

Sarah Weiss and Babak Nikzad

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# Rethinking Musical Mode



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Sarah Weiss and Babak Nikzat (Eds.)

Rethinking Musical Mode

# Grazer Beiträge zur Ethnomusikologie

herausgegeben von Sarah Weiss und Kendra Stepputat

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SARAH WEISS and BABAK NIKZAT (Eds.)

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## Table of Contents

Babak Nikzat, Sarah Weiss	
Preface .....	1
Peter Manuel	
The Interaction of Modality, Modal Harmony, and Common-Practice Harmony in Flamenco .....	5
Rolf Bäcker	
The “Dorian Mode” in Flamenco – a Construction in Music and Discourse	21
Peter Fielding	
The Tonic-Centered Successive-Interval Array: Versatility and Applications for Mapping Atypical Pitch Collections.....	41
George Murer	
Human Agency versus Human Subjectivity in the Application of Maqām Concepts.....	63
Rafael Caro Repetto	
Preliminary Thoughts on Mode from Chinese Musical Practices .....	89
Negar Bouban	
Problems of modal Theory applied to Persian Dastgah Music: How attempts to explain Dastgah as modal Entities have created Complications.....	111
Babak Nikzat	
The Modal Structure of Bandari, a Bagpipe Music Tradition from Southern Iran.....	131
Vivek Virani	
Speaking to the Rāga: Synthesizing Theory and Practice in Hindustani Music.....	161



Kaustuv Kanti Ganguli  
    Modal Crossroads: Reimagining Melodic Frameworks across Cultures.... 193

Contributors to this Volume ..... 201

Babak Nikzat and Sarah Weiss

## ***Preface***

This edited collection, *Rethinking Musical Mode*, seeks to challenge and expand the traditional understanding of 'mode' in global musical systems. By centering the perspectives of performers alongside theorists, we aim to bridge the gap between theoretical constructs and practical realities in diverse musical cultures.

In his comparative article on musical mode in the 1980 edition of the *New Grove Dictionary of Music and Musicians* (Oxford University Press), the renowned musicologist Harold Powers first published his comprehensive overview and analysis of the many world musics (from, Indian *raga* and Arabic *maqam* to Japanese *cho* and Irish tune families and many more musical systems) that are habitually described, at least in English, using the term “mode”. Power’s defines musical mode “as either a ‘particularized scale’ or a ‘generalized tune’ depending on the specific musical and cultural context.” He connects the disparate musical performance processes and ideas found throughout the world (and identified by the English word mode) with the idea of a continuum, one that has ‘scale’ and ‘fixed melody’ as its functional end points. Powers suggests that most of the world’s ‘modal’ musics fall somewhere along that continuum. As a general construct for understanding various musical processes from a comparative, theoretical perspective, Powers’ continuum is clarifying, logical, and useful. The weakness in Powers’ description and analyses is that he largely ignores discrepancies found in the relationships between theoretical concepts and musical practice, effectively omitting the lived experiences and in-time musical decisions of practitioners. In this edited collection we aim to recenter the performers, their performance practices, and their aesthetics in our analyses as we take our first steps toward a comprehensive reassessment of the word “mode” in its many musical meanings.

The articles in this collection were all originally presented as oral papers in a Symposium entitled “Rethinking Musical Mode” – a hybrid symposium hosted by the Institute for Ethnomusicology at the University of Music and Performing Arts in Graz on 11.12 November 2021. In addition to accepting presentations from established scholars and music analysts, we actively encouraged professional and amateur performers and advanced students to participate in the symposium not

only as presenters but also as audience members, a decision that helped us to center performers and their practices in the discussions and in this volume. Further, we asked the presenters to “speak” to their topics, rather than prepare fully written manuscripts to read during their presentations. Discussion during the symposium was enthusiastic and people happily agreed and disagreed with one another, a true pleasure in what was still a corona-limited period. Whether the authors were performers of the practice they analyzed or not, we urged them to rethink the music-theoretical ideas associated with the particular music practice they presented through the ears and experiences of performers. Our goal in setting this approach was to ensure that the new ideas and perspectives the presenters encountered during the symposium might be reflected in the articles they have prepared for this volume.

The questions we posed to our participants were many, including:

- Do or How do performers theorize the modal music they play?
- What is the relationship between tacit and recognized theoretical knowledge?
  - How do people talk about it?
  - How are the different ways of knowing valued?
- Do local aesthetic and/or philosophical ideas intersect with theories (whether local or international) about music performance?
- Do or How do musicians perform using modal “rules”?
  - If they use them, do performers’ rules function in the same way as they do for theorists?
  - What happens when a person is both theorist and performer?
- Do various modal theories, as described by Powers and other analysts, actually predict what happens in performance?
- Is change in performance practice over time reflected in modal “rules”, and if so, how/when?
- How are modal “rules” changed/(dis)respected/rewritten in modern/contemporary interpretations/theories/performance?
- Do/How do performers theorize the modal music they play (or that their teachers played)?
- What does it mean if the performance of “improvised” modal music is played “incorrectly”?

- Is the word ‘mode’ useful for us, or should we redefine/throw out the word mode?
  - Is there another word that functions better?
  - Is the idea of comparing the musical processes, modal or otherwise, a colonial one?
  - Is a decolonized analysis possible, necessary?
  - Is analytical interpretation similar to interpretation in performance?

Naturally, the articles in this volume only begin to answer some of the myriad questions posed above. This symposium was, to our knowledge, the first international gathering dedicated to focusing primarily on a reconsideration of Powers’ conceptualizations of mode, while maintaining comparative approaches and centering performer perspectives. This volume marks an initial step in a necessarily broad re-evaluation of the concept of musical mode. We invite readers to critically engage with the perspectives presented here and to contribute to an ongoing dialogue. By rethinking the theoretical and practical dimensions of modal systems, we hope to inspire further research and collaborative inquiry in this dynamic field of study.

Finally, we wish to thank all the participants in the symposium, all our authors and peer reviewers, Doris Schweinzer, and especially our program committee, Alex Cannon and Kaustuv Kanti Ganguli.

Graz – Austria  
2. December 2024



Negar Bouban

***Problems of modal Theory applied to Persian Dastgah Music:  
How attempts to explain Dastgah as modal Entities have  
created Complications***

Modal music in general and *maqam* music as one of its examples, is described and explained by many musicologists with a set of principles and a handful of labels – partly emphasizing the fundamental differences between the *maqam* music in question and western tonal music, and partly providing a framework for the existing material of each *maqam* (the so-called modal content) according to the music culture being studied. It is also worth mentioning that the music traditions that stem from any of the Arab-Ottoman-Persian cultures, sharing literature on music theory from 10<sup>th</sup> to 16<sup>th</sup> centuries, do use the word *maqam* to refer to their musical heritage but in an absolutely non-concrete manner. Using the label has created expectations that we must be dealing with more or less similar concepts and musical entities. Applying the broad term ‘mode’ to them later (e.g. Powers 1980, Wright 1978, Miller) has taken such an expectation even further. In my opinion this has all reached a very unclear state, where neither musicians in practice nor musicologists are certain about what they mean by *maqam* and mode in each of these musical cultures.

What we usually see under the title “*Maqam Music Theory*” is a combination of information and principles, mainly used on the side of an oral tradition to educate musicians, and then used by some musicologists to study and research. The claim that musicologists have provided musicians with the necessary theories to learn and practice their music is there as well, and yet disputed by many. As one example of such *Maqam* music, the case of *Persian Dastgah* music is addressed in the present paper.

In the present paper, I first summarize how *Dastgah* content is seen in the framework of Modal Music theory: a review of how mode is defined, to be used as theory for *Dastgah*. Then, through some examples, I will highlight some of the inconsistencies and problems in applying such a theory to actual *Dastgah* content. That brings us to the challenges of Modal theory, at least in the case of *Dastgah*, putting forward some key questions, such as:

- What do we expect from a theory in the context of *Dastgah*?
- Should *Dastgah* theory help us *understand* and explain *Dastgah* in their core content, as opposed to only introducing them via description?
- Could theory provide us with a deeper understanding of HOW each mode and/or *Dastgah* is perceived by the educated listener? Or is it merely the labelling-categorizing function of such information that we seek?
- Could it be that the term ‘theory’ is used in the context of *Dastgah* *only* in contrast to practice? and is this all we want the theory to serve and nothing further?

These are all highly challenging questions, to which we do not yet have answers and some of which I will begin to address in this article.

### Theories currently in Use about Persian Dastgah Music

In this section, I will give an overview of what the current state of theory on Persian *Dastgah* is, exactly as it is being taught and discussed at university departments and music schools in Iran in the last 40 years (e.g. Alizadeh et al. 2005, Asadi et al. 2003, Fakhreddini 2014, Farhat 1990, Tala’i 2015, Miller 1999). Therefore, one can also see it as “contemporary theories on Persian *Dastgah*”, but only without any reference to ‘contemporary music’ which is understood differently in the same academic and music circles. By mentioning ‘theory’ in the whole paper, I will be referring to these shared concepts on *Dastgah* description and its characteristics and categorisations, as commonly understood and taught in practice in the last four decades.

### How *Dastgah* is described in Theory today

Persian *Dastgah* music, as we know today, regardless of how traceable its ancient roots might be, is mainly what musicians in Persian speaking regions of Iran have performed and recorded for the last two centuries (Asadi et al. 2007). It is also often labeled as Iranian traditional – or more recently as Iranian classical – music on a global scene. It is performed and introduced respectively under a system

called *Dastgah* in which each *Dastgah* is presented as a multi-mode cycle (Asadi 2003), going through a preset series of modes (Tala'i 2015).

*Mayeh* is a Persian term used for Mode in *Dastgah* context (Tala'i 1993). Therefore, a *Dastgah* is described as a pre-planned cycle of *Mayehs* in a pitch-ascending order: The set of *Mayehs* in a cycle is normally starting in lower pitch-registers, going to higher ones, in steps. Each step is met with a *Mayeh* having its own modal characteristics; characteristics that I will briefly review in the next section.

*Dastgah* performance reaches for a peak range at some point of its cycle: a *Mayeh* in the highest register of the *Dastgah*, very often labeled with the Persian word for climax: *Owj* of *Dastgah*. It then descends to the main *Mayeh*, as if a journey is completed with going back home. Main or home *Mayeh* is always the one used for opening the *Dastgah*, called *Daramad*, always giving its name to the *Dastgah* in practice. The way to descend or travel back is called *Foroud* (literally: landing or descending) and is a highly decisive element in the structure and recognition of *Dastgah* as a system. *Foroud* can also take place from any *Mayeh* higher than *Daramad* in the cycle, before it reaches its *Owj*.

Positively recognizing a *Dastgah* is, according to common instructions, possible only after the *Foroud* to a certain *Mayeh*. This implies that some *Mayehs* could sit in more than one cycle, and in order to say what *Dastgah* we are dealing with, you would have to wait for a *Foroud*. The importance of *Foroud* and *Daramad* can also show the concept of *Dastgah* seen as a system, built on a journey away from and back to a certain *Mayeh*.

The exact same journey, or a brief version of it, also makes the underlying melody-making structure of single pieces, songs and compositions. In most composed pieces, at least two important *Mayehs* of the specific *Dastgah* are met, offering a glimpse at the *Dastgah's* *Mayehs*; like a small tour around the cycle.

The existing classification for *Dastgah* system introduces seven such cycles as main *Dastgahs* and five smaller cycles, under the title of *Avaz* (instead of *Dastgah*). An *Avaz* in this meaning, is a subsidiary or secondary cycle, relating to one of the seven *Dastgahs*. The names for the seven *Dastgahs* are: *Mahour*, *Shour*, *Segah*, *Chahargah*, *Homayoun*, *Nava*, and *Rast-o-Panjgah*, and the five *Avaz* are named: *Abu-Ata*, *Bayat-e Tork*, *Afshari*, *Dashti*, and *Esfahan*. *Esfahan* is considered as subsidiary cycle to *Homayoun*, and the other four are subsidiaries of *Shour* (e.g. Fakhreddini 2014, Khaleqi 2007, Miller 1999).



*Avaz* cycles are smaller in comparison to *Dastgah* ones: meaning that *Dastgah* cycles generally consist of a higher number of *Mayehs*, e.g., *Abu-Ata* basically has only two *Mayehs* in its cycle, while in *Mahour* there are at least six. It is also important to know that performing or composing in an *Avaz*, that is considered subsidiary to some *Dastgah*, the final ending *Foroud* can, and actually in most cases does, go to the main *Dastgah*, and not necessarily to the *Daramad* of the performed *Avaz*; Which means that the performer does not finish in the same *Mayeh* they started with. This is commonly explained with the necessity of *Foroud* to be perceived as going back ‘Home’, and as *Avaz* is considered a subsidiary cycle to a bigger cycle of some *Dastgah*, the final *Foroud* could sound more established when it goes to its relevant *Dastgah*. However this attitude is not accepted by all scholars and some have preferred to see *Avaz* and *Dastgah* as similar entities with no hierarchy as such, and simply present and study twelve separate *Dastgahs* (Farhat 1990).

The terms *Mode*, *Mayeh* and *Maqam*, have all been used to describe the same entity in *Dastgah* music literature (Fakhreddini 2014, Tala’i 1993). The same concept has been introduced under the title ‘*Shah-Gusheh*’ as well (Tala’i 2015). Each small section of a *Dastgah* is called a *Gusheh* (literally: corner), among which there are some with modal content of importance - in our terms: the ones presenting *Mayehs* - therefore these are called *Shah-Gushehs*<sup>1</sup>. It is noteworthy to add that a simple *Gusheh*, if not a *Shah-Gusheh*, in performing a *Dastgah* can sometimes be limited to presenting only a rhythmic or phrasal concept, in which case you often have had the *Mayeh* presented already. The most well-known example of such a *Gusheh* is *Kereshmeh* with its rhythmic-phrasing structure appearing in various *Dastgahs*, sometimes even in more than one *Mayeh* within the same *Dastgah* cycle. So, a *Gusheh* is not limited to one particular *Dastgah* at all and it is perfectly possible for a *Gusheh* to appear in different *Dastgahs*, or even in different *Mayehs* of the cycle of one performed *Dastgah*.

In the present paper I decided to use the term *Mayeh* to address the Persian version of the concept of mode specifically, and not the words *Maqam*, *mode*, or *Shah-Gusheh*, since the term mode is simply too broad, *Shah-Gusheh* is still dependent on what *Gusheh* is, which doesn’t have a clear definition of its own either, and *Maqam* DOES have other applications in regional musics of Iran. For

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<sup>1</sup> In Persian, when ‘*shah*’ joins another word, it implies prominence, something that stands out; like ‘*Shah-Kar*’ for a masterpiece, and ‘*Shah-Beyt*’ for the most prominent line in a poem.

example, *Maqam* music in Kurdistan and Khorasan, which are not considered under *Dastgah* tradition.

### How *Mayeh* is made according to Theory

Defining *Dastgah* as a cycle of *Mayehs* demands a definition for *Mayeh*. Theory defines *Mayeh* as a musical entity made after the following four principles: a nucleus of interval-sets (*Ajnas*), functions for tones, melody-models (*Sayr*), and signature motifs.

The nucleus of every *Mayeh* is one or two *sets* of musical intervals. Each set is a *Jins* (plural: *Ajnas*) or *Dang* (when the set makes a tetrachord) (Alizadeh et al. 2005, Tala'i 1993). Every *Jins* is built with a particular order of musical intervals and therefore is supposed to present its own special tonal characteristics. Most *Ajnas* consist of four tones, hence three successive intervals, but they can also consist of only two, or in fewer cases four or five intervals. The most commonly accepted *Ajnas* are those with four tones (three intervals) in a row.

In the making of a *Mayeh*, there is usually more than one *Jins* at work, often two connecting *Ajnas*. For example: to make *Mahour* in its main *Mayeh* (*Daramad*), there are two *Ajnas* in a row (Alizadeh 2000, Fakhreddini 2014, Tala'i 1993), both with the same interval-set of whole-tone + whole-tone + semi-tone; which can be shown with the following notes: [*G A B C*] and [*C D E F*].

After introducing the *Ajnas*, the theory discusses different roles for tones. This brings some hierarchy or discrimination into the analysis, something that is expressed as functions attributed to one or two tones in the *Jins* / *Ajnas*. The most important function in a *Mayeh* is marked with the term '*Shahed*' (literally meaning witness) (Farhat 1990, Miller 1999, Vaziri 2001). In the existing literature, a tone is labeled as *Shahed*, when it somehow stands out and becomes the predominant tone in the melody-making of the *Mayeh*.

There are not many generally accepted criteria about why a particular tone is taken as *Shahed* in each *Mayeh*. It is not the equivalent of tonic in a scale in a western tonal sense, as the *Jins* does not necessarily cover a full range of an octave, and the tone *Shahed* in many cases is the connecting tone of the *Ajnas*. Therefore, it would be quite misleading to introduce *Shahed* as a tonic in a scale. Although the criteria to name a tone as *Shahed* for a *Mayeh* is unclear, in most *Mayehs* it seems that the majority of musicians and musicologists agree on which tone to

take as *Shahed*, apparently based on intuitive cognition and familiarity. Yet, some musicians and musicologists explain how a *Shahed* is perceived with the following parameters (Tala'i 2015): The most repeated tone, or the most resonated through the drones on the rightly tuned instrument, or the tone that is heard longest in total, etc. All in all, a *Shahed* is supposedly the pre-dominant tone in a *Mayeh* (Vaziri 2001).

In addition to the function of *Shahed*, there are two other main functions referred to as: *Ist* (literally: stop) which is the tone to rest most phrases on, and *Moteqayyer* (literally: alternating) when there is a change of intervals in the *Jins* at use (Farhat 1990, Miller 1999), as a result of one tone getting sharpened or flattened. It is worth noticing that the very idea of taking a tone as a *Moteqayyer* is debatable (Tala'i 2015), since it comes from a mindset of scales and accidentals. Instead, one could see it as alternating *Ajnas* within the same range of tones. For instance, when they describe the tone *B* as *Moteqayyer* in *Aragh* (when *Shahed* is *C*), they are addressing a change from *B-natural* to *B-flat*, when the melody descends. One can also describe it with two different *Ajnas* at work in *Aragh*: one for the ascending part of the melody-making and one for the descending.

In addition to *Ajnas* and tone-functions, according to the theory currently in use, particular melody-models or *melody-contours* are presented for *Mayehs* (Vaziri 2001, Chalesh & Asadi 2017). What they refer to as melody-model is some semi-flexible path through tones of the *Ajnas* in use, with some highlight points on the path, to express functions of *Shahed*, *Ist* and *Moteqayyer*. The path is addressed by musicologists as '*Sayr*' (or *Seyir*) especially in Arabic and Turkish *Maqam* music.

*Sayr* is the most confusing requisite for *Mayeh*-making though, as it gives a highly limited image of melody-making in each *Mayeh*. One can even go as far as stating: Every *Mayeh* has a number of previously half-shaped melodies, like formulas, and the role of a composer is limited to fit such formulae to some rhythmic framework or some poetry, etc. Yet, we can see more diversity in performances of *Mayehs*, at least in some of them. The concept of melody-models always raises the question of creativity, as musicians are told to adhere to a formula in order to express a *Mayeh*, while being innovative at the same time.

Some scholars also bring another element in the making of *Mayehs*: musical idioms; referring to pre-learned, word-like, small motifs that are performed as signature-motifs in some *Mayehs*. An educated listener usually recognizes the motif and quickly relates it to the *Mayeh* in question. Although they do not seem

to be as important or even as present in every *Mayeh*, the idea of such signature-motifs or idioms is still accepted. The most well-known of such idioms is: the Interval jump from two tones below *Shahed* to the *Shahed* in *Chahargah* (Farhat 1990).

From a theoretician's point of view, these four principles should create a *Mayeh* and discriminate one *Mayeh* from another. The number of *Mayehs* in *Dastgah* system is still unclear. Many have stated the number of *Gushehs*, but very few have given an estimation for the total number of *Mayehs*. As mentioned before, some *Mayehs* do appear in more than one *Dastgah* cycle, e.g., *Bayat-e-Raje* in *Nava*, in *Esfahan*, and in *Dashti*. In one source, the total number of *Mayehs* is mentioned as 'some sixty modes' (Farhat 1990).

It is also important to notice that although the fundamentals of *Mayeh* in Persian music and *Maqam* in Arabic and Turkish music, as structural concepts, might be taken as somewhat similar, not everything is paralleled. For example, the terms *Qarar* (or Turkish *Karar*) and *Ghammaz*, that are used to describe the function of tones, do not appear to be exact equivalents of *Shahed* or *Ist*.

### Application of the theoretical Principles to *Mayehs* in Practice

How the existing theory is applied to *Dastgah* music in practice, is best shown with examples. Here I present two such examples:

- an overview on *Aragh* as a *Mayeh* and how it is introduced and discussed (Vaziri 2001, Fakhreddini 2014, Farhat 1990, Tala'i 1993) that can appear in two different cycles: *Mahour* and *Afshari*.
- an overview on *Daramad* in *Abu-Ata* and *Daramad in Nava*, as two main *Mayehs* in their independent cycles.

#### ***Aragh***

##### ***Ajnas in Aragh***

*Aragh*, as a *Mayeh* appearing in *Mahour*, is made of two successive *Ajnas* with these intervals:

*Jins* 1: whole-tone + whole-tone + semi-tone, and *Jins* 2: whole-tone + semi-tone + whole-tone, e.g., when *Mahour* is on *C* (as *Shahed*), *Jins* 1 consists of these notes: [*G A B C*] (with its *C* one octave higher than *Daramad*'s *Shahed*). *Jins* 2 follows with: [*C D Eb F*]. In addition, there is a third *Jins* at work, alternating intervals within the boundaries of *Jins* 1, switching to these intervals: whole-tone + semi-tone + whole-tone, resulting in these notes: [*G A Bb C*].

*Aragh*'s *Ajnas* then would translate into a row of eight tones from high to low: [*F Eb D [C] B Bb A G*], with *B* and *Bb* not used together in a row in melody-making.

### Functions of Tones in *Aragh*

The most important function: *Shahed* is on the connecting point of the *Ajnas*; the tone noted as *C* here. Tone *B* is labeled as *Moteqayyer*, since it switches between *B* and *Bb*. As for a tone to function as *Ist* in *Aragh* phrasing, there are two options. Melody Phrases can mainly rest either on *C* or on *G*; depending on how melodies are developed.

### Sayr (Melody-model or 'Path') in *Aragh*

Melody-model is said to be of utmost importance in *Aragh*; the distinguishing element for its character. Melodies in *Aragh* usually start with tones in the lower *Jins*, aiming for the *Shahed*, and then descending with emphasis on the *Moteqayyer*, switching to the third *Jins*. Then they ascend again to go for the higher *Jins*, with *Eb* as another important tone (some sort of a secondary *Shahed*), to emphasize the minor third interval (between *C* & *Eb*) and after pausing on *Shahed*, they usually descend again to the lower *Jins*, once again highlighting the *Moteqayyer*, switching *B* to *Bb*. This is taken as the path or 'Sayr' for *Aragh*.

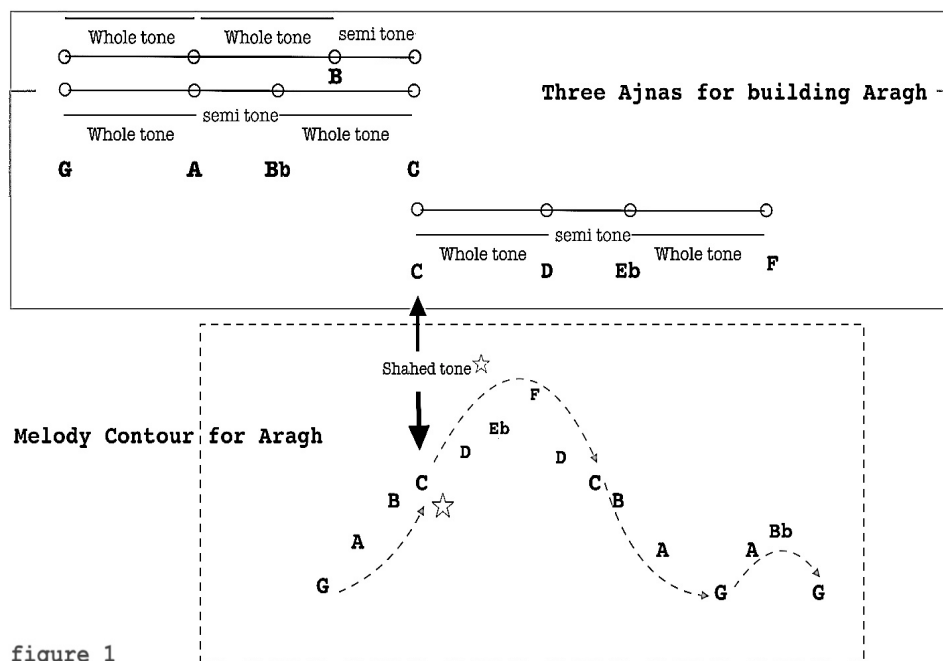


figure 1

Ajnas and Sayr in Aragh

Figure 1: *Ajnas and Sayr in Arath*

*Aragh Ajnas* and its *Sayr* are shown in figure 1 in a simplified version. As for signature-motifs in *Aragh*, some musicians take the typical descending movement for it, and some others consider a whole 'Tahrir' (a Persian style of melismatic vocal technique) for the *Aragh* signature.

*Ajnas* for *Aragh*, when they appear in *Afshari* cycle are a bit different though. Instead of whole-tone + whole-tone + semi-tone in *Jins* 1, they define the lower *Jins* with whole-tone + 3/4 tone + 3/4 tone. The second and third intervals in *Jins* 1 are not exactly equal though. The term 3/4 tone is only indicating a sort of half-flat tone, in our example: *B-half-flat* (replacing *B-natural* that we had in *Mahour*). The exact size of such intervals created with half-flat (or half-sharp in other tone-combinations) is still being studied (e.g. Barkeshli 2011, During 2006, Ghanbari et al. 2022, Sanati 2020, Shafiei 2021).

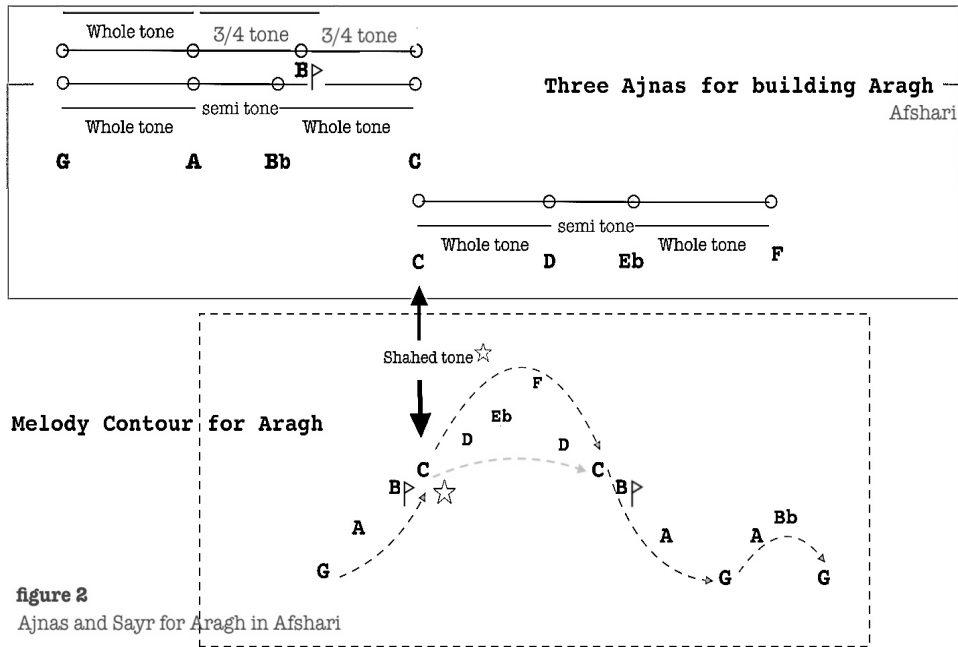


Figure 2: Ajnas and Sayr for Aragh in Afshari

Apart from the difference in the intervals of *Jins* 1, the rest proceeds in the same manner as *Aragh* in *Mahour*. *Ajnas* 2 and 3 are the same. Functions of *Shahed*, *Moteqayyer* and *Ist* are the same, and *Sayr* is similar (figure 2).

### Abu-Ata and Nava

#### Ajnas in Abu-Ata and Nava

*Ajnas* for *Mayehs* of *Abu-Ata* and *Nava* are the same and as follows:

*Jins* 1: 3/4 tone + 3/4 tone + whole-tone, and *Jins* 2: whole-tone + semi-tone + whole tone, e.g., we can have them as [D Ep F G] and [G A Bb C] (where p stands for half-flat). So, the row of tones would be [D Ep F [G] A Bb C].

### Functions of Tones in *Abu-Ata* and *Nava*

On the basis of the *Ajnas*, for *Nava* it is agreed upon that the connecting tone of the *Ajnas* is the *Shahed* (*G* in the above-mentioned set of tones) (Kiani 1989, Fakhreddini 2014), but in *Abu-Ata* there are arguments about which tone to take as *Shahed*: Some scholars take *Ep* as *Shahed*, and some take *G*. Some even say that *Abu-Ata* has two *Shaheds* and take *Ep* as a secondary *Shahed* (Tala'i 2015). One can raise the question here: how can a *Shahed* be the outstanding tone, if it is so uncertain?

There is no *Moteqayyer* in either of the *Mayehs* (as we study *Daramads*). The function of *Ist* is defined with the second tone of the lower *Jins* in *Abu-Ata* (*Ep*), and in *Nava* it is argued if both *G* and *Ep* should be marked as *Ist*.

### Sayr (Melody-model) in *Nava* and *Abu-Ata*

The usual melody movement in *Abu-Ata* is from the lowest tone of *Jins* 1 to the connecting tone of the two *Ajnas* (in our example: *G*). It then descends in sequences to make *Ist* on the second tone in *Jins* 1, usually bouncing between the first and second (in our example: tones *D* and *Ep*). The further development of the melody usually proceeds to *Jins* 2, mainly within the next two tones, higher than the connecting tone of the two *Ajnas*.

For *Nava*, *Sayr* could start from one tone below *Shahed* (third in *Jins* 1) to land on *Shahed*, or do the same using two tones below *Shahed*. But in the *Jins* 2, it repeatedly emphasizes the interval between *Shahed* and one whole-tone higher. It also jumps up to the fourth in *Jins* 2 and descends to *Shahed*.

The cases of *Nava* vs. *Abu-Ata*, and *Aragh* in *Afshari* vs. *Aragh* in *Mahour*, although presented only briefly here, are just rather small examples of the amount of information given, when one wants to study *Dastgah* in detail. Still, many learners and educated listeners are uncertain about the differences and how one should recognize and discriminate such *Mayehs*, let alone get creative and compose or improvise in each.

There are other *Mayehs* not easy to tell apart, such as: *Mahour* vs. *Rast-o-Panjgah* (*Daramads*), *Shoushtari* vs. *Tarz* vs. *Chakavak*, *Shekasteh* vs. *Afshari*, *Delkash* vs. *Qaracheh*, etc., for which one needs lots of details in order to establish any difference.



### Some Inconsistencies and Problems in how Musical Mode Concepts are currently applied to *Dastgah*

In its application to *Dastgah* music, the musical-mode theory described above, can bring more confusion than clarity in many aspects of *Mayeh* and *Dastgah* as musical entities. These become apparent in practice and teaching, when one's knowledge is put to test, and it can easily bring up further topics and examples in such confusion. In what follows I offer a brief summary of such aspects:

1. Identical *Ajnas* in different *Mayehs*: There are *Mayehs* with identical *Ajnas*, and highly similar tone-functions, and even similar *Sayrs*, which nevertheless are labeled as totally different entities. The attempts by theorists to explain how educated listeners perceive and differentiate them confidently have not yielded much success; neither for learners, nor for composers. It is likely that perception of the sonic context determines the ability of listeners to identify these entities but it has not been proven yet.
2. Similar *Sayrs* in *Mayehs* with different *Ajnas*: There are *Mayehs* with different *Ajnas*, showing similarity in *Sayrs*, and they have the same names. Does this imply that *Ajnas* are not that important in making a *Mayeh*, and it is rather the *Sayr* that matters? If this is the case, then the first principle should be put last; taking the overall shape of melody as the defining identity, not the underlying *Ajnas*.
3. Recognising *Shahed*: The criteria or parameters for marking a tone as *Shahed* are debatable and not put to experiment so far. This ambiguity shows most, when we come to shady areas between some *Mayehs*, like *Abu-Ata* versus *Nava* on the one hand, or versus *Shour* on the other. Even within the cycle of a particular *Dastgah*, in changing *Shahed*-tones to move to another *Mayeh*, the vague definition of *Shahed* does not seem to help in practice; especially when phrases are short and in the same *Jins* (e.g., *Dad* after *Daramad* in *Mahour*, or *Zabol* in *Segah*). It is quite a challenging topic in the learning process, although teachers have tried all kinds of analogies to help learners make sense of *Shahed* function. Most learners end up memorizing melodies, in the hope that someday it will somehow clarify itself. If *Shahed* as a tone-function is a cognitive reality or not, is yet to be proven.
4. Interval-size approximation: The very concept of *Ajnas*, is obviously based on actual interval-sets that supposedly come in each *Mayeh*. What most studies

reflect in the end, though, is that ‘the intervals are not exactly the same in practice’ and frets for some tones are slightly moved on the neck of the instrument to sound ‘right’ in the respective *Mayeh* (During 2006, Tala’i 2015). This alone can be quite a game-changer, if the *Ajnas* are introduced with a considerable amount of approximation of interval-sizes. In reality, it will mean that, interval-sets sound dissimilarly in different *Mayehs*. Then why would theory try to explain different *Mayehs* with tone-functions and *Sayr* in the first place? One very good example for this is the amount of effort so far put in the existing theory to describe the distinction between *Daramads* of *Rast* and *Mahour*, while only considering the possibility of a different interval-size for the third above *Shahed*, could explain this distinction. In the case of *Rast*, there is actual evidence both in neighbouring music-cultures and old manuscripts to support this hypothesis.

5. Relations of *Mayehs* in a cycle: There is no claim of any fundamental understanding about how *Mayehs* relate to one another to sit in a cycle and form a *Dastgah*. Is this an absolutely arbitrary setting and any musician should feel free to shape their own cycles? Or could there be an underlying tonal structure that makes the row of *Mayehs* acoustically meaningful?
6. Instruments’ limitations: The current theory seems to have considered some instruments (mainly Tar and Setar) as references, very probably because the majority of masters who passed *Dastgah* tradition on to their students in the last two hundred years, re Tar and/or Setar players. What role have the characteristics and limitations of these instruments played in the way the content of *Dastgah* manifests itself? A very simple example could be in the order of *Mayehs* in a *Dastgah*, or in the choice of *Mayehs* to form a cycle together. Would a *Dastgah* be different if the main reference instrument was still the Oud, as it was in previous eras?

From all points mentioned above, one could conclude that we are either dealing with some basically unfitting theory or some malfunction, at least in parts. From a musicologist’s point of view, there is an absolute need for a more efficient theory to make real sense of the heap of information on *Mayehs* and *Dastgahs*. From a teacher’s point of view, one could hope for a theory, which presents the material in a more coherent, truly efficient, comprehensive if needed, and yet practical attitude. As a learner, to demystify the system would make everything easier and more meaningful, especially to get actively creative with *Dastgah* as a music-

maker desires. This is something by which many musicians, even professionals, feel limited.

### **The unanswered Questions of Theory for *Dastgah***

In our endeavor to critically review current theories of *Dastgah*, we should not ignore the historical-social context in which *Dastgah* music theory has developed.

Starting about a hundred years ago, the study of *Dastgah* content (Vaziri 1952) took place mainly as an attempt to prepare a theoretical foundation to serve two purposes: One was educating musicians in a school context, instead of the old oral tradition of individual one-on-one lessons on the instrument; and the other was to pave the path for developing the music itself (Vaziri 2001). These developments were necessary as the modern times brought new demands – demands for new compositions, new instrumentations, new expectations from the audiences, etc.

For the very same reasons, with the modern times and the dramatic changes in how and to whom the music could be presented (e.g., by radio broadcasts and later through recordings), there came two more or less opposing attitudes: One that found *Dastgah* music too old to fit to the needs of modern times, and wanted to put it aside altogether; and one that wanted to find and push the essence of *Dastgah* to move forward, to help it reproduce itself, but in a way that could sound appropriate – especially for the ears of an audience who found themselves over-excitedly engaged in colorful western orchestral music.

Musicians who had learned some western (rather European classical) music alongside Persian *Dastgah* and felt the need for some functioning theory, belonged to the second group. They were the ones who took the first steps to make up for what they found lacking, including acoustical studies of intervals (Barkeshli 2011). Some borrowed the mindset of the working theory from western classical music and tried to find a way to fit the content of *Dastgah* into it without letting go of its essential qualities (Vaziri 1952, Khaleqi 2007). They started using western notation, and with it the necessary components, such as key signature, changes that already meant music-making on scales, and introducing new symbols for half-flats and half-sharps (Vaziri 2001, Khaleqi 2007).

Then there came a next generation of musicians and a couple of musicologists who took another path as a reaction to what they thought was westernization of *Dastgah* music (Darvishi 1994, Kiani 1989, Hannaneh 1988) and wanted to undo

the ‘damage’ and take out the parts they thought of as westernized and irrelevant. Their attitude took back the foundation of theory to older concepts like *Ajnas* instead of scales. Yet, they were all using notation systems and key signatures that were introduced on the basis of the scale-approach to *Dastgah* by the previous generation.

To review how all these changes of attitudes and the resulting positions towards theory have effected the shortcomings of the one we have now, a separate study would be needed. Nevertheless, we should not forget that any truly coherent and efficient theory must consider the fundamental unanswered questions and the existing unsolved problems of the currently-in-use theory, as well as a clear standpoint about what one expects *Dastgah* theory to accomplish. It might be noteworthy to remember that there are musicians working in a variety of modal music cultures today, who think of theory as absolutely unnecessary, something that one can easily do without; practically advising learners to go back to the old oral traditions of practicing the music and just learn by doing. Could this fact alone suggest that theory as it has been in the last decades has failed, at least to some extent?

As the examples and aspects in this paper demonstrate, it is necessary to review and revise what *Mayeh* and *Dastgah* as musical entities are. There are questions to answer, and some relevant studies yet to define and engage, with the appropriate methodologies. Doing some of such research might help to resolve some of the yet unanswered questions. I provide a short list of some of these unanswered and interesting research questions below:

On what basis can we evaluate the efficiency of *Dastgah* theory? What would the efficient theory of *Dastgah* music be like? In other words, what are we expecting from theory in this context? Are we aiming for a categorization-archival ORDER to put names and labels on the smaller diverse entities in our studies? Do we seek something of a curator’s attitude that facilitates how we access each ‘number’? In this case, we could discuss whether the current categorization principles need revision.

Should *Dastgah* theory help us understand and explain *Dastgahs* clearly in their core content, as opposed to only introducing them each via description? Perhaps something that works more or less like a map could be created? Could musicians then thoroughly understand the connections and differences between *Mayehs* and *Dastgahs*? With what we have today, the best and most creative musicians have a sort of explicit grasp of the content, absorbed through years of

active listening and practicing, and not necessarily an intellectual understanding of the content of *Dastgah*.

Could we hope for a deeper understanding of HOW each *Mayeh* and/or *Dastgah* is perceived by the educated listener and then construct a foundation on which music-makers can even extend the *Dastgah* material, while still staying in its 'authentic' territory? Or is it merely the labelling-categorizing function of such information that we seek?

Could it be that the term theory is used in the context of *Dastgah* only in contrast to practice? And is it possible that whatever we DO in music-making practice just needs to be labeled and made possible to address? Is that all we want the theory to serve? In this case, should we call it theory at all? It would be like taking words in a language, that are labels to address things, activities and thoughts, as theory. Would any linguist accept such an approach to words in a language as theory?

And the most critical question of all is about the very nature of *Sayr* and its relation to *Mayeh*. If we put that into perspective, it could be interpreted in two completely opposite ways. One extreme would be that Persian *Dastgah* music is merely an archive of some semi-cooked melodies, that is usually referred to as 'flexible' melodies. In such a context, what a music-maker is doing in practice, is merely re-presenting these half-shaped melodies in different contexts of poetry or rhythmic patterns, etc. In contrast, the opposite extreme would be to see the nature of *Mayeh* as a particular tonal entity with a focal point, perceived as *Shahed*, that creates its own particular flavor or mood, as a result of interval-perception around *Shahed*. Creating a particular mood is exactly what old *Maqam* systems in middle east claim to offer. Such a tonal entity, might be comparable with tone-clusters, only played not simultaneously.

Answering all these questions is simply not possible by one theorist or even by a couple of musicologists, and certainly not in one research. It will, in my opinion, need a methodical approach to:

1. Research on *Mayeh* recognition by educated listeners, and whether it should be considered the starting point to study the nature of theory for *Mayeh* and *Dastgah*.
2. Assuming *Ajnas* are essential for *Mayeh* making, we would need to check whether the interval-sets actually differ in their intervals, even slightly, for

differently labeled *Mayehs* that look the same on paper. In other words, intervals as written might be not exactly the same in performance of different *Mayehs*, and *Ajnas* should be carefully studied with reference to their *Mayehs*.

3. Studying *Ajnas* and *Mayeh*-recognition both demand involving active musicians and educated listeners to know how these entities are produced and perceived. This needs a clearly defined methodology to test audio samples.
4. Assuming functions for tones, like *Shahed* and *Ist*, we should try to find the parameters in the actual music, produced and perceived, that makes a particular tone stand out as *Shahed*, etc.
5. Assuming *Sayr* is more than just a mere observation of what path melodies have shaped so far in the existing repertoire, how could the functions of important tones, mainly *Shahed* and *Ist*, relate to such a path? In other words: Could *Sayr* be shaped based on *Shahed* and *Ist*? Is there a working interaction between them?

These could be a brief list of research questions to start with. No doubt that for each and every one of the above research questions, there can come other approaches and it can get also more complicated if the future research falls into more confusion traps. However, I expect, and hope for, a more efficient theory for *Dastgah*, that can help us study, understand, and create further and better *Dastgah* music, after we have come to clearer answers to the relevant questions; hopefully creating a more coherent image of the system at work.

## List of References

### Bibliography

- ALIZADEH, H.  
2000 *Dastur-e Tār va Setār* [Tar and Setar method]. Tehran: Mahoor.
- ALIZADEH, H.; H. ASADI; M. OFTADEH; A. BAYANI; M. K. POORTORAB; S. FATEMI  
2005 *Mabāni-e Nazari va Sākhātār-e Musiqi-ye Irani* [Basic Theories of Iranian Classical music]. Tehran: Mahoor.
- ASADI, H.; D. SAFVAT; M. TAVOUSI  
2007 "Historical Background of the Dastgah Concept in Persian Musical Manuscripts." In *The International Journal of Humanities of the Islamic Republic of Iran*, 14:1-10.
- ASADI, H.  
2003 *Theoretical Foundations of Persian Classical Music: Dastgah as a Multi-Modal Cycle*. [www.researchgate.net/publication/263086375\\_Theoretical\\_Foundations\\_of\\_Persian\\_Classical\\_Music\\_Dastgah\\_as\\_a\\_Multi-Modal\\_Cycle](http://www.researchgate.net/publication/263086375_Theoretical_Foundations_of_Persian_Classical_Music_Dastgah_as_a_Multi-Modal_Cycle).
- BARKESHLI, M.  
2011 "Sharh-e Radif-e Musiqi-e Iran." In *Radif-e Haft-Dastgah-e Musiqi-e Iran* [Radif of Persian Classical Music]. Tehran: Mahoor.
- CHALESH, M.; ASA'DI, H.  
2017 "'Seyir' in Persian Classical Music (Case Study: Darāmad-e Avāz-e bayāte-Esfāhān)." In *Journal of Fine Arts: Performing Arts & Music*, 22(2):81-91.
- DARVISHI, M. R.  
1994 *Negāh be Qarb: Bahsi dar Ta'sir-e Musiqi-ye Qarb bar Musiqi-ye Irān* (Westward look: a discussion on the impact of Western music on the Iranian music: an analytical survey). Tehran: Mahoor.
- DURING, J.  
2006 Appendix II: The Intervals of Persian Music, *Radif of Mirzā-Abdollāh. A Canonic Repertoire of Persian Music*, 330-332. Tehran: Mahoor.
- FAHREDDINI, F.  
2014 *Tajzieh-o-Tahlil va Sharh-e Radif-e Musiqi-ye Iran* (Analysis and Commentary Treatise on Iranian Radif of Music), Tehran: Moin.
- FARHAT, H.  
1990 *The Dastgāh Concept in Persian Music*, Cambridge University Press.

- GHANBARI, H.; HONARMAND, A.; ASAADI, H.  
2022 "Contemporary Theories of Tuning Systems in Iranian Classical Music: a Comparative Study." In *Journal of Fine Arts: Performing Arts & Music*, 27(2):37-48.
- HANNANEH, M.  
1988 *Gamha-ye Gomshodeh* (The Lost Scales), Tehran: Soroush.
- KIANI, M.  
1989 *Haft Dastgah-e Musiqi-ye Iran* (Seven Dastgahs of Iranian Music), Tehran: Sarv-Setah.
- KHALEQI, R.  
2007 *Nazari be Musiqi* [A look to music] 2<sup>nd</sup> edition. Tehran: Rahroan-e Pouyesh.
- MILLER, L.  
1999 *Music and Song in Persia: the Art of Avaz*, Routledge Library Editions: Iran.
- SANATI, F.  
2020 *An investigation on the value of intervals in Persian music* (PhD dissertation), <http://urn.fi/URN:NBN:fi:jyu-202008215619>.
- SHAFIEL, S.  
2021 "An analysis of Iranian Music Intervals based on Pitch Histogram." In *ArXiv*, [abs/2108.01283](https://arxiv.org/abs/2108.01283). (<https://arxiv.org/abs/2108.01283>).
- TALAI, D.  
1993 *A New Approach to Theory of Persian art music*. Tehran: Mahoor.  
2015 *Tahlil-e radif, bar Asas-e Notnevisi-e Radif-e Mirza-Abdollah, ba Nemudarha-ye Tahlili* [Radif Analysis based on the notation of Mirza Abdollah's Radif with annotated visual description]. Tehran: Ney Press.
- VAZIRI, A.  
1952 *Dastur-e Tār*. University of Illinois Library, Photographic Services.  
2001 *Teori-ye Musiqi* [Theory of music] 2<sup>nd</sup> edition. Tehran: Safi-Alishah.
- WRIGHT, O.  
1978 *The Modal Systems of Arab and Persian Music, A.D. 1250-1300*, Oxford University Press.



