, homepage: ILLC-publications: http://www.illc.uva.nl, 06/05/2017.

Tahmasebi, Arshad. وزن خواني واژگاني *(Lexical Metric Reading)*. Mahur 2000.

Tavana, Akram Ahmadi. "بررسي بينامتني نگارة پادشاهى جمشيد از شاهنامة بايسنقرى [Th Analysis of Shahname Baysonghori 'S Illustartion of Kingdom of Jamshid]." *Scientific and Cultural Journal of Nazar*, no. 25, 2013, pp. 47-54.

Thompson-Schill, Sharon et al. "Multiple Levels of Structure in Language and Music." *Language, Music, and the Brain: A Mysterious Relationship*, edited by Michael A. Arbib, vol. 10, MIT Press, 2013, pp. 289-303.

Thompson, William Forde, editor. *Music in the Social and Behavioral Sciences: An Encyclopedia.* . SAGE Publications, 2014.

Unsworth, L and C Cleirigh. "Multimodality and Reading: The Construction of Meaning through Image-Text Interaction." *The Routledge Handbook of Multimodal Analysis*, edited by C. Jewitt, Routledge, 2009, pp. 151-163.

Wagner, Petra Susanne. "The Rhythm of Language and Speech: Constraining Factors, Models, Metrics and Applications

" vol. Habilitationsschrift, Humanities Rheinischen Friedrich-Wilhelms-Universitat Bonn, 2008.

Waugh, Linda R. "The Poetic Function in the Theory of Roman Jakobson." *Poetics Today*, vol. 2, no. 1, 1980, pp. 57-82, http://www.jstor.org/stable/1772352?origin.

Wolf, Werner, editor. *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, vol. 14. Brill, 2015.

---. "(Inter)Mediality and the Study of Literature." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011, doi:10.7771/1481-4374.1789.

---. "Intermediality Revisited: Reflections on Word and Music Relations in the Context of a General Typology of Intermediality." *Word and Music Studies* vol. 4, no. 1, 2002, pp. 13-34.

---. "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1,* http://dx.doi.org/10.1515/9783110311075-026.

---. "Metareference across Media: The Concept, Its Transmedial Potentials and Problems, Main Forms and Functions." *Metareference across Media: Theory*

and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement, edited by Werner Wolf et al., Rodopi, 2009, pp. 1-85.

---. *The Musicalization of Fiction: A Study in the Theory and History of Intermediality.* vol. 35, Rodopi, 1999.

---. *Selected Essays on Intermediality by Werner Wolf (1992–2014): Theory and Typology,   Literature-Music   Relations,   Transmedial   Narratology, Miscellaneous Transmedial Phenomena.* Brili, 2017.

Wolf, Werner et al., editors. *Metareference across Media: Theory and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement*. Rodopi, 2009.

Wolf, Werner and Walter Bernhart, editors. *Description; in Literature and Other Media*. Rodopi, 2007.

Wurth, Kiene Brillenburg. "Multimediality, Intermediality, and Medially Complex Digital Poetry." *RiLUnE: Review of Literatures of the European Union*, vol. 5, 2006, pp. 1-18.

Chapter 4
Features and Elements of Vocal Style of *āvāz*

4.1. Introduction

In Persian culture, the oral features have been a great influence on the creation, design and composition of traditional music pieces. Rhythmic, melodic, dynamic, and agogic[99] structures of Persian music have often been seen as stemming from oral traditions. Persian music, unlike western classical music, which has a polyphonic texture and enjoys a melodic interest and rhythmic distinction in each part, frequently suggests a rhythmic and melodic dependency. The melodic movement usually occurs with reference to one leading note (*šāhed*) in a circle of a tetrachord.

One of the most important and distinctive features of the Persian musical system is the musicalization method employed in the vocal style of *āvāz*. Vocal music in Persian culture, like the instrumental one, has a *modal concern* that is monophonic in texture (versus the polyphonic nature of western music). The vocal style of *āvāz* is very deeply engaged with the metric formulas and durational accent (agogic structure) in the construction of multifaced rhythmic patterns; as many of the vocal pieces are composed based on the Persian versification formulas (theory of rhythm *-iqā*). Thus, in the study of rhythmic properties in such a culture, a lot of attention should be given to the patterns of formulaic expression and the cultural methods those patterns bridge between sound, silence and the stressed accent.

---

[99] Agogic is concerned with stress in music and the ways the stress prolongs the duration of notes. It means a way of accentuating a note by holding it for a long time, rather than by playing forcefully. "Metric accents occur naturally. They are created by the natural meter and rhythm of the music. This means that some beats naturally do not have accents and are weaker. However, there are ways to make these beats stronger and more emphasized. One common way is to apply an **agogic accent**. An agogic accent refers to the emphasizing of a beat by changing its duration. Imagine that you're playing a measure in 4/4 time with four quarter notes. The first and third notes are naturally accented, but you want to create a little excitement by accenting the fourth beat. It's a quarter note in 4/4 time, so each note gets 1 beat. To give this an agogic accent, make that note just barely shorter or longer than a full beat. The change in duration makes it stand out". See Muscato, Christopher. "Accents in Music: Definition & Types." *AP Music Theory: Exam Prep / Humanities Courses*. http://study.com/academy/lesson/accents-in-music-definition-types.html. Accessed 30.10 2017.

In this chapter I argue that in the epic poetry, the cultural reflection of rhythm (its linear and cyclic time), similar to the style of *āvāz*, is directly perceived from the metric formula and its recurring units. In the musicalization process, an interplay between plot and rhythmic patterns has been of great value in the conjunction between form and content. The encoding musicality by the temporal organizations, thus goes hand in hand with the concept of narrativity. All aesthetic strategies for musicalization, which epic poetry comments on, presents and refers to, are modified in the service of narrative. The second focus of epic poetry in this context is not on applied temporal organizations, but on the rhythmic variations. By considering an 'agogic' structure in the temporal processing, epic poetry escapes from the quantizing of time into a fixed interval and promises an alternation in its rhythmic pattern. A high reflection of recurrence in the vocal sounds and the emphasis on stressed accent creates a breathtaking knock meter. There are, of course, other elements of the Persian vocal music that could be expected to lend themselves to imitation through epic poetry. Further intermedial connections are provided by (1) a modal concern in the narrativity; (2) single line plot progression; (5) the meaningful interplay between sonic and agogic structures (ordering of the durational accent) and (5) sound onamentation.

Among intermedial strategies employed in poetic texts, the medial condition of visual media presents elements of rhythm and the ornamentation of sounds. The intermedial references to *Tahrir* as an ornamentation of sounds create, via visual textures appearing between textual units, their position on the page and their quality. Most significantly in the context of this chapter, visual imagery f texture is used particularly to foreground ornamentation as one major feature of sound in Persian vocal music. Textual units also employed the strategy of framing to benefit from gestalt principles of similarity and grouping in the perception of 'temporality'. A quaternary grouping of visual and verbal units constructs a time zone conflict in the narrativity; spatial and the temporal zones are frequently and persistently interwoven. As a result, it is not the dramatic actions and stories that determine the interaction between poetry, painting and musical rhythm. It is, rather, a constant integration and alteration in temporal and spatial zones that creates a rhythmic quality in the narrativity: the rhythm continuously shifts from temporality to spatiality and vice versa. Here, the concept of rhythm is a repetitive gesture in time which is perceived in terms of spatial movement.

Thus, by implication of constant sensory demarcation, the viewer comes to appreciate the dynamicity of the sign system.

4.2. An Overview of Persian Vocal Music

We should expect to see some differences in the structuring of the musical pieces in Persian music if we compare them with music of other kinds. Various factors and available methods resources could explain such differences. Of the many features that can be used to distinguish Persian vocal music from other kinds of music, two of the most immediately apparent are rhythm and melody. Persian music is a system characterized by its monophonic texture (versus the polyphonic nature of western music), and its multifaceted rhythmical patterns. What greatly distinguishes Persian music from other forms of music, modal and tonal music, is the "many modal possibilities and the cultivation of embellished melodies in a very illusive and personal way" (Ardalan 6).

The Persian musical system has remained largely unexplored in the field of media and communication. It is an autonomous text that can only be explored by focusing on its inner workings (Torop 336). It may be more rewarding, then, to look to the status of Persian vocal music, its prominence and its major concerns in Persian culture for insights into its practical differences with other forms of music. Perhaps, one can distinguish Persian traditional music (whether vocal or instrumental) from other varieties of music in terms of (1) rhythmic; (2) melodic; (3) dynamic and (4) agogic[100] structures. The vocal style of *āvāz* is inherently vested with a sacred quality in a way that serves as a vehicle for communication without any form of musical instrument. When a singer vocalizes the words in a Persian vocal style, other musical instruments must accompany him and respond to the singing. Here, one major concern lies in the

---

[100]   Agogic is concerned with stress in music and the ways the stress prolongs the duration of notes. It is a way of accentuating a note by holding it for a long time rather than by playing forcefully. "Metric accents occur naturally. They are created by the natural meter and rhythm of the music. This means that some beats naturally do not have accents and are weaker. However, there are ways to make these beats stronger and more emphasized. One common way is to apply an **agogic accent**. An agogic accent refers to the emphasizing of a beat by changing its duration. Imagine that you're playing a measure in 4/4 time with four quarter notes. The first and third notes are naturally accented, but you want to create a little excitement by accenting the fourth beat. It's a quarter note in 4/4 time, so each note gets 1 beat. To give this an agogic accent, make that note just barely shorter or longer than a full beat. The change in duration makes it stand out". See ibid.

"orality" of culture and, most importantly, a formulaic styling that inherently exists in the meanings created through oral culture. Relatively little has been written on the connection between Persian vocal music and oral methods of communication. The vocal style of *āvāz* has played an absolutely crucial role in the safekeeping of oral traditions. It enjoys the curious distinction of being the most exclusive time-ordering pattern of singing and the least rhythmic musical form. This relationship is specified by a variation in sonic patterns and durational accents (the agogic accent). In other words, in the vocal style of *avāz,* there is always a meaningful interplay between rhythmic and acoustic patterns through which one can discover a process of cultural creativity, musicality and specificity. To understand vocal music, it may require us to draw a distinction between how the musicians encode the time factor and how they inter changes and variations into the sonic and rhythmic patterns. Thus, the musician's interest lies in the questions it raises about the rhythm, sound ornamentation (Tahrir) and the ordering of accents, which can also be considered as the most unidentifiable modules of Persian music.

4.3. Musical Rhythm implied in Epic Poetry

4.3.1. Oral culture and Importance of Rhythm

Elizabeth Horodowich, in his essay "Introduction: Speech and Oral Culture in Early Modern Europe and Beyond" (2012), claims that the oral, the textual, and the visual always functioned together. With regards to Persian culture, as an oral culture, there have always been a continuity of musical patterns in the media system. In other words, the specific sets of techniques of musicalzation that have a place in oral traditions do not simply embody themselves in verbal signs, rather they can symbolize in other sign systems. Thus, it is not surprising that Persian music is also stylized, estheticized and codified based—especially, but not exclusively—on the oral tradition.

Over the centuries, we have accumulated quite a bit of information about the material and the functional elements of oral culture in the musicalization process. Unfortunately, the aspects of orality have imperceptibly receded further and further into the backgrounds, as those aspects have not been worthy of attention in the identification of medial conditions. Awareness of different features in oral traditions and expression may open the way to understanding some further characteristics of the Persian music system. There are two interconnected features in oral culture that may help us better explain the intermedial relations between visual, verbal and Persian music in terms of rhythm: (1) application of mnemonic methods in communication and (2) temporal (or

spatial) processing of sound and its acoustic network (See Ong). The first feature is concerned with the encoding process in the act of communication. Oral cultures identify certain mnemonic methods or a formulaic styling "which allow information to be placed in a form that is easy to remember" (Strate 35). According to Ong, in an oral culture, to think through something in non-formulaic, non-patterned, and non-mnemonic terms, even if it were possible, would be waste of time (35). It is an accurately unskilled part of western culture, or as Ong states this matter, of the culture in which there is an "absence of formula". He mentions "western culture, even today, "has nothing to do with formula as manipulation of alphabetic and numerical signs which help implement rhythmic discourse, and also act as mnemonic aids in their own right" (Ong 35). By employing mnemonic formulas, words may present themselves in sonic patterns, and thoughts may come into being in heavily rhythmic, balanced patterns, in repetition… in alliterations and assonances (Ong 34). "Formula help implement rhythmic discourse and also act as the mnemonic aid in their own right" (Ong 3).

The second feature is related to the importance of 'sound' and 'temporal association' in an oral culture. In an oral culture, the power of sounds to serve as vehicles for collective effect, and to construct a dynamic communication is clear enough. As Ong also mentions, "[i]n an oral culture, restriction of words to sounds determines not only modes of expression but also thought processes" (33). However, for anyone who does not know oral tradition, it is surprising that sensation takes place in time, [and] sound has a special relationship to time, unlike that of the other fields that register in human sensation (Ong 31). As such, one cannot ignore the striking and noteworthy position of rhythm in the extension and reinforcement of musical quality in the process of communication. In an oral culture, the sole verbalization, without a rhythmic and sonic arrangement, could not possibly succeeded in the performance and storytelling. The media of storytelling or performative media, whether verbal or visual, should always be engaged with singing practices. Given this, there is no differentiation between a singer and a poet, between poetry and music, and between singings, performing and composing (Strate 236). Looking more closely at the relationship of poetry and mnemonic aids allow us to rethink the core function of rhythm in this process. Mnemonics methods, such as poetic expression, gain their potential from metric features by which rhythm is perceived in poetry. Poetry plays a twin role in the

oral culture, both as a mechanism of speech and an art of memory. In Indian culture, for example, great epics narrative such as *Mahabharata* or *Ramayana*, or in Persian culture, the amazing *Šāhnāmeh* and the five famous lyric stories of *Xamse,* are a few examples of poetry used as a communicative and mnemonic medium. Now it became clear how poetry and music are always engaged in the intermedial practices.

4.3.2. Rhythm as Structure in Time

Rhythm is essentially a perceptual phenomenon and cannot be comprehended without understanding the notion of 'time'. In music, the rhythm can be perceived both mentally (linear) and gesturally (non-linear). More specifically, "[a]ll complex rhythms have more volatile *linear* and *non-linear* components" (Richard D. Cureton 114). It has been also claimed by scholars in the fields of linguistics, musicology, visual arts, physics and mathematics that time in music is, on the one hand, a linear chain of events and on the other, a cyclic form (e.g., Ricahrd D. Cureton 2004; Ray Jackendoff 1981; Lefebvre 2013; Ilya Mayzus 2016; Jeff Pressing 1993; Petra Susanne Wagner 2008).

The shared aims of "rhythm" in poetry, music and dance has always been the subject of a considerable body of scholarly research by art historians, musicologists, cognitive linguists and media scientists. This investigation was carried out predominantly by scholars in the field of cognitive linguistics who picked up the topic during the last decade (e.g. Richard Cureton[101] (2004, 2015); Patrick Suppes[102] (2009); Werner Wolf[103] (2015).

Key questions in the above-mentioned studies have been formulated as follows: How does literature gesture toward rhythm? How the reader receives such musicalized signals and perceive the implied rhythm? How can the resulting rhythmic pattern offer new perspectives regarding the way in which the verbal text might be interpreted? It is often assumed that the underlying creative process by which a verbal text is translated

---

[101]   For further discussion on rhythm, see Cureton, Richard "A Reading in Temporal Poetics: Emily Dickinson's "I Taste a Liquor Never Brewed." *Style in language*, vol. 49, no. 3, 2015, pp. 345-362, ---. "Rhythm, Temporality, and "Inner Form." *Style in language*, vol. 49, no. 1, 2015, pp. 78-109, Cureton, Richard D. "Temporal Poetics: Rhythmic Process as Truth." *The Antioch Review*, vol. 62, no. 1, 2004, pp. 113-121.

[102]   Suppes, Patrick. "Rhythm and Meaning in Poetry." *Midwest Studies in Philosophy*, vol. 33, no. 1, 2009, pp. 159-166.

[103]   "What Can Music Do to a Poem? New Intermedial Perspectives of Literary Studies [2008]." *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, edited by Werner Wolf, vol. 14, Brill, 2015, pp. 405-412. *Word and Music Studies,* http://dx.doi.org/10.1163/9789004302747_033, Wolf, Werner. "The Iconic Quality of Poetic Rhythm [1986]." Ibid.edited by Walter Bernhart, pp. 19-33. http://dx.doi.org/10.1163/9789004302747_003.

into a rhythmical pattern can usually be associated with the involvement of poetic strategies. To establish accountable melodic and rhythmic patterns in words, every culture prefers to employ certain strategies over others. It goes without saying that the manner of using the fundamental musical elements such as pitch, volume, rhythm and timbre is also marked by culture. Durational patterns can be predicted quite precisely on the basis of linguistic structure, such as segment type, syllable structure, lexical stress, sentence position, etc. (Wagner 2). For example, American Blues poetry employs the typical patterns of AAA, AAB, and ABB on the basis vowel sounds to create musical flow, sluggish tempo, and the melancholic tone of blues songs.

To allocate cultural differences in musicalization of verbal texts, over the years Persian culture has developed a complex system and a range of specified metric formulas. There are about nineteen kinds of metric formulae (*arkān*)[104] in the Persian poetic system, and each of them follows a certain pattern of repetition by means of which a specific metric quality can be created. The metric formulas are categorized based on durational values of syllables in the vocal pieces[105]. The Persian language, as a language having a complex syllabic structure, can inherently create a variety of rhythmic patterns more so than those with more simple ones (Dehlavi; Wagner). There are two categories of vowel sounds recognized as short and long vowels; the short vowels are a, e, o (اُ اِ اَ) and long vowel are ā, u, i (او ی آ). The distinction of these two forms of vowel can be considered as major aspects in the versification system (Dehlavi). In order to understand a specific meter in poetry or vocal music, one should have

---

[104]   In the field of comparative literature, there is still a false assumption that the structure of classical style of Persian poetry is like the Arabic structure. It seems true if we argue that the terminology or technical vocabulary used in the Persian metric system is an adoption of Arabic terminology. However, in practice, we have to accept that their functions and rhythmic pattern are defined differently. In addition, even for the most frequently used meters in Persian culture (like the one employed by epic poetry), there is not an equivalent meter in the Arabic metrical system (*Elme Aruz*).

[105]   Every culture has created specific metric patterns in order to formulate verbal language in a different musicalized form. We can classified them as (1) **Numerical (**endecasillabo)**:** based on the equilibrium of numbers of syllables in each hemistich such as Italian metric systems; (2) **Accentual (stressed timed):** based on accents of syllables, such as in the German metric system (3) **Quantitative** (syllable timed) based on the length and shortness of syllables (duration) such as in the Persian and Arabic metric systems; (4) **Syllaboomelodic**(mora timed): based on pitch syllables (the number of morae[105]), such as in the Chinese and Japanese metric system. More information can be found in Wagner, Petra Susanne. "The Rhythm of Language and Speech: Constraining Factors, Models, Metrics and Applications " vol. Habilitationsschrift, Humanities Rheinischen Friedrich-Wilhelms-Universitat Bonn, 2008.

knowledge not only of the general division of syllables, but also of the letters (*horuf*)[106] and that sound values that are assigned to them. As shown in the figure below, based on the sound value of letters, the syllables in Persian culture are categorized as short, long and overlong syllables, depending on the vowel they contain. They are symbolized as [U] for short syllables; [-] for long syllables and [U-] for

overlong syllables

Table 4. 1. Principle of Musicalization
V: long vowel v: Short Vowel, C: Consonant

Structure	Length	The symbol
Cv	Short	U
CvC	Long	-
CV	Long	-
Vc	Long	-
V	Long	-
CVC	Overlong	U-
CvCC (exept N)	Overlong	U-
CVCC (expect N)	Overlong	U-

Vocalization

Short syllable: A consonant + a short vowel Long syllable: has two forms

- A consonant+ a short vowel+ A consonant
- A consonant+ a long vowel

Semi-vocalization: overlong syllables

- A consonant+ short vowel + a consonant +a consonant (expect n)
- A consonant+ a long vowel + a consonant (expect n)
- A consonant+ a long vowel+ a consonant +a consonant

A promising way to discover linear rhythm in epic poetry is through the poems themselves. *Šāhnameh* is the world's longest epic poem, written by a single poet, consisting of 60 thousand verses (*beyts*) or 120 thousand hemistiches[107] (*mesrā*). The poet systematized all the verses and the hemistiches by applying the very specific metric formula known as *fau'lon*. The repetition of foot occurs via three complete and one

---

106   *Letters are the smallest metric units in the poetic texts*

107   Hemistich (*Meṣrā* in Persian language**)** is one part of a verse. Verse (*beyt* in Persian language) is consisted of two equal and parallel hemistiches. Every single verse consists of two separate parts, which are called *meṣrā* in the Persian language.

incomplete form in each hemistich. The development of the themes by application of a sole meter allow a consideration of one-line melody. Each stanza has been created by a four-time repetition of this specific foot. The only alteration of meter takes place in the last part in which *fau'lon* loses its last syllable and appears as *fau'l*.

<div align="center">

Fa 'ulon / Fa 'ulon / Fa 'ulon / Fa 'ul

U--   U--   U--   U-

</div>

I will explain the metrical figure by referring to two verses from the *Šāhnameh*. In this section, I will demonstrate this through the example from a poetic text. In the verses below, if we make a distinction between types of syllables, we find all verses are signifying a specific repetition pattern constituted of one short syllable plus two long syllables.

<div align="center">

جهان کر شد از ناله بوق وكوس

زمین آهنین شد هوا آبنوس

ززخم تبرزین و ازبس ترنگ

همی موج خون خاست از دشت جنگ[108]

</div>

Ja (u) **h**ān (-) kar (-) šsaod (u) az (-)nā (-) le (u)ye (-)bu (-)qo(u) kus(-)
u- -/ u - -/ u- - /u-
Za (u) min(-) ā (-) ha (u) nin (-) šod (-) Ha (u) vā (-) ā (-) bo (u) nus(-)
u- -/ u - -/ u- - /u-

As you can notice, the building block of epic poetry is the foot of *fa'ulon*, which is arranged in a *four*-symmetrical pattern (if we do not consider the small alternation of the last foot). The general architecture of this system can be given as [U- -/ U- -/ U --/ U -]. The first three parts of each hemistich repeat the pattern of one short and two long syllables (Cv, CvC, CvC), while the last parts repeat either short- long (Cv, CvC) or one over long syllables (CVC, CvCC, CVCC). Ferdowsi's epic poem is a notable example of the unchangeable poetic meter used in very long narrative poetry. The consistency of the metrical dimension comments on the implication of a 'monotonous' order in the system, which is accompanied by a balanced syllabic structure. Perhaps an equal distribution of long and short syllables in every single part (one short + two long) in a continues manner also offer a self-referential strategy in the construction of a rhythmic pattern.

---

[108]   *Šāhnameh*, "The Fight of *Kāvus* with the king of *Hamāvarā*n". Fist part. from *Ganjur Ferdowsi*: https://ganjoor.net/ferdousi/shahname/hamavaran/sh6/

Table 4. 2.The Analysis of Metrical Form Employed in Epic Poetry

	کوسْ	قُ	بوُ	يِ	لِ	نا	اُژ	شُن	شُ	کَر	هان	جَ
The first hemistich												
division of syllables in the first hemistich	-	U	-	-	U	-	-	U	-	-	U	
The second hemistich	نوسْ	بُ	آ	وا	ەَ	شُد	نين	ەَ	آ	مين	زَ	
division of syllables in the second hemistich	-	U	-	-	U	-	-	U	-	-	U	

[U] = Short Syllabe, [-] Long Syllabe, [U-] Over long Syllabe

4.3.2.1. Linear Time Implied in Poetry

Taken together, the repetition of a metric formula draws the reader's attention to both linear and non/linear rhythm in this epic poetry. The epic poetry creates linear time via "the way the durations within a sequence are organized" (Hannon et al.; Ullal 1). In music also, the linear rhythm is particularly apparent in the recourse to the time interval in music (such as long-short-short) (Werner Wolf 2015; Petra Susanne Wagner 2008). As Henri Lefebvre in the book *Rhythmanalysis: Space, time and everyday life* ((2004) mentions, rhythm is "the placement of notes and their relative length" (xi). Linear time can be presented "in a graphical or scribal form such as notation which [is started] top left of the first page and, with the exception of repeat marks, ends bottom right of the last page" (Tagg 3). With regards to Epic poetry, linear rhythm can also be discussed in the connection to simple or regular orderings of time. The epic poetry tends to have a steady tempo (temporal intervals such as long-short-short) that is repeated throughout the composition and can be measured in "beats per minutes". The rhythmic grouping or measure in this epic poem becomes obvious when we find an equivalent durational pattern for both forms of syllables (short and long syllables). By consideration of length of syllables, we may employ *Ta* or *Da* for all short syllables in a verse and *Tan* or *Dam* for the long syllables (Talai 20). Then, the major rhythmic foot is recognized as Ta Tan Tan (تَ تَن تَن), or *da dam da* (دَ دَم دَم), and its fourfold repetition will create:

 Fa u 'lon /Fa u ' lon / Fa u ' lon / Fa ' ul
ta tan tan/ ta tan tan /ta tan tan / ta tan (or da dam dam/da dam dam/ da dam dam/ da dam)

While analyzing the syllabification of words in a poem (short syllables, long syllables, tight or extended syllables), it is possible to discover a measure for each part. To do that, one needs to accept that the length of a short syllable (u) is the half of the

length of the long one (-). Based on this logic, if one considers a value of sixteenth notes (semiquaver) for the short syllable, then the musical value of long syllables can be easily estimated as eighth notes (quaver). Or, if the time value of short syllables (u) is taken equal with eight note (quaver), then the musical value of long syllables can be easily estimated as quarter note.
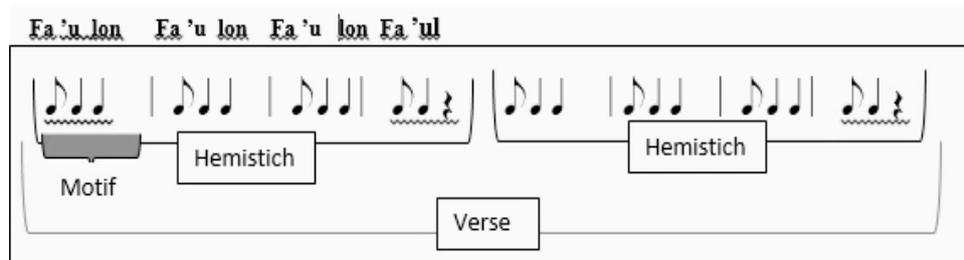

Figure 4. 1. A schematization of Linear Rhythm in Epic Poetry

4.3.2.2. Cyclic Time Implied in Poetry

The perception of rhythm become inseparable from perception of repetition (See Lefebvre viii). Perhaps, "[t]he recognition of the periodic nature of time is familiar in almost all cultures. This wide presence is usually said to be derived most directly from the rhythm of speech, and singing, that is– also recognized as being found almost everywhere" (Suppose 162). Nevertheless, several studies have found that culture always contributes in the perception and sensation of time and its corresponding rhythmic patterns in music. In a short but inspiring essay, "The Composer's Musico-Literary Experience: Reflections on Song Writing", David Micheal Hertz deals with quality of sound, duration, volume, pitch, rhyme and rhythm as the most fundamental cultural aspects in the notational system. Experimental investigations also indicate that Indian listeners, for example, are able to utilize complex meters better in order to perform than American listeners (Ullal 53). Or, in the perception of rhythm among American and Turkish listeners, it is the familiarity, and not ratio complexity, which plays a crucial role (Hannon et al.). In Persian music, the notion of cycle is a shared concept among scholars for describing rhythmic patterns (Mohammad Reza Azadehfar *Rhythmic Structure in Iranian Music* 96). This comes from a philosophical idea that perceives life as endless and infinite.

It seems true that in the understanding a general connection between poetic meter and rhythm, the attention is often given to regular, one-dimensional, and minimal

representational movements of voice (Richard D. Cureton 113). In this context, the patterns of time intersection between poetic meter and music rhythm are largely explained with reference to the 'beat' in an enormously confused way; metrical beating is merely considered as "a kind of regular, normative model of the rhythmic phrasing"(Cureton "Rhythm, Temporality" 82). However, Metric formula employed by epic poetry also shows a keen interest in the cyclic nature of time. In this part, we are agreeing with Richard D. Cureton that strong meter can alter the perception of non-linear rhythm time.

"The cyclic notion of time is intersubjectivity verifiable and therefore culturally specific" (Tagg 3). Linguistics theorists, such as Richard D. Cureton, by identifying a cyclic time in the pattern of voice, states that "the movement of the voice (what linguists and music theorists call *rhythmic grouping*) is not one-dimensional, regular, and minimal but multi-levelled, variable, and complex (original emphasize 114). Non-linear or cyclical time creates the experience of endless time, of an existence of continuous movements. "One advantage to thinking in terms of cyclical time in connection with music is that it constitutes a perceptual, rather than a conceptual, system of durations" (Tagg 5). The virtual time is like the accounted slices of real time that come one after another, based on audible forms and then one after another disappear. Therefore, it "is associated with sensation, perception, and physical ecstasy" (Cureton "Temporal" 114). In fact, the actual time starts a movement from a first point to a final point, while at that point there would be a new beginning waiting for another movement. In this way, what sets apart cyclic from linear rhythm, of course, is not its 'temporal' character, but its nature of perception. This may be perceived from counting the beats; one-two, one-two (or one-two-three, one-two-three) (Tagg 4). This kind of well-ordered continuous duration can be easily found in many natural phenomena, such as the rhythm of breathing (contraction and relaxation), the ebb and flow of the sea (tides) and multi-temporal periods, such as seasons of the year and annual festivals.

An experience of cyclical time occurs via a continuous repetition of the same meter, which is perceived throughout the reading. It seems we moving some distance from a point and again returning to the same point, a period that is repeated frequently.

It is like when we thud, stamp, or clap physically and it makes a continuous ordered pattern of beats for the listeners, such as two-two, three- three, four-four, etc.[109]

A. Ja hān kar šod az nā le ye bu qo kus	B. **Za min** ā ha nin šod Ha vā ā bo nus
A. u- -/ u - -/ u- - /u-	B. u- -/ u - -/ u- - /u-
A. u- -/ u - -/ u- - /u-	B. u- -/ u - -/ u- - /u-
A. u- -/ u - -/ u- - /u-	B. u- -/ u - -/ u- - /u-

The link between epic poetry and cyclic time has offered a symmetrical organization of the metric form. In Persian music, symmetry, when defined as a quality resulting from the unified perceptions among various parts, is highly linked to meter. Azadehfar claims that meter create a regular isometric periodic structure (36). He believes that when we present a regular isometric periodic structure in a spatial arrangement it is called symmetry, but it is called *metric time* when it occurs in time (33). We should keep separate the metric organization from the design of storytelling in the epic poetry. Epic poetry, like other epic stories, is organized and perceived like a calendar. That means that a repetition inherently exists in epic stories. In other words, there is "a sense of overlapping of different point of time, a sense that all events of the past are somehow still occurring in the present" (Petermann 176). The plot of stories also occur with respect to a similar principle included of the introduction, a first action of the heroes, conflict and tension, mortals and the return of the hero. Thus, epic poetry always keeps an intention to return to a similar pattern, which leads the readers to the perception of a cyclic movement. This form of cyclical movement in musical usage can be easily established in Beethoven's *An die ferne Geiliebte,* in which a return to the same melodies to form a conclusion is involved (Petermann 175). Closely associated with this, and in the same spirit of participation, is the symmetrical repetition of meter, which promises the perception of a continuously flowing and cyclical pattern (see Azadefar 13). Epic poetry could successfully order chaotic materials into an aesthetically pleasing symmetrical structure via its formulaic expression. It creates a balance "on every level; from the formula itself, to the sentence, to the verse, to the

---

[109]   Today the characteristics of rhythm are analyzed through signals from automatic musical descriptions. Music description is achieved by combining three different points of view [1]: melody/harmony, timbre (which is related roughly to the orchestration of the music), and tempo/rhythm. For more information on rhythm analysis see Geoffroy Peeters's "Rhythm Classification Using Spectral Rhythm Patterns (2005)

entire theme" (Strate 238).[110] This reveals itself via a similar division of each hemistich into four approximately equal metric parts, and in the regular dancing of voice from one short syllable to two long syllables in each metric cell. In this way, epic poetry creates a continuity in the perception of rhythm. This continuity "enables [us] to experience equidistant points along the unidirectional axis of linear time as regular recurrences of the 'same time', according to [Persian] determined factors" (Tagg 4). As you may notice in the Figure, meter acts as a series of waves (cyclic manner) that carries listeners continuously from one beat to the next (Talai 21).
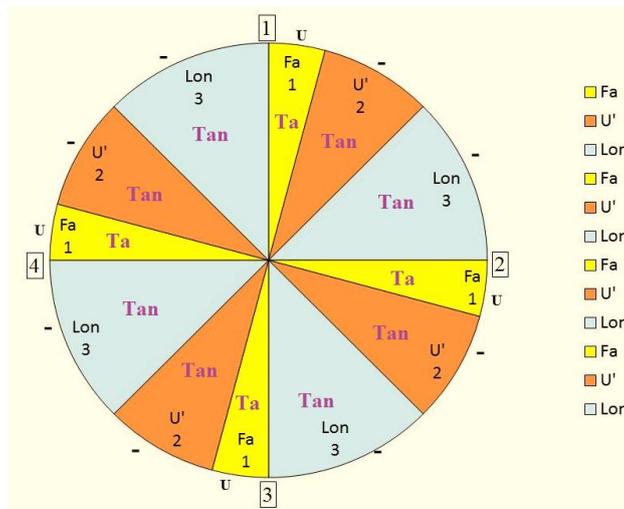
Figure 4. 2. A Schematization of Cyclic Rhythm in Epic Poetry

4.4. Strategy of Storytelling and Imitation of Music "Code of Emotion"

There are, of course, other elements of the Persian vocal music that could be expected to lend themselves to imitation by epic poetry. Further intermedial connections are provided by (1) a modal concern in the narrativity; (2) a singe line plot progression;

---

[110]   With reference to Persian culture verses and sentences, even proverbs, employ a formulaic expression. For example in the proverb:هر چه کنی به خود کنی گر همه نیک و بد کنی
Har Che *Koni,* Be Khod *Koni,* Gar Hame Niko bad *Koni,* which means if you do well, it is your own gain and if you do evil, it is your own loss. One can make a border between the three parts while a rhythmic pattern connects them together. The use of similar words has transformed a normal codifying system into a rhythmic one, and in this sense, has supported the aesthetic function as well as simplified the act of memorizing.

(5) the meaningful interplay between sonic and agogic structures (ordering of durational accent) and (5) sound ornamentation.

In analyzing intermedility in epic poetry, we cannot escape from the storytelling strategy at the stage of analyzing data, or from the necessity of aesthetics in the narrativity when examining the musicalization process in which the target[111] medium as poetic text designs the plots based on a 'cultural code' in music. As a narrative technique, one of the most striking intra-compositional intermediality employed by epic poetry is the high degree of "quotation". This feature that immediately gestures toward the Persian vocal system refers to "titles" of certain pieces to suggest alternatives in terms of the 'effect' in the stories in which they appear. Here, what can be considered as a contextual modality mode is the "quotation" of vocal pieces. As a related technique in intermediality, this quotation is amalgamated with a codifying system in Persian music. To clarify, I would like to underline a chain of factors that determine the expressivity of the medium of music, such as the prior personal engagement with a piece or genre, enough knowledge of aspects of music, the sonification system, the melodic movement and the compositional act, the intellectual awareness and cultural cues. In Persian culture and the codifying system of Persian music, the code of 'emotion', can be considered as a very specific code in relationship to the medium of music.

As we mentioned, in Persian music, pitches in each system are organized based on a modal system. To think in terms of modality helps us to associate an expressive function with the medium of music. It would be somehow wrong to bring the Persian music system into the framework of western music and explain it with reference to the musical word "tonality". Although, one should accept the fact that some Iranian musicians and music theorists believe the tonality could also play a significant role in understanding some inherent features of the Iranian musical system. As it has been highly acknowledged by famous Iranian musicians and musicologists (such as Majid Kiani, Mohamad Reza Azadehfar, Behzad Tavakoli, Darush Talai), the fundamental features of this cultural system can only be recognized, described and perceived through concepts of "mode" and the music term "modality". "Tonality" is simply concerned

---

111   As mentioned in a previous chapter, only one medium is presented directly, known as the target medium, whereas the second medium is indirectly presented 'within' the first medium. Viewed in this way, the hidden medium is considered a non-dominant or source medium. For more information see Werner Wolf, *The Musicalization of Fiction*, Chapter 3.

with the organization of notes or pitches and the relationship between them on a scale (e.g., harmonic or minor-major tonality in western musical system). In western music, the musical notes –Do, Re, Me, Fa, Sol, La, Ti, Do- serve as the prime global agent for the creation of musical scales and presents a direct correlation between culture and the tonal forms created through it, whereas 'mode' takes its identity from the function of intervals, hierarchy and the role of pitches and melodic formulas. While tonality is connected to the notion of scale and a series of 8 notes (heptachord), mode is a result of modulation in tetrachords [four pitch classes] or Penatchord [five pitch classes] such as when we go from Do major to Sol major (do-re-me-fa) (sol-la Ti-do). A hierarchy of pitches is created via the position of notes and their specific character in relationship to other notes. The hierarchy of pitches "is one aspect of the music system marked by theorization and accompanying terminology: *shāhed* ('witness') refers to the modal pitch center; *āqaz* ('start') indicates the initial pitch of pieces in a particular mode; and *ist* ('stop') is the pitch on which phrases usually end" (Nooshin 101). Therefore, it is the modal core or *shāhed* and the hierarchical ordering of pitches that distinguishes each music system (*dastgāh*) from the neighboring one (Talai 7-10). The pitches in each melodic model should play their role around the core note or *shāhed*. Each music system (out of seven) thus has an individual modal structure in which there is an emphasize on a series of notes and intervals. For example, in the system of *māhur*, we have [do-re-me-fa] for the first tetrachord and [fa-sol-la-ti flat] for the second. We should keep in mind, that such modal discourse shapes with reference to the expected modal organizations. These organizations could also be a change of interval notes by quarter step (*Koron* and *Sori*).[112] In this modal system, there is a freedom to emphasize various degrees of a scale, also to mix octave species or modes. Because of the specific hierarchical evidence among notes, there has always been a certain diversity among melodic forms (from the early period to twentieth century musical concerns). According to Talai: "[in] the course of Persian music system (*dastgâh*), large and complex scales are constructed by varying the location of similar or different tetrachords [or Penatchords]"(7).

---

[112]   In general, we have flat, sharp and natural in music. But in Iran there are two other signs besides flat, sharp and natural, which are called *koron* and *sori*

Table 4. 3. An Analysis of 'Tonality' in the Five Major Systems of Persian Music

Main Systems (dastgāh-hā)[113]	General Organization of Intervals						
	First-second	Second-third	Third-forth	Forth-fifth	Fifth-sixth	Sixth-seventh	Seventh–eighth
šur	3/4	¾	1	1	½	1	1
Homāyun	3/3	1 ¼	½	1	½	1	1
Māhur	1	1	½	1	1	1	½
Segāh	1	¾	¾	1	¾	3/4	1
Čahārgāh	3/4	1 ¼	½	1	¾	1 1/4	½

One of basic functions of modality is to shape musical expression by means of the functional hierarchy among the tones. A frequent strategy to account for modal structure in Persian music has been defining emotional and communicative features for distinct music systems. All those who study the history of Persian music, necessarily grapple with the assigned code of emotions in music systems. 'Mode' assigns specific combinations of signs and communicative aspects to Persian music. It also identifies certain rules or semiotic codes that underline the production of meanings within the medium of music (See Chandler 148). In other words, a certain modal concern distinguishes one music system from another in terms of functions, both semantically and expressively. In this way, every music system in Persian music is recognized by a specific expressive character, or a specific aesthetic value, which leads to an aesthetic appreciation and emotion. We should keep in mind that in the perception of the "*code of emotion*", the mind and the listener's previous experience, training and the listening culture play a most significant role.

Epic poetry has found its way into Persian music structure via implied music "modes" during storytelling. In treating the subject of intermediality, narrativity in epic poetry is intrinsically produced based on music 'modes'. Storytelling is designed in a way that brings to attention the structure of a certain music system or a modal consideration in Persian music. To do this, 'thematization' of the particular vocal pieces is related to the meaning of the scene in term of content (Petermann 59). Even more interesting are examples in which the dramatic effect of the narrative and the quoted

---

[113] The Persian music system includes seven major systems (*dastgāh*), namely *šur, Segāh, čahārgāh, Homāyun, Nävā* and *Rāst-Pandjgāh.*

piece interact more directly, as in the reference in the story of *Rostam* and *Sohrab* to the piece "*muyeh*". The quoted piece "*muyeh*" appears at the end of the story of *Rostam* and *Sohrāb*, where the poem narrates the tragedy of killing of *Rostam* by his father. Here, by suggestion of a specific feeling, the storytelling metaphorically transfers into the domain of music. While the word "*Muyeh*" carries in itself a hopeless meaning by referring to the loud crying for a loss, it also thematizes a classic 'melodic model' in Persian music, which for communication of sad feelings is played with emphasis in a music system called *čāhargāh* (also in *segāh*). *Guše,* or melodic model of *muyeh,* unlike other melodic models of the *segāh* system, such as *zābol*, *bastenegar* and *maglub* (which follow sinusoidal pattern—see azadehfar), has a horizontal movement. The boundary of the modal character of *muyeh* comes from the note of "**Re",** which is *kron* in this system. The hierarchy of notes, the melodic movement and the ordering of accents give a sorrowful character to the piece. A poet described the event of the story and expected to evoke feeling with the same strategy.

چو بشنید رستم، سرش خیره گشت   جهان پیش چشم اندرش تیره گشت

همی ریخت خون و همی کند موی   سرش پر ز خاک و پر از آب ، روی

بدو گفت سهراب کاین بدتریست   به آب دو دیده نباید گریست

čo Bešnid rostam saraš xireh gašt // Jahan piše čašm andaraš xireh gašt

Hami rixt xuno hami kand **muy** // saraš por ze xāko por az āb ruy

Bedu goft sohrāb kein badtarast // be abe do dide nabāyad gerist

همی بآسمان اندر آمد خروش // ز بس مویه و زاری و درد و جوش

Hami bāsemān andar amad xoruš// ze bas **muyeho** zārio dardo juš

Or when a famous musician *Bārbod* is crying for the death of the king *Xosro parviz*

همی پهلوانی بر او مویه کرد/دو رخساره زرد و دلی پر ز درد

Hami pahlevāni baru **muyeh** kard// do roxsāre zardo deli por ze dard

It seems that the poem intentionally benefits from the code of emotion expected from the melodic model of *muyeh*. By taking into account a "cultural code" from Persian music, poetry fulfils expectations of audiences in the creation of an affective result. Thematization, thus, provides a clear description for a music system as well as its emotional engagement. Strictly speaking, unexpected and unique benefits arise from the shared emotional features in both poetry and music. In this way, one may claim that

both media systems (target and source) share a common "model of attraction" in the process of communication. In epic poetry, this important feature occurs both directly via textual quotation and indirectly through the design of plot. The attraction here is not merely the quotation itself, but the dynamic relationship between a mode and the expected emotion. Therefore, for example, the connection between the 'target' and the 'source' medium is about the relationship between a similar generic design by which a similar emotional effect is constructed. It offers a process whereby the events and the wording become a generic representation within the Persian music system that leads to an expressive interpretation. It helps narratives to be read in a musical context.

Figure 4. 3. Mode of *Muyeh*

Repertoire(*Radif*) of Mirzā Abdolāh

This technique of "quotation" occurs in different sections. The quotations reflect the different musical systems with which each is expressively associated. A similar method can also be found in the story of "Xosro Parviz", in which the poem enhances the expressive function by referring to another music system called *māhur*. The connection between narrativity and musicalization is stronger in this story in which there is direct references to the names of musicians *Bārdod* and *Sarkeš*. In this part, the poet is narrating a competition between two musicians (*Bārdod* and *Sarkeš*) for

receiving a position at the court. *Sarkeš* as a musician does not let *Bārdod* have a meeting with the king because he is aware of his great musical talent. *Bārdod,* with his instrument, concealed himself above a survey tree in the king's garden until he could successfully play the piece called *dādāfarin*.

Zanande bedān sarv bardašt rud// hamān sāxte *xosravāni* sorud

Sorudi be āvaze xoš barkašid // ke aknun to xāniš dād āfarin[114]

Figure 4. 4. Mode of *Dād.*

Repertoire (*Radif*) of Mirzā Abdolāh

By selection of this specific piece of music, *Bārdod* not only screams of the injustice that came to him, but shows his respect to the king. In the end, he won the competition and became the first musician of the king. In Iranian music, *dād* (literally means fairness and justice) is a melodic model in the system of *māhur*[115], which is used

---

[114] زننده بر آن سرو برداشت رود // همان ساخته خسروانی سرود

یکی نغز دستان بزد بر درخت کز// آن خیره شد مرد بیدار بخت

سرودی به آواز خوش بر کشید //که اکنون تو خوانیش داد آفرین

[115]   Majid Kiani, who is a famous musician in Iran, defines features of system of *māhur* as the beginning of the day, the beginning of life, passion and youth, pride and prosperity, needlessness and salvation (See Kiani, Majid. Ashnaie ba musi.p 62)

for communication of glory, greatness and revolutionary feelings. The specific modal characteristics let the system of *māhur* be considered a good choice for the festivities and celebrations. A dynamic emphasizes on the two notes of *Re* and *Fa*, the quality of melody and the pattern of rhythm in the melodic model of *dād* has recognized a feeling of despondency in the piece, while the modal identity of *dād* comes from the system of *māhur,* which is somehow comparable to the "major mode" in western music, yet the clear emphasis on *Fa* has created a mode like a "minor mode". An ability to bring this aesthetic value into storytelling enables the epic poetry to communicate different feelings. In other words, the "quotation" technique in this story is particularly used to foreground the effect. What is also essential here is that the expressive function of the analyzed hemistich is prolonged by the pervious hemistich ("*hamān sāxteye xosravāni sorud*). Once you read pervious hemistich, firstly, there are certain musical implications that it automatically contains; such as the repetition of the sounds X and S, and a reference to the word "*sorud*", literally meaning singing. Next, it also includes a new quotation to the melodic model of *xosravāni* (literally mean joyfull melody). So, you start with an impulse to the musical expressions that are distinguished by the features of the mode of *xosravāni*. In contemporary music, *xosravāni* is also played in the *māhur* system (In the past, the songs that were performed in accordance with the system of seven songs, seven notes, were called *xosravāni*).[116] This change of mode is perceivable for the readers who have a proper knowledge on Persian traditional music. The emphasize continues in the second verse by a direct reference to the musical mode of *dādāfarin.* Both hemistiches do not appeared in isolation and harmonic and narrative contexts accompany them.

---

[116]   In eastern music, the concept of time in the composition and performance of music pieces plays a significant role. For example, in Indian music there are *ragās* for mornings, *ragās* for evening and *ragās* for night. *Xosravāni* is also played with respect to the time and expected feelings.

Figure 4. 5.A part of Mode of *Xosravāni*. Repertoire
(*Radif*) of Mirzā Abdolāh

4.5. Thematizing Metric Pattern in Vocal Music

Another element that would seem to lend itself to imitation or thematization in epic poetry are the metric formulas applied in Persian vocal music. To understand intermedialality in this part, one should recognize the importance of *formulaic expression* in Persian culture. From a historical point of view, there has always been an interplay between poetry and music in the manipulation of oral components, which is important for a temporal logic such as rhythm and melody. It may seem surprising that the melodic movements of Persian traditional music are uniquely enhanced by the metric formulas offered by a specific genre of poetry. As Azadehfar mentions, "Whereas in western tonal music the bar, as a musical unit, is often supported by melodic configuration and can exist in spite of contrasting rhythmic details, in the avaz the metric organization is supported…by poetic pattern" (Azadehfar *Rhythmic Structure* 167).

One claim is that the rhythmic pattern in Persian vocal music is highly derived from poetic meter. The consideration of metric formulas in Persian culture has slowly altered the expectations of listeners in the perception of rhythmic patterns. Persian vocal style, by employing metric formulas, identifies the relationship between temporal music/poetry and specifies melodic structures. A clear manifestation of this method can be found in epic poetry's own metric formula, which provides a bridge to Persian music. The reader and listener would certainly not be amiss in searching for the same metric formula in Persian melodic models. *Pahlavi* [117], as one of such mode, imitates oral features in its metric organization. *Pahlavi* in Persian vocal music is mostly played in a specific system (*dastgāh*), known as *čahārgāh*. In identification of the expressivity of the *čahārgāh* system, one may refer to its heroic potential. The reason may lie in the nature of melodic movement, which presents itself in an ascendant form. Azadefar, in the article "Melodic Shapes in *Gūsheh-ha* of Iranian *Radīf*", designed a system to categorize the melodic shape of each *guše* in one of the ten kinds of movements. His investigation reveals that melodic movement in *Pahlavi* is sinusoid, which tends to move on level with a very limited tonal material (Azadehfar "Melodic Shapes").Thus, there is a strong intermedial link between Epic poetry and *Pahlavi* in terms of structural and expressive features. Epic poetry reveals its interest in a heroic character, not only by self-referentiality to its own content, but throughout its own metric organization. Intermedial practice is offered by describing the heroic stories also imitating structural features of a musical system in Persian music. The mode or melodic model of *Pahlavi* is a unique piece in the way that it employs the meter of *fou'lon* in its rhythmic construction. This suggested metric pattern for the melodic model is identical with that of the epic poetry as whole. The metric pattern remains not only on the level of thematization, but also recognizably imitating a certain music system of Persian music. The meter of epic poetry is quite faithfully observed in the example below:

---

[117]   In Persian music system (*radif navāzi*) there are few famous melodic patterns (*guše-ha*)- whether in vocal or instrumental music- which are based on the metric formulas. In the mode or melodic model of *Pahlavi*, in his discussion of "imagination beauty", the poem employs metaphorical language. the story is telling by a lover (third person narration) who is in love with dauther of the king in china((Khāqān is a place in China). The poem permits the specific beauty of moon transfer to attributes associated with beloved.
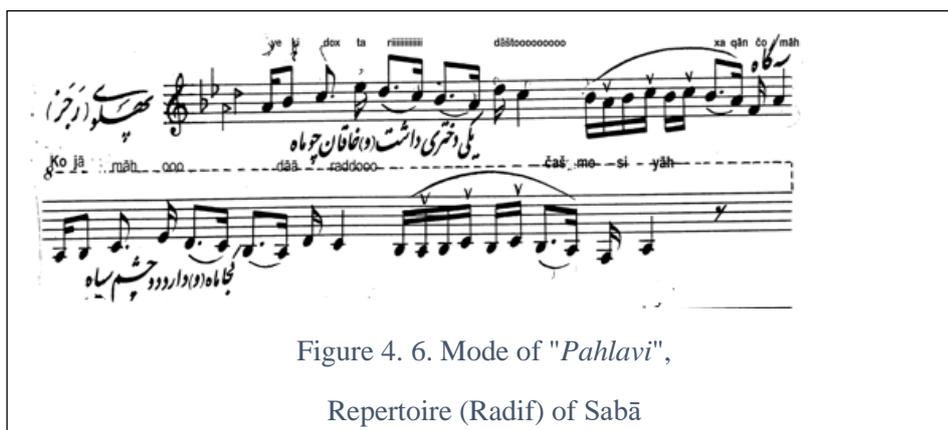
Figure 4. 6. Mode of "*Pahlavi*",

Repertoire (Radif) of Sabā

4.6. Imitating Persian Monophonic Music in Poetry

Musicians usually hope that during a music performance the listener will share a knowledge about the tonal relation, melodic pattern and perceive a similar cognitive structure. Persian music, unlike to western classical music, which has a polyphonic texture and enjoys a melodic interest and rhythmic distinction in each part, frequently suggests a rhythmic and melodic dependency. The melodic movement usually occurs with reference to one leading note (*šāhed*) in a circle of tetra chord. Whereas Western music follows a polyphonic texture in which melodies are composed with reference to a chord or a chord progression. The historical continuity of rhythmic patterns in Persian music has also modified the listener's rhythmic perception based on its mono-rhythmic line, while complex composition is unavoidable.

A powerful strategy for evoking homophonic music is the use of a single voice by the narrator—a third person narration (as a focalized through the narrator's perspective)—while there are a multitude of voices, and yet only one single dominant voice is narrating the story. The poet himself tells the plots from a third person point of view in order to build a long story about humans and the different faces of human beings. "In such cases, though the character is described in the third person, the perspective is overwhelmingly that of the individual character, and the style of language used corresponds to that of the character in the manner of 'subjective third person narration'"[118] (Petermann 109). In addition to the narrator's language, there is another major device that contributes to the homophonic texture. Epic poetry may employ

---

[118]   Peterman in her book adapts the terminology employed by Gordon Collier

multiple voices that are organized, but the stories are harmonized by the application of one melodic pattern. The expressions and plot progressions appear in a single metric pattern that attempts to establish a single melodic line for the readers. The development of epic poetry in a single metric formula tends to maintain a sense of the chronological progression of events in a single melodic structure. In other words, epic poetry chooses to emphasize a single melodic line in order to make a kind of gesture to Persian *monophonic music*. The pieces in Persian music are also composed in a single rhythmic line, which is played by different musical instruments. The rhythmic pattern of epic poetry is repeated in a repetitive manner and only adds some variation here and there.

4.7. Melodic Progression and Rhythmic Alternations-Variations Implied in Poetry

In its homo-phonic texture, poetry creates a profound depth of feeling through an artistic expression that is invested in each melodic line. The artistic expression implied by poetry provides an indirect link to Persian traditional music by way of a progression of sounds during storytelling. More specifically, epic poetry borrows the notions of *core pitch* and *stop note* from music to provide an account of the perception of the hierarchy of pitches. As we mentioned previously, with regard to Persian music, each musical system (out of seven), has an individual modal structure in which there is an emphasize on a series of notes and intervals. The pitches in each melodic model should play their role around the modal pitch center or *shāhed*. Hierarchy of pitches and the role played by core(leading) and stop note in a modal zone distinguishes Persian traditional music from western music, also Ottoman Music. The placement of the leading note in mode can give a specific emotional character to a musical piece. Epic poetry benefits from hierarchy of pitches to foreground specific effect in its thematic organization. In below verse, for example, the sound š is heard more than others, thus may gesture toward a leading note in music. In the verse there is also a stop on the sound "S", and the overall melodic movement is restricted to a small cluster of notes in the verses. In other words, an occasional burst of speed is reserved for small clusters of notes included of **š, s, b** and **m**

بسایید مشکین کمندش به بوس   که بشنید اواز بوسش عروس[119]

Besāid meškin kamandaš be bus   ke bešnid avāze busaš arus

In another verse (story of *Rostam* and *Sohrāb*, part 11) the specific experience is given by a tonal emphasize on the sound **S** (5 times), and a tonal movement on the sounds **z, š, s** and m

به زاول نشستست و گشتست مست // نگیرد کس از مست چیزی به دست

Be zāvol nešastasto gaštast mast   nagirad kas az mast čhizi be dast

Or the role plays by the sound **N** and **A** in the below verse from the same story. As you may notice there is a high concern on a movement between the pitches **N, A, B** and **M** in the verse

نرفتی بدان نـامور بـارگاه// نکردی بدان نامداران نگاه

Narafti bedān namvar bārgah   nakardi bedān namdāran negāh

To illustrate the intermedial link, I may refer to a melodic model in musical system. In general, the melodies and their musical structures can be studied and individualized on the basis of different musical elements, such as the audio range, the falling or rising habit, notational scales, musical phrases and motives, rhythmic structure and other internal elements. However, the cultural habit of listening and the musical knowledge of musical scales, chords and interval formulas play a crucial role in the understanding of the nature and uniqueness of a specific melody. Faced with an infinite number of melodic modes, and given the many standpoints from which they can be considered, the analysis of traditional music in Persian culture definitely should be directed to "modality" through the specific combination of signs and communicative aspects that are assigned to it. In the tonal system (such as in western music), the first and the last note of a scale are similar, which signals for the identification of the tonality. The difference between major and minor scales comes from the tonality and third intervals (the big and small intervals distinguish the tonality between two scales). In Western music, the presence of a tonic note attributes a sense to the music. From a scholarly

---

[119]   Ferdowsi. "Zal Goes to Visit Rudabeh[بخش رفتن زال به نزد رودابه]. First Part." *Shāhnāmeh*, edited by Parviz Atabaki, vol. 5, Elmi Farhangi 2000[1391], pp. 633-657 verses

perspective, tonic note has a hegemony over others, and the listener can usually predict the sequence when approaching this note. The frequency of other notes and the intervals among them are compared with and understood with reference to the tonic note in an octave. In tonal music, not only the musical phrases are forced to move to the end by stopping on a tonic note, but the final cadence of the piece is perceived by a reference to the same note. Persian music systems (*dastgāh*), however, conform to modes other than minor and major, therefore it is a modal music. In Persian music, there is always a link to a mode (*shâh- gušeh*)[120], which uses about two *dangs* (tetrachords= four pitch classes) and has a *shâhed* (central, witness or leading) and an *ist* (stopping) notes.

The below melodic model (*gušeh*), known as "the first *darāmad* in *šur*", shows a melodic contour by (1) directions, (2) intervals, and (3) time values. According to Azadehfar, "the emotion of listener from exposing to each melody comes from combination those three elements plus the way performers present of such features" (99). As you may notice, the leading (*shâhed*) and the stop notes play a significant role in e melodic movement. There exists an inherently closed system in the hierarchy of notes (a tetrachord cyclic progression). The melodic movement of the piece below suggests a leading note (sol) and two stop notes (**sol** and **do)** in its construction. It starts from one note lower than the leading note **Sol**, then by creatiing a tension between the leading note and its neighboring upper note **La,** it will return to Sol again. The same musical phrase is further repeated from one note higher than the leading note, which in its end, through a jump from **Do** to **Sol**, creates a landing. It is by consideration of a hierarchal relationship between very limited tonal materials (small cluster of notes) that a specific emotional effect is often devoted to every single system in Persian traditional music. Epic poetry, by providing intermedial references to rhythmic patterns, creates an active dialog between the oral and the music features.

---

[120]   Here we should make a distinction between *gušeh* and *rāgā*, *gušeh* and *maqām* or *gušeh* and any other eastern music known to have modal systems. Each of them carry their own structural, formative and performative features.

درآمد
Darâmad

Figure 4. 7.The First Piece of System of *šur* (Fisrt *Darāmad*)

Repertoire *(Radif)* of Mirzā Abdolah

Figure 4. 8. A Schematization of Melodic Movement of *Darāmad* of *šur*

In addition to the above-mentioned points, there are a few other features of Persian music we ought to know about. Persian music seeks to create interesting patterns, like a staircase, by bringing some asymmetrical balance into the melodic patterns. The progression of notes, thus, is given by some variations through the modification of the perception of regular rhythm in the system. As "rhythm" in music does not offer more than a simplified tracking of the regular motion of the voice, without any perceivable variation (Cureton "Rhythm" 82-84). Variation in the combination of bars and within the bars can create some irregularities in the regular rhythm, like the method of syncopation used by song "Somewhere over the Rainbow".[121]

---

[121]   The syncopation method is mostly employed to change the perception of weak and strong beats in the meter. The syncopation methods are frequently used to alter the physiological perception of rhythm. To clarify this point, I refer to the song "Somewhere over the Rainbow". In the song Figure- there should

For rhythmic variation, Persian music also employs agogic accents, which are mostly created through a change in the duration of notes. The model called *Kerešmeh* can offer good examples of this. An example of this *kerešmeh* was provided by *radif šur* (repertoire of *šur*), which is a typical traditional form in instrumental music. The rhythm has been created via an arrangement of three distinct foot. Every line follows a logical arrangement and forms the small phrases that are organized thought repeated foot of *Mafā 'elon* and the accompanying feet of *fa 'elon* and *faelāton.* In other words, the whole metric pattern consisted of four syllabic divisions through three distinctive meters. For example, in the first line we have

Figure 4. 24. Rhythmic Pattern in Mode of *Kerešmeh*

This piece purposefully intensifies rhythm through (1) quantity of syllables and (2) accent or intensity of syllables, specifically agogic accents, which are dealt with in the duration of notes.[122] The piece has a melodic emphasis—the temporal feature, specific dynamic and the texture of performance. However, it also follows the same meter and rhythmic pattern until the end of the piece. In fact, there is only a slightly or moderate variation of rhythm in a sequenced manner that frequently occurs through alternation of sounding patterns (notes) and agogic accents. As you may notice, a variation and

---

be a regular pattern of stresses on the first three notes *some*, *where* and *o*. It is however the stress of the word "where" that occurs on an ordinarily unstressed beat. It lands on and emphasizes the beat 2 in 4/4: "1-&, 2-&, 3-&, 4-& (Perhaps some singers/arrangers place "some" on beat one and "where" on beat three, which would *not* be a syncopated rhythm). The syncopation has a variety of forms and may also occur when a weak beat continues (Hemula syncope), or a sudden silent (off-beat) appears in a strong beat.

122   The relationships between metric patterns and musical rhythm in Persian music have been examined by Persian musicians and philosophers. Among them I can refer to Abdolqāder marāqeie (in his books: jome 'alhān and maqāsed 'alhān), Ab 'onasre Fārābi, safi 'din Ormavi, forsat 'ldo'le and Aršad Tahmāsbi,

alternation of notes could successfully change the mode and tone of the piece, which may lead to a change in physiological perception.

Figure 4. 40.Mode of *kerešmeh*,

Repertoire (*Radif*) of Mirzā Abdolah

To inter some irregularities and variations, epic poetry benefits from the method of variations which deals with repetition and change (Petermann 173). To consider rhythm, a metric formula was used in epic poetry to organize sound and movement, setting up the expectation that may be fulfilled, thus meter follows both regularity and modulation (Petermann 61). Epic poetry sets up a repetitive pattern in the whole and disrupts it by using sonic patterns and agogic structures in most of its parts. The connection to music is perceived by a variation in the duration of syllables and an alteration in sounding-pausing patterns. This is precisely the case in a musical 'mode', which seeks to produce an alteration of the rhythmic patterns in its regular modal form. This strategy undoubtedly establishes a meaningful coordination between time-units and cadences. In fact, epic poetry does not depict a non-linear plot progression in terms of the succession of events and characters, such as the novel *Goldberg: Variations*, rather it presents both thematic and rhythmic variations via specific tonal repetitions and agogic accents (emphasizing of a beat by changing its duration) on the meter itself. Therefore,

sonic patterns give a successive variation in an identical and formulaic styling. In this way, the metrical and sonic strategies effectively relate the perception and sensation of rhythm to an antagonist of regularity and irregularity. Every chapter may have a direct influence on the successive chapters, and even sometimes keep familiar metric motifs, but the progression of theme is always followed by a sonic and accentual alternation. Werner Wolf claims that this form of alternation of tonal patterns not only represents a general movement of time, but also individualizes emotions and states of mind (Wolf). Epic poetry not only creates rhythm through a linear movement of the voices, but through a conflicted movement of sensations, emotions and volition (See Cureton 2005 114-115). The repetition of notes and the alternation in the duration of notes, which is interspersed with pauses of varying duration, become a study in asymmetry. This continuity in a single metric form, followed by an alternation of sounds and agogic structures, functions as iconic signs inspired by Persian traditional music. In the following example, the poem benefits from a tension in tonal duration (agogic accent in music)

نهنگ

یکی پای **چون** گور و تن **چون** پلنگ

[Ye ki sar]   [čo mā hi]   [o tan chon]   [na hang]
[Ye ki pāy]   [….čon, gur]   [ro tan čon]   [pa lang]

As is observable, a strong rest has been used in the structure of the second stanza, thus the pervious word *pāy* could be pronounced along with a prolongation. In the second stanza—while the fist bar has been correctly constructed (meter) —the last note (vowel sound e) benefits from a long silence to fill the gap of the second bar. In this way there would be a variation in duration of the last note of the first bar, which is surprisingly the vowel sound (e).

In considering the listener's response to the experience of rhythm, one major strategy in music is related to the repetition of pitch, which is indeed operational in the

perception of musical rhythm. In the following example, a stress is made on the vowel sound (o), which is created via its repetition in the related stanzas.

کلاه و کمـان و کمـند و کمـر

[Ze , di, na] [ro, gan, jo] [ze, ta, jo][go, har]

[ko, la, ho] [ka, ma, no]   [ka, man, do] [ka, mar]

1

2
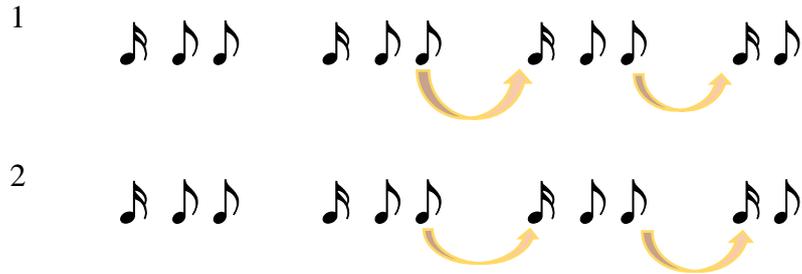
Alternatively, epic poetry, in the last foot, could successfully present the 'rest' in musical notation; in this way an unexpected pause is appeared between two hemistiches. The modulation of cadence and pitches in the last foot of the meter mostly occurs in the context of storytelling. The connection to Persian vocal music is, of course, made explicit by a frequent appearance of the silence in the second syllable of the last foot. The importance of rest in Persian music has been acknowledged by Persian musicologists. For example, Mohamad Reza Azadehfar, in his PhD thesis *Rhythmic Structure in Iranain Music* (2004), in a brief explanation of Iranian musical habits says that "[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 (33).

A suggestion of silence can be a gesture toward the function of rest in Persian music. Other syllables have been chosen for their sounds rather than for their silence. Depending on the meaning of the verse and the context of storytelling, the duration of rest in the last foot has undergone a significant change. An example of an intermedial connection between epic poetry and music on the level of "rest" can be seen in the story of "*Key Xosro"* and "*Afrāsiyāb*", in which the poet is narrating the emotional atmosphere after a defeat in the battle; there is nothing left except sorrow and frustration (refers to dominant mode of the scene). Thus, based on the dominant mode of the scene, the strategy of rest is used in the last syllables of the last feet to reduce the rhythm of

the scene, or prolong the expected break between two parts. The alternation of rhythmic structure is clear from the ways the notes are grouped.

چهل پیل زیشان همه بسته گشت

هر آنکس که برگشت تن خسته گشت

[Che hel pil] [zi shan ha] [me bas te] [gasht]

[Har an kas] [ke bar gasht] [tan xas te] [gasht]

By agogic accents, quantity of syllables, sounding-pausing patterns, epic poetry not only provides a rhythmic variation for enhancement of melodic structure, it metaphorically describes a music system and its corresponding emotional engagement. Epic poetry, by employing of a combinational logic provided by prolongation, repetition, sounds succession and transition and rising and falling, assigns specific acoustical characteristics to the plots and events of the story and alters the rhythmic features in the context of the Persian music model.

4.8. Imitating Features of "Tahrir"(Ornamentation of sounds) in Poetry

A kind of agogic accent, which in Persian music is called *Tahrir,* usually extends the duration of vowel sounds at the end of musical phrases. A flexibility in the note values makes a distinction between plain and ornamentation (tremolo) sounds. *Tahrir* "can be described as a technique of falsetto break or cracking of the voice which in the vocal music takes the form of melisma" (Mohammad Reza. Azadehfar 1); the singer must keep the sound in his or her throat (larynx) and must brake or role it in a repetitive manner. In Persian vocal music, the intensification of sounds, tone color and the sound 's high is created with the larynx. It is created through air and audio muscles without the actual pronunciation of letters or words. The Tahrir is not only used for the ornamentation of sounds, but to alter rhythmic structure. *Tahrir* can be identified both in free meter and metric based vocal pieces and can appear in different forms, such as *Takiye (relying notes),* different kinds of *vibre (viberation), trill, dorāb, laxze or gelisando, šalāl. Tahrirs*. In vocal music, *Tahrir* is mostly characterized by the prolongation of a note (mostly vowel sounds- whether short vowel sounds of a, e, o (أ

اَ‌ !) or long vowel sounds of ā, e, u) or a note with a coordination of upper or lower notes. The position of *Tahrir* is at the end of hemistich or a verse. *Tahrir* can create a specific emotional effect, or shape a specific modal character for listeners. Singers perform the prolongation of vowel sounds in appropriate, but individual forms, permitting each sound to achieve its expected expressive function. The example below shows the up and down moment of sound in the act of *tahrir*. This Tahir performs in free-meter and does not carry any conceptual meaning.

Figure 4. 81.A Compression of Simple and Ornamentation Sonic Pattern

Figure 4. 83. Function of Vowel Sounds in *Tahrie*

Singed by Rezā Qoli Mirzā Zali

In many ways, the skill involved in the vocal style of *avāz* assimilate quite well with the general principles of expertise in the mnemonic formula. The last foot of epic poetry sometimes puts a high emphasis on the prolongation of long and short vowel sounds in a way that may recall the ornamentation of sounds in Persian music. This is because singers can easily capitalize on the potential to prolong long vowel sounds at the end of verses or phrases. The small gap in the last foot of the meter in its cyclic movement offers flexibility in the progression and modulation of sounds and rests in the last beats.

Thus, in musical phrases, there is a high intention to emphasize a sound's specification, intensification and stabilization.

Figure 4. 95.Function of "*Tahrir"* in the Last Syllable
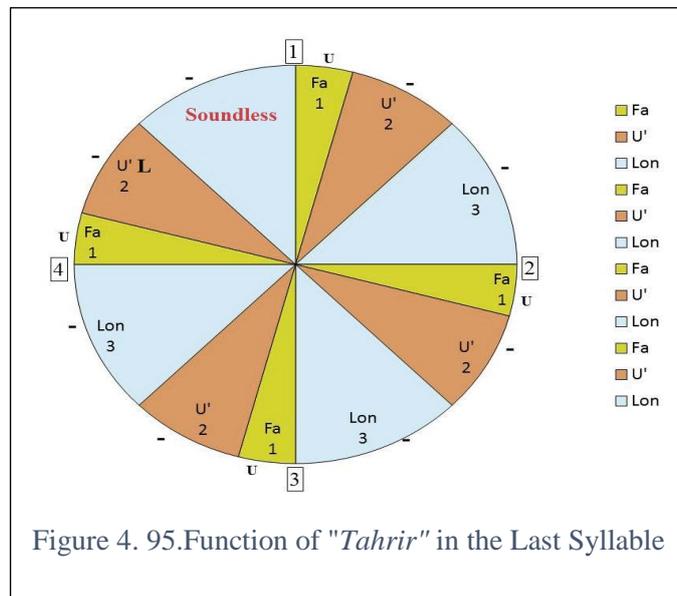
Epic poetry offers a similar style in its disproportionate emphasis on the duration of sounds in the last foot. One valid approach to recognize the patterns of *tahrir* in epic poetry would be to examine the promising repetition or stress in the vowel sounds, whether at the end of lines or in between. On a very simple level, the sounding quality maps a breathing system for the whole discourse. It attempts to support the heroic rhythm of the poetry. On a more sophisticated level, the poet, through an interplay between sound and silence, imitates elements of Tahrir. You can find such emphasis in the following verse in which the last bar includes merely the long syllable of "*ust"*. The long value and the strong stress on the note O in this syllable refers to a possible ornamentation (*Tahrir*).

نگارنده چرخ گردنده اوست

فزاینده فره بنده اوست[123]

[Ne ga ran] [de ie char] [gar dan de**h**] [**ust**]

[Fa za yan] [de ie far]   [rei ban de] [**ust**]

---

123   Ferdowsi. *Šāhnameh*, The kingdom of *Lahrāsp.* Fist part. Available on *Ganjur Ferdowsi*: https://ganjoor.net/ferdousi/shahname/lohrasp/sh1/

The filling of space and reverberations through *Tahrir* could connect the relatively complicated melodic sentences and create a space to let the audience hear and understand the sentences and be ready for the next ones. The major purpose of such a vocalization in epic poetry is, thus, to fill the phonetic spaces to induce and transfer a spiritual sense at the end of each musical phrase.

4.9. Musical Rhythm Implied in Visual Medium

As mentioned earlier, rhythm is a regular and repeated pattern of sound or movement. In music, notes are arranged in a way that predictably create time intervals, which are perceived as rhythm or movement in time. Therefore, "repetition" is often considered as one of the most important elements contributing to the construction and perception of rhythm. Henri Lefebvre in his book *Elements of Rythmanalysis* (1992) examines the major aspects *in rhythmanylysis* and allocates the major role to "repetition" in the perception of rhythm. Lefebvre believes that in the perception of rhythmic patterns, there should be an interrelationship between space and time. He claims, "[e]verywhere where there is interaction between a place, a time, and expenditure to energy, there is rhythm" (xv). This space[124] may refer to: (1) spatial practices, (2) representation of spaces and spaces of representation, and (3) historical spaces (xv). Dance, for example, can provide a suitable example of how a temporal performance can communicate visual spatiotemporal rhythm. Painting also provides a spatial arrangement, though it could possibly refer to the measuring of the proportion of rhythmic interventions, for there is no rhythm without measure, in space and time (Su and Salazar-López).

The gestalt-based approaches often put emphasis on the perception of rhythm via *similarity*, *grouping structure* and *continuation* in the perception of rhythm.[125] The gestalt "principles are assumed to function in all individuals, not based on specialized training, and only relay influenced by prior experience" (Krumhansl and Lerdahl 314).

---

[124]   The understanding of space draw upon the works of Nietzsche, Heidegger and Bachelard.
[125]   For more information you can check Bruce, Vicki et al. *Visual Perception: Physiology, Psychology, & Ecology.* 3rd edition, Psychology Press, 2003. *Visual Perception: Physiology, Psychology, & Ecology*, Tuck, Michael. "Gestalt Principles Applied in Design." *On: Six Revisions* vol. 2017, 2010. http://sixrevisionshttp://sixrevisions. For identification of 'grouping structure' in a rhythmic perception please read Lerdahl, Fred and Ray Jackendoff. *A Generative Theory of Tonal Music.* MIT press, 1985.

Poetry and painting employ a common vocabulary through gestalt principles of *similarity*, *grouping structure* and *continuation* in order to provide a perception of rhythm. Viewing it through this lens, we should deal with the interplay between visual elements and fabricated positive and negative spaces on the surface that may create unexpected meaning. By applying gestalt principles, both the media of poetry and painting integrate medial conditions into a plausible visual culture to enhance the perception of a rhythmic pattern. Accordingly, two historically old and culturally valuable media interact to present an appropriate reference to musical features. To communicate effectively, the externalization of mental concepts of rhythm in iconic signs occur through: (1) a linear and non-linear textual framing in the medium of poetry; and (2) a repetition of visual motifs in the medium of painting**.**

4-9.1 Linear Diagrammatic Repetition of Frame in Old Manuscripts

To reach a valuable and comprehensive judgment of intermediality, one should indeed consider the contributions of visual elements in both the media of painting and poetry (in a cultural sense) in intermedial practices. Strictly speaking, the analysis of intermediality in this context should to be concerned with collaborations or influence between the visual features in both painting and poetry. The visual aspects refer to the qualified features in media by way of a fusion and synthesis of the various expressive elements that can be promoted. According to Varnum and Gibbons, "[b]oth texts and images are decoded visually and, for the most part, produced manually…" (xi). Poetry, as a medium itself, carries visual properties accredited to it through the multiple forms of spacing, the vertical dimensions, noncontiguous lines and stanzas (graphic space). The visual aspects of the poetic texts in visual representations are purposefully employed by designers for different communicational purposes. Given this, there is definitely a failure to consider that "the visual component of a [poetic] text is an independently organized and structured message — connected with verbal text, but in no way dependent on it. And similarly, the other way around" (Kress and Leeuwen 17). A visual character, which is the outcome of "segmantivity" in poetry, should be considered as a qualified feature in visual communication. Segmantivity in poetry not only inserts a new sensory modality mode in the process of meaning making, but has a great influence on the direction of reading (see **Figure 4.14**). According to Groensteen (2007), poetry concentrates on the aesthetic visual arrangement of segments to offer a new medial

condition in the process of creating meaning (108). With regard to the Persian language, one may find a variety of designs in a poetic text:

خرد بهتر از هر چه ایزد بداد

خرد بهتر از هر چه ایزد بداد
ستایش خرد را به از راه داد

خرد بهتر از هر چه ایزد بداد
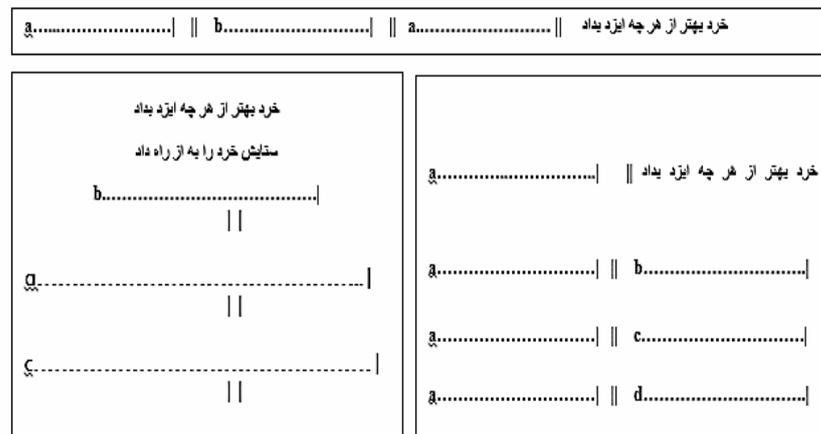
Figure 4. 111.The Function of Poem 'Segmantivity' in Design

In the old illuminated manuscripts, there is a considerable emphasis on the continuity of stylistic conventions. Several visual resources developed in the old artefacts according to the convention and the Persian system of creating meaning. The style of old illustrations in the ways stories are designed and narrated can be understood as a subset of "sequential art", a meaningful series of images that narrate stories. By reviewing their history and development, one may to claim that comic books and illuminated manuscripts represent a comparable form of storytelling. This intermedial genre, as comics suggest, in Groensteen's terminology, is an "expository model of storytelling" (Groensteen, 207:8). In other words, like the comic genre, a series of scenes can be found within images that form a distinct narrative unit. The illuminated manuscripts historically introduced textual units as graphical elements on the pages. Textual units are usually presented in rectangular panels, while there is always a carful harmonization of forms and colors between gutters and frames. A generic flexibility of design offers a unique spatial arrangement on the pages. Important here is the status of the verbal text as a poem, which brings into consciousness the potential of "segmantivity" in the process of representation. Although, the strategy of "segmativity" has mainly been used to the advantage of 'narrativity', it has substantially operated through the consideration of coherency of the design—as a perception and evocation of

musical rhythm in the receiver. In the design of the pages, besides the relative placement of participants in events and the significance of value accorded to them, there has often been a certain status bestowed upon "segmativity" of poetry and the 'framing' techniques offered. It is quite clear that the artists of these works are following a "cultural code" to encourage viewers to engage with a new medial condition in the process of meaning creation. Consistent with the general visual grammatical rules, a repetitive manner of placing 'panels' in the upper and lowers sectors of the pages (such as those appearing in **Figure 4.16**., **4.17 and 4.18**) may act as (1) as a modal cohesion in layout; (2) a qualified feature employed in a visual perception of rhythm; and (3) an attention unit of the metric pattern. As far as music is concerned, the increasing importance of the corporation of textual framing in a "groping" scheme has historically provided a strong link to rhythm. From an intermedial perspective, the placement and repetition of panels on the surface help us visualize the mental concepts of rhythm (see Kazmierczak 184). This implication is concerned with an interactive link between two broad zones of temporality and spatiality. To bring spatial relations into a temporal sign system, poetic text also includes complicated cultural elements, such as color and texture. The following figures (**4.116), (4.17), (4.18**) may provide a sufficient basis for dealing with this specific move into the spatial organization of rhythm perceived during the reading process. Here the frame inters as a separate mode in the interactional aspects of verbal and visual media, compelling a specific way of seeing and conceivably obligating a reading direction rectilinearly, from write to left (not up to down). As is noticeable, to schematize musical rhythm, the poem considers free spaces between verses and a meaningful interaction between the gutters and gaps by which it influences the temporal association; the 'gutter' acts as negative space and can be separated from 'frame'. The repeated shapes are then perceived as beats in music-'one-two-three-four-one-two-three-four'. Then we can realize rhythm as a succession of movements, a set of motions, a certain physiological energy (see Lefebvre 7). A dynamic interplay between positive and negative spaces, thus suggests a new strategy in the transformation of abstract and conceptual forms of rhythm into the perceptual and visual iconicity of rhythm.

According to Arnheim, the outer order represents an inner or functional order, and therefore must not be evaluated by itself or considered apart from its relationship to the organization it signifies (3). The emphasis on a fixed placement and number of

the panels seems not to be arbitrary, rather it noticeably magnifies the degree of non-arbitrariness in the meaning creation process. This major is perceived not only because of the confinement of the existential dimension of a sign maker, but also due to the creative process of conceptualization, which is selective and schematic. See from this perspective, the quantity of panels on the surface may gesture to epic poetry's metric formula. Surprisingly, while each frame includes only one stanza, its repetition schematizes a quadric organization on a page. By providing a quadric division, the illustration intends to refer to the implication of a metric formula in the design. Under these conditions, while the groped frames in a repetitive form can easily be perceived as regular in rhythm, a quadric transposition of the poetic text signals for an intermedial interpretation. It then provides a pictorial cue to immediately grasp an adequate interpretant. In other words, the number of "frames" intends to iconically imitate the quadric repetition suggested by a foot in the metric pattern of epic poetry.
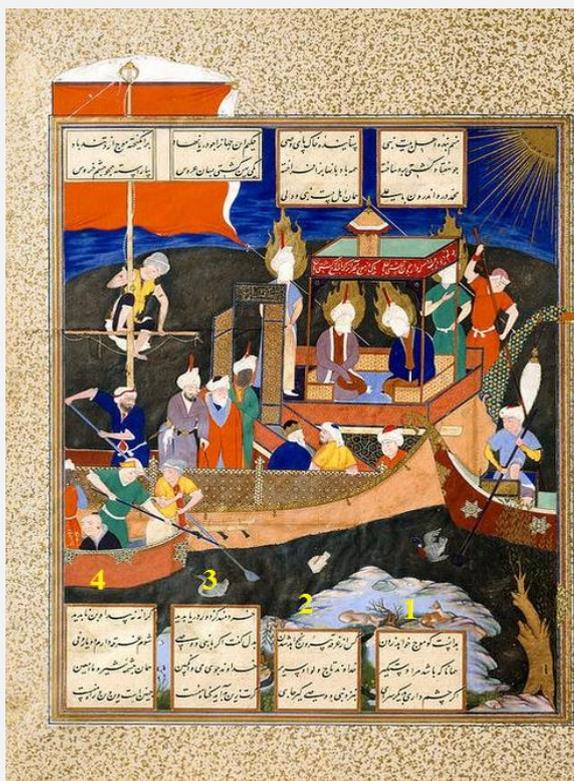
Figure 4. 143. Framing of Textual Units

A Folio from *Shah Tahmasb šāhnāmeh* Painting attributed to Mirza Ali. Date (ca. 1530-35). Tabriz Culture. H.31.7 cm. Retrieved from   Https:// in. pinterest.com/pin/2978ß9628005388
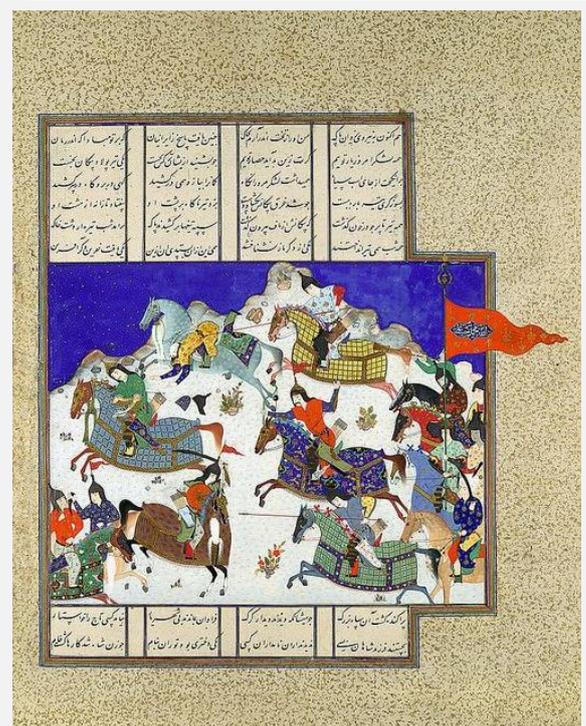
Figure 4. 127.Framing of Textual Units

A Folio from *Shah Tahmasb šāhnāmeh* Painting attributed to Dust Mohammad. Tabriz Culture. Paper Dimensions: 18.2x W. 26.5. Https:// in. pinterest.com/pin/2978ß9628005388
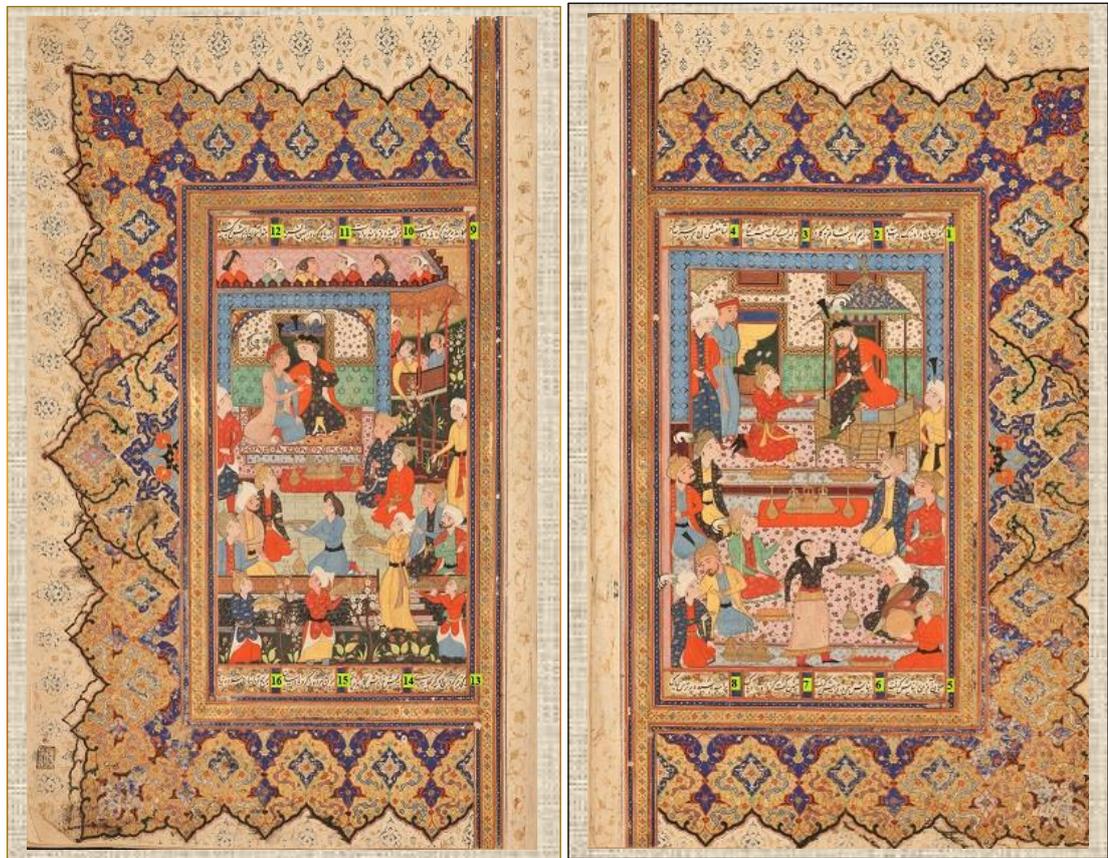
Figure 4. 191.A Perception of Rhythm via Strategy of Framing
A Folio from *šāhnāmeh of širaz* attributed to Mohamad Xavam *širazi* (1560-1580)

The presentation of rhythm through a textual medium demonstrates a continuity in style. The *šāhnāmeh* of the postmodern age also offers a regular transition of textual information through a frame (**figure 4.19**). This may be perceived as a self-reference strategy through the medium, reminding the reader of its own generic structure. However, this strategy can only be seen in the few pages in which some verses in the Persian language appear on surface. The visual spacing of each frame that conveys a visual rhythm is mirrored in the periodic pulse of metric patterns in epic poetry—both suggest a quadric repetition.
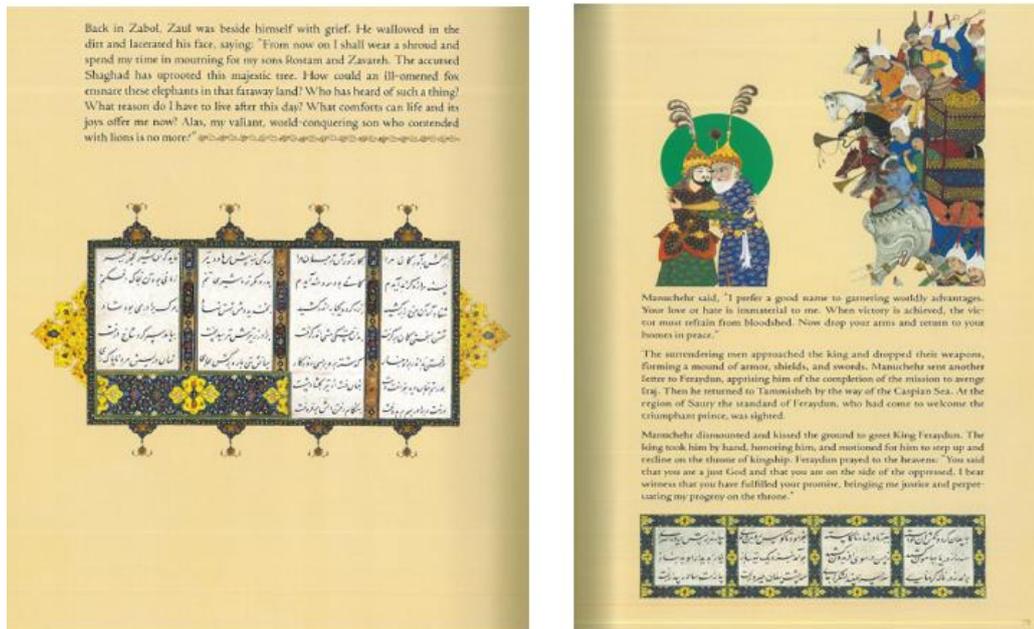
Figure 4. 232. Quadric Repetition of Textual Units in Post Modern *šāhnāmeh*

4.9.2. Non-linear Framing in Old Manuscripts

The function of "panel" as a representation of musical rhythm successfully expands through a complete shift from linearity to non-linearity. It is an advanced stage at which the diagrammatic schematization is employed in a non-linear way to gesture toward rhythmical patterns in music. Bringing the directional shift frequently into the linear process of reading is proposed as a way of creating a sensible reading path and achieving a more dynamic and energetic semiotic configuration for interpretation. As such, the diagrammatic schematization imitates musical rhythm by deconstructing linearity and regularity and altering the relations between positive and negative spaces. The complex schematic form that is overlapped with the issue of reading has the potential to improve a perception of rhythm. As you may notice in **Figure (4.19), (4.20), and (4.21),** visual attributes of this kind are included within the page design. The characteristics of visual properties of elements along with their locations on the page make a valuable account for the perception of spatial rhythm. In all pages with similar features, there is an interruption in the eye movements that appears strongly during the reading. The selected pages do not present a relatively stable semiotic configuration.

The eyes bounce from one frame to the next while simultaneously changing the direction of movements, leading to the perception of dynamism.

A rhythm is accomplished by ordering a continuous stream of perceptual information into groupings and by properly repeating those same elements. The illusion of rhythm on a two-dimensional surface is evident in the grouping frame and its repetition in a certain manner. This organization of similar elements into a grouping pattern was taken form gestalt principles. In fact, the composition of visual information in this form may be reinforcing the notion of rhythm that was previously constructed in the process of perception. In the examples below, the interplay between poetic text and the surrounded framing provide a proper sensory stimulus for cognition. The visual resources deployed in the artefact force the reader to follow a rhythmic path regardless of whether the reader has an intention for how it will be perceived or not. Perhaps the rhythmic features are perceived with greater strength when the meaning of the text contributes in this process. Given the positions of the frames and their relative movements, this makes the readers have a better sense of it when the meaning of the text contributes in the process of interpretation. As is evident in **Figure 4.20**, the textual information has been distributed in the frames according to the meaning of the text. The exact meaning of the oncoming melody and theme is determined by the poetic text; the references of the poetic text to the word *river* (in the second verse) and the word *drum* (forth verse) go hand in hand with the relative alteration in spatial features (frame), offering an effective mechanism for the creation of musical quality. Thus, the reading process alters in the context of storytelling. **Figure 4.21 and 4.22** clearly emphasizes the repetition of textual information in linear and non-linear forms. Indeed, there is no identical rhythmic patterns in the context of the music. However, as Lefebvre believes, the repetition is the most accountable feature in the perception of rhythm. According to him: "[n]o rhythm without repetition in time or in space, without reprises, without returns" (see Lefebvre 7). This form of non-linear arrangement usually occurs in the climax of the story. The composition leads the viewers to access information with references to such spatial movement.
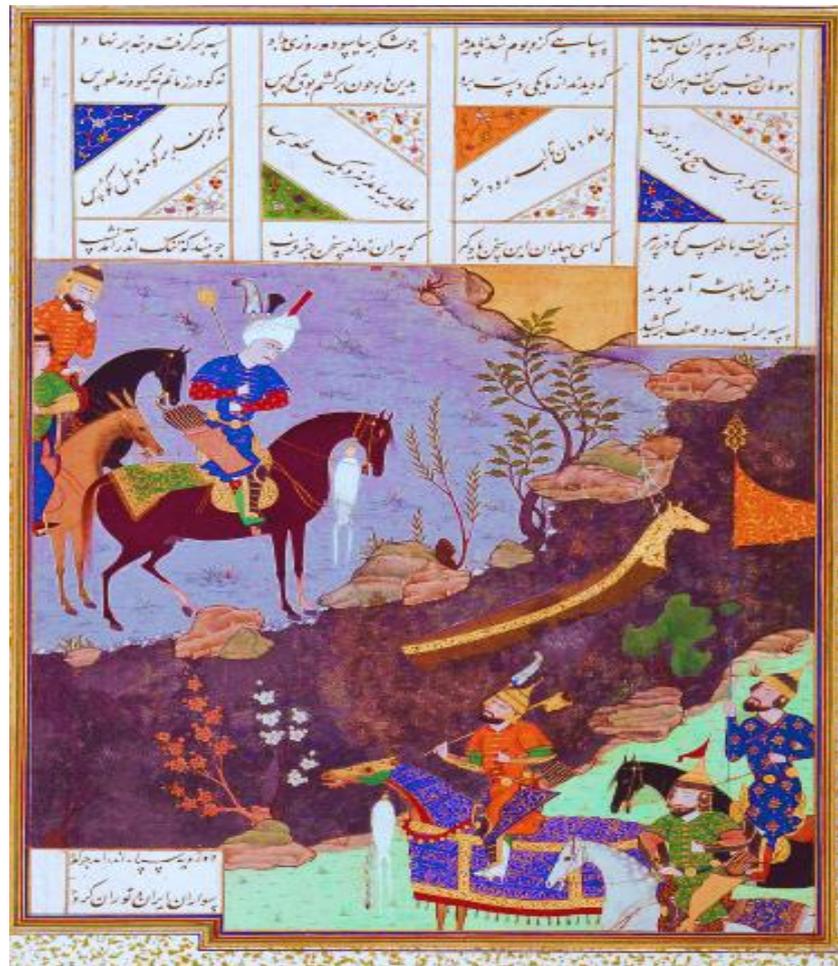
Figure 4. 234.Non-linear Framing.

The Coup against King Ferain Guraz". Folio from *šāhnāmeh Tahmāsbi* (1530-35).

A glance at **Figure 4.23** from litograph book also reveals the oblique and slender movements of panels in the two columns, altering the linear perception of the page. The textual units are not repeated in the same form, rather there is a contrast in their movements (by consideration of the reading direction from right to left). This contrast, along with the repetitive organization, establishes a system of conveyance, or a going and coming process, which gives birth to the time and space modification.

Figure 4. 250. An Imitation of Rhythm via Grouping of Non-linear Frams
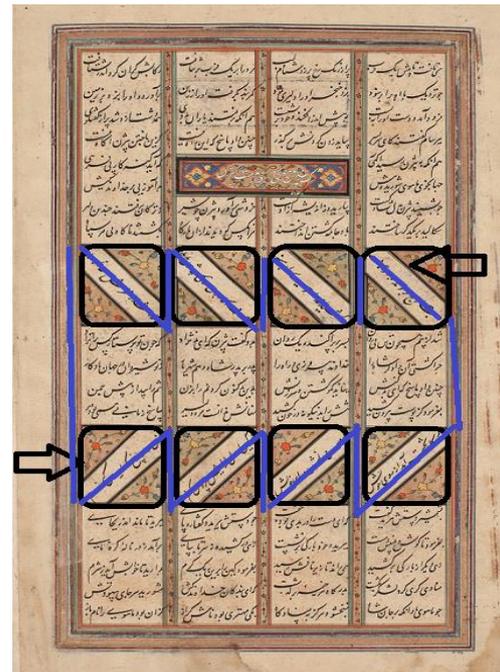
Figure 4. 266.Reading direction of Figure Folio from *šāhnāmeh širāz*
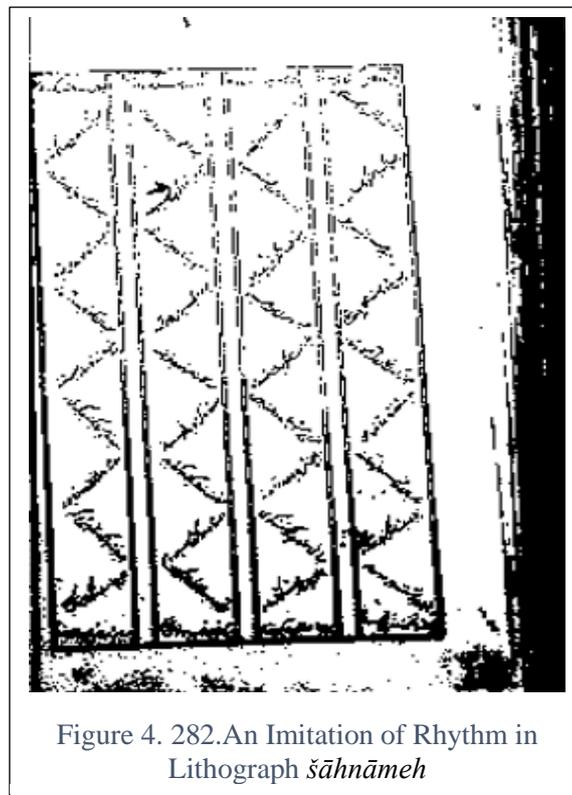
Figure 4. 282.An Imitation of Rhythm in Lithograph *šāhnāmeh*

4.9.3. Rhythm and Repetition of Visual and Graphical Elements
4.9.3.1. In Old Illuminated Manuscripts

We have seen that one common property proposed for textual information is to grope elements in a dynamic way. However, by moving through the graphical space of poetic language on the flat surface of Persian manuscripts, it confronts us with a qualified medium of painting (called *negārgari*[126] in Persian culture). In this part, I will try to reveal how the spatial composition of visual elements on the page may contribute to the presentation of rhythm and to suggest a new dimension of mediality in this process, as well as discover how different compositional arrangements cohere internally and externally within this context, allowing for the realization of such musical meaning. Very surprisingly, also in painting, the construction and perception of rhythm is determined by the same principle. In **Figure 4.25**, drawn from **šāhnāmeh Tahmāsbi**, a quadric structure of textual information has appeared in four panels on the button of the page. On the upper side of this structure, we have a distinct depiction of horses as the participants in the event. The painted human bodies and figures of animals are appeared with a repetition within one column above textual information. The repetition of visual units that takes place in the direction of reading (right to left) is perceived as a rhythmic pattern. It is interesting to compare this kind of representation with another page, **Figure 4.24**. Here also the prediction of rhythmic pattern is possible due to the repetition of the horses (participation in the events) and the gap between them. The starting and the ending points have been identified with reference to the textual frames. The strength of such predictions is made through the gap between the horse and a particular movement of their body figures. They organize a temporal event for the viewer – similar to the relationsships of the intervals between impulses, which are perceived visually. The dimensions of spatial and temporal structure of time can then be directly perceived.

---

[126]   Emergence of a Persian-specific style of painting called "*negārgari*" is the result of striving towards a multimodal construction of a specific "world view". The 'world' of Persian philosophy is an "imaginal world"; one must avoid confusing this world with the world of the imagination that modern readers identify with "fantasy" or the "utopian" (Corbin, 1964: 3-26). Within the philosophy of Islam, this world has its own time, space and movement, and indeed to be either encoded or decoded in the communication process, one should be aware of its features and its specific grammar of communication and representation. In the "imaginal world" space is neither linear, nor non-physical. It is more than a physical presence and more than a fantastic presence, but rather an "intermediate reality" or "intermediate world". To create such a world, the painting employs a specific technique to offer many points of entry into the whole discourse, such as an absence of perspective or the presence of multi-narration lines. There are also no gazes in these images, no single perspective or single coding orientation that clarifies the nature of the relationship between sender and reader.

Analyzing different modality modes helps us to understand how each of the visual components together with poetic meter and the distribution of verses on the page contribute to providing the justification of a rhythm. Many old manuscripts reveal a similar generic structure by which we may ensure specific medial others in the intermedial process. The consideration of such characteristics, and the determination of typographical and graphical attitudes, may help us to understand the page design in terms of its functionality and its gain and loss during the historical process, although we should always remember that the more one knows about music theory, the more one can hear in music (160).

Figure 4. 330. Rhythmic Organization of "Participants of the Events".

Folio from *šāhnāmeh* Tahmāsbi (1530-35).
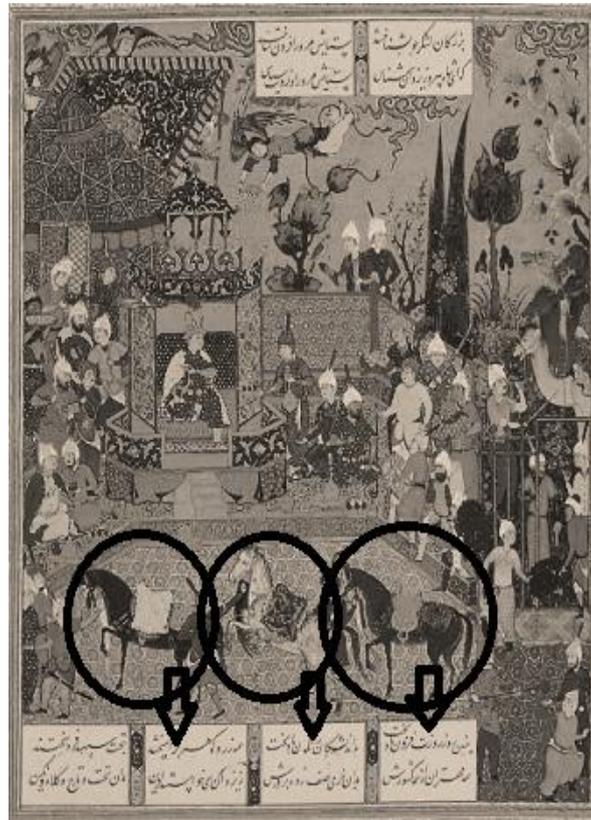
Figure 4. 378.Rhythmic Organization of Visual
and Textual Elements

Tahmāsbi *šāhnāmeh*

4.9.3.2. In Lithograph *šāhnāmeh*

Before the rise of printing, illuminated manuscripts used to be prepared in luxurious forms under the supervision of the king. With the emergence of print technology, they were printed in large volumes and became more widely distributed, although the evolutionary change in the process and transmission of illustrations from handwritten copies to lithographic printing did not change the old style of storytelling. Even after the arrival of print culture in Iran, the Iranian printing industry preferred to copy the old style of handwritten manuscripts rather than use a new style of representation. To maintain the old styles of illumination, lithography was able to keep the particular curves of the old script, which had been used by artists, thanks to its particular qualities. Lithography as a printing method, in fact, did not limit freedom of choice in choosing techniques, patterns and the ways text-images could be combined on the page. This shows that Iranians employed

lithography not only for the reproduction of their books, but to maintain and grow their old stylistic approaches. Understanding the development of specific generic features is relevant for us because significant progress might be made in medial conditions. They may accordingly propose the distinct modality modes that can be considered as new dimensions in the intermedial practices. We should not ignore the fact that intermedial analysis needed to be carried out for Persian readers.

The plurimedial genre in question sometimes makes limited sense to explicit characterizations of the musical features. But, in fact, there is good evidence that substantial detail can be extracted from such artifacts and that this can be employed to identify specific modality modes currently available in the musicalization of genre. The visual properties of textual information can ascertain a general judgment in the generic representation, even though the method of production is different. In fact, various modality modes may or may not respond to the musicalizing process. However, the ability to find similar graphic and physical features is already a good first step.

The general limitations of lithography for exhibition of visual details have restricted visual properties on the pages. But, the fact that some good results in the presentation of spatio-temporal rhythm are being achieved indicates that we can indeed draw on a significant consideration of the intermedial practices, as is easily noticeable from similar methods, which were applied in the context of rhythmic cognition. Like the old illuminated manuscripts, the arrangement of textual/visual information on a page in lithographic illustrations tends to improve the perception of rhythm. Nevertheless, one distinction is an alternation in the distributed textual units in terms of dynamicity and variation. We may clarify some points with reference to a page spread of **Lithograph *šāhnāmeh*, Figure 4.26** and **4. 27,** Here one can find an intermediate relationship between the syntactical and semantic levels that influence aspects of intermediality. Allocating the functional value of textual units in terms of rhythmicity demands a new geometric pattern on the page. The pattern of textual representation follows the traditional forms, but the emphasize is more on the style of writing and less on the panels. On the right page, the ordering of textual units in a repetitive manner creates a dynamic form of reading. The functional hierarchy among textual elements is not clearly observable. While the medium of poetry in the first column and the last one has a normal repetition, for the most part, the position of verses creates a crossing practice. The subsequent process that enters during

reading attempts to provide a series of descending lozenge. On the left page, the composition of visual information (soldiers as participants in events) also contributes to the perception of rhythm. As you can see, the soldiers in the lower sector are sitting in two columns, while they create a face-to-face communication in symmetrical form. The repetition of similar forms on the page have been created variation in the perception of rhythm. In other words, painting through the repetition of lozenges in the background intends to extend the continuity of the repetition of textual information in the right-side crossing. The overall organization of elements in different pages reveals that only a few pages are concerned with such dynamic movements. They are used mostly in the most famous stories, war-related stories, and poetry that musically emphasizes stories.
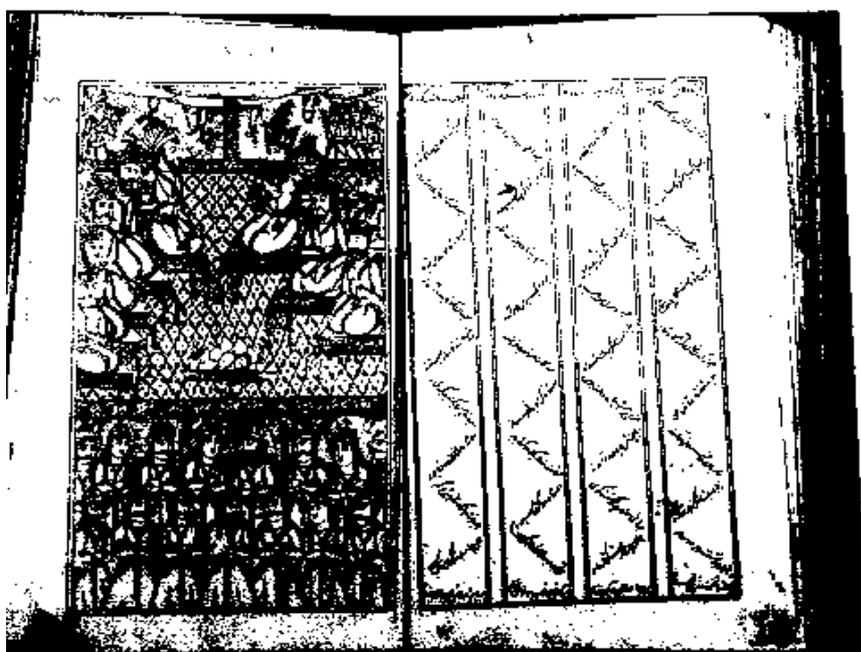
Figure 4. 394. Textual Units and Crossing Repetition in lithograph
šāhnāmeh

The lozenge forms in the background
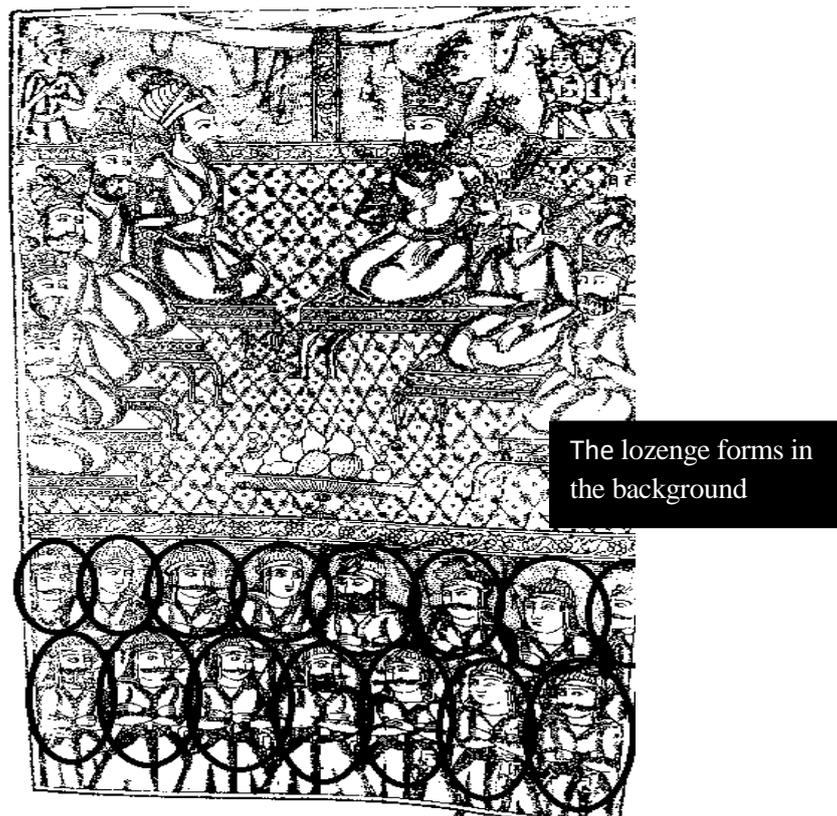
Figure 4. 410. Groping and Similarity of Visual Elements

4.9.3.3. In Postmodern *šāhnāmeh*

while the latest version of *šāhnāmeh* offers a new generic structure, it still holds and overly controls the traditional structure, which is, as Bateman comments on, important for all kinds of genre recognition (209). It took over 6 years for the designer to work on 500 illustrated pages. Many generic differences in fact arise from the translation of poetic text into English, but this is not the case in the complexity of the visual design. The postmodern age *šāhnāmeh*, does not belong only to Persian viewers. The illustrations have been presumably motivated by the old iconic and symbolic features or semiotic modalities. The textual information has been a passive force and, as we see in the selected pages, a problematic issue in the postmodern pages. The most challenging aspect is the tendency to draw on the visual properties of the surface and to compare such properties in the framework of genre for understanding the musiclization process. By a move toward modern illustration and modern design, the interrelationship between text and image for intermediality has also been altered. In the postmodern *šāhnāmeh*, there text and images

are treated separately in the communication process. Spatial relations bring into notice semiotic work beyond framing and geometrical forms. It is important, however, not to lose sight of the separation of, on the one hand, visual and verbal media, and on the other, the cultural and worldwide visual methods in the ways story were designed. This is necessary in order to examine how visual and verbal resources contribute to musical interpretation.

In comparison to the old illustrations, the intermedial strategies in the new book have been proposed for the different stories, not just for the marked stories in the previous books. The development of a visual medium is visible in every single page, but has not yet received attention as a distinct semiotic mode in the process of intermediality. The analysis of various pages demonstrates the complex diversity of visual resources that have been borrowed either from Persian manuscripts or from Indian visual culture. Despite the marginalized role of tradition, a creative method in the intermediality colors the post-modern age *šāhnāmeh*. The oral pattern of transmitting sound and musical features has been visibly reflected in the design of pages. The visual contents—unlike traditional manuscripts—do not point to their function as objects of luxury. Although, one can find a tendency to decorate stories created by decorative musical elements. But, as we see in the pages, the manuscripts extend meaningful visual objects as much as the musical objects. The more than explicit visual information and intermedial references contain implicit references to the rhythm through the repetition of form and color. They often include elements that can be associated with "femininity" in the musicalization process.

The best example is found in the story of *Zahak* (**Figure 4.28**). A rich border at the top of the page shows three pillars of human body figures—a mixture of men and women figures—who are just the observers of an event (they are not part of the story). Derived from pervious iconic representation, the image has spatial significance for the perception of rhythm. The iconic representation of rhythm has been adopted and adapted for the page in order to reproduce a new situation of use and refashion the old musicalization process.
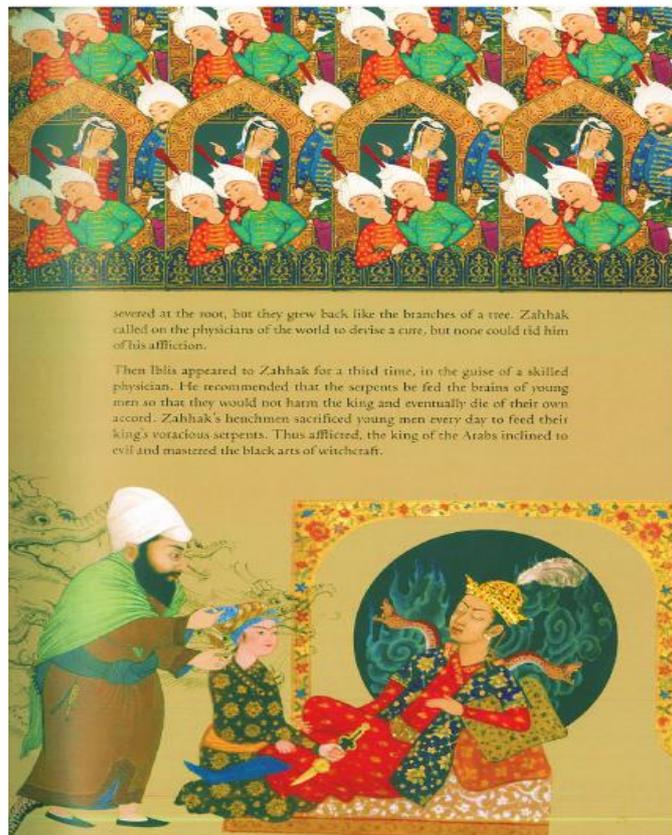
Figure 4. 426. A Perception of Rhythm via Groping
Figures and Color Contrast

The design has employed old visual properties, such as similar participants—figurative styles of the representation of the human figure—in a new composition. The rhythm, as is evident, produces through exact repetition of form and color, while the contrast between the two colors of green/red and blue/orange underline the role of cognition in the distinction and integration of similar forms and colors. As Bhaogol claims, "[t]he changing color of repeated shapes correspond to the shifting timbres of repeated musical ideas" (Kaur Bhogal 197). The contrasting body movements appearing in the second pillar establishes a cyclic movement of time and the non-ending process. The use of a spatial repetition might encourage us to evoke a temporal succession through the movement of the figure and the gap between them. As Kaur Bhogal mentions in his article "Visual Metaphors in Music Analysis and Criticism", in this case, "the temporal succession of a group of pitches can map into the continuity of a figure conceived in two-dimensional space. In this instance, the interaction between cognitive and perceptual efforts to register each pitch, and make sense of how they relate to one another, find a correlate in the act of

observation; the ear follows each notes almost as the eye traces the linear extend of the figure" (192). The numbers of bodies reunites quantitative aspects, while their spatial concerns give birth to unity and regulated pattern. The same can apply to **Figure 4.29,** in which there is a line of figures depicted at the bottom of the page. A symmetrical line of figures is the point of contrast between two lines and the continuity of the perception of the same movement through the repetition of two figures on the left page creates a dialectical relationship between rhythm in music and painting. Therefore, the specific visual motives have been precisely arranged to evoke a rhythmic character in the mind of the viewer.

Figure 4. 442.A Perception of Rhythm via similarity and Grouping

4.10. The Visual Manifestation of Tahrir

 As we mentioned earlier in this chapter, one of the major characteristics of traditional Persian music is employing ornamentation in the sonic patterns. The notion of *Tahir* can be better understood in connection with the musical term *trill*, which is defined as repeating, or staying on, a particular note. *Tahrir* in music is created in different ways: through the act of singing or playing a note continuously, or by singing or playing a note while moving to a note above or below. However, the actual idea of *tahrir* is given

to the act of filling empty space for the creation of continuity in the melody. To express it simply, *tahrir* creates a melody while words create silence.

The analysis of different pages from the old and new manuscripts *šāhnāmeh* shows that the employment of texture has a relationship to the notion of *tahrir* in music. The old generic structure evokes the intricacy of *tahrir*, or the sound ornamentation, through a variation in visual texture. While at first glance they might appear as secondary elements in the meaning-making process, the historical and cultural application considered the texture in Persian culture as a separate mode of visual design. They are considered as meaningful structural elements. It seems texture was used in imaginative ways to transcribe visual properties into sounds. The classic representation does not really employ a visible character of *tahrir*. The nearest pattern to sound ornamentation is properly the depiction of the cyclic movement of sound via geometric forms or specific visual textures. The intermedial relationship between design of the gutters and the sounds is not clearly identifiable. However, one can consider a metaphorical relationship between decorated gutters and sound decoration.

As mentioned earlier, while a decorated or arabesque sound can appear in different positions, they appeared frequently in the end of hemistich, or the verse. The variation of forms in the texture and their position in-between hemistich or in the created gutters between the framing points to their meaningful application. The association of *tahrir* to visual textures or to *arabesque* is of course culturally determined. In fact, Persians have always created resemblance between ornamentation in visual and aural media. Many of the classical illustrations have attached distinctive as well as typical features to visual textures, showing a combination of individuality and familiarity in the process of the creation of meaning.

Thus, one cannot ignore that in the *šāhnāmeh* illustrations, an unusual employment of visual textures between textual frames may refer to the specific layer of meanings. The decorations of particular gutters through abstract forms, while carrying specific attributes, lead us to consider them as a new semiotic modality in šāhnāmeh illustration. In observing and contemplating them, we understand the potential link between visual and sound decorations. Their location on the page is significant for proceeding the treatment of visually decorative forms, because it is primarily emphasizing the place or space that *tahrir* builds on in the Persian vocal style. While

the position usually remains fixed, variation in its appearance is altered throughout the story. The gutters between textual units (frames)—linear or dynamic—appear in three general forms:

Table 4. 4. Type of Texture in Illustrated books

Linear geometric Frame	Dynamic-geometrical frame
Bordered–colored Gutter	Bordered-colors Gutter
Bordered-Ornamented gutter	Bordered-Ornamented gutter
Background division gutter	Colored division gutter

In selected pages from old manuscripts and in the latest version (see Figure **4.30**, **4.31** and **4.32**) there is a depiction of sounds with the help of visual elements. The classical depiction commonly shows the specific designs in between gutters when there are textual units on the page. The musical role of texture as a culturally important sensory modality is made clear through the rhythmic movement, the variation of form and color, and the interplay with other visual elements on the page. Appearing visual textures release an expressive energy in the silent pause between two hemistiches. Perhaps the clue lies in the idea of a continuation of melody, and in the recognition of the role of ornamentation as a major aspect or dimension of the same larger reality. This has filled gap through visual clues and forced the reviewer to response actively, attaching an imaginative incorporation. These visual clues intend on keeping alive something of the high-spiritedness of the traditional Persian music in question. An additional interesting variant on sound ornamentation is offered by a variety of ornamental forms. If considering the lithograph *šāhnāmeh*, it seems this way of musicalization could not be adapted. In the lithographic book, all the gutters were filled with simple white color devoid of any specification, whether it be in terms of the story or the verse.
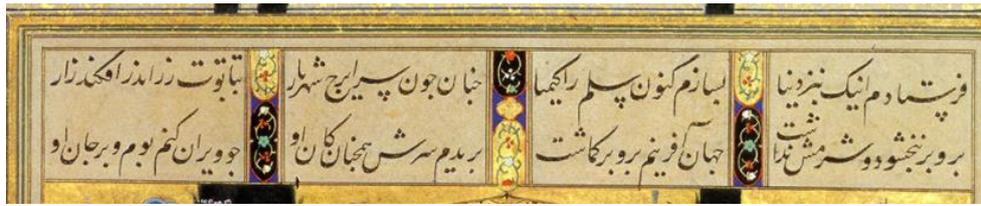
Figure 4. 514.Bordered-Ornamented gutters.

Šāhnāmeh of Šāh-Tahmāsb

Figure 4. 562. Dynamic-geometrical Frame: Bordered-Ornamented gutter
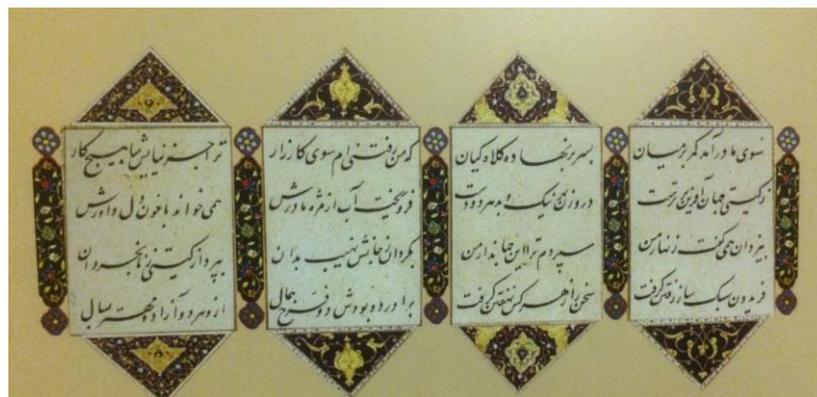

Figure 4. 563.Ornamentation Gutters in Post Modern *šāhnāmeh*.p.42

Work Cited

Time and Space in Words and Music : Proceedings of the 1st Conference of the Word and Music Association Forum, Dortmund, November 4-6, 2010. Peterlang AG, 2012. Mario Dunkel et al.

"What Can Music Do to a Poem? New Intermedial Perspectives of Literary Studies [2008]." *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, edited by Werner Wolf, vol. 14, Brill, 2015, pp. 405-412. *Word and Music Studies,* http://dx.doi.org/10.1163/9789004302747_033.

Adorno, Theodor W. and Richard Leppert. *Essays on Music.* Univ of California Press, 2002.

Ardalan, Afshin. "Persian Music Meets West." *Music* vol. Bachlor Lahit University of Applied Science, 2010.

Arizpe, Evelyn, Maureen Farrell, and Julie McAdam, eds. *Picturebooks: Beyond the Borders of Art, Narrative and Culture.* Routledge, 2014.

Arnheim, Rudolf. *Entropy and Art: An Essay on Disorder and Order.* Univ of California Press, 1974.

Asadian, Homayun. "Persian Music System as a Collection of Modes [دستگاه به عنوان مجموعه‌ای چند مدی]." *Mahur (Tehran)*, vol. 22, 2005

Azadehfar, Mohammad Reza. "Conceptualization of Melody Types of Iranian Radīf: A Multidisciplinary Study in Assisting Youth to Employ Traditional Dastgāh-Ha in Improvisation." *Conference on Music in the world of Islam*, vol. 8, 2007.

---. "Melodic Shapes in Gūsheh-Ha of Iranian Radīf." *Journal Dramatic Arts and Music*, vol. 6, no. 12, Summer and Autumn 2016, pp. 99-115.

---. *Rhythmic Structure in Iranian Music.* second edition, ehran University of Arts, 2011.

Azadehfar, Mohammad Reza. "Impact of TaḥRir in Rhythmic Structure of Iranian Classical Music." *Yearly Conferance of Iranain Scholars* 2004.

Bennett, Tamryn. "Comics Poetry: Beyond 'Sequential Art'." *Image [&] Narrative*, vol. 15, no. 2, 2014, pp. 106-123.

Bruce, Vicki et al. *Visual Perception: Physiology, Psychology, & Ecology.* 3rd edition, Psychology Press, 2003. *Visual Perception: Physiology, Psychology, & Ecology.*

Candy, Soheila R. *The Shahnama of Shah Tahmasp: The Persian Book of Kings.* Metropolitan Museum of Art, 2014.

Cureton, Richard "A Reading in Temporal Poetics: Emily Dickinson's "I Taste a Liquor Never Brewed." *Style in language*, vol. 49, no. 3, 2015, pp. 345-362.

---. "Rhythm, Temporality, and "Inner Form." *Style in language*, vol. 49, no. 1, 2015, pp. 78-109.

Cureton, Richard D. "Temporal Poetics: Rhythmic Process as Truth." *The Antioch Review*, vol. 62, no. 1, 2004, pp. 113-121.

Dehlavi, Hosein. پیوند شعر و موسیقی آوازی *[the Relation between Poetry and Vocal Music].* موسسه فرهنگی هنری ماهور [Cultural and Artisti Institute of Mahur], 2015.

Ferdowsi. "Zal Goes to Visit Rudabeh[بخش رفتن زال به نزد رودابه]. First Part." *Shāhnāmeh*, edited by Parviz Atabaki, vol. 5, Elmi Farhangi 2000[1391], pp. 633-657 verses

Ferdowsi, Abu ʾl-Qāsim. *Shahnameh: The Epic of the Persian Kings (Illustrator: Hamid Rahmanian).* translated by Ahmad Sadri, The Quantuck Lane Press 2017.

Groensteen, Thierry. *Comics and Narration.* vol. Reprint edition, University Press of Mississipp, 2013.

Hannon, Erin E. et al. "Familiarity Overrides Complexity in Rhythm Perception: A Cross-Cultural Comparison of American and Turkish Listeners." *Journal of Experimental Psychology: Human Perception and Performance*, vol. 383, no. 3, (2012, February 20), pp. 543-548, doi:doi: 10.1037/a002722.

Hertz, David M. "The Composer's Musico-Literary Experience: Reflections on Song Writing." *Musico-Poetics in Perspective: Calvin S. Brown in Memoriam (Word and Music Studies, Band 2)*, edited by Jean-Louis Cupers Ulrich Weisstein, Brill | Rodopi 2000, pp. 17-27.

Hillenbrand, Robert, editor. *Shahnama: The Visual Language of the Persian Book of Kings*. Ashgate Publishing Limited 2004.

Horodowich, Elizabeth. "Introduction: Speech and Oral Culture in Early Modern Europe and Beyond."*: Journal of Early Modern History*, vol. 16, no. 4-5, 2012, pp. 301-313.

Kress, Gunther R. and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design.* Routledge, 1996.

Krumhansl, Carol L. and Fred Lerdahl. "Musical Tension." *Art and the Senses*, edited by Francesca Bacci and David Melcher, Oxford University Press 2011, pp. 297-325.

Lefebvre, Henri. *Rhythmanalysis: Space, Time, and Everyday Life. London.* Continuum, 2004.

Lerdahl, Fred and Ray Jackendoff. *A Generative Theory of Tonal Music.* MIT press, 1985.

Marzolph, Ulrich. "The Shahnameh in Print: The Lithographed Editions of the Persian National Epic." *Journal of M.E. Literatures*, vol. 13, no. 2, 2002, pp. 177-198.

Mayzus, Ilya. "Issues of Rhythm, Symmetry, and Style in Alfred Schnittke's Concerto for Piano and Strings." *Music* vol. Ph.D., Philosophy, The City University of New York (CUNY), 2016, p. 133. general editor, Jeff Nichols, CUNY, http://academicworks.cuny.edu/gc_etds/698http://academicworks.cuny.edu/gc_etds/698, 06/05/2017.

McCloud, Scott *Understanding Comics: The Invisible Art.* Mass, 1993.

Muscato, Christopher. "Accents in Music: Definition & Types." *AP Music Theory: Exam Prep / Humanities Courses*. http://study.com/academy/lesson/accents-in-music-definition-types.html. Accessed 30.10 2017.

Nikolajeva, Maria and Carole Scott. *How Picturebooks Work.* Routledge, 2006.

Nooshin, Laudan. *Iranian Classical Music: The Discourses and Practice of Creativity.* Ashgate Publishing, Ltd, 2015.

Ong, Walter J. *Orality and Literacy:The Technologizing of the World* Routledge, 1982 (2002).

Petermann, Emily. *The Musical Novel: Imitation of Musical Structure, Performance, and Reception in Contemporary Fiction.* New-Edition edition, Camden House, Boydell & Brewer, 2014. *European Studies in North American Literature and Culture*, vol. 03.

Pressing, Jeff. "Relations between Musical and Scientific Properties of Time." *Contemporary Music Review*, vol. 7, no. 2:Time in Contemporary Musical Thought, 193, pp. 105-122.

Strate, Lance "Time-Binding in Oral Cultures." *ETC: A Review of General Semantics*, vol. 43, no. 3, 1986, pp. 234-246.

Su, Yi-Huang and Elvira Salazar-López. "Visual Timing of Structured Dance Movements Resembles Auditory Rhythm Perception." *Neural plasticity*, 2016, pp. 1-17, http://dx.doi.org/10.1155/2016/1678390.

Suppes, Patrick. "Rhythm and Meaning in Poetry." *Midwest Studies in Philosophy*, vol. 33, no. 1, 2009, pp. 159-166.

Tagg, Philip. ""Understanding Musical Time Sense." *Tvarspel-Festskrift for Jan Ling (50 år)*, 1984, pp. 1-25, https://www.tagg.org/articles/xpdfs/timesens.pdf.

Talai, Dariush. "The Musical Language: Elements of Persian Musical Language: Modes, Rhythm and Syntax." *Kimiyaye Honar*, vol. Third Year, no. 3, 2015, pp. 5-35.

Tuck, Michael. "Gestalt Principles Applied in Design." *On: Six Revisions* vol. 2017, 2010. http://sixrevisionshttp://sixrevisions.

Ullal, Sangeeta. " The Effect of Cultural Experient and Subdivision on Tapping to Slow Tempi." *Psychology*, vol. Master Art University of Nevada, 2010.

Varnum, Robin and Christina T. Gibbons, editors. *The Language of Comics: Word and Image.* Univ. Press of Mississippi, 2007.

Wagner, Petra Susanne. "The Rhythm of Language and Speech: Constraining Factors, Models, Metrics and Applications

" vol. Habilitationsschrift, Humanities Rheinischen Friedrich-Wilhelms-Universitat Bonn, 2008.

Wolf, Werner. "The Iconic Quality of Poetic Rhythm [1986]." *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, edited by Walter Bernhart, vol. 14, Brill, 2015, pp. 19-33. *Word and Music Studies,* http://dx.doi.org/10.1163/9789004302747_003.

Chapter 5

Imitation of Heroic Music: A Generic Similarity

5.1. Introduction

The intermedial relationships between poetry/painting and music can also be identified based on a generic similarity. This phenomenon is perceivable when a medium refers to a typical genre, or presents a generic style of the target medium. It indicates that there should be some referential signals in poetry or painting that suggest a genre of music or an expressive attribute (style), which may belong to a shared tradition or artistic nature of music. In this fashion, intermediality indicates a 'systemic reference'[127] because both media systems (target and source) perform a similar function, whereas qualitatively they represent a different generic or systemic conception.

Epic poetry has long been associated with the idea of heroic music. In fact, it seems that there is no explanation for heroic music in Persian literature without references to epic poetry. However, I claim that certain tendencies in the perception of heroic music should be related to external factors rather than to inherent qualities exhibited by a medium. By way of explanation, the idea that epic poetry imitates heroic music should be linked not only to operational features of the epic poetry, but to the historical evolution and an extra-compositional relationship with a media cycle in Persian culture. Here the history of the intermedial transformation process hints at the main focus on genericity. Thus, I agree with Englund, that intermediality is suggested by a "system of ideas" in epic poetry. For this reason, the analysis of intermediality and

---

[127] Intracompositional intermediality manifests in two forms, namely 'pluramediality' and 'intermedial reference'. Intermedial reference gives the impression of homogeneity of signifiers or semiotic system. Wolf claims that intermedial reference exclusively operates based on the signifiers of the dominant [source] referring target medium. The target medium can point to its source medium in this way either through a system reference or by individual reference ("Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1,* http://dx.doi.org/10.1515/9783110311075-026)

its evolution involves not only the analysis of a network of interconnected layers within the painting/poetry, but also their juxtaposition "with other similar elements in other work-systems, even in other orders" (Torop 329). Taking into consideration the previous points, in the attachment of a heroic music, we should merge both conventionally appointed and medium-specified features, yet we should consider them apart. Intermediality in this context, consequently, is a result of "the configuration of a number of distinguishable modalities" (Englund 70), which is perceived via (1) metric formula and its "fluctuation" character, (2) cultural conventions on narrative music and music of *zurxāneh,* and (3) a defined spectrum for heroic emotion in the codification system of Persian music. Studies of this type might eventually help to disclose the changes that occur in the basic features of media, and in the "hierarchy of perception channels in culture" (Torop 327).

5.2. *Šāhnāmeh* and Scopes of 'Intermediality' to Heroic Music

The narration of life of cultural heroes, their victories, defeats, struggles and their campaigns can easily lead one to define epic poetry as a heroic text, such as *Iliad* and *Odyssey* (ancient Greek Epic poetry), *Mahabharata* (Indian epic narrative) and *Nieblungen* (German epic poem). However, the musical expression in epic poetry is not merely linked to aesthetic metaphors or the description of heroic emotion by means of language (Zangwill 1-11). In fact, it meta-reflectively thematizes its own media status while making a metaphorical claim of belonging to a specific genre in the music (Englund 76). What holds different parts of epic poetry together in terms of heroic music is a triangular relationship that is created via (1) the aesthetic of meter; (2) the extra-compositional relationships within a media cycle; and (3) a defined spectrum for heroic emotion in the codification system of Persian music. In other words, there is no a prime mover for the heroic character in *šāhnāmeh*, rather it is intra-compositionally perceived via an interplay between:

1. **Aesthetic of meter:** It is related to the perception of a "fluctuation" character in metric rhythm. It partly stems from the aesthetic features of the meter, its rhythmic characteristic and its rising form.

2. **Code of heroic emotions in Persian music**: This deals with the codification of a Persian music system. Modal movements in Persian music have defined a

spectrum for heroic emotion: One of the reasons can be found in the system *čāhārgāh*, considered to have a specific heroic character.

1. **Extra-compositional relationships within a media cycle**: This can be partly originated in the history of intermedial practices in Persian culture. In this context, the intermediality is determined by the "system of ideas", which have been subject to cultural and historical revolts and changes (Englund 70).
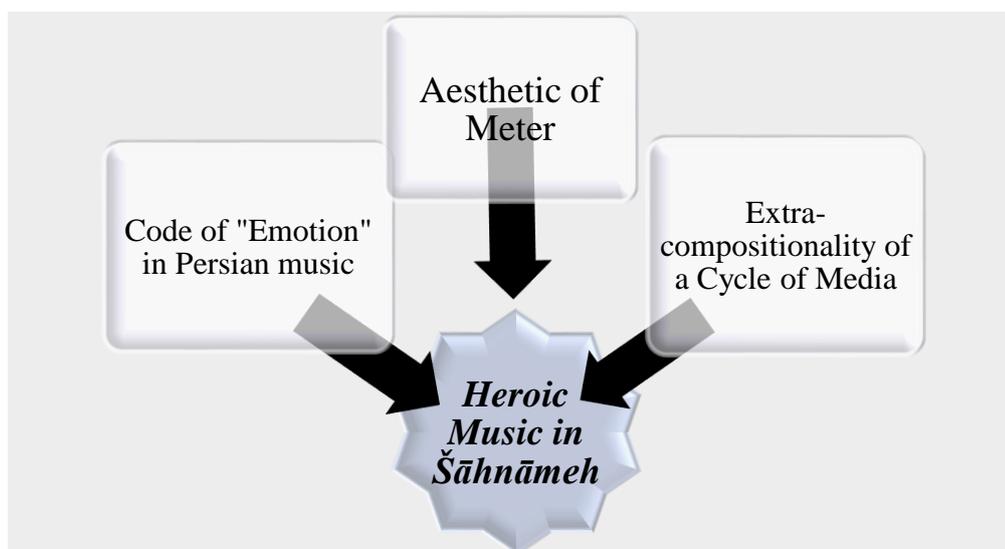
Figure 5. 1. The Triangular Connection in the Intermedial Perception

5.2.1. "Fluctuation" Character of Metric Rhythm

It is undeniable that music is a very abstract and self-referential medium in which denotation of a 'genre' cannot be explicitly defined. This is why questions of 'genericity' from music have been always linked to an "aesthetic metaphor". From a musicology perspective, 'genericity' in music is connected to certain attributes in music that may be identified via *arousal* (the energy level); *valence* (the spectrum from sad to happy emotions); and *depth* (the amount of sophistication and emotional depth)[128]. Accordingly, understanding a generic identity in music could certainly follow any of the many directions, including psychological, philosophical, neurological and musicological. The idea that a relationship exists between music and specific emotional experiences is a very old one and not confined to the West. In this domain, currently,

---

[128]   See for example Greenberg, David M. "Musical Genres Are out of Date – but This New System Explains Why You Might Like Both Jazz and Hip Hop." The Concerstaion Accessed 4.12 2017, ibid.

the specific attention has given to the field of neuroscience, which is concerned with the neural processing of musical emotions, such as happiness and sadness.[129]

The depth and spectrum of emotion and the level of energy are usually understood by reference to elements of music such as pitch, instrumentation, rhythm patterns, key, texture,melody, harmonic, modulation, phrases and counterpoints (Robinson "The Expression"). In this context, a border exists between universal and cultural cues in music. Universal cues are highly concerned with the property of sound, such as tempo, speed of pulse, dynamic level, intensity and loudness, which carry perceptual cues. The psychological and philosophical views on music reveal that angry music, for example, increases arousal and attention in music because it is composed in a faster and more dissonant rhythm than "peaceful" music. Similarly, an inductive effect is created via the soothing power of lullabies and the stimulating, synchronized force of military marching rhythms (Robinson "The Expression"; Sievers et al.).

While the question of heroic music from Persian culture does not provide a systematic understanding of generic representation in music, the specific intention of Persian music is to be present in vocal form, rather than instrumental. This has created a safe means of examining heroic characters in music. Strictly speaking, in Persian music, heroic music can be examined in a more conceivable manner because melodies are more poem-centric than instrumental (Azadehfar et al.).

The investigations into and reflections concerning the intermedial aspects of epic poetry demonstrate that the imitation of heroic music is not simply restricted to content analogies and the wordings of the poem. There are, in fact, additional reasons for interpreting epic poetry under the heading of heroic music. One of them lies in the general tendency for poetic meter to be self-referential. One of the main issues is partly expanding from the engagement of poem with a poetic meter called "*Bahre Moteqāreb"*. Arguably, there is no tradition of systematic reflection of heroic music on poetry, at least not in the west. But we should not forget the fact that poetic meter in Persian culture has continuously served as a touchstone of musicalization. The different musical

---

[129]   For more information please see Brattico, Elvira et al. "A Functional Mri Study of Happy and Sad Emotions in Music with and without Lyrics." *Frontiers in psychology*, vol. 2011, 2011, pp. 1-16, Brattico, Elvira et al. "Toward a Neural Chronometry for the Aesthetic Experience of Music." *Frontiers in psychology*, vol. 4, 2013.
2.   Greenberg, David M. "Musical Genres Are out of Date – but This New System Explains Why You Might Like Both Jazz and Hip Hop." The Concerstaion Accessed 4.12 2017.

characteristics might be reflected via the organization and the selection of poetic meter. The major concern of epic poetry has been the modeling of a specific aestheticized method for the poetic meter to transform heroic music into the corresponding text. This is particularly noticeable in the alteration of sound property and the arousal (the energy level) in the meter. Such aesthetic metaphors, which could serve as the generic representations of heroic music, can be observed through a "raising" nature and a "surging" movement of rhythm along with a self-referential reflection of the same pattern. As Jenefer Robinson acknowledges in the article "Music and Emotions," "any creation and association of idea to music, next to musical elements needs a particular 'movement'" (189). He claimed that the emotion and level of energy that we may assign to music comes from particular movements, such as 'stabbing' or 'surging' (Robinson "The Expression" 182). The findings of the empirical investigations also reveal that emotions, such as anger, happiness, peacefulness, sadness and fear have similar dynamic contours in both music and movement (Sievers et al. 70-75). From Robinson's point of view, the effect of Ludwig van Beethoven's music on listeners is not merely related to elements of music, but to the particular 'stabbing' or 'surging' movements (182-183). It is based on such attributes as the formal models and compositional styles in Beethoven's masterpieces (during middle period), which are sometimes characterized as heroic. The same view can be found in the baroque doctrine of *Affektenlehre* (1600-1750), which suggests that "the different movements of a suite or concerto [could] represent distinct emotional states such as gaiety or melancholy" (Robinson " Music and Emotions" 482).

Metric aspects in epic poetry suggest a *fluctuation character* via altering the level of energy and arousal. In addition, the poem, by employing specific strategies, escapes the conservative responses to the expected stress and rhythmic grouping patterns. As mentioned before, for the poetic expression each culture—based on the features and characteristics of the language—employs its own specific metric forms, such as *prosodiquie* or quantitative. As explained in Chapter four, the metric forms of Persian, Indian and Arabic languages are quantitatively structured. Poets carefully chose the main features from the *Bahre Moteqāreb* formula and no other Arabic and Persian metric forms for arranging the *šāhnāmeh* (there are 10 basic and 26 subsidiary metric forms in Persian culture). There are major points that we should consider while

explaining the esthetic aspects of metric organization in the intermedial process. **Firstly**, for the *Bahre Moteqāreb* formula, and consequently for epic poetry, there could be some alteration in the first three feet of a verse, such as *fau'l* (U-U) or *fa o'l*(U-). **Next**, *Bahre Moteqāreb* is a metric formula must be used in a perfect form, as in the repetition of the same foot across a stanza. The basic metric formula in epic poetry was arranged in an imperfect form rather than in the perfect form in which the foot of *fau'lon* is repeated four times in a stanza, *fau'lon- fau'lon- fau'lon- fau'lon*. **Finally**, in preference to the construction of a fourth foot in the verses of the *fau'l* (U-) form, the poem could have other possibilities in the arrangements of the last foot, such as; 1) *fa'lon*; (2) *fau'lo*; (3) *fa'*; (4) *fa'le*; (5) *fa'lo*. This means that a range of possibility for arrangement of the last foot in epic poetry existed (see **Table 5-2**). But the form *fau'lon- fau'lon- fau'lon- fau'l* was employed in a balanced and symmetrical way such that the structure of the poem has remained consistent from the beginning to the end.

Table 5. 1.Building Block of Epic Poetry

Traditional form	Metric form	Feet
O|OO	U - -	fau**'**lon

Table 5. 2. last Foot Possible Formulation

Forms of feet	Fa'	Fa'le	Fau'lo	Fa'lon	Fau'l	Fa'lo
Name	**Abtar**	**Mahzuf**	**Asram**	**Aslam**	**Maqsur**	**Maqbuz**

Here the question rises, why, among such possible alternations, was *šāhnāmeh* arranged in the simplest form? It would be hard to imagine the heroic character of *šāhnāmeh* without consideration of this unique meter. The use of the metric formula of *fau'lon* in the existing form (three feet *fau'lon* and one feet *fau'l* in each verse*),* in comparison to other Persian and Arabic meters, creates a more intensive and concise meter. Strictly speaking, in a time axis, the meter takes the least time and is the most powerful when read. The representational function of a heroic character has improved rhythmically by the arrangement of verses into incomplete forms of *fa'lon* in which the last syllable of the verse has a sudden cut and disappears in a meaningful silence. This form of representation in a very long poem with the stress and silent patterns in the last syllables moving and changing has given a specific *fluctuation* character to the sounds and a

unique acceleration in receiving rhythmic patterns in the poem. The medium of the poetry employs its own specific meter by which another layer of meanings opens. **Figure 5.2. provides** a spectrogram taken by sonograph[130], which shows the *fluctuation character* in the metric formula of epic poetry. The influence of this unique meter on heroic feeling is conspicuous by its specified rhythmical pattern during the reading. The distribution and specification of sounds and the continuity in the repetition and arrangement of long and short syllables could successfully establish a fast and harried rhythm of reading while improving the perception of a heroic character. The suggestion of this unique form of reading deliberates a medium specific practice to improve the perception of heroic music in the context of storytelling.
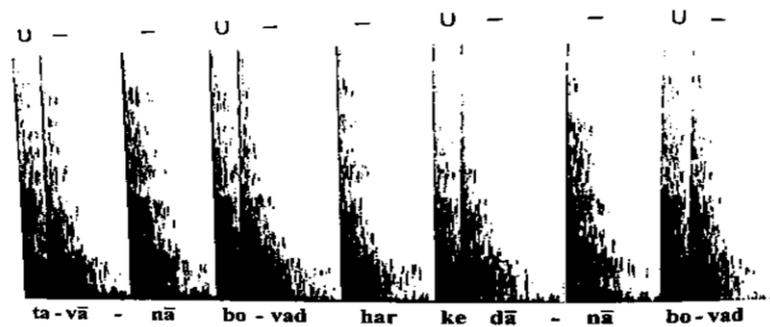
Figure 5. 2. A Spectrogram of ***Šāhnāmeh***

Selected Hemistich: the "Tavānā Bovad Harke Dānā Bovad" (Dehlavi 79)

To understand the underlying mechanism of this meter, I altered the position of long and short syllables in the example below. As you can observe from **Table 5-4**, the beginning of the feet with a long syllable would tend to present a slow moving, relaxing rhythm that would inevitably be accompanied by long silences in the reading process. It is therefore, in the *šāhnāmeh,* the slow movement of the short syllables in the beginning of the feet (**Table 5-3**) that tend to quickly touch the climax by the accelerating character of the long syllables. This arrangement continues from one

---

[130] A "sonagraph" is an instrument that represents sounds on a chart called a sonogram. This spectrogram was created after the hiding on a wood with regard to the metric rhythm of the selected hemistich from *šāhnāmeh*; توانا بودهرکه دانا بود

metrical unit to the next, from one line to the next, from one stanza to the next, and so on. As far as Persian versification is concerned, as **Figure 5.3** shows, the fluctuation and harried character of the rhythm would be hard to hear and justify if the first foot started with a long syllable and then changed to a short one.

Table 5. 3.The Beginning of the Verse by a Short Syllable

The First Hemistich	Makon bivafāie, makon delrobāie[131]
Meter	**Fau'lon, Fau'lon, Fau'lon, Fau'lon**
The Second Hemistich	Makon, ta key axar, azābam namāie[132]
Meter	**Fau'lon, Fau'lon, Fau'lon, Fau'lon**

Table 5. 4.The Beginning of the Verse by a Long Syllable

| The First Hemistich	Bivafāie makon, delrobāie makon[133]
Meter	**Fāelon, Fāelon, Fāelon, fāelon**
The Second Hemistich	Tā key axar azābam nāmaie, makon[134]
Meter	**Fāelon, Fāelon, Fāelon, fāelon**
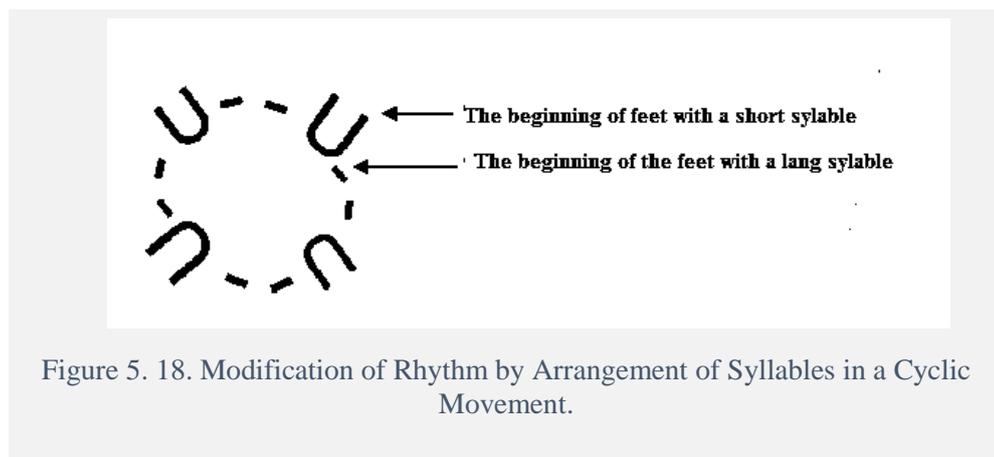
Figure 5. 18. Modification of Rhythm by Arrangement of Syllables in a Cyclic Movement.

---

131 مكن بي وفايي ، مكن دلرباي
132 مكن ، تاكي آخر ، عذابم نمايي
133 بي وفايي مكن ، دلربايي مكن
134 تاكي آخر عذابم نمايي ، مكن

Perhaps, the wording and phonological patterns have had a great influence on this process. For example, putting together the words that are phonetically related has created a fast, mobile rhythm in the following verses.

Hami zur kard, in bar ān, ān bar in//najonbid yeki šir bar pošte zin

…..

Kaf andar dahānšān šode xāko xun //hame gabro bar gostovān čāk čāk

The phonetic relationships between *"in bar ān", "ān bar in"* in the first verse and "*xun xāk*" and "*čāk čāk*" in the second verse have the potential to increase the speed of the rhythm. Moreover, from a linguistic point of view, some letters in the Persian language, such as x, č, š, are pronounced with more harshness and speed. As you can notice in the above verses, the employment of these letters also alters the perception of rhythmic patterns, which points to relations between the property of sounds and arousal.

5.2.2. Extra-compositional Relations Between a Cycle of Media

It is more than one hundred years since *šāhnāmeh* was recognized as having the distinctive aspects of storytelling. Story and plot as "event" and "discourse" structure have been deployed differently, giving rise to different emotional effects.[135] Today we know that historical elaborations and procedures on ritual and regional dances, music of *zurxāne*; and musical narratives have also determined a heroic music for this story world. From the same point of view, the intermedial practices are identified and determined by continuity in the system of ideas, which has been subject to cultural and historical revolts and changes (see Englund 70). Reinforcement of heroic music for *šāhnāmeh* by a "system of ideas" might not be typical, usual and normal. No doubt it is true that by taking a broad historical view and undersetting the traditional convergence of narrative music and oral performance. The perception and identification of this form of music is highly related to historical evolution of (1) ritual and regional dances; (2) music of *zurxāne*; (3) narrative music and the traditional storytelling performances such as '*Naqāli'*. Intermediality in this context is an entirely individual process that results from a direct correspondence between pieces of texts and the readers. This relationship

---

[135]   For more information you can see Zacks, Jeffrey M. and Barbara Tversky. "Event Structure in Perception and Conception." *Psychological bulletin*, vol. 127, no. 1, 2001.

activates a "system of idea" that makes up our conception of heroic 'music' in relationship to *šāhnāmeh*, and helps us to find analogies between them (Englund 70).

5.2.2.1. Music of Zurxāneh

One major reason to assign a heroic music to *šāhnāmeh* lies in the history of an ancient sport called *zurxāneh* (literally means 'house of power'). This athletic sport offers specific body movements and fighting habits (something similar to contemporary wrestling). The sport is functionally oriented to the ritual purposes that have been always recognized as heroic and agonistic activities. This culturally known sport originating from **"Zoroastrianism"** contains and protects an important part of the Persian oral tradition. One of the major parts of this tradition is the music of *zurxāneh,* which contains a vocal repertoire and the old rhythmic patterns of the Persian musical system. The music of *zurxāneh* is typically formed through chains of temporal and spatial expressions. Undeniably, a new system of signs can be observed by the consideration of the nature of the ritual activities, the facilities and the equipment that shapes those activities (such as clubs, swords, bows and arrows, shields and drums). Based on the historical evolution, the music of *zurxāneh* and its semiotics can be categorized into three different fragments of (1) a mythological fragment concerned with the singing of *šāhnāmeh*; (2) a historical part concerned with the idea of **sophism** (related to *puriye vali*); and (3) a contemporary part which is a mixture of mythological and historical parts.

Figure 5. 34. Zurxāneh

Taken by Hossein Zohrevand.
http://www.rajanews.com/news/218495

How does such music produce a heroic emotion? This step draws attention to the way music is constructed (Krumhansl and Lerdahl 313). Musicians believe that not only perceptual cues in the sound property have the potential to alter assigned attributes to music, but also the musical performances and compositional means. More specifically, in instrumental music, the representation of distinction between musical genericity lies particularly in how music is performed and how music uses its own elements of language. According to Jenefer Robinson, music physicality, such as certain gestures, instrumental combinations and melodic types, may carry specific associations, ideas and attributes (184). It should be mentioned here that the relationship between music and genericity in this zone may be determined by cultural conventions. To look at European art and music history reveals that heroic music was established to describe a music characterized by heroic actions and expressions, proceeded by antithesis and a contradiction and tension in its movements. Most heroic works are built in a cyclic form, beginning with pessimistic/distressing in the first movement, which then resolves in the last movement. In western music, heroic feeling is conveyed by the extensive use of tonic triad in arpeggio (especially near the recapitulation (if in sonata form). We may refer to the opening of Beethoven's symphony No.3 "Eroica": Eb-G-Eb-Bb-Eb-G-Bb-Eb. Heroism is also often conveyed by the occurrence of: I-I6-I6/4, but in arpeggio. Example: D-F#-A-F#-A-D2-F#2-D2-F#2-A2, etc. The heroic pieces in Western music are mostly composed in the key of E and sometimes C-Flat major, and have chorales in the middle and last cyclic movements. As a method of composing and performing, heroic music may also be recognized by the music instruments, which create intense sounds, such as brass instruments, specifically used in climaxes such as Richard Strauss' *Ein Heldenleben*. The above features and elements can also be found in western musical pieces, which are commonly suggested by musicians as heroic music or confirmed as having heroic atmosphere (style), such as Brahms' Symphony No.3; Bruckner's Symphony No. 8; Wagner's Funeral March from *Gotterdammerung*; Sibelius' Symphony No. 5; the Swan Hymn (especially Final Movement); Mahler's Symphony No. 5; Karłowicz' "Rebirth" and *Missa in angustiis* by Haydn (the triumphant character of its *Gloria)*.

"The question now becomes more focused; it asks what pattern in Persian music produce[s] [heroic] emotion?" (Krumhansl and Lerdahl 313). Music produces specific

emotions "because the listener actively responds to music…by *generating expectations for what is to follow*" (Krumhansl and Lerdahl 313). For the expression of heroic feeling, Persian music employs simple melodies and magistral and dotted rhythm (to convey a march-like mood). Music is composed using specific metric formulas or by referencing specific modes or music systems. Heroic pieces may also be recognized by their percussion instruments, such as *tombak,* and wind instruments, such as Persian *Kornay.* A further argument, thus, can serve to back up to the general features of *zurxāneh* music. In considering the cultural cues, it is easy to deduce a heroic quality to *zurxāneh* from **(1)** its simple rhythmic expression; the rhythm and its pattern can be considered as the major focus of this music, generally appearing in the form of 2/4, 4/4, 3/4, 6/8, 6/4; **(2)** there are no ups or downs in the intensity of the beats; **(3)** there is no motive development in *zurxāneh* music (only one melodic or rhythmic motif thematizes the identity of the piece); **(4)** the constant movement of notes in a tetrachord is created by an emphasis on one note as the central note. There is always a commitment to the basic mode of music, which seeks to create and restore a cyclic movement via rhythm; **(5)** a high degree of involvement of percussion instruments, such as the *tombak* (Persian instrument) creates a recognizable texture. More specifically, the music contains the sound of a specific *tombak* (percussion instrument) called *tonbak-e-Zurxāneh* (from membranophone family. See **figure 5.5**) and a drum called *zarb-e- zurxāneh* (from idiophone family) and **(6)** the existence of the *fau'lon* meter in some of rhythmic pieces of *zurxāneh,* such as *Navāye Pahlevāni* (literally means 'the sound of athletics') or "*Gol Košti"* and "*Sarpanje*". The rhythmic patterns are usually played when the master sings a verse from *šāhnāmeh.*
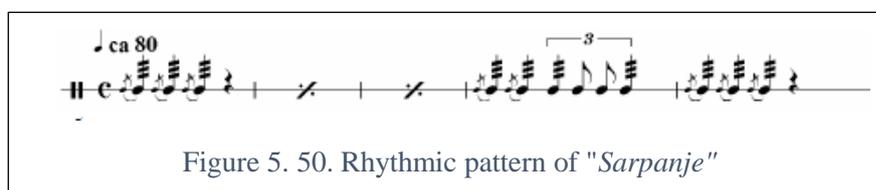
Figure 5. 50. Rhythmic pattern of "*Sarpanje"*

Another subtle means of creating a tight connection between *šāhnāmeh* and heroic music is the existence of the *fau'lon* rhythm in *zurxāneh* music. It is worthy to note that this parameter has developed in the contemporary music of *zurxāneh* such that there are also direct references to stories of *šāhnāmeh.* This architectural design, in connection with the metric formula of *šāhnāmeh,* leads listeners to perceive and identify

it as heroic music. From outside, when we hear a particular rhythm for *šāhnāmeh*, we tend to be unmindful of the sensation of the music. But within the *zurxāneh,* we are aware of the instinctual qualities of the music rather than to the practical usage, and we are alerted to the melodic features, modalities framework and instinctual rhythm of the music of epic poetry.

Figure 5. 66.Tonbak-e-*Zurxāneh*

The instrument is traditionally made by tegula. It has, in comparison to a normal *Tonbak*, a wider opening and aperture. Photo taken from https://hiveminer.com. 12.3.2017

For Persians, the organization and presentation of music, while having some of above characteristics, underlines the heroic attitude. The specified rhythmic patterns and the vocal repertoire that were collected from this activity can always serve to improve the perception of heroic feelings.

5.2.2.2. Development of Ritual and Regional Music and Narrative Music

One of the major reasons for associating heroic music with *šāhnāmeh* lies in the history of storytelling and Iranian regional dances/music, and the ways movements, rhythmic motions and ritual gestures have been specified for the expression of mythological concepts. A brief look at Persian regional music and dance shows that the culture of fighting and competition has been always influenced by beliefs and culture of everyday life. In the words of Professor Majid Kiani, "festive rituals in this country is overwhelmed by its fighting spirit" (interview in a news conference). Evidence for this is found in the rituals and ceremonial performances of the north of Iran, such as

surat xāni (Mazandaran city) and of western Iran (*Kordistan* and *Lorestan* music) such as *copper* dances (played in tribe of *qašqāie*). *čopper* dances, for example, suggest a distinct rhythmic movement in three parts. In the last part called *laki* and *kolvari*, rhythmic movement has been specified for representation in a heroic form of music, which is performed with wand and sword. One may also refer to the musical pieces of "*Hey Qiān*" and "*Kalampor*", which are played today in a place called *kermanšah* (*hey giān* can also sometimes be found in the music of *Balučistān*). In both pieces, the mode of *čāhārgāh* is recognizable (this distinction will be explained in the next part). In the *Kalampor*, and in the bars number 1,3,4,7, there is a big jump, which reminds one of the large interval of **La/kron-Do** in *čāhārgāh* system (later in this chapter, I will explain about *čāhārgāh* system).

Figure 5. 82.Music Piece of "Kalampor"

Together with the development and modernization of regional dances and the music of *zurxāneh*, the different types of poems, such as heroic, spiritual and romantic, also began to be performed in the form of narrative music, which was accompanied by visual representations. The fundamental features of narrative music have defined a semiotic status for heroic music in Persian culture. One of the semiotic features is related to rhythmic patterns used in narrative music. The orientation of a rhythmic pattern manifests a strong structural similarity to the ritual dances and music of *zurxāneh*. While they offer a very simple rhythm and stable melodic model, the methods of alteration and variation are employed through stress, silence and the length of words. The contribution of percussion instruments, particularly different types of drums, also improves this intermedial connection. The attached notion of heroic music to *šāhnāmeh* has been potentially hypostasized by such culturally determined multimedia performances in which both the content and form of a poem play a crucial role. The conceptual and syntactical dimension of epic poetry—more specifically its metric

features—confirmed the surprising truth that *šāhnāmeh* has purposely been musicalized. The performance of *šāhnāmeh* in a multimedia platform and a friendly environment could also identify a social function and system of value for the poem. Narrative music, more than symbolic, gave people a visual and auditory means of receiving the message. From this perspective, "the intermediality of the [epic poetry] to visual or auditory media is not necessarily a consequence of written record of the narrative: it [is also a result] from the possible re- usability of the text in varied reception process" (206). In fact, the regional performances of *šāhnāmh*'s stories—by emphasizing recognized heroic features—have created an identity through the combination of music and poetry and have encouraged the metaphorical interaction between them. Strictly speaking, the mutimedial representation gained an iconic character and a value for the heroic representation of *šahnāmeh* that is not only textual, but visual and auditory. The readers' interest in the continuation of narrative music and the unintentional exposure to *šāhnāmeh* in such a form leads to an aesthetically oriented process that evoked and improved the musicalization of epic poetry. Thus, such manifestations opened a possibility for *šahnāmeh* to live by a specific musicalized pattern (This no doubt partly accounts for the well-known fact that readers recall narrative when merged into specific music). It is appropriate to think *šāhnāmeh* in terms of heroic music because it has been frequently heard in such aesthetically oriented processes. To rephrase it, texts were always musicalized by reference to specific features and were always received by audiences in a known package.

5.3. The Codification System of Persian Music and Code of "Emotion"

In western music, the musical notes (Do, Re, Mi, Fa, Sol, La, Ti, Do) serve as the prime global agent for creation of musical scales and present a direct correlation between the culture and ton al forms created through it. The division between major and minor scales comes from the tonality and their third interval (the big and small interval distinguish the tonality between two scales). As mentioned earlier, Persian music conforms to modes other than minor and major, and therefore is considered to be modal music. In this music, the "*rādif* has been presented as an enabling repertoire, one which facilitates creativity" (Nooshin 81). Based on modal conditions, *rādif* suggests seven district

systems (*dastgāh)*, namely (1) *šur*; (2) *māhur*; (3) *rāst panjgāh*; (4) *segāh*; (5) *čāhārgāh;*(6)*navā* and (7) *homāyun.*[136] Modality defines a certain hierarchical relationship for pitches in one musical piece (mode) or system. Mode takes its identity from the function of intervals, hierarchy and the role of pitches and melodic formulas. The hierarchy of pitches "is one aspect of the music system marked by theorization and accompanying terminology: *shāhed* ('witness') refers to the modal pitch center; *āqaz* ('start') indicates the initial pitch of pieces in a particular mode; and *ist* ('stop') is the pitch on which phrases usually end" (Nooshin 101). With respect to modality, each *dastgāh,* by consideration of the overall shape and trajectory, has a potential to dialogically interact in various musical modes and to represent various musical expressions. By way of this illustration, in the system of *māhur* (*dastgāh*), some of the melodic models (*guše-hā*) are considered as major or king. Among them *delkeš* is a key melodic model (*guše*), providing a way to gain access into two *qarače* and *Razavi*, which are part of the melodic models of the system of *šur* (*dastgāh*). Such a transformation can be seen, for example, in a piece of Persian music called "Night Junction" (*šabe vasl*).

The cultural cues and signals are always in the foreground in the sign system of music. Perhaps the previous experience of the listeners, as well as musical knowledge of musical scales, chords and interval formulas, play a significant role in the understanding the cultural signals. Traditionally, Persian classical music identifies certain rules or conventions of codes that underline the production of meanings within the medium of music (Chandler 148). One of the most recognizable semiotic codes arises from a distinction made between Persian music systems in terms of "expressive function". Persian culture has been assigned an approximate expressive position to each Persian music system. Musicians, albeit not all (I may refer to Mohamad Reza Azadehfar; Hosein Dehlavi; Roholah Khaleqi; Mohamad Reza Lotfi; Darush Talaie; Behzad Tavakoli) argue that a certain hierarchical relationship among pitches has the potential to distinguish one system from another in terms of 'expressivity'. For example, Roholah Khaleqi, as a famous musician, claims that while the system of *homāyun* is an advisory and aristocratic system or a complaint system for grief (such as the famous

---

[136]   The Persian music system includes also five related sub-systems namely, *abuatā*, *afšāri*, *bayāt-e tork*, *dašti* and *esfehān*.

piece of "Pari Kojāie" by Homayun Khoram, or melodic model (*gušeh*) of 'lovers'), the system of *navā* stimulates a sense of spiritual mystery[137] (such as the master piece of "Neinnavā" by Hosein Alizade). We may also find a similar justification on minor and major scales in western culture; a comparison of major and minor scale points to a distinction between arousal; music written in a minor scale is considered sad and unhappy because its tonality suggests a falling sound. By consideration of the semiotics of musical signs in Persian culture, it is frequently acknowledged by Iranian scholars that such aesthetic metaphor and expressive potentials emerged from (1) construction and movement of modes that frequently occur in the four pitch classes—as sum of three intervals or the series of four notes (tetra-chord) or five pitch classes[138] (Penta-chords). The range of these modes could be expanded by putting the different tetra-chords together (2) intricate nuances of uncommon intervals known as **kron** and **sori**[139] (change of the notes interval by quarter step) in the organization of tones. The employment quarter interval, in addition to others (including sharp, flat and natural) in the pitch designations and the cyclic organizations of notes, could also bring different semiotics and expressive functions in the combination of acoustic signs in Persian. It might be natural to omit that in Persian music, rather a systematic view, there is a historical and cultural view of such emotional consideration. The recognition of the attached code of emotion in each *dastgāh* is highly dependent on the listener's awareness of the Persian musical system and his or her familiarity with the organization of notes in each system (*dastgāh*).

The cultural assumptions of "code of emotions" in Persian music tell us that a certain heroic character has been historically attached and allocated to the system of *čāhārgāh* (sometimes *segāh*). Looking back upon the development of Persian music systems over the last 100 years and the clarification of "Al-farabi" or "Alpharabius" (c. 872-950), the

---

137   Khaleqi, Roholah. *An Overview of Persian Music* [نظري به موسيقي] Safi Ali Shah 2015.
138   In Persian music unlike western music system an its hetra-chord consideration, the cyclic movement in a piece is occurred in the range of one tetra-chord, and sometimes two tetra-chord. The website of Farabi, Part: The Principle of Persian Music. For more information visit the webpage http://farabisoft.com/Pages/FarabiSchool/TheoryDetails.aspx?lang=en&PID=6&SID=36
139    $\flat = \frac{1}{2}\flat$ $\sharp = \frac{1}{2}\sharp$

Koron means lower in pitch. It lowers a note by a quarter step (in comparison to the accidental flat which lowers a note by half step
Sori means higher in pitch and it raises a note by a quarter step (in comparison to the accidental sharp which raises a note by half step

hierarchy of pitches in a modal zone and the modal movement in *čāhārgāh* have been described by reference to a heroic emotion. The structural interval and the way or course in getting from a starting note to a destination note clarifies the framework of a modal movement and the relative range of incitement and stimulation in a melody. It is, in fact, the intervals between main tunes that determine the strength and turning points of a mode.

Table 5. 5.*Segāh* and *čāhārgāh* in Do

	First Tetrachord			Second Tetrachord		
čāhārgāh Do	Sol	La♭	**Ti**	Do	Re♭	Mi	Fa
Segāh Do	Sol	La♭	**Ti** ♭	Do	Re♭	Mi♭	Fa
				Core Note		

Unfortunately, literature includes few detailed studies of heroic music in Persian traditional music. In more recent studies, few authors in Iran provid a systemic examination of the relations between epic and music (Mohamad Reza Azadehfar, Hamid Reza Dibazar, Fatemeh Mir Taheri, Iraj Naiemaie, Behruz Tavakoli). Among others, Hamid Reza Dibazar provides experimental research on the perception of heroic music. As an Iranian musician, he asks how to deal with poetry and music in making heroic melodies. Far from traditional hypothesis, he composed a melody called *niyāyesh* for selected verses from *šahnāmeh*, but without any emphasis on the conceptual aspects of the poem. The melody was composed by employing modal features of Persian music systems, (1) *rast panjgāh* Fa and (2) *čāhārgāh* in Fa (the modulation is possible since the central note in both systems is Fa). The findings reveal a particular semiotic for heroic music, and emphasize the current importance of the system of *čāhārgāh* in the heroic expressions. It is also important to know that the *simorq* orchestral in 2011[140] (composed by Hamid Motebasem) offered a magnificent musical example of *šahnāmeh*. The pieces were composed in the systems of *esfehān, māhur* and *čāhārgāh*. In fact, a modulation in different Persian music systems occurred with reference to the

---

[140]   To   watch   *Simorq*   orchestral   on   Ferdowsi   Poetry   please   check*:* https://www.youtube.com/watch?v=0_UiKVdOBpE&t=693s,   and https://www.youtube.com/watch?v=dBU9YYpRgrI

stories that could successfully create a border and pole between different musical emotions and attitudes. It benefits from the mode of *čāhārgāh* and then, by way of modulation, goes to the modes of *homāyun* and *māhur* and finally lands in the *navā* system. To define a heroic character for more heroic scenes, he employs the *čāhārgāh* system in which there is an emphasis on *zurxāneh* music (through the participation of the *zurxāneh* drum) and a specific form of singing known as *moršed xāni*.

It would be highly controversial to designate the *čāhārgāh* system as a musical genre for a heroic expression, but the modal movements in this system have been culturally understood and characterized as having a heroic idea or attitude. By looking at structural intervals, it would be perceivable that, in the *čāhārgāh* system, a big interval in its modal concern exists, or a sudden jump from **La** *kron* to **Do** reflects an "ascending character". This "ascending character" may be better explained by referring to the main piece or "*darāmade aval"* (**Figure 5.8**) in the *čāhārgāh* system. As you notice, the mode is started from **La** and, for landing with a big jump, goes to the note **Do**. The repetition of emphasis on the note Do is more than other notes that have assigned a role of "core" notes to it. The inherently ascending nature may be perceived as a heroic feature. In contemporary music culture, this distinction is made by Persian listeners. Today still, after listening to the *čāhārgāh* system, we may connect it to a heroic music, although it may not be completely scientific or systematic due to the emotional codes of musical language in each system.

We should not forget that the negotiation between a poem and the system of *čāhārgāh* is also highlighted via the existence of a particular mode in the *čāhārgāh* system called *rajaz*[141]or *orjuzah* (literally meaning disquietude and quickness). There is also another mode called Pahlavi which is sometimes played in The mode or melodic model is a unique piece in the way that employs the meter of *fou'lon* in its rhythmic construction. This mode has been historically employed by the singers of *zurxāneh* for a heroic expression. The representation of the same piece in the *čāhārgāh* (also *segāh*) basically relates the metric formula of *fou'lon* to a heroic music. Today, there are also two other modes in *čāhārgāh,* known as *hoda* and *Pahlavi,* which have been considered (by some musicians, such as lotfo allāh moffaqam) as having the same metric patterns.

---

[141]   In Persian literature the rajaz or or orjuzah(in English means paean, brag, literacy). is usually constructed by the use of 4 meter of mostafelon. But in music is always in the fau' lon meter.

These cultural modes may create a new interpretation of epic poetry. This may be a reason to hear epic poetry, or part of it, in the light of a specific form in music rather than any other form.

Figure 5. 98.First Musical Phrase of the Mode of "Rajaz"

Figure 5. 114. Mode of "Pahlavi". Repertoire of Lofo-lah Mofakham

Figure 5. 130."Darāmade Aval" of *čāhārgāh* System

Repertoire of Nur Ali Bromand

5.4. Analysis of Heroic Music in Painting

There is no doubt that painting is a distinct medium, and therefore poses individual substances and signifying materials in the process of signification. Although one may agree that the logic of any information channel, by which different semiotic objects are turned into sign systems, is fundamentally dissimilar, but the logical and combinatory behavior of their signifying units is not to be denied. Lars Elleström's reading of intermediality suggests a contribution of a different set of modality modes in this process: a distribution of basic and aesthetic hegemony in the medium. Persian painting possesses its own distinct visual identity. Visually, it also employs visual resources in a cultural framework. However, the question remains to be answered: could such qualifying features present heroic music? Or how are medial conditions employed to gain a music function in the context of heroic emotion?

Painting, in its monomedial form, could perhaps not present heroic music. We may assume some mechanism that underlines the functions of visual resources, such as texture, color and compositions, in the extension and enhancement of intermedial references suggested by epic poetry. However, as illustrations disclose, painting could not represent a clear intermedial reference to heroic music, or a certain imitation that leads the receiver of a perception of heroic music. In this domain, I considered it interesting to explore if certain aesthetic principles can be regarded as "clues" for the enhancement of heroic music exhibited by epic poetry. With regard to intermediality, historical evaluation assigns some semiotic potentials to the composition, color and texture. In other words, in Persian painting some visual resources, such as texture, colored and framing, have been highly conventionalized, revealing unexpected items in the intermedial process. Among them, a visual aspect that may provide a link to heroic expression is, in fact, the way in which visual elements have been organized on a page. Perhaps, the way in which people receive visual information is also dependent on the way in which visual resources are composed. Thus, our discussion here will be mainly limited to the composition of those entering an acceleration to the scene or to those describing a specific way in which sensory information is modified. Regarding old illuminated manuscripts, one may claim that a triangular composition has been developed with reference to specific scenes to emphasize, comment on, or enhance the heroic features suggested by epic poetry. It seems painting is not attempting to

systematize (rather in vain, I tend to think) a finite set of rules for what we may call heroic music. All the contrast-making in composition seems to support the proposed intermediality in the poetic text (see **Figure 5.11**). The triangulate composition has attached the structural stimulus properties, and created rules that may be culturally specific. The proposed triangular compositions, in contrast to other forms, create higher levels of dynamic contrast. This form of composition suggests a dynamicity, combined with perturbation, which perhaps influences our perception of visual objects on the surface. With the textual units, painting can guide a heroic expression that poetry is trying to achieve. Such understanding may suggest a link to heroic music in which "various kind of expectation[s] lead to waves of tension caused by the relationship between the expectations and what actually occur" (Krumhansl and Lerdahl 314). This major is better perceived when there is a transition from dramatic to heroic scenes. The scenes related to battles were deliberately composed in a triangular form to evoke a certain heroic character, although such conclusions may be the mere consequence of a cultural interpretation.

Figure 5. 146.A Triangular Composition in two pages of old Illuminated Manuscripts

Works Cited

AB AL-HASSAN SABĀ, Dureh-i duvvum santūr ("Level 2 for Santūr"), Tihrān, Montakhab Sabā, 1985, II: Radīf Sabā, and p. 16. "Level 2 for Santūr [دوره دوم سنتور] " *Radīf Sabā*, Montakhab Sabā, 1985.

Arnheim, Rudolf. *Art and Visual Perception: A Psychology of the Creative Eye.* Univ of California Press, 1956.

---. *Entropy and Art: An Essay on Disorder and Order.* Univ of California Press, 1974.

Azadehfar, Mohammad Reza. "Melodic Shapes in Gūsheh-Ha of Iranian Radīf." *Journal Dramatic Arts and Music*, vol. 6, no. 12, Summer and Autumn 2016, pp. 99-115.

---. *Rhythmic Structure in Iranian Music.* second edition, ehran University of Arts, 2011.

---. "Symmetrical Balance and Coherence in Iranian Music and Visual Arts a Comparative Study." *Gli spazi della musica*, vol. 3, no. 1, 2014, pp. 32-48, file:///C:/Users/soora/Downloads/642-2377-1-PB.pdf.

Azadehfar, Mohammad Reza et al. حماسه و موسيقي *[Epic and Music]*. پژوهشگران هنرو ارتباطات [Researchers of art and communication], 2011.

Borumand, Nor Ali. رديف ميرزاعبدالله *[Repertoire Model of Iranian Music by Mirza 'Abdullāh]* Sorush 1991.

Brattico, Elvira et al. "A Functional Mri Study of Happy and Sad Emotions in Music with and without Lyrics." *Frontiers in psychology*, vol. 2011, 2011, pp. 1-16.

Brattico, Elvira et al. "Toward a Neural Chronometry for the Aesthetic Experience of Music." *Frontiers in psychology*, vol. 4, 2013.

Bruhn, Siglind. "Symmetry and Irreversibility in the Musical Language(S) of the Twentieth Century." *Symmetry: Culture and Science*, vol. 3, no. 2, 1992, pp. 187-200, http://symmetry-us.com/Journals/3-2/bruhn.pdf.

Burunat, Iballa et al. "Action in Perception: Prominent Visuo-Motor Functional Symmetryin Musicians During Music Listening." *PLOS ONE*, 2015, pp. 1-18.

Candy, Soheila R. *The Shahnama of Shah Tahmasp: The Persian Book of Kings.* Metropolitan Museum of Art, 2014.

Cureton, Richard D. "Temporal Poetics: Rhythmic Process as Truth." *The Antioch Review*, vol. 62, no. 1, 2004, pp. 113-121.

Dehlavi, Hosein. پيوند شعر و موسيقى آوازى *[the Relation between Poetry and Vocal Music]*. موسسه فرهنگى هنرى ماهور [Cultural and Artisti Institute of Mahur], 2015.

Englund, Axel. "Intermedial Typology and Metaphorical Interaction." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, vol. First Palgrave and Macmillan 2010.

Ferdowsi. *Šāhnameh*. https://ganjoor.net/ferdousi/shahname/lohrasp/sh1/.

Greenberg, David M. "Musical Genres Are out of Date – but This New System Explains Why You Might Like Both Jazz and Hip Hop." The Concerstaion Accessed 4.12 2017.

Hasanzadeh, Mohamad Hosein. "رزم ابزارهاي مجازي در شاهنامه" [Combat of Virtual Instruments in Šhahnāmeh]." *Kavoshnameh*, vol. 8, no. 14, 2006, pp. 107-135.

Hillenbrand, Robert, editor. *Shahnama: The Visual Language of the Persian Book of Kings*. Ashgate Publishing Limited 2004.

Hofman-Jablan, Jadranka. *Symmetry of Musical Work*. 2007. http://symmetry-us.com/Journals/jadrbookhtml/index.html, 3. 1. 2018.

Kempf, Davorin. "What Is Symmetry in Music?" *International Review of the Aesthetics and Sociology of Music*, vol. 27, no. 2, 1996, pp. 155-165, http://www.jstor.org/stable/3108344.

Khaleqi, Roholah. *An Overview of Persian Music [نظري به موسيقي]* Safi Ali Shah 2015.

Khazaie, Babak. "Čāhārgāh: From Melody to System [چهارگاه:از نغمه تا دستگاه]." *Season Magazine of Mahoor*, vol. 57, 2000, pp. 31-48.

Krumhansl, Carol L. and Fred Lerdahl. "Musical Tension." *Art and the Senses*, edited by Francesca Bacci and David Melcher, Oxford University Press 2011, pp. 297-325.

Mark, Christopher. "Symmetry and Dynamism in Bartók." *Tempo 183*, vol. 183, 1992, pp. 2-5.

Marzolph, Ulrich. "The Shahnameh in Print: The Lithographed Editions of the Persian National Epic." *Journal of M.E. Literatures*, vol. 13, no. 2, 2002, pp. 177-198.

Mayzus, Ilya. "Issues of Rhythm, Symmetry, and Style in Alfred Schnittke's Concerto for Piano and Strings." *Music* vol. Ph.D., Philosophy, The City University of New York (CUNY), 2016, p. 133. general editor, Jeff Nichols, CUNY, http://academicworks.cuny.edu/gc_etds/698http://academicworks.cuny.edu/gc_etds/698, 06/05/2017.

Middleton, Richard. *Studying Popular Music.* Open University Press, 1990.

Motlagh, Bahman Namvar. "[متن یک روابط مطالعهٔ ترامتنیت متنها دیگر با] a Study of Transtextual Relations between Text]." *Human Sciences*, no. 56, 2008, pp. 83-98.

Nemati, Akram Judi. "شاهنامه روايي هسته و صورخيال در ها رنگ تناسب[Harmony in the Imagery and Narrative Mode of Shahnameh." *The Persian language and literature Research*, no. 11, 2007, pp. 57-82.

Nooshin, Laudan. *Iranian Classical Music: The Discourses and Practice of Creativity.* Ashgate Publishing, Ltd, 2015.

Palmer, Stephen E et al. "Aesthetic Issues in Spatial Composition: Effects of Position and Direction on Framing Single Objects." *Spatial Vision*, vol. 21, no. 3, 2008, pp. 421-449, www.brill.nl/sv.

Pearsall, Edward. "Symmetry and Goal-Directed Motion in Music by Bela Bartok and George Crumb " *Tempo 58 (228)*, 2004, pp. 32-40, https:/www.cambridge.org/core, doi:10.1017/S0040298204000129.

Porter, David H. "Reflective Symmetry in Music and Literature." *Perspectives of New Music*, vol. 9, no. 20, 1979, pp. 118-122, Jstor

---. "Reflective Symmetry in Music and Literature." *Perspectives of New Music*, vol. 8, no. 2, 1970, pp. 118-122.

Qaraguzlo, Araš. "شناسي زيبايي منظر از متقارب بحر[Aesthetic of Moteqareb Meter]." *Parnian Soxan*, pp. 363-388.

Ribeiro, Hugo. "Symmetry and Proportion: How These Issues Guide, Inform and Add Coherence to Musical Composition." vol. Ph.D., Doctor of Philosophy, Canterbury Christ Church University, 2011, p. 89. http://create.canterbury.ac.uk.

Robinson, Jenefer. "The Expression and Arousal of Emotion in Music." *The Journal of Aesthetics and Art Criticism*, vol. 52, no. 1, 1994, pp. 181-189, doi:10.2307/431581.

---. " Music and Emotions." *Journal of Literary Theory 1.2 (2008*, vol. 1, no. 2, 2008, pp. 394-419, Link: http://nbn-resolving.de/urn:nbn:de:0222-000466

Sanchez-Behar, Alexander. "Symmetry in the Music of John Adams." *Tempo 68*, vol. 68, no. 268, 2014, pp. 46-60, https:/www.cambridge.org/core, doi:0.1017/S0040298213001678.

Shaw-Miller, Simon. "Synaesthesia." *The Routledge Companion to Music and Visual Culture* edited by Tim Shephard and Anne Leonard, Routledge, 2014, pp. 13-23. *Routledge Companions*.

Sievers, Beau et al. "Music and Movement Share a Dynamic Structure That Supports Universal Expressions of Emotion." *Proceedings of the National Academy of Sciences*, vol. 110, no. 1, 2013, pp. 70-75.

Talai, Dariush. "The Musical Language: Elements of Persian Musical Language: Modes, Rhythm and Syntax." *Kimiyaye Honar*, vol. Third Year, no. 3, 2015, pp. 5-35.

Tavana, Akram Ahmadi. "بررسي بينامتني نگارة پادشاهی جمشید از شاهنامة بایسنقری [Th Analysis of Shahname Baysonghori 'S Illustartion of Kingdom of Jamshid]." *Scientific and Cultural Journal of Nazar*, no. 25, 2013, pp. 47-54.

Torop, Peeter. "Semiospherical Understanding: Textuality." *Sign Systems Studies*, vol. 31, no. 2, 2003, pp. 323-337.

Weyl, Hermann. *Symmetry (Princeton Science Library)* vol. First Princeton Univ, 1952.

Wolf, Werner. *Selected Essays on Intermediality by Werner Wolf (1992–2014): Theory and Typology, Literature-Music Relations, Transmedial Narratology, Miscellaneous Transmedial Phenomena.* Brili, 2017.

Zacks, Jeffrey M. and Barbara Tversky. "Event Structure in Perception and Conception." *Psychological bulletin*, vol. 127, no. 1, 2001.

Zadegan, Sabar Abdolah et al. "تشخیص خودکار دستگاه و گام موسیقی سنتی ایرانی مبتنی بر تکنوازی Recognition of Traditional Iranian سازهای تاروسنتور به وسیله استخراج نت هوشمند: Muisc System Based on Extraction of Intelligent Note." *Assiocation od Iranain Computer* vol. 14 University of Mashhad, 2014 pp. 918-922.

Zangwill, Nick. "Music, Metaphor, and Aesthetic Concepts." *The Journal of Aesthetics and Art Criticism*, vol. 72, no. 1, 2014, p. 1/11

[Type here]

Chapter 6
Symmetrical Balance and Coherence

6.1. Introduction

Symmetry as a formal and structural pattern is an influential factor in the perception of aesthetic aspects of a community. Thus it can be a powerful ally in the cultural and ethnomusicological understanding of intermediality. In general, symmetry tends to define itself as a sense of harmony suggested by a perceivable coherence among various parts or elements in a system. In music, the concept of 'symmetry' is inspired by Hermann Weyl's scientific definition of symmetry as "harmony of proportions" (i). "In this sense the idea by no means restricted to spatial objects; the synonym 'harmony' points more toward its acoustical and musical than its geometric applications" (Weyl 3). While the spatial manifestation of symmetry is reflected via acoustic grouping in vertical bar lines (spatial), the temporal (acoustic) concern is perceived by the brain while listening to music. The realization and the reflection of spatial and temporal symmetry necessities the connection of music to the strategic employment of recurrence. This is because symmetry is created through the act of transformation of compositional parameters (such as motifs, melodic contour, a pitch session set, the phrase groupings, rhythm, thematic construction and chord sections) from one section to another. We may all be attracted to the symmetrical construction found in pieces such as *Two-part Invention* No.8, F major (s J.S. Bach), Anton Weber's *Symphonie* (1928, Op. 21) and the small piece of piano *China Gates* by American composer Jahn Adams.

The strict form of treatment of symmetry in a verbal medium is associated with metrical accents, sound and phrase structure. The strong reappearance and transformation of repeated parts is mostly based on a symmetrical form called "absolute transformation", a bilateral symmetry appearing as *Translational repetition* **or A-B-**

C—A-B-C. As a matter of fact, this is the formal pattern of symmetry in traditional Persian music. Very similar to the idea of symmetrical patterns in the Persian music, symmetry in poetry is mostly reflected in the level of succession of sounds, musical phrases and meter in a transformation of *translational* repetition. The research driving this chapter suggests that symmetrical alterations also impact the storytelling and contextual features of the medium. Intermedial communication occurs through the act of storytelling and, more precisely, by means of symmetrical connections located in the inner-form of narrativity; by symmetrical structuring plot and staging the temporal logic of stories in relationship with each other, and in isolation from each other. There is a stable *translational repetition* of presented events (plot) in the distinct stories that influence the structure of narration and the staging main events of the stories. In this sense, I claim that symmetrical features of Persian music can be intermediality imitated by the poetic realm and imported into story world. As you will notice, the type of alteration in temporal logic and plot might schematize the structural transformation of "repetition" in Persian music. The alterations occur in the same way as are accomplished in Persian music, and often do so in the same dramatic way.

The intermediality in a visual medium starts out by giving some evidences for the claim underlying the musicalization in epic poetry; the claim for the reflection of symmetry via meter and rhythmic patterns. Perhaps not every composition and visual fragments can be considered as supporting this aspect of musicalization. However, the aesthetic arrangement of visual elements in a very *harmonized* form may reflect an intermedial response in the realm of culture. This can be justified not only by a frequent appearance of bilateral *symmetry*, but primarily by a remarkable change in the degree and quality of visual *textures* on pages over the past epoch. The most interesting and questionable aspect regarding the dimension of musical consequences in the visual medium is the intense reflection of texture in isometric forms and their rhythmical progress on pages. The symmetrical organizations of texture may not provide proper references to intermediality in the musicalization context, but by its comments on the translational repetition of rhythm in Persian music, it may recognize a cultural function in this context.

6.2. Symmetry; On Overview of Concept

The principle of symmetry, whether in music, literature, or visual arts, lies in its balance and proportional harmony. "In European culture, the idea behind the concept of symmetry has its roots in Greek philosophy, primarily used as an interpretation of commensurability, balance, proportion and regularity" (Jadranka Hofman-Jablan). In fact, symmetry mostly tends to be perceived in relationship to an asymmetric setting or entity. It is at the base of the correspondence between symmetric with asymmetric forms that our perception enjoys the potential energy in and the dynamics of the system. One should remember that this dynamism is not a property of the physical world, rather of the stimulus patterns (Arnheim *Entropy and Art: An Essay on Disorder and Order* 438). (*Entropy and Art: An Essay on Disorder and Order*)(*Entropy and Art: An Essay on Disorder and Order*)Edward Pearsall, by referring to the symmetrical structuring in the works of the Claude Debussy, Arnold Schoenberg, Béla Bartók and George Crumb, defines symmetry as "the projection of a series of events above and below, or forward and backward from a central axis, with a one-to-one correspondence between events on one side of the axis and those on the other" (32). Therefore, symmetry transfers a coherency to the system, and invites us to see wholes as the necessary outcome of a joining of complementary parts. This form of harmonization can appear at a place, or happen at a time, accordingly, and can be either 'spatiality' or 'temporality' perceived. Symmetry is a recognizable pattern found in natural and ecological systems, such as in the literal symmetry of the human body, snowflakes, or in abstract systems, such as geometrical figures, mathematics, and physics.

The fields of ethnomusicology, musicology, visual arts and neuroscience have been often interested in the study of symmetry and its aspects of perception. Diverse questions of symmetry and related aspects have been explored, most notably by Siglind Bruhm[142] (1992), Edward Pearsall (2004), David H. Porter[143] (1979), Christopher

---

[142]   Bruhn, Siglind. "Symmetry and Irreversibility in the Musical Language(S) of the Twentieth Century." *Symmetry: Culture and Science*, vol. 3, no. 2, 1992, pp. 187-200, http://symmetry-us.com/Journals/3-2/bruhn.pdf.

[143]   Cf. Porter, David H. "Reflective Symmetry in Music and Literature." *Perspectives of New Music*, vol. 8, no. 2, 1970, pp. 118-122.

Mark[144] (1992), and in recent articles by Jadranka Hofman-Jablan[145] (2006) and Alexander Sanchez-Behar[146] (2014). One should not fail to mention two dissertations from the field of musicology: first the thesis *Issues of Rhythm, Symmetry, and Style in Alfred Schnittke's Concerto for Piano and Strings,* written by Ilya Mayzus (2016); and *Symmetry and Proportion: How These Issues???? Guide, Inform and Add Coherence to Musical Composition (2011)*, written by Hugo Ribeiro. In his thesis, Hugo Ribeiro reveals the symmetrical harmony and its intervallic construction in western musical composition. There have also been a number of cognitive neuroscience studies over the past several years concerned with brain functions in relationship to symmetry, such as carried experimental research by Mongoven and Carbon in the examination of acoustic reflection of symmetry and the perceptibility of melodic symmetry. The findings of a new experimental research proposed that the symmetry is evident over a widely-distributed area of the brain. In particular, symmetrical actions derived from musical training manifest in symmetrical brain responses while subjects listen to music (Burunat et al.). What might be surprising, given the vital importance of symmetry in visual and auditory arts, is that scholars in the field of intermediality and music-literacy have paid little attention to it. Intermediality is arguably attracting less scholarly interest than many other research areas.

6.3. Storytelling, inner form and "Translational Repetition"

The musicalization of epic poetry is obvious by the ways which symmetrical collections unfold over time (Pearsall 33). My claim is that storytelling suggests some sort of unified and harmonized inner form through the symmetrical structuring of plot and the staging of the temporal logic of stories in relation to each other and in isolation from each other. More importantly, storytelling, by suggested harmony in the staging of plots, alter 'relative time'; a time associated with thought, imagination, and memory (Cureton 114). In this context, what we need is a way of confronting the question of how any narrative's transformation might be deployed in each context. Simply posed: how can

---

[144]   Cf. Mark, Christopher. "Symmetry and Dynamism in Bartók." *Tempo 183*, vol. 183, 1992, pp. 2-5.
[145]   Cf. Hofman-Jablan, Jadranka. *Symmetry of Musical Work*. 2007. http://symmetry-us.com/Journals/jadrbookhtml/index.html, 3. 1. 2018.
[146]   Sanchez-Behar, Alexander. "Symmetry in the Music of John Adams." *Tempo 68*, vol. 68, no. 268, 2014, pp. 46-60, https://www.cambridge.org/core, doi:0.1017/S0040298213001678.

we theorize the relationship between narrativity and symmetry from an intermedial perspective? Here, the identification of segmented units in the system is based on the observable operative action in time and its potential references to formative and symbolic values in the system. From a strictly intermedial perspective, we stand to gain much from understanding the nature and types of symmetrical transformation that occur (anywhere) in compositional units of music. As for the first consideration, "symmetry in music can be studied from two perspectives: 1) visual modelling of musical works and their symmetry structure; 2) auditory symmetry in musical elements" (Azadehfar "Symmetrical Balance and Coherence in Iranian Music and Visual Arts a Comparative Study" 38). "There are [also] various ways and recognizable examples of the application of symmetrical/proportional principles in musical structure and form, as well as its realization concerning different styles and systems" (Ribeiro 6). In exploring the types of symmetrical alterations found in storytelling of epic poetry, firstly, I refer to the role played by "repetition" in the musical composition of symmetry. Music is a temporal art based on repetition, contrast, balance, etc. Thus its connection to symmetrical transformations is not surprising. Davorin Kempf, in his article "What Is Symmetry in Music", discusses several aspects of symmetry in connection to the act of repetition. He believes symmetry is a specific aspect of repetition (155). Richard Middelton, along the same lines of inquiry, explains "[t]he significance of repetition is closely bound up with its role in total syntactic structure" (269). The ideas expressed by Davorin Kempf and Richard Middleton arrive at the same conclusions, but by different routes. They put emphasize on the point that music can share the complicated repetitional forms at various formal and spatial levels. Scholars, such as Hofman-Jablan and Sanchez-Behars, claim that symmetrical repetition appears in music on the level of completed musical forms in a compositional wholeness (as a succession of formal parts or sections), as well in other structural levels. Thus, it is not surprising that symmetry may manifest itself in a melodic contour, motif, spatial proportion, a pitch session set, phrase groupings, rhythm, or thematic construction. For example, with regard to western music, symmetrical connections may be applied to counterpoint, the 'crab canon' being a prime example (as found in J.S. Bach's *A Musical Offering),* or to polyphonic music (such as Guillaume de Machaut's "Rondeau Ma fin est mom commencement" from Ars Nova, to harmonic relations in tonal music ("Allemande, Courante and Gigue"*),* and, in

a more modern forms, to the "golden ratio" in music (Claude Debussy's (1862-1918) "Reflects dans l'eau" from *Images*).[147]

　　Epic poetry benefits from a stable symmetrical repetition in the organizations of plots by suggesting the progress of rhythm of story in a recognized 'relative time'. The close reading of epic poetry reveals that in the manner of storytelling and in the design and succession of events, we perceive a sense of good proportion and a well-balanced organization of the parts. This repetitional habit of epic poetry creates a form of musical syntax. There is also a stable *repetition* of presented evenest in distinct stories that influence the structure of narrativity and staging main events of the stories. In other words, the established rules in storytelling and the succession of events in a temporal manner tie together with a symmetrical consideration. Before proceeding into a close examination of narrative structure, it may be helpful to highlight the possible categories in musical symmetry, focusing on how epic poetry makes a intermedial border in this context. To understand symmetrical forms, we should know that repetition might be both spatiality and temporality perceived. Repetition creates a tension and a varied pattern in spatial and temporal patterns via methods of reflection, rotation and translation (47). Reflection creates a mirroring symmetry by a repetition across an axis; "translation considers the repetition of an object at periodic intervals; rotation changes the orientation of an object by shifting it around a fixed rotational axis point" (Sanchez-Behar 47). In the context of modern science, Jadranka Hofman-Jablan, by consideration of reflectional forms of symmetry in an imagined vertical axis, reformulate the classification of symmetrical forms. He proposes two broad zones while each contains its own sub-forms. These include:

1. **Absolute of Total Transformation:** This form creates a regular arrangement of equivalent elements. It includes the sub-forms of **(**1); translational repetition and; (2) retrograde repetition or mirror reflection; (3) proportional repetition; and (4) retrograde proportional repetition

---

[147]　　The suggestions are offered by Hugo Ribeiro in his dissertation "Symmetry and Proportion: How These Issues Guide, Inform and Add Coherence to Musical Composition" (PhD dissertation Canterbury Christ Church University,2011). His study provides an interpretation of different forms of symmetry in music. Ribeiro points out that "[m]usic's formal structure may be defined as a specific articulation of time. Two of the most fundamental and important compositional principles are repetition and variation, each allowing for unity within the musical form"(6).

.

2. **Relative (Proportional) Transformation:** Acts in different ways on different elements. The relative transformation is a kind of proportional repetition that can be found in very different structural elements of music, such as inversion and theme.

While "relative transformation" does not copy each point in itself (there is a certain change within the symmetrical system), "absolute transformation" is applied to each equal element in the system (Figure 6.1 and 6.2).[148]
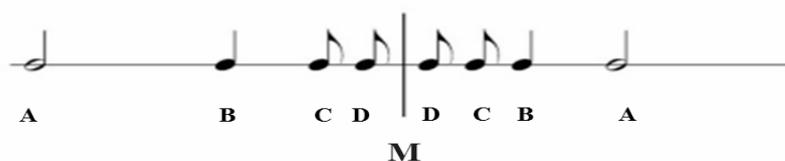

Figure 6. 1.Absolute Transformation in the Form of Mirror Reflection
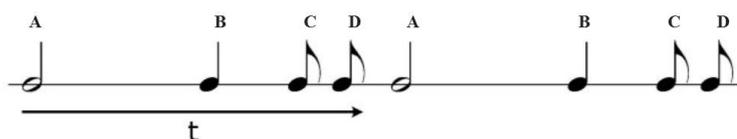
Figure 6. 2.Absolute Transformation in the Form of Translational Repetition
(Translation t)

The distinct classifications highlight that there is an inherent existence of a kind of "translational repetition" in the temporal organization of events (relative time), plots and goal points in epic poetry. The analysis will show how the poetic realm can intermediality imitate symmetrical features of Persian music and import it into the world of the story. The analytical table below defines the general components and the relative functions of events and the transformation of units of stories in the temporal zones. The analysis of design of events in a broad sense primarily highlights four phases of (1) introduction; (2) expansive; (3) climax; and (4) landing in one story and a symmetrical repetition of the same units in another one:

---

[148]   Hofman-Jablan, J. *Symmetry of Musical Work* 2007. http://www.mi.sanu.ac.rs/vismath/jadrbookhtml/index.html, 6.1.2018.

| **1. Orientation/Introduction**	The phrase intents determine the relative position of the participations in the story. It is also aimed to start the main story. It often includes a very few verses with specific expressions that demand reader attention.
2. The Beginning of Story Conflict	This part often tries to represent specific characters or signs through how the main event will happen. In this way, it can be considered the part for the growth and development of the signifier. This part reveals a certain turning point in the progression of the story pattern and the sign of identification for the upcoming climax point.
3. Pick Phase	This includes the most significant part of the story. It represents a conflict or battle.
4. Landing Point	This is served to complete the story line. It gives the reader a sense of achievement, and continuity. It is usually returns to the starting point for the next story.
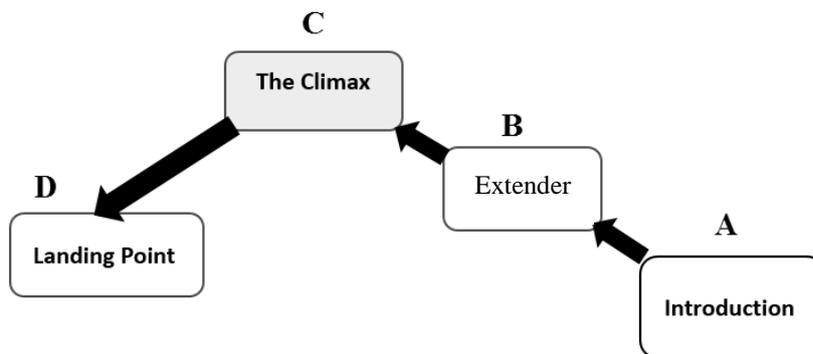
Figure 6. 65.Narrative Structure in a Temporal Zone

To illustrate, we will look at the sequence of events in the stories of "*Rostam & Sorāb",* and *"Rostam & Esfandiyār*". The possibility and uses of this form of transformation in the inner form of epic poetry have been analyzed below. As you may notice, the narrativity in both stories illustrates a symmetrical repetition.

First Story: *Sequence of the Events of "Rostam & Sohrāb"*

A. Orientation/Introduction

1. *Rostam* sadness and hunting determination
2. *Rostam* sleeping in meadows
3. *Rostam's* horse (*Raxš*) being stolen by riders
4. Traveling to *Samangā*n with the anxiety of losing *Raxš*
5. Refusal of *Samangān* king from returning *Raxš* and inviting *Rostam* to a party
6. *Rostam* being tired of the party
7. *Tahmineh's* (king's daughter) willingness to have a child with *Rostam*
8. *Tahmineh* (king's daughter) arriving for the purpose of having a child with *Rostam*
9. Promise of the king and *Tahmine*h to find *Raxš*
10. *Rostam* accepts *Tahmine*h's request
11. *Sohrāb's* birth

B. Expensive Phase: The Beginning of Story Conflict:

12. *Sohrāb* insists on recognition of his father
13. *Afrāsiāb* sends *Barman* with *Sohrāb* for the purpose of achieving the goal
14. *Sohrāb's* attack of Iran border castle
15. *Rostam* hears the story and remembers his unseen child
16. *Rostam* is convinced to fight with *Sohrāb*
17. *Rostam* fights with *Sohrāb* even though he doubts the identity of *Sohrāb*
18. After *Sohrāb*'s first fight when, according to his mother's evidence, *Sohrāb* assumes that his enemy is only a fantasy

C. Pick Phase: it represents a conflict, battle
19. *Sohrāb's* weakness in the last fight with *Rostam* and *Rostam's* acceleration in killing his rival culminates in the story
20. *Rostam* tricks and succeeds in plunging a dagger into *Sohrāb's* chest
21. *Sohrāb* clarifies his identity after the strike
22. *Kabus* refuses to give panacea to *Sohrāb*

D. Landing Phase: Crisis is resolved
24. *Sohrāb's* death

25. Pride (moaning)

Second Story: *Sequence of the events in "Rostam & Esfandiyār"*

A. Orientation and Introduction

1. The success of King *Gaštāsb* because of his son's (*Esfandiyār*'s) help
2. Disremembering promise by *Gaštāsb* in giving the throne to *Esfandiyār*
3. *Esfandiyār's* sadness and meeting request
4. *Gaštāsb* and the rejection of his request

B. Expensive Phase: The Beginning of Story Conflict:
5. The King *Esfandiyār*'s request for a fortune-teller's prediction
6. *Jamāsb* predicts *Esfandiyār*'s death at the hand of *Rostam*
7. *Esfandiyār*'s trick for convincing *Esfandiyār* to start a war with *Rostam*.
8. Decision of the king to give the thorn to *Esfandiyār* after surrendering *Rostam*
9. Moving the army at night to a place called "*Zābolestān*"
10. Sending *Bahrām* as a wise messenger to *Rostam* for the purpose of convincing him to comply with the king's command
11. *Rostam* requested to tie a strap on his feet and accept *Gaštāsb* as the king of the land
12. *Rostam* rejects the request given by the son of the King *Esfandiyār*
13. The battle between them takes place
14. *Rostam* and his horse are badly injured by *Esfandiyār*
15. Running of *Rostam* to the top of the mountain.
16. *Rostam* asks for help from the Phoenix
17. Guidance of Phoenix in making a special arrow which can kill *Esfandiār* (only if it hits his eye).

C. Pick Phase
18. *Rostam* orders *Esfandiyār* to stop the fight (pick point)
19. *Rostam's* promise to meet the king and talk to him regarding the issue
20. The hero *Esfandiyār* does not accept the order and continues the war.
21. *Rostam* puts the arrow in the bow and leaves it.
22. The arrow finds its place, hitting *Esfandiār*'s eye.

23. Landing Point
24. *Rostam's* last request to *Esfandiyār*
25. *Rostam* promises to look after his son
26. Death of *Esfandiyār*

The stories repeat the same phases in a very simple and regular way. In fact, epic poetry presents a translational repetition in the structuring of events and actions of stories; it stages temporal and dramatic stories by reference to an inspired repetition in the narrativity. Each of these stories is suggestive of different narratives, and each may have been deployed in specific thematic contexts. The purpose of such repetition is to

provide a harmonized form of storytelling and suggest a formalized feeling; in terms of temporal and poetic paradigms (Cureton 119). The unification and symmetrical balances are achieved through thematic organization. The symmetrical order is achieved through the rational construction of events of different stories in a repeated manner of A.B.C.D-A.B.C.D. **Figure 6.2.** schematizes the symmetrical aspect.
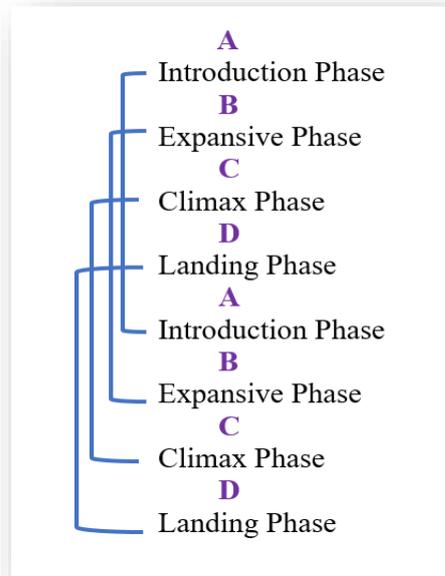

Figure 6. 97.Narrativity and A Symmetrical
Transformation

There are also other aspects of storytelling that underlines and expands a symmetrical balance in the whole system, such as the wording and the phonological arrangement, meaning the capturing of symmetrical balance at pitch, motif levels and rhythm. In the story of "*Rostam* and *Esfandiār"*, for example, we are faced with a symmetrical repetition at both pitch and motif levels (in the footnote, please find the verses in the Persian language)[149].

(A) (B) (C)   (D)   (D)
Xonak ānke čon to pesar bāšadaš// Jeki šāx binad ke bar bāšodaš
(A) (B)   (C)   (E)
Xonak ānke ura bovad čon to post // bovad iman az ruzegāre dorošt

---

[149] خنک آنک چون تو پسر باشدش // یکی شاخ بیند که بر باشدش

خنک آنک او را بود چون تو پشت// بود ایمن از روزگار درشت

خنک زال کش بگذرد روزگار// به گیتی بماند ترا یادگار

(A)   (E)

Xonak zālkoš bogzarad ruzegār// be giti bemānad torā yādegār

Or in the verse:

(A)   **(B) (C) (D) (E)**   (A)   (B) (C) (D) (E)

ze dāneš boruhā por az tāb kard // ze timāre možgan por az āb kard[150]

The transformation in the first three verses is found in four cases: (1) in the first metric motif of the first and second verses appeared as "xonak ānke"; (2) in the last metric motifs of the first verses as *bāšadaš*; (3) in the first and second verses by repetition of the word "*čon*"; and (4) in the second and third verses by repetition of the word "*ruzegār*". The symmetrical repetition appeared much stronger in the second example because of a connection created between pitch class sets in the metric zones. It seems the narrative mode is present in a musicalized form to enhance harmonization of the whole. The similar symmetrical concern presents itself in the story of *"Rostam & Sohrāb"* (part 5) in which the poem, by emphasizing tonal repetition in metric zones, presents the temporal transpositions in the story.

1.Čo yek māh šod hamčo yek sāl bud// baraš čon bare rostame zāl bud

1. when he became ten months old...

2. Čo se sāleh šod zaxme čogān gereft// be panjom dele tir o peikān gereft

2. when he became three years old…

3.Čo dah sāleh šod zān zamin kas nabud// ke pārast yā u nabard āzmud[151]

3. when he became three years old…

Metric feet are also largely involved with other syntactic processes in musicalization. With regard to epic poetry, we become acutely aware that *šāhnāme*'s meter and rhythmical dimensions also reveal a symmetrical transformation: in epic

---

150   ز دانش بروها پر از تاب کرد// ز تیمار مژگان پر از آب کرد

151   چو یک ماه شد همچو یک سال بود//   برش چون بر رستم زال بود
چو سه ساله شد زخم چوگان گرفت // به پنجم دل تیر و پیکان گرفت
چو ده ساله شد زان زمین کس نبود // که یارست یا او نبرد آزمود

poetry 'absolute' "elements of the rhythmic structure that are subjected to their action are transformed in the same way" (Azadefar 40). As you see in table below, epic poetry employs the "translational repetition", and in this sense, intends to imitate the symmetrical dimension of the rhythmical structure in Persian music.

As was also mentioned in the previous chapter, Epic poetry is shaped by combining a single motif. In music, a motif is a small musical unit that is used by composers to create a composition. The symmetrical repetition of a motif became the building block for the readers and the composition. Only the last motif is augmented through changing the last note value. Middleton employs a specific terminology and labels the repetition

Faulon	Dada m Dam	Dada m Dam	Dada m Dam	Da Dam	Dada m Dam	Dada m Dam	Dada m Dam	Da Dam
Patterns of Syllables	U- -	U- -	U- -	U -	U - -	U - -	U - -	U -
Symmetry of motifs								

of textual motifs as "**musematic"** or **discursive** repetition (286).

Table 6. 1.Symmetry of Rhythm in Epic Poetry
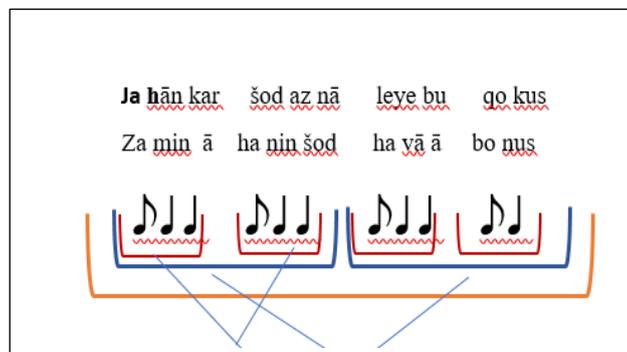
Figure 6. 209.A schematization of Rhythmic Motifs in Epic Poetry

Although the number of symmetrical repetitions in the narrative mode shows that motif repetition, in comparison to the textual phrase and set pitch repetition, plays a domain role in the perception of harmony. However, all units of repetition work together to facilitate the creation of narrative processes in a musicalized form. The rhythmic motifs sometimes are not immediately repeated, rather they appear with a delay in one story or between various themes in the progression of the narratives. Regarding epic poetry, the

unifying effect comes from the fact that poetry creates symmetry not only rhythmically, but also through thematic organization. The regular meter, event duration, motifs, phrases and sonic repetition tend to be a part of the poem's unification system.

A question remains: how can this form of transformation be associated with Persian music? A poem subject to analysis offers a chain of syntagmatic and pragmatic chains of units repeated in a symmetrical form. In spite of such indication to a symmetrical transformation, the joint effects of epic poetry and music are questionable or at least uncertain (Wolf *Selected Essays* 289). The connection may become clear if one takes into account the type and quantity of repetition in Persian music. Persian music is a mono-phonic music; thus, a simple sonic and tonal repetition can be comprehended and experienced as a kind of symmetry. While in western music, the most frequent symmetrical repetition occurs is retrograde form, in the traditional aesthetic rules of Persian music there is a frequent manifestation of *translational repetitions*. Retrograde repetitions, unlike western music, are very rarely applied in the musical compositions. Mirror reflection can be largely found in western classical music such as in the works of L. van Beethoven. The figure (6.6) shows the mirror reflection T-D—D-T, in his Piano Sonata No. 3 in C major.

Figure 6. 241.L. Van Beethoven. Piano Sonata No. 3 in C major.

In Persian music, one can find numerous examples in which *translational repetitions* can be easily perceived. In other words, absolute translational repetition is the most dominant mode of syntactical design in Persian vocal and instrumental music. An extremely clear example of this type of symmetry is found in a piece called "*kerešmeh Razavi"*, a traditional piece in which a set of pitches, together with their rhythmic structure, has been transformed to the second line. The first and second lines, while

thematically representing a distinct message, belong to one verse of a poem. The principle of repetition creates a symmetry in a very interesting manner, representing a unity of form and structure for the viewer and listener.

Figure 6. 353. Translational Repetition

"Kerešmeh Razavi" in System of *šur*. Repertoire (*Radif*) by Abolhasan Sabā

Other absolute symmetry can be also found in the instrumental pieces of *Maqlub* (collected from repertoire (radif) of Sabā) and *Shahnaz*

Figure 6. 437. Translational Repetition in "*Maqlub*" in System of *Segāh.*

Repertoire (*Radif*) by Abolhasan Sabā

Figure 6. 441. Translational Repetition in "*šahnāz*" [by a Minor Alteration in Two Notes)

System of *šur*. Repertoire (*Radif*) by Abolhasan Sabā

Figure 6. 473. Translational Repetition in "Legzi". system (*dastgāh*)of *čahārgāh*.

Repertoire by Mirza Addullāh

Type of thematic and tonal alterations in epic poetry clearly schematizes the structural transformation of "repetition" in Persian music. The alterations occur in the same way in Persian music in musical phrase with metric motifs and often in the same dramatic way. Each of the narrative phases impacts the perception of the *events* in terms of the periodicity and increases the potential familiarity of the reader with the suggested thematic organization. The interaction of these units in a sequenced form increase the symmetrical perception. This is combined with a rhythmic, harmonic and sonic symmetry in different phases that lead to an overall balance.

Figure 6. 505.A schematization of Symmetry in Narrative Structures
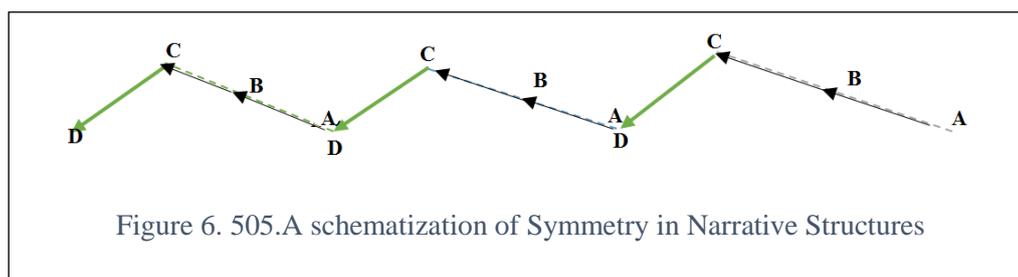
6.4. Symmetry in Painting

As soon as we come to the visual medium, which will be focus in here, namely painting, the study of symmetrical balance in relationship to music becomes quite challenging. This connection may sound challenging since symmetry is a shared concept between two media. Both media for presentation of symmetry embody a process in which there is no analytical and audible sense. However, both create a single goal-oriented object in a given amount of space, like one can find in Anton *Webern's* Symphony, *Op* 21, mvt II. Yet under certain circumstances, visual symmetry can in fact approach the condition of symmetry in music. One major claim in this domain is that symmetry could appear in music both spatiality and temporality. Thus, it is a perceivable phenomenon that can be visually reflected on a sheet music. "Phenomenologically, music is only the playing of a score. The listener perceives the beginning of a resonant sensation: but if, at the same time, he can watch the score, a new formal and visual sensation is added to the first. The person who, instead, sees the score without listening to the music, has only a visual sensation: in this very moment he sees the music in a different way, that is to say, through something else, which can be defined as the mirror image of the music itself" (Donini 435). An example of this visually compositional conceit can be found in the first canon in J.S. Bach's *A Musical Offering*. The most significant representation of the first, universal category of interpretation in Olivier Messiaen's son "Amour Oiseau d'étoile" is an element of musical symmetry. "While most of us will still not necessarily grasp details about the relative distance between simultaneously sounded pitches when hearing a chord, it is strange fact that almost all people can, somehow, hear and recognize the effect created, especially the one achieved in the most frequently used vertically-symmetrical chord"

(Siglind 145-146). In addition to the medial characteristics, the intermedial connection is partly the result of the recipient's (i.e., the listener or viewer) cognitive engagement. More importantly, and in the context of the discussion on intermedial reference, it is equally important to differentiate between a cultural representation of musical elements such as symmetry. As you will notice from the images below, symmetry is motivated in its constitution by the interests of the makers of the signs, and not at all arbitrary or anarchic (Kress 345).

Symmetry in painting is perhaps made most apparent when a large number of illustrations is conceived of or uses mirror imaging or bilateral symmetry, such as one may find in the figures below. Perhaps, not every composition or visual fragment can be considered to support this aspect of musicalization. However, the aesthetic arrangement of visual elements in a very *harmonized* form may reflect an intermedial response in the realm of culture. This can be justified not only by a frequent appearance of bilateral *symmetry,* but primarily through a remarkable change in the degree and quality of *visual textures* on pages over the past epoch. The most interesting and questionable aspect regarding the dimension of musical consequences in the visual medium, is the intense reflection of geometric textures and their rhythmical progress on pages. The symmetrical organizations of texture may not provide proper references to intermediality in a musicalization context, but through its comments on the translational repetition of rhythm in Persian music, it may recognize a cultural function in this context. The symmetrical balance in the poetic text is also completely enhanced by the spatial organization of textures in a symmetrical form.

More specifically, with reference to old illustrations, there is no audible connection to visual symmetry, but these artists variously tried to capture and 'translate' symmetry into their own art forms. The illustrations may refer to the medium of music by imitating symmetry as a structural feature or a visualized pattern in music, or incorporating epic poetry's comments on symmetrical balance. The intercompositional intermediality subsequently may influence or (re)shape the hearers or viewers perceptions of the visual artworks depicted. It is therefore perhaps not a coincidence that the amount of symmetry inspired by painting increased significantly in quantity and interest in the same period in which music was adapted or invented for the purpose of musical narrative or oral storytelling. The intermediality in this context is mostly

visualized via the small visual resource called "texture". To clarify this strategy while having a diachronic concern, I have taken some pages from the old books, namely Tahmasbi and šāhnāmeh's Šāh Esmāil, and one from the latest version. In the **Figure 6.12**, for narrativity, a cinematic tableau is artfully developed in temporal and spatial dimensions in order to realize and be recognized as a scene of love. The page contains an unusual volume of texture. Therefore, it may consider "geometric textures" as a cultural code in the semiotics of culture, or as contextual features in the intermedial process. As should already be apparent, the painterly texture is transformed from one to another without losing its symmetrical balance; whether it was used for individualization of emotion or for the plot. Surprisingly this kind of iconic representation also appears in modern illustrations (**Figure 6.15**), which reveal the function of texture as an instrument for the creation of classical harmony and balance on the page. They are symmetrically expanded in the rhythmic patterns. Each kind of geometric texture, one after another, is monotonously and symmetrically repeated in a visual zone. The historical evolution of the visual medium also shows that the segmantivity of the poem have been sometimes employed to achieve a symmetrical perception. As **Figures 6.13** and.**6.14.** show, the textual information on the page is arranged rhythmically in a way so as to reflect a translational repetition in the vertical line while intentionally depicting a mirror repetition on the upper and lower parts of the page. Its repetitional form, A-B-A-B, would not be unusual because it does not follow certain tendencies and fundamental laws of classical harmony in Persian music. In this sense, it seems plausible to assume that at least some of the composers may have intended to evoke balance and harmony with their painting, much in the same way as Persian traditional music does (with a large appearance of translational repetition in rhythmic motifs). In both media the exact reproduction of the thing itself exists. The visual medium expansively reproduces the same visual elements and repeats them in a translational form. It is still possible to compare, since designers ascribe the same structural and aesthetic roles to the paintings to give coherence to them. Symmetry perceived in this way then, does not transfer painting to an audio-'visual' medium, but it is able to create an illusion of musical symmetry. Part of the problem may lie not with symmetry or symmetrical balance, but the intrinsic reference in music or what music means with these illustrations. A perception of symmetry in the context of music, on

the one hand, is inspired by supplementary information from epic poetry, and on the other hand, perhaps far more importantly, is dependent to a large degree on the mental imagery in the mind of the recipient. Whether or not painting in itself can refer to musical symmetry, it is likely that a huge number of mirror imaging in the illustrations, depict and express visual symmetry, and hence, turn it into a useful and applicable visual recourse to bring to mind a mental harmony and balance. It is fair to say that here the primary assumption of adaption of musicalized symmetry by painting is a continuum allowing for an intensive harmony in different pages, and also a continuum alteration in quantity and form of texture on the pages. The features of symmetry on distinct pages are not noticeably different from each other, which calls attention to the self-referentiality of the sign in the process of musicalization.
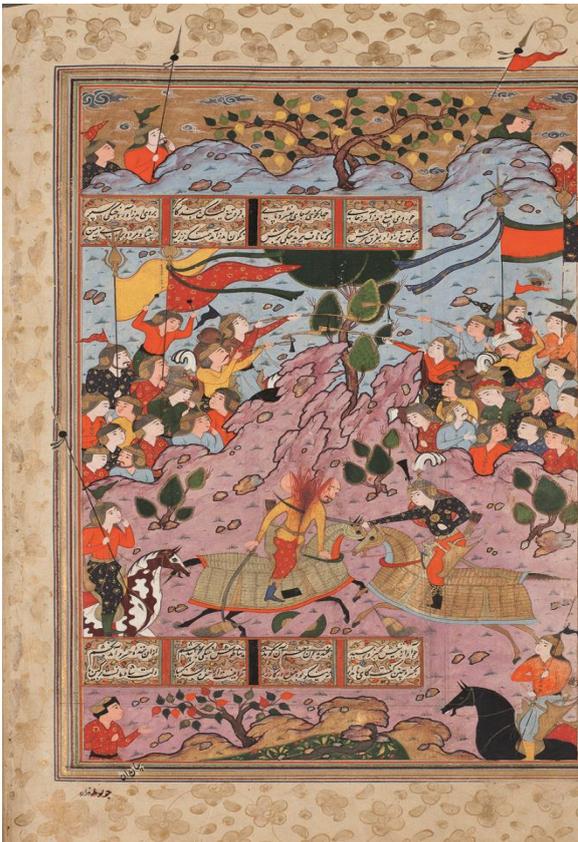
Figure 6. 577. Textual Units and Symmetrical Organization

A Foilo From šāhnāmeh's Šāh Esmāil
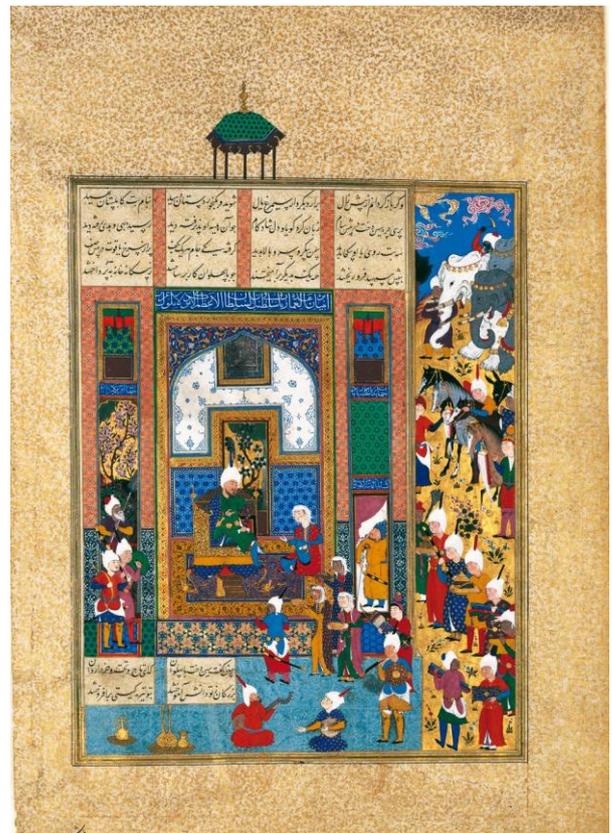
Figure 6. 545.Symmetrical Repetition of Geometric Textures

šāhname of šāh(king) Tahmāsb. Iran, Tabriz. 1525-35.18 3/8 in Aqā xān museum collection, Geneva (AKM00496) Photo: Aga Khan Trust for
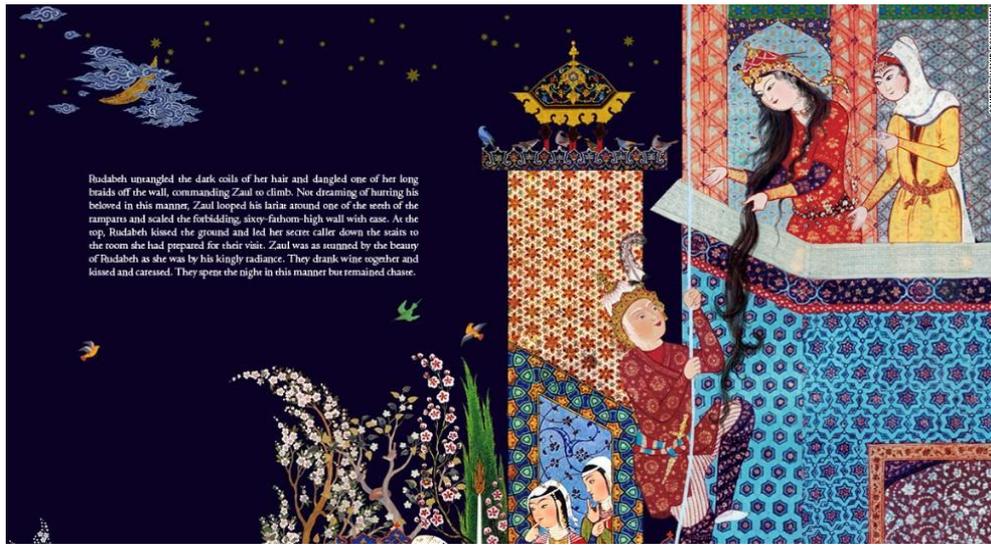
Figure 6. 609. Symmetrical Repetition of Geometric Textures.

The Epic of the Persian Kings, Illustrated by Hamid Rahmanian (2013)
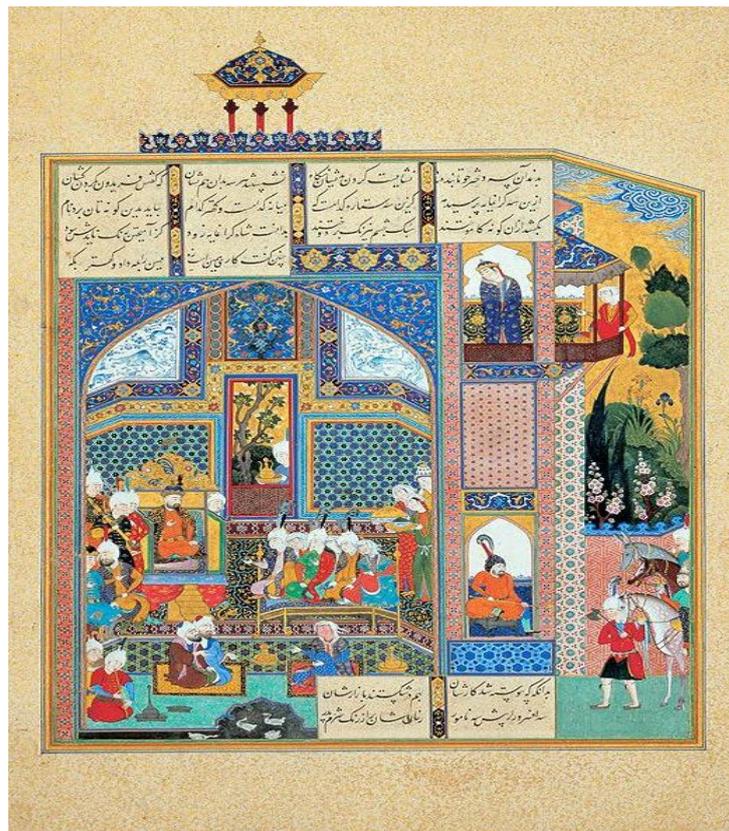
Figure 6. 641. Visual Elements and Harmony of Proportion

Description of page: Fereydoon's Son & Say's Daughter in the Yemeni King Banquest šāh: 17the century CE Safavi Miniature Painting, Persia

Works Cited

AB AL-HASSAN SABĀ, Dureh-i duvvum santūr ("Level 2 for Santūr"), Tihrān, Montakhab Sabā, 1985, II: Radīf Sabā, and p. 16. "Level 2 for Santūr [دوره دوم سنتور] " *Radīf Sabā*, Montakhab Sabā, 1985.

Arnheim, Rudolf. *Art and Visual Perception: A Psychology of the Creative Eye.* Univ of California Press, 1956.

---. *Entropy and Art: An Essay on Disorder and Order.* Univ of California Press, 1974.

Azadehfar, Mohammad Reza. "Conceptualization of Melody Types of Iranian Radīf: A Multidisciplinary Study in Assisting Youth to Employ Traditional Dastgāh-Ha in Improvisation." *Conference on Music in the world of Islam*, vol. 8, 2007.

---. "Melodic Shapes in Gūsheh-Ha of Iranian Radīf." *Journal Dramatic Arts and Music*, vol. 6, no. 12, Summer and Autumn 2016, pp. 99-115.

---. *Rhythmic Structure in Iranian Music.* second edition, ehran University of Arts, 2011.

---. "Symmetrical Balance and Coherence in Iranian Music and Visual Arts a Comparative Study." *Gli spazi della musica*, vol. 3, no. 1, 2014, pp. 32-48, file:///C:/Users/soora/Downloads/642-2377-1-PB.pdf.

Azadehfar, Mohammad Reza et al. پژوهشگران هنرو *[Epic and Music].* حماسه و موسيقي ارتباطات [Researchers of art and communication], 2011.

Borumand, Nor Ali. رديف ميرزاعبدالله *[Repertoire Model of Iranian Music by Mirza 'Abdullāh]* Sorush 1991.

Brattico, Elvira et al. "A Functional Mri Study of Happy and Sad Emotions in Music with and without Lyrics." *Frontiers in psychology*, vol. 2011, 2011, pp. 1-16.

Brattico, Elvira et al. "Toward a Neural Chronometry for the Aesthetic Experience of Music." *Frontiers in psychology*, vol. 4, 2013.

Bruhn, Siglind. "Symmetry and Irreversibility in the Musical Language(S) of the Twentieth Century." *Symmetry: Culture and Science*, vol. 3, no. 2, 1992, pp. 187-200, http://symmetry-us.com/Journals/3-2/bruhn.pdf.

Burunat, Iballa et al. "Action in Perception: Prominent Visuo-Motor Functional Symmetryin Musicians During Music Listening." *PLOS ONE*, 2015, pp. 1-18.

Candy, Soheila R. *The Shahnama of Shah Tahmasp: The Persian Book of Kings.* Metropolitan Museum of Art, 2014.

Cureton, Richard D. "Temporal Poetics: Rhythmic Process as Truth." *The Antioch Review*, vol. 62, no. 1, 2004, pp. 113-121.

Dehlavi, Hosein. پيوند شعر و موسيقى آوازى *[the Relation between Poetry and Vocal Music].* موسسه فرهنگى هنرى ماهور [Cultural and Artisti Institute of Mahur], 2015.

Englund, Axel. "Intermedial Typology and Metaphorical Interaction." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, vol. First Palgrave and Macmillan 2010.

Ferdowsi. *Šāhnameh*. https://ganjoor.net/ferdousi/shahname/lohrasp/sh1/.

Greenberg, David M. "Musical Genres Are out of Date – but This New System Explains Why You Might Like Both Jazz and Hip Hop." The Concerstaion Accessed 4.12 2017.

Hasanzadeh, Mohamad Hosein. "رزم ابزارهاي مجازي در شاهنامه [Combat of Virtual Instruments in Šhahnāmeh]." *Kavoshnameh*, vol. 8, no. 14, 2006, pp. 107-135.

Hillenbrand, Robert, editor. *Shahnama: The Visual Language of the Persian Book of Kings*. Ashgate Publishing Limited 2004.

Hofman-Jablan, J. *Symmetry of Musical Work* 2007. http://www.mi.sanu.ac.rs/vismath/jadrbookhtml/index.html, 6.1.2018.

Hofman-Jablan, Jadranka. *Symmetry of Musical Work*. 2007. http://symmetry-us.com/Journals/jadrbookhtml/index.html, 3. 1. 2018.

Kempf, Davorin. "What Is Symmetry in Music?" *International Review of the Aesthetics and Sociology of Music*, vol. 27, no. 2, 1996, pp. 155-165, http://www.jstor.org/stable/3108344.

Khaleqi, Roholah. *An Overview of Persian Music [نظري به موسيقي]* Safi Ali Shah 2015.

Khazaie, Babak. "Čāhārgāh: From Melody to System [چهارگاه:از نغمه تا دستگاه] ". *Season Magazine of Mahoor*, vol. 57, 2000, pp. 31-48.

Koelsch, Stefan. *Brain and Music* vol. First John Wiley & Sons, 2012.

Krumhansl, Carol L. and Fred Lerdahl. "Musical Tension." *Art and the Senses*, edited by Francesca Bacci and David Melcher, Oxford University Press 2011, pp. 297-325.

Mark, Christopher. "Symmetry and Dynamism in Bartók." *Tempo 183*, vol. 183, 1992, pp. 2-5.

Marzolph, Ulrich. "The Shahnameh in Print: The Lithographed Editions of the Persian National Epic." *Journal of M.E. Literatures*, vol. 13, no. 2, 2002, pp. 177-198.

Mayzus, Ilya. "Issues of Rhythm, Symmetry, and Style in Alfred Schnittke's Concerto for Piano and Strings." *Music* vol. Ph.D., Philosophy, The City University of New York (CUNY), 2016, p. 133. general editor, Jeff Nichols, CUNY, http://academicworks.cuny.edu/gc_etds/698http://academicworks.cuny.edu/gc_etds/698, 06/05/2017.

Middleton, Richard. *Studying Popular Music*. Open University Press, 1990.

Motlagh, Bahman Namvar. "ترامتنيت مطالعهٔ روابط يک متن با ديگر متنها [a Study of Transtextual Relations between Text]." *Human Sciences*, no. 56, 2008, pp. 83-98.

Nemati, Akram Judi. "تناسب رنگ ها در صورخيال و هسته روايي شاهنامه[Harmony in the Imagery and Narrative Mode of Shahnameh." *The Persian language and literature Research*, no. 11, 2007, pp. 57-82.

Nooshin, Laudan. *Iranian Classical Music: The Discourses and Practice of Creativity*. Ashgate Publishing, Ltd, 2015.

Palmer, Stephen E et al. "Aesthetic Issues in Spatial Composition: Effects of Position and Direction on Framing Single Objects." *Spatial Vision*, vol. 21, no. 3, 2008, pp. 421-449, www.brill.nl/sv.

Pearsall, Edward. "Symmetry and Goal-Directed Motion in Music by Bela Bartok and George Crumb " *Tempo 58 (228)*, 2004, pp. 32-40, https:/www.cambridge.org/core, doi:10.1017/S0040298204000129.

Porter, David H. "Reflective Symmetry in Music and Literature." *Perspectives of New Music*, vol. 9, no. 20, 1979, pp. 118-122, Jstor

---. "Reflective Symmetry in Music and Literature." *Perspectives of New Music*, vol. 8, no. 2, 1970, pp. 118-122.

Qaraguzlo, Araš. "بحر متقارب از منظر زيبايي شناسي] Aesthetic of Moteqareb Meter]." *Parnian Soxan*, pp. 363-388.

Ribeiro, Hugo. "Symmetry and Proportion: How These Issues Guide, Inform and Add Coherence to Musical Composition." vol. Ph.D., Doctor of Philosophy,

Canterbury   Christ   Church   University,   2011,   p.   89. http://create.canterbury.ac.uk.

Robinson, Jenefer. "The Expression and Arousal of Emotion in Music." *The Journal of Aesthetics and Art Criticism*, vol. 52, no. 1, 1994, pp. 181-189, doi:10.2307/431581.

---. " Music and Emotions." *Journal of Literary Theory 1.2 (2008*, vol. 1, no. 2, 2008, pp. 394-419, Link: http://nbn-resolving.de/urn:nbn:de:0222-000466

Sanchez-Behar, Alexander. "Symmetry in the Music of John Adams." *Tempo 68*, vol. 68, no. 268, 2014, pp. 46-60, https:/www.cambridge.org/core, doi:0.1017/S0040298213001678.

Shaw-Miller, Simon. "Synaesthesia." *The Routledge Companion to Music and Visual Culture* edited by Tim Shephard and Anne Leonard, Routledge, 2014, pp. 13-23. *Routledge Companions*.

Sievers, Beau et al. "Music and Movement Share a Dynamic Structure That Supports Universal Expressions of Emotion." *Proceedings of the National Academy of Sciences*, vol. 110, no. 1, 2013, pp. 70-75.

Talai, Dariush. "The Musical Language: Elements of Persian Musical Language: Modes, Rhythm and Syntax." *Kimiyaye Honar*, vol. Third Year, no. 3, 2015, pp. 5-35.

Tavana, Akram Ahmadi. "بررسی بینامتنی نگارة پادشاهی جمشید از شاهنامة بایسنقری [Th Analysis of Shahname Baysonghori 'S Illustartion of Kingdom of Jamshid]." *Scientific and Cultural Journal of Nazar*, no. 25, 2013, pp. 47-54.

Torop, Peeter. "Semiospherical Understanding: Textuality." *Sign Systems Studies*, vol. 31, no. 2, 2003, pp. 323-337.

Weyl, Hermann. *Symmetry (Princeton Science Library)* vol. First Princeton Univ, 1952.

Wolf, Werner. *Selected Essays on Intermediality by Werner Wolf (1992–2014): Theory and Typology, Literature-Music Relations, Transmedial Narratology, Miscellaneous Transmedial Phenomena.* Brili, 2017.

Zacks, Jeffrey M. and Barbara Tversky. "Event Structure in Perception and Conception." *Psychological bulletin*, vol. 127, no. 1, 2001.

Zadegan, Sabar Abdolah et al. " تشخیص خودکار دستگاه و گام موسیقی سنتی ایرانی مبتنی بر تکنوازی تاروسنتور به وسیله استخراج نت هوشمند سازهای Recognition of Traditional Iranian Muisc System Based on Extraction of Intelligent Note." *Assiocation od Iranain Computer* vol. 14 University of Mashhad, 2014 pp. 918-922.

Zangwill, Nick. "Music, Metaphor, and Aesthetic Concepts." *The Journal of Aesthetics and Art Criticism*, vol. 72, no. 1, 2014, p. 1/11.

Chapter 7
Conclusion

7.1. Conclusion

In intermedial genre under discussion, there are several examples of strategies that offer a presentation and perception of features of sound and music. Distinctly employed referential strategies mprove reception and presentation of the source medium in the intermedial genre. By employing structures and forms and certain aesthetic metaphors borrowed from music, the epic poetry and painting made through referential strategies evoke, adapt, thematize and imitate music, presenting an alternative and supplementary vision of it (Petermann 211). Interpretively speaking, regarding intermedial strategies, the analysis reveals the possibility of both mono- and pluri-mediality in the musicalization process. The question of musicalization in a historical context and with reference to oral features of Persian music reveals a strong connection between epic poetry and music in terms of rhythmic and metric patterns, melodic and tonal movements, improvisation, vocalization, a generic identity, pitch hierarchy, modal features, homophonic texture and symmetric balance. On the level of content, epic poetry frequently depicts music as a projection space for the receivers. It engages aspects of narrative and reflects an interconnected of musicalized network which a reader who is unfamiliar with music model can also perceive. On a structural level, epic poetry is in part fascinated with music and its inherent coherency.

By bringing the notion of intermediality into the incredible and implausible visual culture, the study could also adeptly develop some insight into and discernment of the inherent qualities of visual media in the musicalization process. An overview of

the illustrations in a historical context reveals some continuity in the musicalization practice, but also some differences in the degree and strategy of intermediality. While painting, in mono-medial form, shows a clear iconography of musical dimensions, such as the depiction of musical instruments on pages of books, in its combination with poetry, it intends to expand and enhance intermedial strategies employed by poetry. The concurrency of painting and poetry urges us to associate an acoustic, or musical, dimension to the stories. Perhaps the claim that painting may provide an unquestionable reflection of musical signs is accuratre, since the relationship of an image to its object is mostly arbitrarily fixed. However, we should consider that many such intermedial aspects are defined and specified by culture, since operational features are always forefront in the intermedial process. What seems to matter in terms of musicalization in the correlation between media is not the referential strategies, but the context to which it is a response and the interpretation attendant upon it. Receivers, "depending on their knowledge of the musical model, are given opportunity to compare the two medial forms, thought [poetry and painting] can be read and enjoyed independently" (Peterman 211). In the case of musical structures, such as those demonstrated in the vocal music of Persian culture, familiarity with the codifying system of Persian music, such as "modality", is perhaps more directly necessary in order to recognize the intermediality. Whereas it is a clear description of some other features of music, such as "rhythm", poetry and painting have provided enough information for a recognition of intermediality for receivers who are unfamiliar with music. The musicalized aspects of narratives certainly resonate with allegation and participation of medial conditions in the medium of painting.

Surprisingly, at a macro level of organization, self-referential methods used by both poetry and paining to re-back to, or refurbish musicalized units, are quite similar. The style of "high referentiality" reflects a core cognitive identity of the media system and provides a certain insight into the characteristics of intermediality in Persian culture. The self-referential strategies employed for a reflection of parameters of performance, rhythm and timbre play a much stronger role in poetry than they do in the medium of painting. 'Recurrence' as one type of self-referentiality, among others, simply was appreciated more for its connection between orality of culture and the musicalization process from an intermedial perspective. As an intermedial phenomenon among the

variations of self-referential references, a largely conventionalized, albeit extremely rare, form of recurrence exists between poetry/painting and the parameters of improvised performance inside the intermedial genre under examination. "Recurrence" appears with a certain frequency and is extended over considerable stretches of respective work. Epic poetry's employment of creative devices of "recursion" for certain musical structures, techniques, and effects, calls attention to certain features of the Persian musical model. In this way, the messages involve references from the medium to an aspect in its own system, creating a kind of intramedial *déja-vu* effect (Nöth *Self Reference*). Recurrence strategies reflected in **painting** might suggest a shift of emphasize onto the potential iconicity of painting in the depiction of musical elements or a highlighting of the transmedia relations between both media. A contrast in the presentation of "recurrence", which can be derived from the nature of media, iconic versus symbolic, brings the different musicalized units into a relationship with one another that will ensure the efficiency and productivity of self-referentiality in the intermedial genre.

The analysis of intermedial references to performance and improvisational techniques in Persian music reveals that imitation by poetry occurs via (1) singers and performance activities; (2) musical figures such as riff and motif and (3) acoustic variations. Riff and motifs both depend on the repetition in a varied story for their recognition, though a riff involves the repetition of very similar wording in a hemistich and a motif tends to be repeated both thematically and rhythmically. Both serve to tie together disparate parts of narratives by linking them to a central idea or central musicalized units (Peterman 212). Epic poetry develops in a stable metric formula while suggesting a compression of existing motifs and a continuous transformation of rhythmic patterns based on the Persian model of improvisation. In this domain, the imitation of sonic patterns of musical instruments occurs by a distinction made between festive and compact music during storytelling. It is nevertheless interesting that there is a proportion of thematic concern revealing itself via "**textual quotation**" of famous musicians and musical terminology. This can be considered as the most important function by which the literacy medium encourages a metaphorical interpretation of music. The intermedial practice suggested by painting can be culturally specified by a

tone-scheme distinction between musical instruments, and ***visualizing noise*** in the related senses. Improvisation forms and develops to this specification.
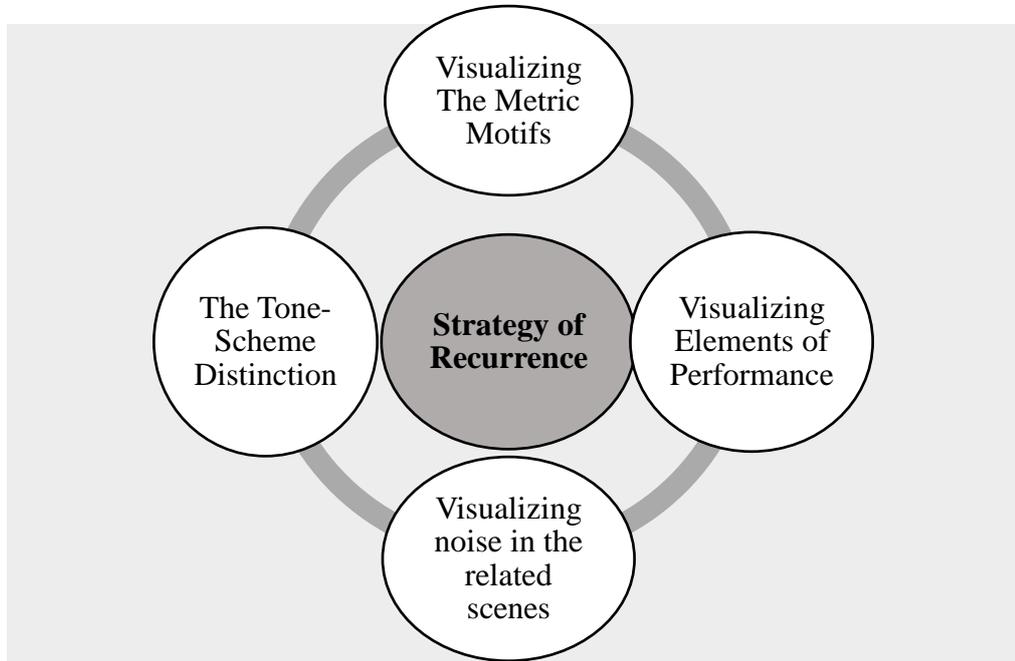
Figure 7. 1. The Strategies of Intermediality in Medium of Painting

It seems that the high degree of reference in the media of painting evolves the visual medium into an exclusive language. More importantly, contemporary illustrations often contain implicit references to the fact that the old illuminated manuscripts supposedly offered a kind of musicalized way of storytelling. In fact, the generic choice of the postmodern illustrations is a symptom of an implicit historical way of thinking about musicalization. Thus, they connect old pictorial representations with a modern way of pictorial storytelling; the illustrations attempt to deconstruct the temporal constrains and move beyond traditional forms via incorporation of more visual elements in order to offer a greater spatialization in the narrative. In this way, not only do they include self-referential references to their own generic form in terms of musicalization, but they suggest new strategies in the presentation of music dimensions, such as an intercultural adaption of dance figures and visual motifs, or an attachment of certain visual colors to musical instruments.

There are also elements of the Persian vocal music that could successfully lend themselves to imitation by epic poetry. The intermedial connections are provided by (1) a modal concern in the narrativity; (2) single line plot progression; (5) the meaningful

interplay between sonic and 'agogic' structures (ordering of durational accent) and (5) sound ornamentation. By employment of a certain metric formula, epic poetry adapts the Persian codifying system in the temporal organization of sounds. Also, it includes an 'agogic' structure in the temporal processing to escape from the quantizing of time into a fixed interval. A high reflection of 'recurrence' in the vocal sounds and the emphasis on stress accent creates a breathtaking knock meter. In this context, as a narrative technique, one of the most striking intra-compositional intermedialities employed by epic poetry is the high degree of "quotation". This feature, which immediately gestures toward the Persian vocal system, refers to "titles" of certain pieces in order to suggest alternatives in terms of the 'effect' in the stories in which they appear. In other words, "quotation" of vocal pieces, as a related technique in intermediality, is amalgamated with a codifying system in Persian music, pointing to a certain effect. The selected titles have the effect of assigning the text to a medium other than their own. In this way, the reference suggested by the medium of a text clearly belongs to the medium of music, and therefore, the intermedial quality is unquestionable. According to Wolf, "a specific reference to a well-known piece of vocal music is much more apt to evoke music in the reader's mind than an unspecific suggestion that some sort of song is sung" (*The Musicalization* 73). Among the intermedial strategies employed by epic poetry, painting only comments on 'rhythm' and the 'ornamentation of sounds'. The intermedial references to *Tahrir* as an ornamentation of sounds create, via visual texture, its position on the page and its quality. The strategy of framing is also employed to benefit from gestalt principles of similarity and grouping in the perception of temporality. A quaternary grouping of visual and verbal units constructs a time zones conflict in the narrativity; spatial and the temporal zones are frequently and persistently interwoven. As a result, it is not the dramatic actions and stories that determine the interaction between poetry, painting and musical rhythm. It is, rather, the time and space alternation that create a musical quality in the narrativity.

This thesis also examined the idea that epic poetry imitates heroic music. With regard to epic poetry, it was claimed that a metaphorical conception of heroic music is suggested by a "system of ideas" as a result of "the configuration of a number of distinguishable modalities" (Englund 70). This means that intermediality in this context should not be merely determined by operational features, but also by historical

evolution, and an extra-compositional relationship between a cycle of media in Persian culture. As this thesis examined, the intermedality to heroic music is perceivable via (1) metric formula and its "fluctuation" character (2) cultural conventions of narrative music and the music of *zurxāneh* and (3) a defined spectrum for heroic emotions in the codification system of Persian music.

To consider symmetry and coherency as inseparable features of music, this thesis examined their adaption and reflection in both media. By preforming a close reading of two stories, it was clear that symmetry in epic poetry is mostly a reflection of the level of succession of sounds, musical phrases and meter in an absolute transformation of *translational* repetition, very similar to the idea of symmetrical patterns in Persian music. The alterations occur in the same way as does Persian music in musical phrase with metric motifs, and often do so in the same dramatic way. There is also a stable *Translational repetition* of plot in distinct stories, which influence the structure of narrativity and the staging of goal-points in the stories. In the presentation of plot in temporal zones and the structures of narratives, there is an inspired symmetrical repetition. The most interesting and questionable aspect regarding the dimension of musical consequences in the visual medium is the intense reflection of "geometric textures" and their rhythmical progress on pages. The symmetrical organization of texture may not provide proper references to intermediality in the musicalization context, but through its comments on the translational repetition of rhythm in Persian music, it may recognize a cultural function in this context.

An important question remains as to what music means for this intermedial genre. There remains a lively debate over what, if anything, music means and how it produces its meaning. The position taken by this study underlines that "music is meaningful not only because it is rich in perceptual information, but because it is organized, and we can predict with more or less success how it will progress" (Davies 114). This study emphasizes the role played by both extra and intra musical meanings in providing referentiality in music: extra-musical meaning emerges from the act of referring a musical sign to an (extra-musical) referent, while intra-musical meaning emerges from the act of referring a structural musical element to another structural musical element (Koelsch *Brain and Music* 154). "Intrinsic references of music within its own closed system [creates] through the establishment of patterns, repetitions,

breaches with conventions, etc., which make connections to other parts of the piece or to forms and patterns shared by other pieces of music" (Petermann 213). The music's expressiveness is "extra" because the reference goes outside the musical work to the world of human feeling. It mostly revels itself at the esthetic level, which needs to be interpreted by listeners (Davies 114). Here I agree with Koelsch that "iconic and indexical meanings in music are typically more a matter of presentation or display than of reference" (Davies 115).

As responses to music, the intermedial genre is musicalized via qualified features of its own media. Such features intend to provide a specified and conventionalized form of musicalization for the receivers. The perception of structural elements, technique, quality, and generic reflection is intentionally and creatively directed to the Persian music model. A conversion of aesthetic features from one medium to another promotes a response from receivers. A perception of poetry and painting as musicalized media is an outcome of 'reading', 'seeing' and 'visualizing' acoustics by a receiver. It is clearly observable that intermediality tends to be perceived through the grouping of smaller units that join together to form larger units in an embedded, hierarchical musicalized fashion (Jennifer Shank 27). A similar mechanism of 'order' can be found in music via an existing relation between 'melody', 'rhythm' and 'harmony, which itself reflects a complex relationship between 'structure' and 'superstructure', or between musical parts and wholes (unity). The medium of music has a capacity for presenting multiple pieces of information simultaneously (Ong 31). There seems to be a chain of structures in both media by which improvised music reveals itself in an intermedial genre. As Jennifer Shank also states: "[a] sequence of musical tones tends to be heard as groupings of organized metrical, rhythmic, melodic and harmonic units. Smaller units are joined together to form larger units in an embedded, hierarchical fashion" (27). Based on such "goal-directed" behavior, the three-artistic media (qualified media) of poetry /painting and music can be bridged by intermediality. The perception of musical character in both the media of poetic text and painting occurs by consideration of such micro-macro level strategies. In fact, the modality modes of both media suggest a hierarchical fashion for presenting the aspects and parameters of music. In this context, "frame of narrative" in the medium of poetry and "frame of description" in the medium of painting are used to connect separated units

together in the context of musicalization. To draw an intermediate summary, the continuity in the harmonization of separated units suggests a *reduction-/unification* strategy in both the medium of painting and of poetry. The modality modes in poetry and painting are trying to link the musical units of each one to the coherence of which they are a part.

This thesis should be considered as a first step in the field of intermedial research, largely taking the form of a cultural study in this context. Through a cultural view on intermedial processes and practices, such research could analytically describe some of the intermedial strategies that have remained far too long on an exclusively logical and theoretical level, and could also explore some cultural strategies that have defined a medium or genre as a musicalized one. In its attempt to study the musicalization of epic poetry and its related illustrations, this study could only examine a few stories and illustrations as case studies of some of the many ways in which the intermedial genre employs features, structures, elements and systems of music. Of course, many stories remain to be analyzed under the heading of musicalization. The findings may be particularly relevant to the further examination of Persian poetic texts in the intermedial zone. However, a complete schema can only be drawn after conducting further research on this intermedial genre. Further analyses are needed to confirm the findings of this study for other forms of music, such as Jazz, pop, and rap. While this study of the musicalization of poetry and painting offers an important starting point in the contribution of the operational and contextual features in this process, it has failed to engage with all the cultural features of Persian music. Thus, further research is needed to determine other features of Persian music in epic poetry and its related illustrations, such as investigation into the **call and response** pattern. It may also be useful to concentrate more on some of the problematic research areas touched on in this thesis regarding musically inspired visual media. The next logical step recommended for this type of research would seem to be a close analysis that focuses in more detail on the different kinds of visual media and the ways they refer to or present music and how narrativity depends to such musicalization methods. Studies of this type might eventually help to disclose the changes that occur in the basic features of media and in the "hierarchy of perception channels in culture" (Torop 327).

Bibliography

"The Iconic Quality of Poetic Rhythm [1986]." *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, edited by Werner Wolf, vol. 14, Brill, pp. 19-33. *Word and Music Studies.*

"Ideology in Words and Music: Proceedings of the 2nd Conference of the Word and Music Association Forum Stockholm, November 8–10, 2012." *Word and Music Association Forum* edited by Beate Schirrmacher et al., US–AB, 2014, pp. 17-39.

"Kornay Found in Taxte Jamšid." Parse Muesuem 15.10.2017 1952. http://www.wikiwand.com/fa/موزه_هخامنشیhttp://www.wikiwand.com/fa/ه_موزه خامنشی.

"Time and Space in Words and Music." *The 1st Conference of the Word and Music Association Forum*, edited by Mario; Burkhard Dunkel, Sauerwald; Petermann, Emily, Peter Lang AG, November 2010. http://web.b.ebscohost.comhttp://web.b.ebscohost.com.

Time and Space in Words and Music : Proceedings of the 1st Conference of the Word and Music Association Forum, Dortmund, November 4-6, 2010. Peterlang AG, 2012. Mario Dunkel et al.

"Time and Space in Words and Music Proceedings of the 1 St Conference of the Word and Music Association Forum." *Word and Music Association Forum*, edited by Mario Dunkel et al., Peterlang 2010

"Visual Culture Isn't Just Visual: Multiliteracy, Multimodality and Meaning." *Studies in Art Education*, vol. 45, no. 3, pp. 252-264, http://www.jstor.org/stable/1320972.

"What Can Music Do to a Poem? New Intermedial Perspectives of Literary Studies [2008]." *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, edited by Werner Wolf, vol. 14, Brill, 2015, pp. 405-412. *Word and Music Studies,* http://dx.doi.org/10.1163/9789004302747_033.

Mitchell, W. J. T. *Picture Theory: Essays on Verbal and Visual Representation.* University of Chicago Press, 1995.

Rippl, Gabriele. "English Literature and Other toward a Poetics of Intermediality." *Imagescapes: Studies in Intermediality*, edited by Christian Emden and Gabriele Rippl, Peter Lang, 2010, pp. 39-65.

(U.S.), Research Center for Musical Iconography. "Music in Art: Iconography as a Source for Music History." *The Ninth Conference of the Research Center for Music Iconography, Commemorating the 20th Anniversary of Death of Emanuel Winternitz (1898-1983)*, vol. 2, 2003.

a, Jesu´s Moya Guijarro and Marı´a Jesu´s Pinar Sanz. "Compositional, Interpersonal and Representational Meanings in a Children's Narrrative a Multimodal Discourse Analysis." *Journal of Pragmatics*, vol. 40, 2008, pp. 1601-1619, www.elsevier.com/locate/pragma.

AB AL-HASSAN SABĀ, Dureh-i duvvum santūr ("Level 2 for Santūr"), Tihrān, Montakhab Sabā, 1985, II: Radīf Sabā, and p. 16. "Level 2 for Santūr [دوره دوم سنتور] " *Radīf Sabā*, Montakhab Sabā, 1985.

Adorno, Theodor W. and Richard Leppert. *Essays on Music.* Univ of California Press,

2002.

Afsarian, Seyed Sobhan. "Architecture and Educational Music in Zurkhaneh [معماری و موسیقی تعلیمی در زورخانه]." *Baq Nazar*, vol. 13, no. 42, 2014.

Allen, David and Pamela K. Hardin. "Discourse Analysis and the Epidemiology of Meaning." *Nursing Philosophy*, vol. 2, no. 2, 2001, pp. 163-176.

Allori, Paola Evangelisti et al., editors. *Evolution in Genre: Emergence, Variation, Multimodality*. Peter Lang AG, 2014.

Andrews, Edna. "A Dialogue on the Sign: Can Peirce and Jakobson Be Reconciled?" *Semiotica* vol. 82, no. 1/2, 1990, p. 1/14.

Applications, Semiotics: Theory and. *Steven C. Hamel.* Nova Science Publishers, 2011. *Languages and Linguistics*

appy, Tony. *Introduction to Peircean Visual Semiotics.* A&C Black, 2013.

Ardalan, Afshin. "Persian Music Meets West." *Music* vol. Bachlor Lahit University of Applied Science, 2010.

Arizpe, Evelyn, Maureen Farrell, and Julie McAdam, eds. *Picturebooks: Beyond the Borders of Art, Narrative and Culture.* Routledge, 2014.

Arnheim, Rudolf. *Art and Visual Perception: A Psychology of the Creative Eye.* Univ of California Press, 1956.

---. *Entropy and Art: An Essay on Disorder and Order.* Univ of California Press, 1974.

Arnheim, Rudolf and W. J. T. Mitchell. "Picture Theory: Essays on Verbal and Visual Representation." *Leonardo*, vol. 28, no. 1, 1995, p. 75, doi:10.2307/1576167.

Arvidson, M. "The Impact of Cultural Studies on Musicology within the Context of Word and Music Studies:Questions and Answers." *Ideology in Words and Music* edited by Beate Schirrmacher et al., vol. Stockholmer Germanistische Forschungen 79, Acta Universitatis Stockholmiensis, 2014, pp. 17-29.

Arya, Divya D. "North Indian Classical Vocal Music for the Classroom." *Music Educators Journal*, vol. 102, no. 1, 2015, pp. 83-89.

Asadian, Homayun. "Persian Music System as a Collection of Modes [دستگاه به عنوان مجموعه‌ای چند مدی]." *Mahur (Tehran)*, vol. 22, 2005

Austin, J. L. "Performative Utterances." *Philosophical Papers*, edited by and G. J. Warnock J. O. Urmson, 3rd edition, Oxford University Press, 1979, pp. 234-252.

Azadehfar, Mohammad Reza. "Conceptualization of Melody Types of Iranian Radīf: A Multidisciplinary Study in Assisting Youth to Employ Traditional Dastgāh-Ha in Improvisation." *Conference on Music in the world of Islam*, vol. 8, 2007.

Azadehfar, Mohammad Reza. "Impact of TaḥRir in Rhythmic Structure of Iranian Classical Music." *Yearly Conferance of Iranain Scholars* 2004.

Azadehfar, Mohammad Reza. "Melodic Shapes in Gūsheh-Ha of Iranian Radīf." *Journal Dramatic Arts and Music*, vol. 6, no. 12, Summer and Autumn 2016, pp. 99-115.

---. *Rhythmic Structure in Iranian Music.* second edition, ehran University of Arts, 2011.

---. "Symmetrical Balance and Coherence in Iranian Music and Visual Arts a Comparative Study." *Gli spazi della musica*, vol. 3, no. 1, 2014, pp. 32-48, file:///C:/Users/soora/Downloads/642-2377-1-PB.pdf.

Azadehfar, Mohammad Reza et al. پژوهشگران هنرو *[Epic and Music].* حماسه و موسیقي ارتباطات [Researchers of art and communication], 2011.

Baetens, Jan. "Monomedial Hybridization in Contemporary Poetry." *CLCWeb:*

Comparative Literature and Culture, vol. 15, no. 7, 2013.

Bakhtan, M. M. *The Dialogic Imagination: Four Essays.* University of Texas Press 1982. *Slavic* Michael Hoguist.

Balandeh, Mahmud. "بررسی بحر طویل در موسیقی و شعر] the Study of *Tavil* Meter in Music and Poetr]." *Quarterly Journal of Art University*, vol. Summer no. 8, 2003, pp. 121-140.

Balkwill, Laura-Lee and William Forde Thompson. "A Cross-Cultural Investigation of the Perception of Emotion in Music: Psychophysical and Cultural Cues." *Music perception: an interdisciplinary journal*, vol. 17 no. 1, 1999, pp. 43-64.

Bánffi-Benedek, Andrea. "Intermedial System References: Paul Celan's Fugal Structures." p. 4.

Baraz, Yelena and Christopher S. van den Berg. "Intertextuality: Introduction " *American Journal of Philology*, vol. Volume 134, no. 91, 2013, pp. 1-8.

Barska, Joanna. "New Story from Old Words": Word and Music Studies and the Poetics of Experience." *Ideology in Words and Music: Proceedings of the 2nd Conference of the Word and Music* edited by Beate Schirrmacher et al., vol. Stockholmer Germanistische Forschungen 79, Acta Universitatis Stockholmiensis, 2014, pp. 31-47. http://www.diva-portal.orghttp://www.diva-portal.org.

Barthes, Roland. *A Barthes Reader.* Hill &Wang 1993. Susan Sontag.

Barthes, Ronald. *Image, Music, Text.* Fontana Press 1977. Essays selected and translated and by Stephen Heath.

Barthes, Roland. . *The Pleasure of the Text.* Macmillan, 1975.

Barthes, Ronald. *The Responsibility of Form: Critical Essays on Music, Art, and Representation* Basil Blackwell 1986.

Barthes, Roland and Lionel Duisit. "An Introduction to the Structural Analysis of Narrative." *New Literary History*, vol. 6, no. 2, 1975, pp. 237-272, http://www.jstor.org/about/terms.html.

Bateman, John. "The Decomposability of Semiotic Modes." *Multimodal Studies: Issues and Domains*, edited by K. L. O'Halloran and B. A. Smith, Routledge, 2011, pp. 17-38.

---. *Multimodality and Genre: A Foundation for the Systematic Analysis of Multimodal Documents.* Springer, 2008.

---. *Text and Image: A Critical Introduction to the Visual/Verbal Divide.* First edition, Routledge, 2014.

Bay-Cheng, Sarah et al., editors. *Mapping Intermediality in Performance*, vol. 4. Amsterdam University Press, 2010.

bay-cheng, sarah et al., editors. *Mapping Intermediality in Performance*. Amsterdam University Press, 2010.

Bazerman, Charles. (2004): 83-96. "Intertextuality: How Texts Rely on Other Texts." *What Writing Does and How It Does It: An Introduction to Analyzing Texts and Textual Practices*, edited by Charles Bazerman and Paul Prior, Lawrence Erlbaum Associates, 2004, pp. 83-96.

Bennett, Benjamin. "The Defective Art of Poetry." Palgrave Macmillan US, 2014. doi:10.1057/9781137381880; http://dx.doi.org/10.1057/9781137381880.

Bennett, Jill. "Aesthetics of Intermediality " *Art History*, vol. 30, no. 3, 2007, pp. 432-450, doi:10.1111/j.1467-8365.2007.00554.x.

Bennett, Tamryn. "Comics Poetry: Beyond 'Sequential Art'." *Image [&] Narrative*, vol.

15, no. 2, 2014, pp. 106-123.

Bernhart, Walter, editor. *Word and Music Studies: Essays on Performativity and on Surveying the Field* Bril (Rodopi), 2011.

Bernhart, Walter and Werner Wolf, editors. *Self-Reference in Literature and Music*. Rodopi, 2010.

Beyzaie, Bahram. "Semiotics of Iranian Myths." video Youtube Oct 12, 2015 2015. https://www.youtube.com/watch?v=1hb71FQSacQ&t=592shttps://www.youtube.com/watch?v=1hb71FQSacQ&t=592s.

Bohn, Willard. *The Aesthetic of Visual Poetry, 1914-1928.* Cambridge. University Press, 1986.

---. *Apollinaire, Visual Poetry, and Art Criticism* Lewisburg: Associated University Presses 1993.

Bolander, Thomas "Self-Reference and Logic." *Phi News*, vol. 1, 2002, pp. 9-44.

Borumand, Nor Ali. ردیف میرزاعبدالله *[Repertoire Model of Iranian Music by Mirza 'Abdullāh]* Sorush 1991.

Brattico, Elvira et al. "A Functional Mri Study of Happy and Sad Emotions in Music with and without Lyrics." *Frontiers in psychology*, vol. 2011, 2011, pp. 1-16.

Brattico, Elvira et al. "Toward a Neural Chronometry for the Aesthetic Experience of Music." *Frontiers in psychology*, vol. 4, 2013.

Brochmeier, Jens et al., editors. *Literacy, Narrative and Culture*. Routledge, 2014.

Bruce, Vicki et al. *Visual Perception: Physiology, Psychology, & Ecology.* 3rd edition, Psychology Press, 2003. *Visual Perception: Physiology, Psychology, & Ecology*.

Bruhn, Siglind. "Penrose,'Seeing Is Believing': Intentionality, Mediation and Comprehension in the Arts." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, vol. First Palgrave Macmillan, 2010, pp. 137-149.

---. "Symmetry and Irreversibility in the Musical Language(S) of the Twentieth Century." *Symmetry: Culture and Science*, vol. 3, no. 2, 1992, pp. 187-200, http://symmetry-us.com/Journals/3-2/bruhn.pdf.

Bruno, Giulina. *Surface: Matters of Aesthetics, Materiality, and Media,. , 2014. 3-5. Print. .* University of Chicago Press, 2014.

Burunat, Iballa et al. "Action in Perception: Prominent Visuo-Motor Functional Symmetryin Musicians During Music Listening." *PLOS ONE*, 2015, pp. 1-18.

Candy, Soheila R. *The Shahnama of Shah Tahmasp: The Persian Book of Kings.* Metropolitan Museum of Art, 2014.

Carney, Russell N. and Joel R. Levin. "Pictorial Illustrations Still Improve Students' Learning from Text." *Educational psychology review*, vol. 14, no. 1, 2002, pp. 5-26.

Catwright, L., and M. Sturken. *Practice of Looking. An Introduction to Visual Culture.* Oxford University Press, 2001.

Chamarette, Jenny. "Transitional Borders and Intermedial Spectacle: Kiarostami and Opera, between France and Iran." *Studies in French Cinema*, vol. 13, no. 3, 2013, pp. 257-271, doi:10.1386/sfc.13.3.257_1.

Chandler, Daniel. *Semiotics: The Basic* Second edition, Routledge, 2007.

Christensen, Arthur. شعر و موسیقی در ایران *[Poem and Music in Ancient Iran].* translated by Abbas Eqbāl, vol. I, Art & Culture 1984.

Christensen, J. Emden and Gabriele Rippl, editors. *Imgescapes:Studies in Intermediality*. Peter Lang AG, 2010.

Clair, Robert N. St. "Cultural Wisdom, Communication Theory, and the Metaphor of Resonance." Intercultural Communication Studies." *Intercultural Communication Studies VIII-1*, vol. 8, 1998-9, pp. 79-102.

Clüver, Claus and Burton Watson. "On Intersemiotic Transposition." *Poetics Today*, vol. 10, no. 1, 1989, pp. 55-90, http://www.jstor.org/stable/1772555.

Colombi, Matteo and Massimo Fusillo. "Artaud, Barney, and the Total Work of Art from Avant-Garde to the Posthuman." *CLCWeb:Comparative Literature and Culture*, vol. 15, no. 7, 2013.

Corbin, Henri. *Mundus Imaginalis, or the Imaginary and the Imaginal.* Golgonooza Press, 1976.

Cristiá, Cintia. "On the Interrelationship between Music and Visual Art in the Twentieth and Twenty-First Centuries: A Possible Typology Derived from Cases Originated in Argentinean Artistic Field." *Trans-Revista Transcultural de Música/Transcultural Music Review*, vol. 16, 2012.

Crosson, Seán. *The Given Note": Traditional Music and Modern Irish Poetry.* Cambridge Scholars Publishing, 2008.

Culler, Jonathan D. *Structuralist Poetics: Structuralism, Linguistics and the Study of Literature.* Routledge & Kegan Paul, 1975.

Cureton, Richard "A Reading in Temporal Poetics: Emily Dickinson's "I Taste a Liquor Never Brewed." *Style in language*, vol. 49, no. 3, 2015, pp. 345-362.

---. "Rhythm, Temporality, and "Inner Form." *Style in language*, vol. 49, no. 1, 2015, pp. 78-109.

Cureton, Richard D. "Temporal Poetics: Rhythmic Process as Truth." *The Antioch Review*, vol. 62, no. 1, 2004, pp. 113-121.

Davies, Stephen. " Questioning the Distinction between Intra- and Extra-Musical Meaning Comment on "Towards a Neural Basis for Processing Musical Semantics"." *Physics of Life Reviews*, vol. 8, no. 2, 2011, pp. 114-115; discussion 125-118

Davison, Alan. "Representing Music- Making " *The Routledge Companion to Music and Visual Culture*, edited by Tim Shephard and Anne Leonard, Routledge 2014.

Dayan, Peter. "Introduction the Five Laws of the Interart Aesthetic." *Art as Music, Music as Poetry, Poetry as Art, from Whistler to Stravinsky and Beyond*, Ashgate, 2011, pp. 18-26.

---. "Zurich Dada, Wagner and the Union of the Arts." *Forum for Modern Language Studies*, vol. 50, no. 4, 2014, doi:0.1093/fmls/cqu028.

De Saussure, Ferdinand. *Course in General Linguistics.* Columbia University Press, 2011.

Dehlavi, Hosein. پیوند شعر و موسیقی آوازی [the Relation between Poetry and Vocal Music]. موسسه فرهنگی هنری ماهور [Cultural and Artisti Institute of Mahur], 2015.

Djonov, Emilia and Theo Van Leeuwen. "Between the Grid and Composition: Layout in Powerpoint's Design and Use." *Semiotica*, vol. 197, 2013, pp. 1-34, doi:10.1515/sem-2013-0078.

Dogantan-Dack, Mine. "Tonality: The Shape of Affect." *Empirical Musicology Review*, vol. 8, no. 3-4, 2013, pp. 208-218.

Donnini, Roberto. "The Visualization of Music: Symmetry and Asymmetry." *Computers & Mathematics with Applications*, vol. 12, no. 1/2. Part B, 1986, pp. 435-463.

Drucker, Johanna. *The Century of Artists' Books*. Granary Books, 1995.

Eco, Umberto. *Semiotics and the Philosophy of Language.* vol. 398, Indiana University Press, 1986.

---. "The Theory of Signs and the Role of the Reader." *The Bulletin of the Midwest Modern Language Association*, vol. 14, no. 1, 1981, pp. 35-45.

Eilittä, Leena. "Introduction: From Interdisciplinarity to Intermediality." *Intermedial Arts: Disrupting, Remembering and Transforming Media*, edited by Leena Eilittä et al., Cambridge Scholars Publishing, 2012, pp. xii-xv.

Eilittä, Leena and Liliane Louvel, editors. *Intermedial Arts: Disrupting, Remembering and Transforming Media*. Cambridge Scholars Publishing, 2011.

Elkins, James. *On Pictures and the Words That Fail Them* Reissue edition edition, Cambridge University Press 2011.

Elkins, Janmes, editor. *Visual Literacy* Routledge, 2010.

Elleström, Lars, editor. *Media Borders, Multimodality and Intermediality*. Palgrave Macmillan, 2010.

---. "The Modalities of Media: A Model for Underestanding Intermdedial Relations." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, Palgrave Macmillan, 2010, pp. 11-48.

Englund, Axel. "Intermedial Typology and Metaphorical Interaction." *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, vol. First Palgrave and Macmillan 2010.

Eyre, Lillian. "The Marriage of Music and Narrative: Explorations in Art, Therapy, and Research." *Voices: A World Forum for Music Therapy*, vol. 7, no. 3, 2015, doi: http://dx.doi.org/10.15845/voices.v7i3.549.

Ferdowsi. *Šāhnameh*. https://ganjoor.net/ferdousi/shahname/lohrasp/sh1/.

---. "Zal Goes to Visit Rudabeh[بخش رفتن زال به نزد رودابه]. First Part." *Shāhnāmeh*, edited by Parviz Atabaki, vol. 5, Elmi Farhangi 2000[1391], pp. 633-657 verses

Ferdowsi, Abu ʾl-Qāsim. "The Šahnāmeh of Šāh Tahmasp: The Persian Book of Kings." *The šahnāmeh of šāh Tahmasp*, edited by Cultural Heritage, Museum Of Golestan Palace 2016.

---. *Shahnameh: The Epic of the Persian Kings (Illustrator: Hamid Rahmanian).* translated by Ahmad Sadri, The Quantuck Lane Press 2017.

Ferdowsi, Abuʾl-Qāsim. *Šāhnāmeh.* Ghatre 2000. Collected by Saied Hamidiyan.

Gadner, Jared. "Storylines. ." *Substance*, vol. 40, no. 1, 2010, pp. 53-69.

Garagozlu, Arash. "بحر متقارب از منظر زیباییشناسي [Aesthetic of Bahre Moteqāreb]." *Research on Persian Literature and Language* pp. 363-389.

Gelikman, Oleg. "Intermediality and Aesthetic Ththeory in Shklovsky's and Adorno's Ththought." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011.

Genz, Julia and Ulrike Küchler, editors. *Metamorphoses of (New) Media*. Cambridge Scholars Publishing 2015

Ghahary, Amir. "Sacred Media: Immersive Architecture & the Aesthetics of Technosacred Space." *School of Interactive Arts and Technology*, vol. Master Communication, Art and Technology

Simon Fraser University, 2012, p. 148. general editor, Chris Shaw.

Gibbons, Alison. *Multimodality, Cognition, and Experimental Literature* Routledge, 2012. *Routledge Studies in Multimodality* Kay L O'Halloran.

Gimber, Arno and Asunción López-Varela Azcárate. "About Intermedialities: A

Review Article of New Work by Paech and Schröter, Chapple and Kattenbelt, and Ellerström." *CLCWeb: Comparative Literature and Culture*, vol. 12, no. 3, 2010, http://docs.lib.purdue.edu.

Gingell, Susan and Wendy Roy, editors. *Listening up, Writing Down, and Looking Beyond: Interfaces of the Oral, Written, and Visual*. Wilfrid Laurier University Press, 2012.

Goltz, Wanja Matthias Freiherr von der. "Functions of Intertextuality and Intermediality in the Simpsons." *Der Fakultät für Geisteswissenschaften*, vol. Ph.D, Philosophie, Duisburg-Essen, 8th August 2017 2011, p. 282. general editor, Josef Raab.

Grabar, Oleg. "Toward an Aesthetic of Persian Painting." In Islamic Visual Culture, 1100-1800: Constructing the Study of Islamic Art. Hampshire." vol. Volume II Ashgate Publishing Limited, 2006, pp. 213-251. https://archnet.org.

Greenberg, David M. "Musical Genres Are out of Date – but This New System Explains Why You Might Like Both Jazz and Hip Hop." The Concerstaion Accessed 4.12 2017.

Griffin, Eve. "Wassily Kandinsky Artist Overview and Analysis." The Art Story Contributors   http://www.theartstory.org/artist-kandinsky-wassily.htm. Accessed 29 Jul 2017 2017.

Grishakova, Marina and Marie-Laure Ryan, editors. *Intermediality and Storytelling*, First edition. Walter de Gruyter, 2010.

Groensteen, Thierry. *Comics and Narration.* vol. Reprint edition, University Press of Mississipp, 2013.

Grusin, Richard and Jay David Bolter. *Remediation: Understanding New Media.* Cambridge, 2000.

Hajarian, Mohsen. *An Introduction to Ethnomusicology* [مقدمه‌ای بر موسیقی شناسی قومی]. Ketabsaraye Nik 2009[1387].

Hall, Stuart. "Representation, Meaning, and Language." *Representation. Cultural Representations and Signifying Practices*, edited by Stuart Hall, Sage 1997, Media and Identities series Culture.

Halliday, Michael Alexander Kirkwood and Ruqaiya Hasan. *Cohesion in English.* Routledge, 2014. *English Language Series*.

Hannon, Erin E. et al. "Familiarity Overrides Complexity in Rhythm Perception: A Cross-Cultural Comparison of American and Turkish Listeners." *Journal of Experimental Psychology: Human Perception and Performance*, vol. 383, no. 3, (2012, February 20), pp. 543-548, doi:doi: 10.1037/a002722.

Hansen, Mark B.N. *New Philosophy for New Media. Mit Press,.* MIT Press 2004.

Hasanzadeh, Mohamad Hosein. "رزم ابزارهای مجازی در شاهنامه" [Combat of Virtual Instruments in Šhahnāmeh]." *Kavoshnameh*, vol. 8, no. 14, 2006, pp. 107-135.

Hauser, Marc D et al. "The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?" *Science*, vol. 298, no. 5598, 2002, pp. 1569-1579, doi:10.1126/science.298.5598.1569.

Haustein, K. "How to Read Barthes' Image -- Music -- Text." *French Studies*, vol. 68, no. 1, 2014, pp. 126-126, doi:10.1093/fs/knt289.

Hayles, N. Katherin. *Chaos Bound: Orderly Disorder in Contemporary Literature and Science* Cornell University Press, 1990.

Hellmuth Margulis, Elizabeth *On Repeat: How Music Plays the Mind.* Oxford University 2014.

Hellmuth Margulis, Elizabeth. "One More Time: Why Do We Listen to Our Favourite Music over and over Again? Because Repeated Sounds Work Magic in Our Brains." 2014, https://aeon.co/essays/why-repetition-can-turn-almost-anything-into-music.

Herkman, Juha. "Introduction: Intermediality as a Theory and Methodology." *Intermediality and Media Change* edited by Juha Herkman et al., Tampere University Press ja tekijät, 2012, pp. 10-27.

Herkman, Juha et al., editors. *Intermediality and Media Change* Tampere University Press 2012.

Hertz, David M. "The Composer's Musico-Literary Experience: Reflections on Song Writing." *Musico-Poetics in Perspective: Calvin S. Brown in Memoriam (Word and Music Studies, Band 2)*, edited by Jean-Louis Cupers Ulrich Weisstein, Brill | Rodopi 2000, pp. 17-27.

Hillenbrand, Robert, editor. *Shahnama: The Visual Language of the Persian Book of Kings*. Ashgate Publishing Limited 2004.

Hofman-Jablan, J. *Symmetry of Musical Work* 2007. http://www.mi.sanu.ac.rs/vismath/jadrbookhtml/index.html, 6.1.2018.

Horodowich, Elizabeth. "Introduction: Speech and Oral Culture in Early Modern Europe and Beyond."*: Journal of Early Modern History*, vol. 16, no. 4-5, 2012, pp. 301-313.

Hunt, John Dixon et al. *Art, Word and Image: Two Thousand Years of Visual/Textual Interaction* University of Chicago Press 2010.

Ingham, Michael. *Stage-Play and Screen-Play: The Intermediality of Theatre and Cinema.* Taylor & Francis, 2016.

Iranway. "Karnay or Sorna (Woodwind Instrument)." vol. 235 × 372 15.10.2017 17 April 2010. http://en.wikipedia.org/wiki/File:Sorna2.jpg http://en.wikipedia.org/wiki/File:Sorna2.jpg.

Jäger, Ludwig et al. *Media, Culture, and Mediality: New Insights into the Current State of Research.* transcript Verlag, 2010.

Jakobson, Roman. "Closing Statements: Linguistics and Poetics." *Style in Language*, edited by Thomas Albert Sebeok, MA: MIT Press, 1960, pp. 350-377.

---. "Linguistics and Poetics." *Language in Literature* edited by Krystyna Pomorska and Stephen Rudy, Belknap Press, 1987, pp. 62-93.

Jappy, Tony. *Introduction to Peipcean Visual Semiotics* Bloomsbury Academic 2013.

Jenkins, Henry. *Convergence Culture: Where Old and New Media Collide.* NYU Press, 2006.

Jewitt, Carey. "The Move from Page to Screen: The Multimodal Reshaping of School English." *Visual Communication,*, vol. 1, no. 2 2002b, pp. 171-196.

---. "Multimodal Methods for Researching Digital Technologies." *The Sage Handbook of Digital Technology Research* edited by Sara Price et al., 2013, pp. 250-265.

---, editor. *The Routledge Handbook of Multimodal Analysis* Routledge: Taylor & Francis Group, 2009 (2011).

Jormakka, Kari. *Flying Dutchmen: Motion in Architecture.* Birkhäuser 2002.

Kandinsky, Wassily and Hilla Rebay. *Point and Line to Plane* Dover Publications 1979.

Kattenbelt, Chiel. "Intermediality in Theatre and Performance: Definitions, Perceptions and Medial Relationships." *Culture, Language and Presentation*, vol. VI, 2008, pp. 19-29.

Kelly, Veronika. "Metaphors of Resonance for Visual Communication Design." *Visual*

Communication, vol. 13, no. 2, 2014, pp. 211-230, doi:10.1177/1470357213516909.

Kempf, Davorin. "What Is Symmetry in Music?" *International Review of the Aesthetics and Sociology of Music*, vol. 27, no. 2, 1996, pp. 155-165, http://www.jstor.org/stable/3108344.

Ketteler, Rolf and Jorg Jewanski. "Musik Und Bildende Kunst " *Musik in Geschichte Und Gegenwart*, edited by Ludwig Finscher, vol. 6, Bärenreiter, 1997, pp. 745-783.

Khaleqi, Roholah. *An Overview of Persian Music [نظري به موسيقي]* Safi Ali Shah 2015.

Khazaie, Babak. "Čāhārgāh: From Melody to System [چهارگاه:از نغمه تا دستگاه]." *Season Magazine of Mahoor*, vol. 57, 2000, pp. 31-48.

Kittler, Friedrich A. . *Gramophone, Film, Typewriter*. . Stanford University Press, 1999.

Kittler, Friedrich A. "Introduction: Friedrich Kittler and Media Discourse Analysis." *Gramophone, Film, Typewriter*, edited by Geoffrey Young (trans), Stanford UP, 1999, pp. Xi-Xli.

Kittler, Friedrich A, translated by Erik Butler. *The Truth of the Technological World: Essays on the Genealogy of Presence.* Stanford University Press, 2014.

Kobayashi-Bredenstein, Naoko. *Wassily Kandinskys Frühe Bühnenkompositionen Über Körperlichkeit Und Bewegung.* Walter de Gruyter 2012.

Koelsch, Stefan. *Brain and Music* vol. First John Wiley & Sons, 2012.

Kramer, S., and H. Bredekamp. "Culture, Technology, Cultural Techniques - Moving Beyond Text1." *Theory, Culture & Society*, vol. 30, no. 6, 2013, pp. 20-29, Tübingen University.

Kraxenberger, Maria. "Jakobson Revisited: Poetic Distinctiveness, Modes of Operation, and Perception." *Rivista Italiana di Filosofia del Linguaggio*, vol. 8, no. 1, 2014, pp. 10-21, doi:4396/20140603.

Kress, Gunther and Theo Van Leeuwen. "Colour as a Semiotic Mode: Notes for a Grammar of Colour." *Visual Communication*, vol. 1, no. 3, 2002, pp. 343-368, Sage Publication doi:10.1177/147035720200100306.

Kress, Gunther R. "Gains and Losses: New Forms of Texts, Knowledge, and Learning." *Computers and Composition*, vol. 22, 2005, pp. 5-22, doi:10.1016/j.compcom.2004.12.004.

Kress, Gunther R. *Multimodality: A Social Semiotic Approach to Contemporary Communication.* Routledge, 2010.

Kress, Gunther R. and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design.* Routledge, 1996.

Krumhansl, Carol L. and Fred Lerdahl. "Musical Tension." *Art and the Senses*, edited by Francesca Bacci and David Melcher, Oxford University Press 2011, pp. 297-325.

Kukkonen, Karin. *Contemporarz Comics Storytelling* University of Nebraska Press, 2013. Jesse E.Matz and David Herman.

Lazutina, Tatiana Vladimirovna and Nicolay Konstantinovich Lazutin. "The Language of Music as a Specific Semiotic Structure." *Asian Social Science*, vol. 11, no. 7, 2015, www.ccsenet.org/ass.

Lechte, John. *Genealogy and Ontology of the Western Image and Its Digital Future.* Taylor & Francis, 2012.

---. *Genealogy and Ontology of the Western Image and Its Digital Future.* Taylor & Francis, 2012. Routledge Advances in Art and Visual Studies.

Ledesma, Eduardo. "Intermediality and Spanish Experimental Cinema: Text and Image Interactions in the Lyrical Films of the Barcelona School." *Journal of Spanish Cultural Studies*, vol. 14, no. 3, 2013, pp. 254-274, doi:10.1080/14636204.2013.888259.

Lefebvre, Henri. *Rhythmanalysis: Space, Time and Everyday Life.* A&C Black, 2004.

---. *Rhythmanalysis: Space, Time, and Everyday Life. London.* Continuum, 2004.

LEMKE, JAY L . "Travels in Hypermodality." *Viisual Communication*, vol. 1, no. 3, 2002, pp. 299–325 doi:10.1177/147035720200100303.

Leppert, Richard. "Seeing Music." *The Routledge Companion to Music and Visual Vulture* Routledge, 2014, pp. 7-13. Tim Shephard and Anne Leonard.

---. *The Sight of Sound: Music, Representation, and the History of the Body.* Univ of California Press, 1993.

Lerdahl, Fred. "The Sounds of Poetry Viewed as Music." *Annals of the New York Academy of Sciences*, vol. 93ß, no. 1, 2001, pp. 337-354.

Lerdahl, Fred and Ray Jackendoff. *A Generative Theory of Tonal Music.* MIT press, 1985.

Levitin Daniel, J. *This Is Your Brain on Music.* Dutton Penguin, 2006.

Liebhaber, S. "Rhythm and Beat: Re-Evaluating Arabic Prosody in the Light of Mahri Oral Poetry." *Journal of Semitic Studies*, vol. 55, no. 1, 2010, pp. 163-182, doi:10.1093/jss/fgq048.

Lu, Xing. . *Rhetoric in Ancient China, Fifth to Third Century, B.C.E. A Comparison with Classical Greek Rhetoric.* Columbia, S. C, 1998.

Lwin, S. Marlar. "Capturing the Dynamics of Narrative Development in an Oral Storytelling Performance: A Multimodal Perspective." *Language and Literature*, vol. 19, no. 4, 2007, pp. 357-377.

Macken-Horarik, Mary. "Interacting with the Multimodal Text: Reflections on Image and Verbiage in Art Express." *Visual Communication*, vol. 3, no. 1, 2004, pp. 5-26.

Mark, Christopher. "Symmetry and Dynamism in Bartók." *Tempo 183*, vol. 183, 1992, pp. 2-5.

Martinengo, Alberto. "From the Linguistic Turn to the Pictorial Turn — Hermeneutics Facing the 'Third Copernican Revolution'." *Proceedings of the European Society for Aesthetics*, vol. 5, 2013, pp. 301-312.

Martinez, José Luiz. *Semiosis in Hindustani Music.* vol. 15, Motilal Banarsidass Publ, 2001.

---. "A Semiotic Theory of Music: According to a Peircean Rationale " *The Sixth International Conference on Musical Signification*
1998.

Martinic, Radan and Andrew Salway. "A System for Image–Text Relations in New (and Old) Media." *Visual Communication*, vol. 4, no. 3, 2005, pp. 337–371, doi:10.1177/1470357205055928.

Marzolph, Ulrich. "The Shahnameh in Print: The Lithographed Editions of the Persian National Epic." *Journal of M.E. Literatures*, vol. 13, no. 2, 2002, pp. 177-198.

Mayzus, Ilya. "Issues of Rhythm, Symmetry, and Style in Alfred Schnittke's Concerto for Piano and Strings." *Music* vol. Ph.D., Philosophy, The City University of New York (CUNY), 2016, p. 133. general editor, Jeff Nichols, CUNY, http://academicworks.cuny.edu/gc_etds/698http://academicworks.cuny.edu/gc_etds/698, 06/05/2017.

McCloud, Scott *Understanding Comics: The Invisible Art.* Mass, 1993.

Mcdonald, Edward. "Embodiment and Meaning: Moving Beyond Linguistic Imperialism in Social Semiotics." *Social Semiotics*, vol. 23, 2013, p. 319.

McHale, Brian. *The Obligation toward the Difficult Whole: Postmodernist Long Poems.* University Alabama Press, 2004.

McLuhan, Marshall. *Understanding Media the Extensions of Man.* MIT Press, 1994.

---. "Visual and Acoustic Space." *Audio Culture*, 2004, pp. 67-72.

Meisami, Julie. *Structure and Meaning in Medieval Arabic and Persian Lyric Poetry: Orient Pearls (Culture and Civilization in the Middle East).* Routledge; Reissue edition, 2011. *Culture and Civilization in the Middle East.*

Melcher, David. "Improvisation in Time: The Art of Jazz- David Melcher Interviews with Greg Osby and Skip Hadden." *Art and the Senses*, edited by Francesca Bacci and David Melcher, Oxford University Press 2011, pp. 293-309.

Melcher, David and Massimiliano Zampini. "The Sight and Sound of Music: Audio-Visual Interactions in Science and the Arts." *Art and the Senses*, Oxford University Press, 2011, pp. 256-292. Francesca Bacci and David Melcher

Merrell, Floyd. *Peirce, Signs, and Meaning (Toronto Studies in Semiotics).* University of Toronto Press, 1997.

Meyer, Petra M. *Acoustic Turn.* Fink, Wilhelm, 2008.

Middleton, Richard. "Popular Music Analysis and Musicology: Bridging the Gap." *Popular Music*, vol. 12, no. 2, 1993, http://www.jstor.org/stable/931297.

---. *Studying Popular Music.* Open University Press (1990-2002).

Miller, J. Hillis. *The Medium Is the Maker: Browning, Freud, Derrida, and the New Telepathic Ecotechnologie.* Sussex Academic Press, 2009.

Mirzoeff, Nicholas. *An Introduction to Visual Culture.* Psychology Press,, 1999.

Mitchell, W. J. T. *Iconology: Image, Text, Ideology.* University of Chicago Press, 2013.

---. "Showing Seeing: A Critique of Visual Culture." *Journal of Visual Culture*, vol. 1, no. 2, 2002, pp. 165-181, doi:10.1177/147041290200100202.

Mitchell, William J. Thomas. *What Do Pictures Want: The Lives and Loves of Images.* The University of chicago Press, 198 (2005). W. J. T. Mitchell.

Mitchell, W. J. T. "What Is an Image?" *New Literary History*, vol. 15, no. 3, 1984, p. 503, doi:10.2307/468718.

---. "What Is an Image?" *New Literary History*, vol. 15, no. 3 (Image/Imago/Imagination), 1984, pp. 503-537, http://www.jstor.org.

Mitchell, W. J.T. and Mark B. N. Nansan, editors. *Critical Terms for Media Studies.* The University of Chicago Press 2010.

Mitchell, WJ Thomas. *Picture Theory: Essays on Verbal and Visual Representation. .* University of Chicago Press, 1995.

Mongoven, Casey and Claus-Christian Carbon. "Acoustic Gestalt: On the Perceptibility of Melodic Symmetry." *Musicae Scientiae (sage)*, vol. 21, no. 1, 2017, pp. 41-59.

Motlagh, Bahman Namvar. "ترامتنیت مطالعۀ روابط یک متن با دیگر متنها [a Study of Transtextual Relations between Text]." *Human Sciences*, no. 56, 2008, pp. 83-98.

Motta, Carol R. "The Musicalization of Fiction: A Study in the Theory and History of Intermediality (Review)." *Comparative Literature Studies*, vol. 39, no. 1, 2002, pp. 87-91, doi:10.1353/cls.2002.0008.

Muscato, Christopher. "Accents in Music: Definition & Types." *AP Music Theory:*

Exam Prep   / Humanities Courses. http://study.com/academy/lesson/accents-in-music-definition-types.html. Accessed 30.10 2017.

Napier, John James. "Novelty That Must Be Subtle: Continuity, Innovation and 'Improvisation'in North Indian Music." *Critical Studies in Improvisation*, 2006 (2017), pp. 1-17.

---. "A Subtle Novelty: Repetition, Transmission and the Valorisation of Innovation within North Indian Classical Music." *Critical Studies in Improvisation / Études critiques en improvisation*, vol. 1, no. 3, 2006, doi:10.21083/csieci.v1i3.55.

Nasr, Seyyed Hossein. "The World of Imagination and the Concept of Space in the Persian Miniature." *Islamic Quarterly*, vol. xIII, 1987, pp. 129-134.

Nemati, Akram Judi. "تناسب رنگ ها در صورخیال و هسته روايي شاهنامه] Harmony in the Imagery and Narrative Mode of Shahnameh." *The Persian language and literature Research*, no. 11, 2007, pp. 57-82.

Nettl, Bruno. "On the Concept of Improvisation in the World's Musics-an Informal Talk." *dutch journal of music theory*, vol. 13, no. 1, 2008.

Nettl, Bruno and Philip V. Bohlman. "On World Music as a Concept in the History of Music Scholarship." *The Cambridge History of World Music*, 2013, pp. 23-54.

Nikolajeva, Maria and Carole Scott. *How Picturebooks Work*. Routledge, 2006.

Nooshin, Laudan. "Introduction to the Special Issue: The Ethnomusicology of Western Art Music." *Ethnomusicology Forum*, vol. 20, no. 3, 2011, pp. 285-300, http://dx.doi.org/10.1080/17411912.2011.659439, doi:10.1080/17411912.2011.659439.

---. *Iranian Classical Music: The Discourses and Practice of Creativity*. Ashgate Publishing, Ltd, 2015.

Nooshin, Laudan and Richard Widdess. "Improvisation in Iranian and Indian Music." *Journal of the Indian Musicological*, 2006, pp. 1-14.

Nordenfalk, Carl Adam Johan. *Studies in the History of Book Illumination*. Pindar Press 1992.

Nöth, Winfried. "The Death of Photography in Self-Reference." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, vol. 6, Mouton de Gruyter, 2007.

---. "Metapictures and Self-Referential Pictures." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, vol. 6, Walter de Gruyter, 2007.

---. "Self-Reference in the Media: The Semiotic Framework." *Self-Reference in the Media*, edited by Winfried Nöth and Nina Bishara, Mouton de Gruyter, 2007, pp. 3-30.

---. "Semiotic Foundations of Iconicity in Language and Literature." *The Motivated Sign (Iconicity in Language and Literature 2)* edited by Olga Fischer and Max Nänny, John Benjamins Publishing Company, 2001, pp. 17-28.

---. "Translation and Semiotic Mediation." *Sign Systems Studies*, vol. 40, no. 3/4, 2012, pp. 272-298.

Nöth, Winfried and Isabel Jungk. "Peircean Visual Semiotics: Potentials to Be Explored." *Semiotica*, vol. 2015, no. 207, 2015, pp. 657-673, doi:10.1515/sem-2015-0058.

Nurmesjärvi, Terhi. "Musematic and Discursive Repetition: A Study of Repetition in Popular Music Analysis " *Musicology* vol. Master University of Jyväskyä, 1997, p. 65. general editor, Prof Gradu.

Odmark, John. "The Implication of Sigmatic Aspect of the Artist Sign for the Theory

of Pragmatics." *Semiotics Unfolding: Proceedings of the Second Congress of the International Association for Semiotic Studies, Vienna, July 1979*, edited by Tasso Borbé, Mouton Publishers, 1983, pp. 245-251.

O'Halloran, Kay, editor. *Multimodal Discourse Analysis: Systemic Functional Perspectives*. Continuum 2004.

Ong, Walter J. *Orality and Literacy:The Technologizing of the World* Routledge, 1982 (2002).

Oosterling, Henk. "Sens (a) Ble Intermediality and Interesse: Towards an Ontology of the in-Between." *Intermédialités: Histoire et théorie des arts, des lettres et des techniques/Intermediality: History and Theory of the Arts, Literature and Technologies*, no. 1, 2003, pp. 29-46.

O'Toole, Michael. *The Language of Displayed Art.* Fairleigh Dickinson Univ Press, 1994.

Paech, Joachim and Jens Schröter. *Intermedialität - Analog /Digital: Theorien, Methoden, Analysen.* Wilhelm Fink.

Painter, Clare et al. *Reading Visual Narratives: Image Analysis of Children's Picture Books.* Equinox Publishing, 2013.

Palmer, Stephen E et al. "Aesthetic Issues in Spatial Composition: Effects of Position and Direction on Framing Single Objects." *Spatial Vision*, vol. 21, no. 3, 2008, pp. 421-449, www.brill.nl/sv.

Patel, Aniruddh D. and Joseph R. Daniele. "An Empirical Comparison of Rhythm in Language and Music." *Cognition*, vol. 87, no. 1, 2003, pp. B35-B45, doi:10.1016/s0010-0277(02)00187-7.

Pater, Walter and Donald L. Hill. *The Renaissance: Studies in Art and Poetry.* Univ of California Press, 1980.

Pearsall, Edward. "Symmetry and Goal-Directed Motion in Music by Bela Bartok and George Crumb " *Tempo 58 (228)*, 2004, pp. 32-40, https:/www.cambridge.org/core, doi:10.1017/S0040298204000129.

Peirce, Charles Sanders. *The Collected Papers of Charles Sanders Peirce*. edited by Charles Hartshorne et al., Cambridge, MA: Harvard University Press,

(Quoted as CP. Reference is made to vols. and paragraphs.) 1931-1958.

Peirce, Charles Sanders and Victoria Welby. *Semiotic and Significs. The Correspondence between Charles S. Peirce and Lady Victoria Welby.* Indiana University Press (Original from the University of Michigan), 1977.

Peled-Elhanan, Nurit. "Layout as Punctuation of Semiosis: Some Examples from Israeli Schoolbooks." *Visual Communication*, vol. 8, no. 1, pp. 91-116, doi:10.1177/1470357208099149.

Petermann, Emily. *The Musical Novel: Imitation of Musical Structure, Performance, and Reception in Contemporary Fiction.* New-Edition edition, Camden House, Boydell & Brewer, 2014. *European Studies in North American Literature and Culture*, vol. 03.

Porter, David H. "Reflective Symmetry in Music and Literature." *Perspectives of New Music*, vol. 8, no. 2, 1970, pp. 118-122.

Pressing, Jeff. "Relations between Musical and Scientific Properties of Time." *Contemporary Music Review*, vol. 7, no. 2:Time in Contemporary Musical Thought, 193, pp. 105-122.

Prior, Paul. "Moving Multimodality Beyond the Binaries: A Response to Gunther Kress' "Gains and Losses"." *Computers and Composition*, vol. 22, 2005, pp. 23-

30.

Qaraguzlo, Araš. "بحر متقارب از منظر زيبايي شناسي] Aesthetic of Moteqareb Meter]."
    Parnian Soxan, pp. 363-388.

Queiroz, João and Floyd Merrell. "Semiosis and Pragmatism: Toward a Dynamic
    Concept of Meaning." *Sign Systems Studies*, 2006, pp. 37-65.

Rahmanian, Hamid. "The Epic of the Persian Kings Book: Šāhnāmeh." The Quantuck
    Lane   Press,   2013.
    https://www.theepicofthepersiankings.com/https://www.theepicofthepersianki
    ngs.com/.

Rajewsky, Irina. "Intermediality, Intertextuality, and Remediation: A Literary
    Perspective on Intermediality." *History and Theory of the Arts, Literature and
    Technologies*, vol. 6, 2005, pp. 43-64.

Randel, Don Michael. *The Harvard Dictionary of Music (Harvard University Press
    Reference Library.* vol. 4th Revised edition, Harvard University Press, 2003.

Ribeiro, Hugo. "Symmetry and Proportion: How These Issues Guide, Inform and Add
    Coherence to Musical Composition." vol. Ph.D., Doctor of Philosophy,
    Canterbury   Christ   Church   University,   2011,   p.   89.
    http://create.canterbury.ac.uk.

Rippl, Gabriele, editor. *Handbook of Intermediality:Literature-Image-Sound-Music* De
    Gruter, 2015.

Robinson, Jenefer. "The Expression and Arousal of Emotion in Music." *The Journal of
    Aesthetics and Art Criticism*, vol. 52, no. 1, 1994, pp. 181-189,
    doi:10.2307/431581.

---, editor. *Music & Meaning*. Cornell University Press, 1997.

---. " Music and Emotions." *Journal of Literary Theory 1.2 (2008*, vol. 1, no. 2, 2008,
    pp. 394-419, Link: http://nbn-resolving.de/urn:nbn:de:0222-000466

Rosen, Joe. *Symmetry Rules. How Science and Nature Are Founded on Symmetry.*
    Springer, 2008.

Rosenthal, Sandra B. "Semiotic and Significs: The Correspondence between Charles S.
    Peirce and Lady Victoria Welby (Review)." *Journal of the History of
    Philosophy*, vol. 17, no. 4, 1979, pp. 487-487, doi:10.1353/hph.2008.0030.

Ross, Leslie. *Text, Image, Message: Saints in Medieval Manuscript Illustrations.*
    Greenwood Press, 1994.

Ryan, Marie-Laure, editor. *Narrative across Media: The Language of Storytelling*
    University of Nebraska Press, 2004.

Salamatbavil, Latifeh. "Comparative Study of Siavash and Soodabeh Story from
    Shahnameh of Ferdowsi with Hyppolite and Phedre Story Worked by Racine."
    Academic Journal of Interdisciplinary Studies, vol. 2, no. 9, 2003.

Salamon, Justin J. "Melody Extraction from Polyphonic Music Signals." *Universitat
    Pompeu Fabra*, vol. Ph.D Information and Communication Technologies,
    Universitat Pompeu Fabra, 8th August 2017 2013. general editor, Emilia
    G´omez Guti´errez.

Samadi, Hajar and nemat Laleie. *Illustrations of Šāhnāmeh Attributed to Mirzā Ali-Qoli
    Xuie [تصاوير شاهنامه فردوسى].* Talif Instiute 1999.

Sanchez-Behar, Alexander. "Symmetry in the Music of John Adams." *Tempo 68*, vol.
    68,   no.   268,   2014,   pp.   46-60,   https:/www.cambridge.org/core,
    doi:0.1017/S0040298213001678.

Schimmel, Annemarie. *Rumi's World: The Life and Works of the Greatest Sufi Poet.*

Shambhala Publications, 2001.

Schriver, Karen A. . *Dynamics in Document Design: Creating Text for Readers.* Wiley, 1997.

Schröter, Jens. "Discourses and Models of Intermediality." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011, doi:10.7771/1481-4374.1790.

Schwarcz, Joseph H *Ways of the Illustrator: Visual Communication in Children's Literature.* American Library Association, 1982.

Schweighauser, Philipp. *The Noises of American Literature 1890-1985: Toward a History of Literary Acoustics.* 1st edition edition, Library of Congress Cataloging-in-Publication Data 2006.

Scruton, Roger. *The Aesthetics of Music.* Clarendom Press, 1997 (2009).

seijani, neda. "Čeqamiš: The First Center of Book and Language (چغامیش ، نخستین مرکز خط و کتاب ایران)" Anjoman Mafakher Memari Iran ammi.ir/-و-معماری/مقالات/مقالات-و-اخبار شهرسازی/چغامیش/. 2017.

Shackelford, Laura. "Migrating Modes: Multimodality in E-Poetics as Another Kind of Language." *Mosaic: a journal for the interdisciplinary study of literature*, vol. 47, no. 4, 2014, pp. 99-118.

Shang, Biwu. "Postmodernist Poetics and Narratology: A Review Article About Mchale's Scholarship." *CLCWeb: Comparative Literature and Culture*, vol. 16, no. 3, 2014, http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=2437&context=clcweb.

Shank, Jennifer Sue. "The Effect of Visual Art on Music Listening." *University of Kentucky* vol. Doctoral University of Kentucky 2003. http://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1400&context=gradschool_disshttp://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1400&context=gradschool_diss.

Shaw-Miller, Simon. "Synaesthesia." *The Routledge Companion to Music and Visual Culture* edited by Tim Shephard and Anne Leonard, Routledge, 2014, pp. 13-23. *Routledge Companions*.

Shephard, Tim and Anne Leonard, editors. *The Routledge Companion to Music and Visual Culture*. Routledge, 2014.

Shivaei, Razieh, and Hossein Vahid Dastjerdi. "Componential Analysis of Equivalents in Multimodal Translation: A Study of English and Persian Descriptions of Historical Objects in Iranian Museum Captions." *Journal of Language Translation*, vol. 12, no. 1, 2011, pp. 197-242.

Sievers, Beau et al. "Music and Movement Share a Dynamic Structure That Supports Universal Expressions of Emotion." *Proceedings of the National Academy of Sciences*, vol. 110, no. 1, 2013, pp. 70-75.

Silverstone, Roger. *Why Study the Media?* Sage 1999.

Simpson, Marianna Shreve. "Mostly Modern Miniatures: Classical Persian Painting in the Early Twentieth Century." *Muqarnas*, vol. 25, 2008, pp. 359-396.

Smith, Stefan. "The Edge of Perception: Sound in Tarkovsky's Stalker." *The Soundtrack*, vol. 1, no. 1, 2007, pp. 41-52.

Spiro, Neta. "What Contributes to the Perception of Musical Phrases in Western Classical Music?" *Institute for Logic, Language, and Computation* vol. Ph.D, University of Amsterdam, 2007, p. 499. general editor, Prof.dr. Rens Bod, homepage: ILLC-publications: http://www.illc.uva.nl, 06/05/2017.

Stegmann, V. "Essays on Literature and Music (1967-2004) by Steven Paul Scher. Edited by Walter Bernhart and Werner Wolf. Amsterdam: Rodopi, 2004. Xxiv + 524 Pages. 110,00." *Monatshefte*, vol. XCVIII, no. 4, 2006, pp. 644-645, doi:10.3368/m.xcviii.4.644.

Stein, Daniel and Jan-Noël Thon, editors. *From Comic Strips to Graphic Novels: Contribution to the Theory and History of Graphic Narrative*, First edition. De Gruyter, 2013.

Strate, Lance "Time-Binding in Oral Cultures." *ETC: A Review of General Semantics*, vol. 43, no. 3, 1986, pp. 234-246.

Su, Yi-Huang and Elvira Salazar-López. "Visual Timing of Structured Dance Movements Resembles Auditory Rhythm Perception." *Neural plasticity*, vol. Volume 2016, 2016, p. 17, https://www.hindawi.com/journals/np/2016/1678390/.

Suppes, Patrick. "Rhythm and Meaning in Poetry." *Midwest Studies in Philosophy*, vol. 33, no. 1, 2009, pp. 159-166.

Tagg, Philip. ""Understanding Musical Time Sense." *Tvarspel-Festskrift for Jan Ling (50 år)*, 1984, pp. 1-25, https://www.tagg.org/articles/xpdfs/timesens.pdf.

Taglicht, Josef. *Message and Emphasis: On Focus and Scop in English* Longman, 1984.

Tahmasebi, Arshad. وزن خواني واژگاني (*Lexical Metric Reading*). Mahur 2000.

Talai, Dariush. "The Musical Language: Elements of Persian Musical Language: Modes, Rhythm and Syntax." *Kimiyaye Honar*, vol. Third Year, no. 3, 2015, pp. 5-35.

Tamovali, Mahdi and Alireza Saghir. *Tutor-Training: Rythms of Zurxāneh [آموزش مرشدی]*. Safir Ardahal 2012.

Tavana, Akram Ahmadi. "بررسي بينامتني نگارة پادشاهى جمشيد از شاهنامة بايسنقرى [Th Analysis of Shahname Baysonghori 'S Illustartion of Kingdom of Jamshid]." *Scientific and Cultural Journal of Nazar*, no. 25, 2013, pp. 47-54.

Thompson, William Forde, editor. *Music in the Social and Behavioral Sciences: An Encyclopedia.* . SAGE Publications, 2014.

Thompson-Schill, Sharon et al. "Multiple Levels of Structure in Language and Music." *Language, Music, and the Brain: A Mysterious Relationship*, edited by Michael A. Arbib, vol. 10, MIT Press, 2013, pp. 289-303.

Torop, Peeter. "Semiospherical Understanding: Textuality." *Sign Systems Studies*, vol. 31, no. 2, 2003, pp. 323-337.

Torres, Rui. "Concrete Poetry in Portugal: Experimentalism and Intermediality." *Poetica*, vol. 7, 2010.

---. "Visuality and Material Expressiveness in Portuguese Experimental Poetry." *Journal of Artists' Books*, vol. 32, 2012, pp. 9-20.

Tuck, Michael. "Gestalt Principles Applied in Design." *On: Six Revisions* vol. 2017, 2010. http://sixrevisionshttp://sixrevisions.

Ullal, Sangeeta. " The Effect of Cultural Experient and Subdivision on Tapping to Slow Tempi." *Psychology*, vol. Master Art University of Nevada, 2010.

Unsworth, L and C Cleirigh. "Multimodality and Reading: The Construction of Meaning through Image-Text Interaction." *The Routledge Handbook of Multimodal Analysis*, edited by C. Jewitt, Routledge, 2009, pp. 151-163.

Vaeizi, Farzaneh and Farzad Divsalar. "بررسى اتانين و رابطه آن با موسيقى و عروض شعر (Analysis of Atanin and the Relation between Music and Poetry)." *Analysis of Persian Literature*, no. 17, 2014, pp. 215-238.

Van Campen, Cretien. "Visual Music and Musical Paintings: The Quest for Synaesthesia in the Arts." *Art and the Senses*, edited by Francesca Bacci and David Melcher, Oxford University Press 2011, pp. 495-512.

Varnum, Robin and Christina T. Gibbons, editors. *The Language of Comics: Word and Image*. Univ. Press of Mississippi, 2007.

Velosoa, Francisco and John Bateman. "The Multimodal Construction of Acceptability: Marvel's Civil War Comic Books and the Patriot Act." *Critical Discourse Studies*, 2013, http://dx.doi.org/10.1080/17405904.2013.813776.

Vinokurov, Nikolay. "Tajik Musician Plays Karnay." Alamy Stock Photo. http://www.alamy.com/stock-photo/tajikistan-wedding.htmlhttp://www.alamy.com/stock-photo/tajikistan-wedding.html.

Wagner, Petra Susanne. "The Rhythm of Language and Speech: Constraining Factors, Models, Metrics and Applications
" vol. Habilitationsschrift, Humanities Rheinischen Friedrich-Wilhelms-Universitat Bonn, 2008.

Wallace, Jon. "The Politics of Style in Three Stories by James Alan Mcpherson." *MFS Modern Fiction Studies*, vol. 34, no. 1, 1988, pp. 17-26, doi:10.1353/mfs.0.0172.

Waugh, Linda R. "The Poetic Function in the Theory of Roman Jakobson." *Poetics Today*, vol. 2, no. 1, 1980, pp. 57-82, http://www.jstor.org/stable/1772352?origin.

Weisstein, Ulrich and Jean-Louis Cupers, editors. *Musico-Poetics in Perspective: Calvin S. Brown in Memoriam*, vol. 2. Rodopi, 2000.

Weyl, Hermann. *Symmetry (Princeton Science Library)* vol. First Princeton Univ, 1952.

Wolf, Werner, editor. *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, vol. 14. Brill, 2015.

---. "The Iconic Quality of Poetic Rhythm [1986]." *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, edited by Walter Bernhart, vol. 14, Brill, 2015, pp. 19-33. *Word and Music Studies*, http://dx.doi.org/10.1163/9789004302747_003.

---. "(Inter)Mediality and the Study of Literature." *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011, doi:10.7771/1481-4374.1789.

---. "Intermediality Revisited: Reflections on Word and Music Relations in the Context of a General Typology of Intermediality." *Word and Music Studies* vol. 4, no. 1, 2002, pp. 13-34.

---. "Literature and Music: Theory." *Handbook of Intermediality : Literature, Image, Sound, Music*, edited by Gabriele Rippl, de Gruyter Mouton, 2015, pp. 459-474. *Handbooks of English and American Studies, Band 1*, http://dx.doi.org/10.1515/9783110311075-026.

---. "Metamusic? Potentials and Limits of 'Metareference' in Instrumental Music : Theoretical Reflections and a Case Study (Mozart's Ein Musikalischer Spass)." *Self-Reference in Literature and Other Media*, edited by Walter Bernhart and Werner Wolf, Rodopi 2010, pp. 1-32. *Word and Music Studies*.

---. "Metareference across Media: The Concept, Its Transmedial Potentials and Problems, Main Forms and Functions." *Metareference across Media: Theory and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement*, edited by Werner Wolf et al., Rodopi, 2009, pp. 1-85.

---. "Metareference in Operatic Performance: The Case of Katharina Wagner's Die Meistersinger Von Nürnberg [2011]." *Essays on Literature and Music (1985 – 2013) by Walter Bernhart*, edited by Walter Bernhart, vol. 14, Brill, 2011, pp. 447-458. http://dx.doi.org/10.1163/9789004302747_036.

---. *The Musicalization of Fiction: A Study in the Theory and History of Intermediality.* vol. 35, Rodopi, 1999.

---. "Relations between Literature and Music in the Context of a General Typology of Intermediality." *Comparative Literature: Sharing Knowledges for Preserving Cultural Diversity*, edited by Lisa Block de Behar et al., vol. I, EOLSS Publishers Co Ltd, 2009, p. 133.

---. "The Relevance of Medialitiy and Intermediality to Academic Studies of English Literature." *Mediality/Intermediality in Studies of English Literature*, 2008, pp. 15-43, http://doi.org/10.5169/seals-130648.

---. *Selected Essays on Intermediality by Werner Wolf (1992–2014): Theory and Typology, Literature-Music Relations, Transmedial Narratology, Miscellaneous Transmedial Phenomena.* Brili, 2017.

Wolf, Werner et al., editors. *Metareference across Media: Theory and Case Studies; Dedicated to Walter Bernhart on the Occasion of His Retirement.* Rodopi, 2009.

Wolf, Werner and Walter Bernhart, editors. *Description; in Literature and Other Media.* Rodopi, 2007.

Wu, Xixuan et al. "Bridging Music and Image Via Cross-Modal Ranking Analysis." *IEEE Transactions on Multimedia*, vol. 18, no. 7, 2016, pp. 1305-1318, doi:10.1109/tmm.2016.2557722.

Wurth, Kiene Brillenburg. "Multimediality, Intermediality, and Medially Complex Digital Poetry." *RiLUnE: Review of Literatures of the European Union*, vol. 5, 2006, pp. 1-18.

Yacobi, Tamar. "Ekphrastic Double Exposure and the

Museum Book of Poetry." *Poetics Today*, vol. 34, no. 1-2, 2013, pp. 1-52, doi:10.1215/03335372-1894487

q 2013.

Zacks, Jeffrey M. and Barbara Tversky. "Event Structure in Perception and Conception." *Psychological bulletin*, vol. 127, no. 1, 2001.

Zadegan, Sabar Abdolah et al. " تشخيص خودكار دستگاه و گام موسیقی سنتی ایرانی مبتنی بر تكنوازی سازهای تاروسنتور به وسیله استخراج نت هوشمند: Recognition of Traditional Iranian Muisc System Based on Extraction of Intelligent Note." *Assiocation od Iranain Computer* vol. 14 University of Mashhad, 2014 pp. 918-922.

Zangwill, Nick. "Music, Metaphor, and Aesthetic Concepts." *The Journal of Aesthetics and Art Criticism*, vol. 72, no. 1, 2014, p. 1/11.

---. "Music, Metaphor, and Aesthetic Concepts." *The Journal of Aesthetics and Art Criticism*, vol. 72, no. 1, 2014, pp. 1-11.

Zepetnek, Steven Tötösy de and Louise O. Vasvári. *Comparative Hungarian Cultural Studies.* Purdue University Press, 2011. *Comparative Cultural Studies*.

Zepetnek, Tötösy de et al. "Introduction to New Perspectives on Material Culture and Intermedial Practice " *CLCWeb: Comparative Literature and Culture*, vol. 13, no. 3, 2011, https://doi.org/10.7771/1481-4374.1783.