Conceptualization of Melody Types of Iranian Radīf: A Multidisciplinary Study in Assisting Youth to Employ Traditional Dastgāh-ha in Improvisation

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Introduction

From the point of view of Persian musician the past is not only a heritage which should watch out carefully and be loyal to but also is the frame of present in which music is created. Iranian musician, since the early stages of learning music in school of tradition, learns how to employ this heritage in his or her performance. This heritage is called radīf (a large collection of gūsheh-ha—tunes; melody types—organized in seven dastgāh-ha and five auxiliary systems, āvāz-ha). Several efforts were done to writing down the radīf of Iranian music in last three or four decades. Notating and publishing various versions of radīf-ha by scholars such as Mohammad Taghi Massoudieh, Jean During, Faramarz Payvar, Daryush Pirniakan, Daryush Tala’i and many other musicians and musicologists provided an opportunity for researchers and performers to use a variety of radīf-ha in their works and ensured protecting the radīf-ha from being lost or corrupted over the time. In spite of those advantages, by spreading the various notated versions of radīf-ha signs of a new problem stood out. This problem seems to have an indirect connection with the new circumstances of learning the radīf through the notations instead of gaining its essence of by heart. The problem is namely decline of ability to improvise music for performers who used the written versions of the radīf-ha as a main means of learning Iranian traditional music.

Moreover, it seems that the majority of new generation of teachers and pupils are not willing to disregard the notation system and go back to traditional principle of learning radīf-ha by heart. This means there is need for a scholarly solution in which the ability of improvisation improves while the new generation of performers can go on with using so called Western notational system they have been getting used to in last four decades.

In general, the facilities which radīf provides for improvisation can be categorised in two parts: the raw musical materials and the ways they can be expanded and united. Among the first items are melody types, motifs, and rhythmic and dynamic patterns, which the abstraction of gūshe-ha can help providing a simple, readily collection of them and amongst the second are the guidance which radīf provides for learning how to set up structure of pieces and other aesthetic issues of composition to use such materials. To acquire the second aspect, the performer still needs to perform and practice the complete version of radīf before practically uses the abstraction version of radīf.

Studying numerous performances of contemporary performers of Iranian traditional music and participating in several teaching occasions made this fact clear that the problem of declining the improvisation ability of performers primarily comes from two positions. The first is that of treating the gūsheh-ha of the radīf as finished tunes rather

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1 This is an ongoing project sponsored by Institute of City Voice, Music Section of Tehran Municipality, started in November 2006 which is expected to finish in July 2009.
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than looking them as the point of departure for improvisation. In other words, since the notational system normally notates only one possibility of performing each gūsheh in shape of a finished tune, pupils mainly memorise that as the key formation of gūsheh and representing it with little or no change in their performances. The second problem with this is that for newly trained performer it is very hard to distinguish the ‘elementary features’ from the ‘momentary elements’ of each gūsheh once he or she comes to set the basis of such gūsheh for improvisation. The project of abstraction of melody types of gūshe-ha has been designed to assist performers who already practically familiar with one or more versions of radif-ha but cannot easily indentify essences of the traditional gūsheh-ha as they seem somehow vitiated by overexpansive and self-indulgent performances, from one hand, and to facilitate critics and musicologists who wish to acquire ‘crystallizations’ of the available gūshe-ha of dastgāh-ha and āvāz-ha, offering short, readily digestible renditions of radif-material.

Abstraction of Melody Types

It is necessary to clarify here that every gūsheh in the body of radif consists of two kinds of musical components. First are those components which are considered as characteristic features of that gūsheh without which identifying the gūsheh would be impossible and the second components are those that even though have certain roles in construction of gūsheh, those roles can transfer to similar components with same functions without harming the general outline of gūsheh. As I mentioned earlier, the main problem is that the newly trained musician of Iranian music cannot easily recognise these tow kinds of elements in given gūsheh-ha. For this reason, this study tries to provide a guidance of melodic abstract of each gūsheh to illustrate the elementary features which performer can use as the point of departure for his or her improvisation without loosing the identity of gūsheh through out the performance.

Attempting to show the essence of melodic movement of gūsheh-ha has also be done by Jean During (1991) in a section published as an introduction to the Radif of Mīrzā ’Abdollah. In that section he tries to illustrate the melodic contour of several gūsheh-ha by graphic shape and function of significant degrees in one or slightly more tetrachord. It seems that the work of Jean During aims assisting the musicologists than general students of radif. Figure 1 is an example of schematic graphs of the melodic movement and functions of degrees in gūsheh Rohāb in method used by During.

![Figure 1: Functions of degrees and schematic graph of the melodic movement in gūsheh Rohāb (During 1991: 37)](image)

The approach I chose differs with that of Jean During in two principles. The first is here I try to abstract the gūsheh from the point of view of melody type rather than melodic movement and the second is that of representing it in staff notation using conventional notating system rather than graphic shapes.

The project of conceptualization of melody types of gūshe-ha consisted of a number of phases. In first phase, which began in November 2006, one of the seven dastgāh-ha of Iranian music, namely Shūr, was selected and a fieldwork was conducted to study the viewpoints of radifdān-ha (senior master performers of radif who consider the main...
contemporary conveyors of radif) about the abstraction and conceptualization of the gūsheh-ha of this dastgāh. Their performance of such suggestions recorded. In the second stage, the recordings comparatively analyzed and the shared features were drawn out. The results consequently were represented as abstraction of melodic outlines in staff notation. Figures 2-6 compares the result of abstraction of some gūsheh-ha with completed versions of gūsheh-ha from radif Mirzā 'Abdollah by During.

Figure 2a: Darāmad in Shūr from the radif of Mirzā ‘Abdullāh (During 1991: 86)

Figure 2b: Abstraction of Darāmad

Figure 3a: Rohāb in Shūr from the radif of Mirzā ‘Abdullāh (During 1991: 87)
Figure 3b: Abstraction of Rohāb

Figure 4a: Kereshmeh in Shūr from the radīf of Mirzā Hossein Gholi (Pirniakan 2001: 22-23)

Figure 4b: Abstraction of Kereshmeh in Shūr
Figure 5a: Naghmeh-i avval in Shūr from the radif of Mirzā ‘Abdullāh (During 1991: 89-90)

Figure 5b: Abstraction of Naghmeh
In an experimental stage the notated abstractions of gūsheh-ha taught to various pupils. They could apply the principle of each gūsheh in their improvisation quite effectively while keeping the traditional characteristic of every gūsheh, but sign of a new problem revealed. Memorizing the melodic abstraction of gūsheh as an unfinished tune was far more difficult than memorizing whole gūsheh which looked more like a complete tune. In other words, the abstraction of melody types could improve the reliability of using the gūsheh as point of departure for improvisation but the students had to have much more efforts to memorize the pattern compare with the time they needed to effectively memorize the complete gūsheh. In that stage, aid from another discipline, namely visual art, was joined in to assist the pupils memorizing the melodic patterns.

Plates of Miniature in Aid of Memorizing Melodic Abstractions of the Radīf
In following stage, every melodic abstraction attached to a plate of miniature painting specifically painted for aiding to memorize abstraction of each particular gūsheh. Accompanying tunes with miniatures is not the first one in the world but it is the first one in Iranian radīf. Iconography and painting is quite old in neighbouring culture of Indian music. After 1600 symmetrical rāga systems with iconographies occur in the structured sets of miniature paintings called rāga-mālā. For several centuries this “painters’ system” of rāgas and rāgini led a quite independent existence and individual rāgas with their iconographies, painted or versified, were in principle quite independent.
of classification systems (Katz 2001). It is said that painted rāga-mālā associates rāgas with emotions and with particular times of day and seasons of the year. Nonetheless, musicians today generally see no direct link between such images and the emotions evoked by rāga performance.

The purpose of using miniatures for accompanying the Iranian gūsheh-ha is not that of illustrating the mood or emotion of gūsheh-ha. Images help in several steps of memorizing and retrieving the melodic lines.

**An Introduction to Memorizing Process and the Placement of Images in course of Remembrance**

Psychologists have studied many different recoding strategies. One common strategy that people often use to remember items of information is to rehearse them, or to repeat them mentally. However, simply repeating information over and over again rarely aids long-term retention—although it works perfectly well to hold information, such as a phone number, in working memory. One effective form of effortful processing is turning information into mental imagery.

When people successfully recall a prior experience, they must have encoded, stored, and retrieved information about that experience. In this project, we particularly deal with assisting the performer in first stage, encoding, without which the second and third stage would not work properly or may not exist at all. Memorizing something with help of more than one sense seems work better than memorizing it by one sense. This project is to help transforming the information from working memory to short-term memory and by further rehearsal from short-term to long-term memory. As illustrated in following diagram:

![Figure 7: Simplified Model of Memory (after Roediger 2007)](image)

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Today, psychologists distinguish three long-term memory systems: episodic memory, semantic memory, and procedural memory. Episodic memories are connected with a specific time and place. Semantic memory refers to our general knowledge of the world and all of the facts we know. Procedural memory refers to the skills that humans possess. In episodic memory one ties events with particular time periods and places for memorising. Here we try to tie certain melodies to certain visual plates.

In an experiment Brandimonte, Hitch and Bishop (1992) in University of Trieste in Italy showed that phonological recording of visual stimuli in short-term memory affects coding in long-term memory and therefore performance on tasks involving generation and manipulation of visual images of the stimuli. When the senses deliver conflicting information, vision dominates spatial processing, and audition dominates temporal processing. This characteristic of perception investigate by Guttman, Gilroy and Blake (1996) in an enquiring regarding whether this sensory specialization results in cross-modal encoding of unsensory input into the task-appropriate modality. They found the perceptual system automatically and obligatorily abstracts temporal structure from its visual form and represents this structure using an auditory code.

Having images in front of melodic lines can also work as retrieval cues. A retrieval cue is any stimulus that helps us recall information in long-term memory. Two general principles govern the effectiveness of retrieval cues. One is called the encoding specificity principle. According to this principle, stimuli may act as retrieval cues for an experience if they were encoded with the experience. Pictures, words, sounds, or smells will cause us to remember an experience to the extent that they are similar to the features of the experience that we encoded into memory. This specification in grater function can cause ‘synaesthesia.’ Synaesthesia is referred to physiology sensation felt elsewhere in body or the feeling of sensation in one part of the body when another part is stimulated. Synesthesia occurs when information coming into one sensory modality, such as a sound, evokes a sensation in another sensory modality, such as a sight, taste, smell, feel, or touch.

All people have synesthesia to a slight degree. For example, certain colours may “feel” warm or cool. Most reports about extraordinary use of memory involve Synesthetic reactions of individuals. Aleksandr R. Luria, a Russian neuropsychologist, recounted the abilities of S. V. Shereshevskii in his book The Mind of a Mnemonist (1968). For example, Shereshevskii could memorize long lists of nonsense syllables, extremely complex scientific formulas, and numbers more than 100 digits long. The primary technique Shereshevskii used was mental imagery. He generated very rich mental images to represent information. He also associated numbers with shapes, colours, and even people. Synesthetic reactions probably improved Shereshevskii’s memory because he could encode events in a very elaborate way.

**Designing Miniatures for Accompanying Gūsheh-ha**

In the project of assisting the performers to memorize the melodic abstraction of the gūsheh-ha, a collaboration of Iranian miniaturist named Fatemeh Dorfeshan was appointed. She was offered several audio samples of various ṭadīf-ha, performed by master musicians such as Nor Ali Boroumand, Nasrollāh Zarinpanjeh, Mahmūd Karimi and some other musicians to listen for a couple of months. Meanwhile, several sessions of discussions between her and the author about the principles of gūsheh-ha of Iranian ṭadīf took place. Finally, by the ideas collected from the author and Dorfeshan’s further
developments a story board of gūsheh-ha was drawn. In this story board the global function of each gūsheh in dastgāh and its relation with previous and the next gūsheh were the main characteristics to bear in mind for designing each plate. For instance, the darāmad which shows the main general characteristic of dastgāh was designed as the main location that following gūsheh-ha may show other angles of such location (e.g. rohāb) or as certain character may act in that location (e.g. Naghmeh). Figure 6-8 are examples of miniatures designed for gūsheh-ha of Darāmad, Rohāb and Naghmeh, respectively.

![Plate of miniature designed for Darāmad in Shūr (painter F. Dorfeshān)](image)

**Figure 8:** Plate of miniature designed for Darāmad in Shūr (painter F. Dorfeshān)

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2 All miniatures especially painted for this project and should not be copied or reappear in any other place without written permission of the author.
Figure 9: Plate of miniature designed for Rohāb in Shūr (painter F. Dorfeshān)
Figure 10: Plate of miniature designed for Kereshmeh in Shūr (painter F. Dorfeshān)
Figure 10: Plate of miniature designed for Naghmeh in Shūr (painter F. Dorfeshān)
Conclusion

As this is an ongoing research, the final results are not known yet and could be available by the end of project in about July 2009. Nonetheless, in a pilot study, the current outcome consisting of five gūsheh-ha of Shūr presented above examined through teaching a group of 20 students of various Iranian instruments. The majority of the pupils participated in experiment reflected both better memorizing the gūsheh-ha and retrieving the melodic outline with the aid of plates. They also believed that using the melodic abstract as framework of improvisation is more reliable than the complete versions of the gūsheh-ha. Moreover, in some cases they said that the abstraction of
gūsheh-*ha* could work as clue to remembering the complete version of the gūsheh in the stage of developing the melodic material in their improvisations. Following charts show the analysis of data gathered in this case study.

Number participants based on their instruments:

![Bar chart showing the number of participants based on their instruments.]

Participants based on years of their experience as performers:

![Bar chart showing the number of participants based on years of experience.]

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1. In general, are you happy with miniatures in front of notation of each gūsheh?
   a. Very happy
   b. It’s better to have them than not having them
   c. It’s better to not have them
   d. They are disturbing

2. How the plates of miniatures help in your performance (mark as many items as you like).
   a. To memorise the gūsheh-ha
   b. Being more enthusiastic to learn them
   c. Helps in drawing a better link between various gūsheh-ha
   d. Helps to improving the beauty of the book of radīf.
   e. Does not help at all
3. Does your mind try to find a kind of story by turning pages of the illustrate *radīf*?
   a. Yes (but a story that can not be necessarily described)
   b. Yes (a story that can be described)
   c. No

![Bar chart](image)

4. Do you think if the plates have always accompany the notations while you practice, plates in their own can help you remembering anything from the *gūsheh*?
   a. Yes, completely
   b. Yes, almost
   c. A little
   d. Not at all

![Bar chart](image)
5. About previous question, do you think you can remember anything from pictures by listening to every gūsheh?
   a. Yes, completely
   b. Yes, almost
   c. A little
   d. Not at all

6. In general, do the abstract forms of the gūsheh-ha accompanied by plates of miniatures improves your ability of using the gūsheh-ha as raw materials for improvisation?
   a. Yes, completely
   b. Yes, almost
   c. A little
   d. Not at all
7. While listening to improvisations based on each gūsheh, do you think you can remember anything from pictures?
   a. Yes, completely
   b. Yes, almost
   c. A little
   d. Not at all

General findings on positive and negative views of participant about the outcome of abstraction of gūsheh-ha accompanied by plates of miniatures by analysis of answers:
References:


