

While the Arabic *maqam* as a concept is well understood (at least implicitly) by practitioners, it has been poorly described in written music literature. The gap between written material about the *maqam* and actual performance practice is described by Marcus: "In many cases, new understandings gained from the dynamic realm of performance differ significantly from the theoretical definition, highlighting the existence of distinct worlds of theory and practice."¹ Marcus's extensive work since 1989 has filled in much of the gap in English-language scholarship, by documenting oral practices more thoroughly—corroborating our own experience with the informal music theory explanations that expert musicians give. When it comes to the most glaring discrepancy between oral and written understandings—the static single-scale model of *maqam* versus the practice of including multiple *ajnas* within a *maqam* performance—Marcus's writings (listed in the References) provide an excellent starting point. Marcus defines the following performance characteristics as part and parcel of the *maqam* definition: "intonation, accidentals, melodic leaps,

¹ Marcus (2007, p. 25).

We have attempted here to bring together the *maqam* and the *musammar*, which has its own weaknesses and strengths, especially through the modified *maqam* systems. This chapter explores the existing literature on the *maqam* in literature as well as in music and offers a more elaborate and detailed analysis of the *maqam* by explaining and analyzing the musical prac-

What Is a *Maqam*?

The usual starting point for talking musical pitches in ascending order “Do—Ré—Mi—Fa—So—La—Si” in terms of the different possible intervals groups the notes in the bottom half defined also by their interval relationship to bottom + Jins Z on the top.” For example, as shown in figures 17.1 and 17.2 in that

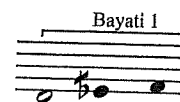


FIGURE 17.1 Trad



FIGURE 17.2 Trad:

² Marcus (2007). Another detailed definition: "Melodies are built from melodic motifs; ideas about the intonation of the notes (e.g., whether they are tonic or chromatic); ideas about the structure of the melody (e.g., how low a melody extends); the idiomatic use of modulations to other *maqams*; a characteristic mode's various features"; and for scale degrees." Marcus (1989b) provides a thorough discussion of how the century resulted in an overly simplified definition of Westernize. In the first "period" of theory he r

the use of multiple upper tetrachords, modulation, and a characteristic order of progressing through each of the *maqam*'s defining features."²

We have attempted here to bring both the written and the oral knowledge—which has its own weaknesses and contradictions—into a more coherent theory, especially through the modified definition of *jins* provided in the last several chapters. This chapter explores the existing definitions, metaphors, and models used to explain the *maqam* in literature as well as oral tradition; points out their limitations; and offers a more elaborate and detailed view of what a *maqam* is, based on examining and analyzing the musical practice.

What Is a Maqam?

The usual starting point for talking about *maqam* is the scale,³ a collection of seven musical pitches in ascending order that repeats at the octave (the 8th pitch): think "Do—Ré—Mi—Fa—So—La—Si—Do (octave)." Each *maqam* is then defined in terms of the different possible intervals between each pitch. A further refinement groups the notes in the bottom half and the top half of the scale as distinct *ajnas*, defined also by their interval relationships, and states "Maqam X = Jins Y on the bottom + Jins Z on the top." For example, Maqam Bayati and Maqam Suznak are shown in figures 17.1 and 17.2 in that traditional form.

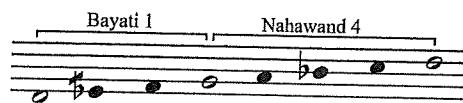


FIGURE 17.1 Traditional view of Maqam Bayati.

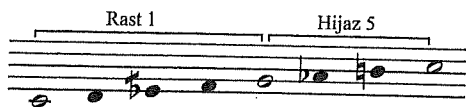


FIGURE 17.2 Traditional view of Maqam Suznak.

² Marcus (2007). Another detailed definition of the *maqam* by Marcus (2015, p. 281) goes as follows: "Melodies are built from melodic modes called *maqamat*, and any given *maqam* dictates a wealth of melodic features. These include the notes used (conceived today as a specific scale with a tonic); ideas about the intonation of the notes and which notes should be emphasized; a specific tetrachordal structure with the possibility of alternative tetrachords; a sense of tessitura (how high and how low a melody extends); the idiomatic use of specific accidentals; common melodic motives and modulations to other *maqams*; a characteristic general progression (a kind of road map for moving through a mode's various features); and for some *maqams*, extra-musical associations."

³ Marcus (1989b) provides a thorough discussion of how changes in Arab music theory in the 20th century resulted in an overly simplified definition of *maqam*, partly in response to cultural pressure to Westernize. In the first "period" of theory he refers to, scale was not even present, and instead melodic

TABLE 17.1

Several <i>Maqamat</i> in the Rast Family Defined through Their Primary <i>Ajnas</i>	
<i>Maqam</i>	Primary <i>Ajnas</i>
Rast	Rast 1 + Upper Rast 5/8
Suznak	Rast 1 + Hijaz 5
Nairuz	Rast 1 + Bayati 5
Dalanshin	Rast 1 + Saba Dalanshin 6/8

Maqam “families” are then defined as *maqamat* that share the same bottom *jins*—the *jins* that defines the main tonic of the *maqam* (the “Do” or the 1). For example, several *maqamat* in the Maqam Rast family are shown in table 17.1. This definition of *maqam* is the one that forms the basis of conventional Arabic music theory and analysis.

But if we really wish to understand *maqam*, we are going to have to question this concept, and even the basic idea that the scale is the true framework for *maqam*. We must start with the evidence of the music itself, with melody. The first question is: Is the scale the basic unit of melody?

In Western classical music, the answer is yes. In any piano sonata by Mozart or Beethoven we will find scales, and scale sequences, in every other measure. Where there are not scales, there are arpeggios, which skip notes in the scale but still emphasize octave-spanning melodies. The predominant instrument in Western classical music is the piano—used to compose, accompany, theorize, and arrange—and it is built on the scale system. It is no wonder that the scale is the dominant framework for thinking about music theory. Yet like the fish that doesn’t perceive the water it swims in, music theorists don’t realize that they think of the scale as the dominant framework for music *precisely because the scale is actually musically significant to the particular idiom out of which that music theory developed*—rather than being an abstract, absolute concept defining all music for all time.

Scales do occur in *maqam*-based music, but they are much less frequent and do not provide the dominant framework for melody. As discussed in chapter 13: The *Jins*, Arabic melodies typically use a span of 4–5 notes for a longer period of time before moving to a new area, rather than going up and down a full scale repeatedly. Each area can be defined as a *jins* (pl. *ajnas*), based on the intervals of the scale fragment (the 4–5 notes in ascending order), the melodic patterns used, and the mood.

fragments were used to illustrate the *maqam*. Thus, in some regards theory from that period *better* reflected practice than later theory.

Jins-to-Jins Motions

To understand the deeper problem ask: What happens when a melody of a whole piece of Arabic music at several pieces defined as being in *shadi al-alhan*⁴ notated in figure 17

FIGURE 17.3 The *muwashshah* “*ya shadi*”

This same piece can be presented as (Box 17.1 describes the style of *maqam*

Rast 1

Rast 1

FIGURE 17.4 *Jins-to-jins* and

⁴ *Muwashshah* “*ya shadi al-alhan*” is a perfect Maqam Rast and was previously used thus in p. 56); Marcus (2007, p. 36); and Abu Shum:

Jins-to-Jins Motions

To understand the deeper problems with the scale framework, we must next ask: What happens when a melody goes from one *jins* to the next? How does the melody of a whole piece of Arabic music work? To answer these questions, let's look at several pieces defined as being in Maqam Rast, starting with the *muwashshah* "ya shadi al-alhan"⁴ notated in figure 17.3.

Jins Upper Rast 5/8

Ya sha-dil - al han ah as - mi` - na - - ran na - ta-l-`i -

Jins Nahawand 5 Jins Hijaz 5

da - n ya la la-l li ya la la - ah - ya la la-l-li ran - na -

Jins Rast 1 Upper Rast 5/8 Jins Rast 1

ta-l-`i - da - n ah-i as - mi` - na - - - ah ya la-l li

ya la la la la ah ya lal - li

FIGURE 17.3 The *muwashshah* "ya shadi al-alhan" with *jins* analysis shown above.

This same piece can be presented as a *jins-to-jins* analysis, as shown in figure 17.4. (Box 17.1 describes the style of *maqam* analysis diagrams used in this book.)

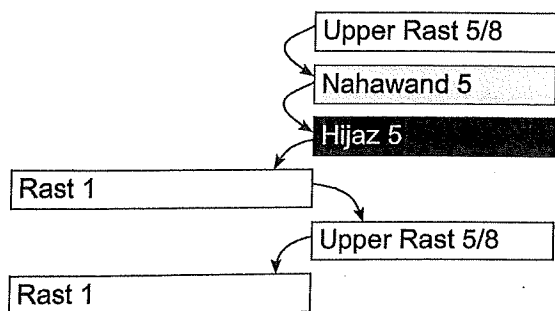


FIGURE 17.4 *Jins-to-jins* analysis of the *muwashshah* "ya shadi al-alhan."

⁴ *Muwashshah* "ya shadi al-alhan" is a perfect example for demonstrating the secondary *ajnas* in Maqam Rast and was previously used thus in Fath Allah and Kamel (1974, p. 136); El-Mallah (1997, p. 56); Marcus (2007, p. 36); and Abu Shumays (2013).

BOX 17.1

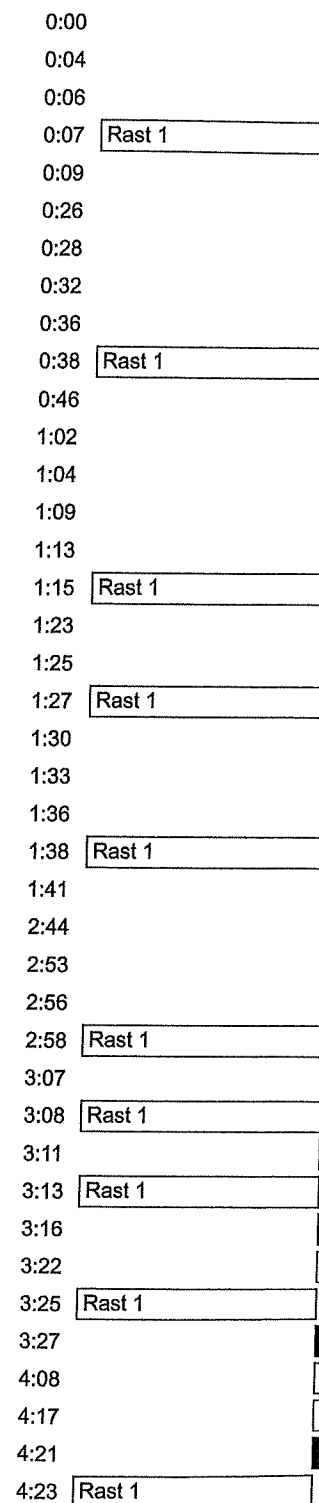
This chapter includes several *jins*-to-*jins* analysis diagrams in which each *jins* is represented as a rectangle containing its name and the scale degree of its tonic relative to the overall *maqam*'s tonic. Rectangle borders and shadings have been applied to make *ajnas* more visually distinct. The lines between *jins* rectangles indicate a two-way modulation unless they have an arrowhead, in which case they indicate a one-way modulation. The rectangle's width reflects the size of the *jins*'s basic scale, and its horizontal placement reflects the position of the basic scale within the *maqam* scale.

The exception to this convention is the occurrence of Jins Nahawand on the 5th degree of Maqam Rast (see the section "Other Melodic Entities" in chapter 16: Newly Classified *Ajnas*); the size of that particular usage of Jins Nahawand is drawn as 4 notes wide to reflect the fact that this *jins*'s melodic activity on the 5th degree of Maqam Rast is limited to the 4 notes from the *ghammaz* to the octave tonic.

Let's compare this with four more analyses of songs in Maqam Rast from Egypt: the classic "*hayrana leh*" (see figure 17.5), composed by Dawud Husni for Leila Mourad in 1930; "*ya wabur*" (see figure 17.6), composed and performed by Muhammad Abdel Wahab in 1938; the song "*ma takhudshi 'ala kida*" (see figure 17.7), by the contemporary *sha'bi* singer Hakim (b. 1962), in 1998; and the late Umm Kulthum song "*il-hubbi kullo*" (see figure 17.8), composed by Baligh Hamdi in 1971. Rather than looking at transcriptions, the picture of *jins*-to-*jins* movement will be clearer through the model used in figure 17.4, following the time stamps in the most commonly available recordings of these songs.

What can we observe from these examples? First, encountering a full scale is quite rare. Second, every one of these songs uses more than two *ajnas*. Third, there are five *ajnas* that are common to all of them: Rast 1, Upper Rast 5/8, Nahawand 5, Hijaz 5, and Rast 8 (Rast on the octave). There are a few additional *ajnas* that occur, but not in every song—Nahawand 8, Hijazkar 5, and Sazkar 1 in "*ya wabur*" and Bayati 5 and Saba 5 in "*ma takhudshi 'ala kida*"—but these other *ajnas* represent only a very small portion of the overall melodies.

In addition, we can observe a few more things about the sequence of *ajnas*. First, there are multiple different sequences of the five common *ajnas*. This is crucial to understand, in contrast to the explanations practicing musicians give, detailed

FIGURE 17.5 *Jins*-to-*jins* analysis of "*hay*"

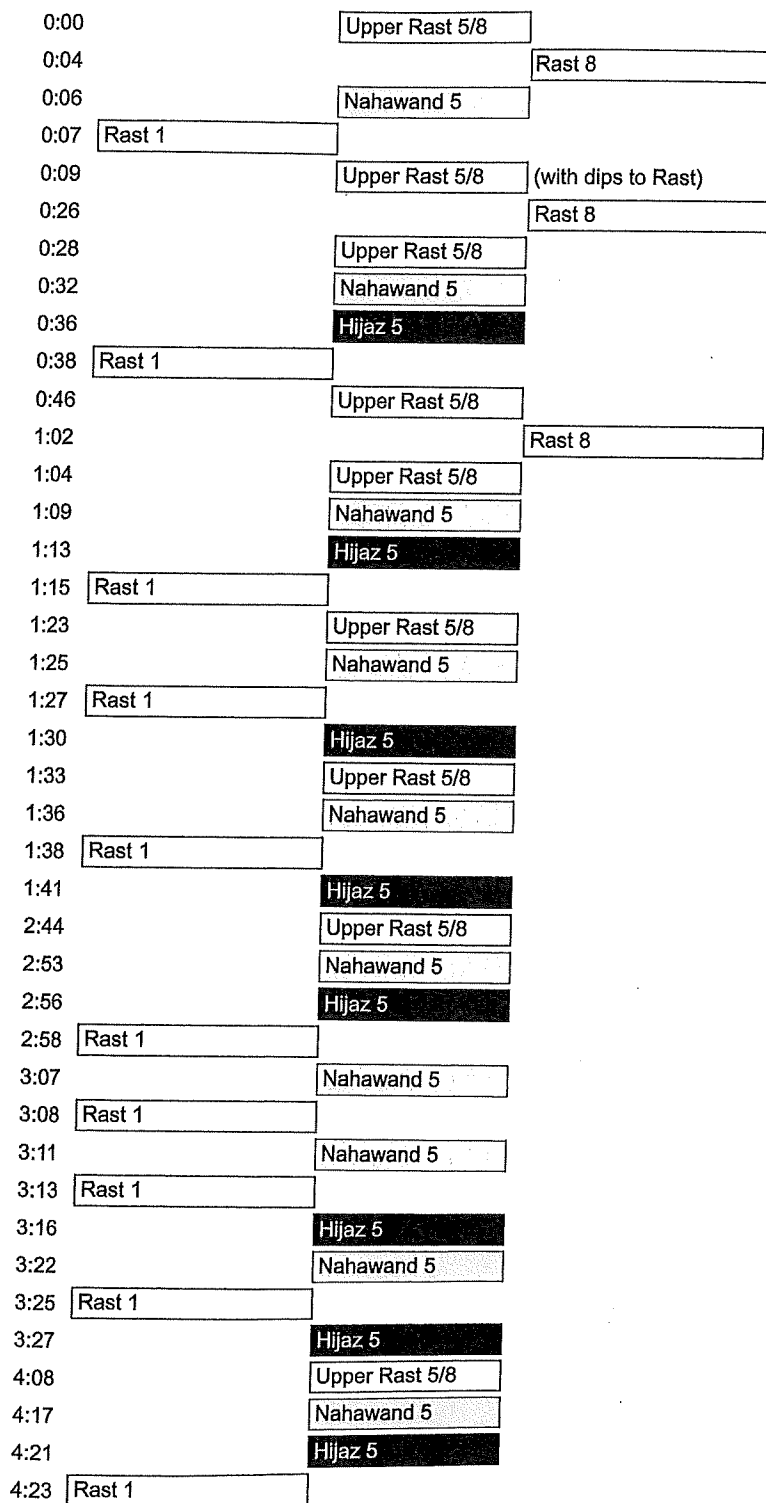


FIGURE 17.5 *Jins-to-jins* analysis of "hayrana leh."

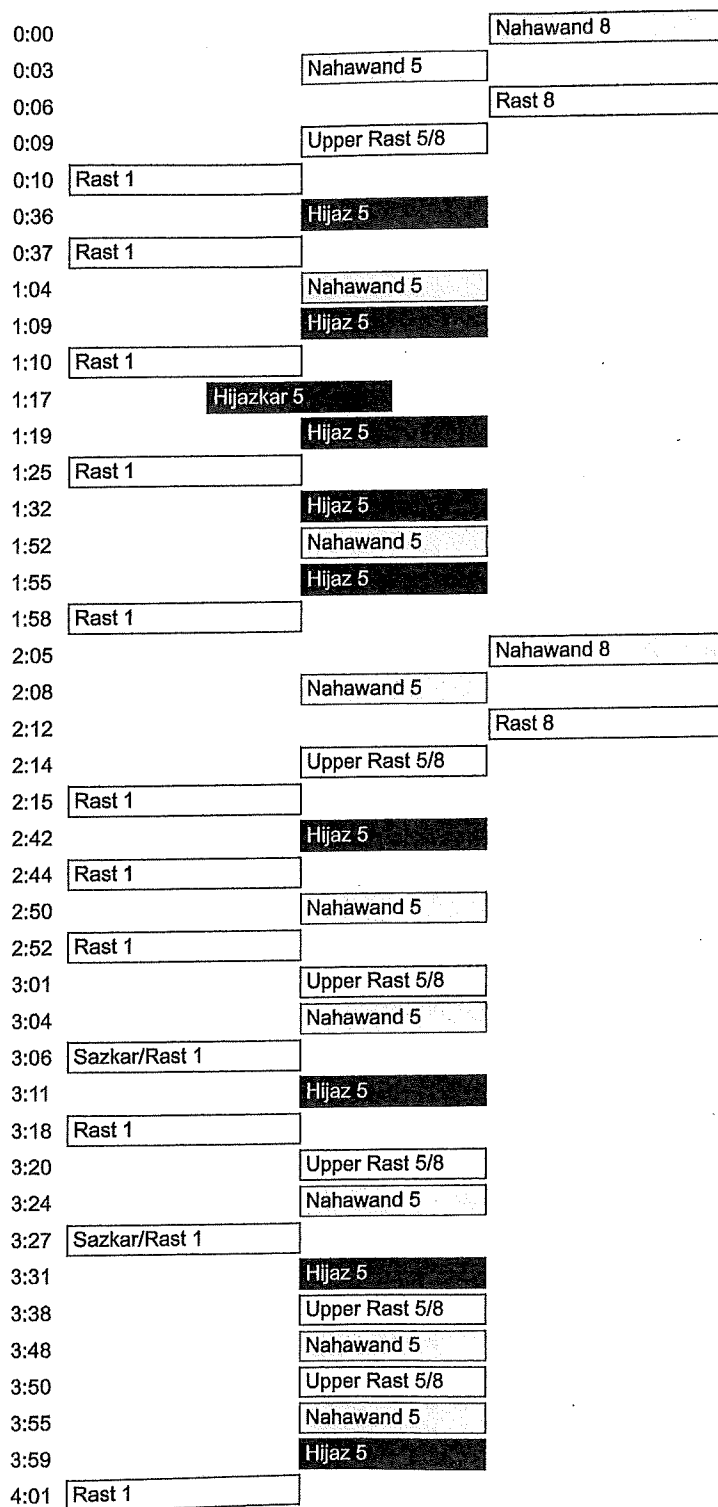


FIGURE 17.6 *Jins-to-jins* analysis of "ya wabur."

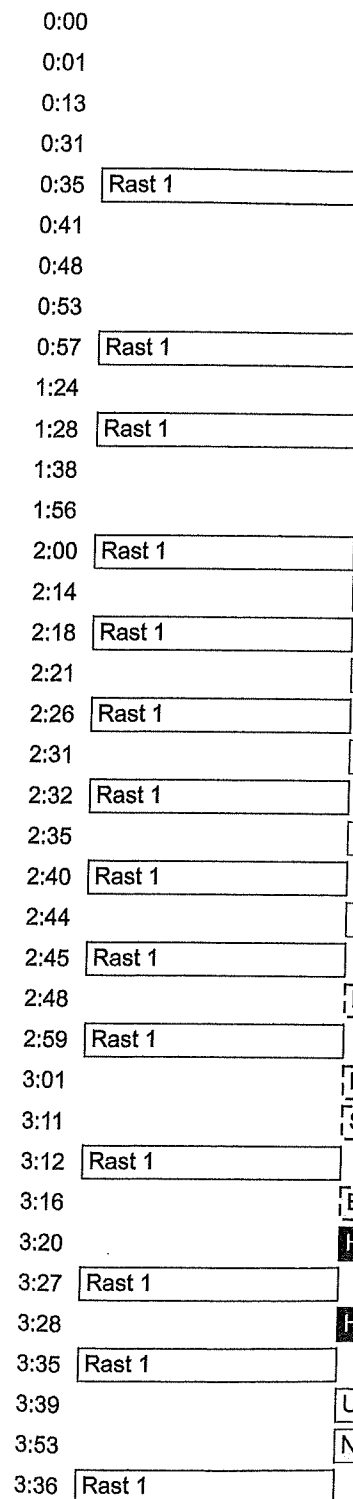


FIGURE 17.7 *Jins-to-jins* analysis of "ma tak"

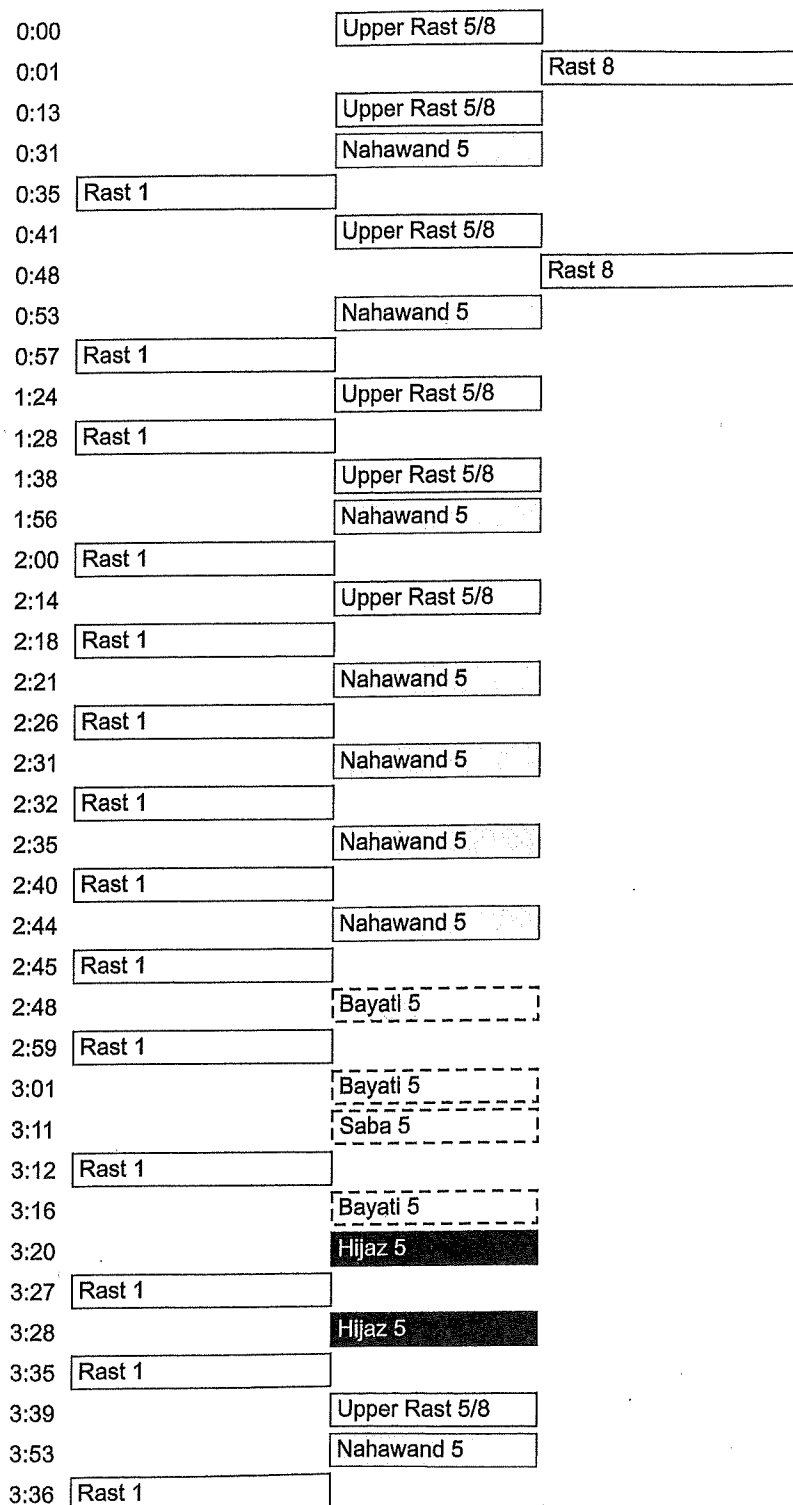


FIGURE 17.7 *Jins-to-jins* analysis of "ma takhudshi 'ala kida."

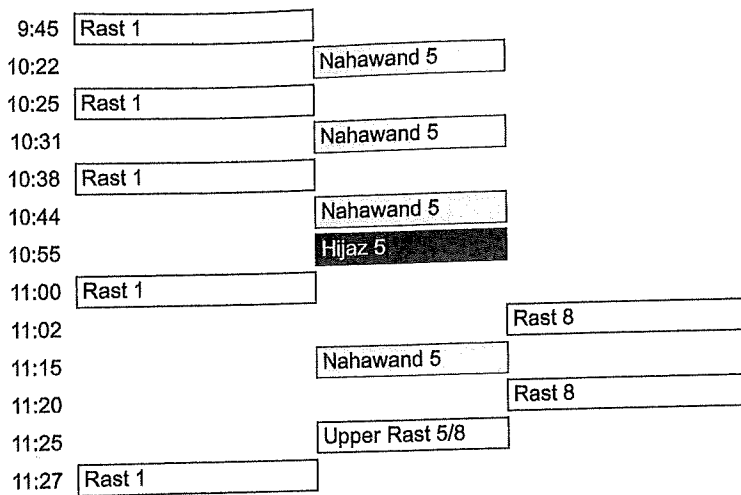


FIGURE 17.8 Jins-to-jins analysis of "il-hubbi kullo," verse 1.

by Marcus;⁵ in those explanations, different *ajnas* occur in particular fixed linear sequences. In reality, there are multiple orders possible, which leads us to the network view of *maqam* structure discussed below.

Second, although the "root" *jins* of the *maqam*, Jins Rast on the root tonic ("Rast 1"), occurs at the end of many sequences and at the end of each song, there are multiple ways to get to Rast (it follows Upper Rast 5/8, Nahawand 5, and Hijaz 5 in different sequences).

Third, the upper, secondary *ajnas* to the *maqam* can follow each other without returning to the root *jins*. This last point is an important one for understanding one of the main problems with the traditional conception of modulation.⁶

⁵ Marcus summarizes the description offered by one of his teachers in Cairo for the sequence used in Maqam Nahawand as follows: "If there is any more explicit verbalizing, it might be a naming of the sequence of tetrachords: A Nahawand tetrachord on C, then the two upper tetrachords, Kurd and Hijaz on G, then a Nahawand tetrachord on the upper octave C, returning, perhaps with the Kurd tetrachord on G and finally closing on the tonic" (2015b, p. 285). Marcus also quotes D'Erlanger's description of Hijaz: "The performance of this mode starts from the first tetrachord . . . and after showing this tetrachord there is a descent to the note Yakah with a Rast tetrachord . . . then an ascent to play sometimes a Rast tetrachord on Nawa and sometimes a Nahawand tetrachord, following this is an ascent to play Nahawand on the note Muhayyar and from there" (1989b, p. 38). Finally, in his article on Maqam Bayati Marcus (2002) provides a sequence of *ajnas* that form, for him, a clear progression, after which he makes what we feel to be unwarranted claims of a "functional" melodic practice, in which each *jins* performs a specific function within the *maqam*. In our view, the expectation of *ajnas* following each other, built in oral tradition by repeated listening, can give the false impression of both fixed sequences (because aural expectation is a real phenomenon) and functions—in part because of the particular characteristics of individual *ajnas*. But this is an illusion resulting from the network structure, in our view. The reality is both much simpler and more flexible: *ajnas* can move in multiple possible sequences, governed by multiple possibilities of aural expectation. Function is simply a misunderstanding of expectation, which is fundamentally based on arbitrary sequences, repeated enough times to develop in listeners the sense of expected movement.

⁶ As described in Marcus's earlier writings (1989a, 1992).

If we believe that Maqam Rast 1

Rast 1

FIGURE 17.9 Maqam Rast

or even that it has "two different" ascending or descending (a typical e

Rast 1

Rast 1

FIGURE 17.10 Maqam Rast represents

then if we encounter Jins Hijaz on Taking the scalar understanding of sequences always to occur as show:

Rast 1

Rast 1

Rast 1

FIGURE 17.11 Modulation se

In other words, the change of the part of a reference to the full "Maqam" as the reference or go-between for other sequences like those in figures 17.

As a final observation, the high frequency and in different sequences with the core melody of Maqam Rast. Most musicians understand that upper modes are separate from, the prevailing *maqam*.⁷

⁷ Marcus (1989b; 2002; 2007, p. 23; and 2015).

If we believe that Maqam Rast looks like figure 17.9,

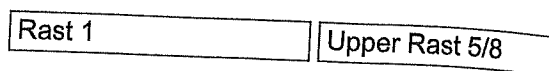


FIGURE 17.9 Maqam Rast represented as a scale made up of two *ajnas*.

or even that it has “two different versions” depending on whether melodies are ascending or descending (a typical explanation), as shown in figure 17.10,

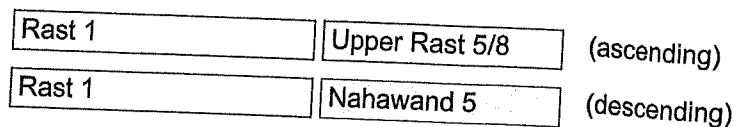


FIGURE 17.10 Maqam Rast represented as two scale alternates, ascending vs. descending.

then if we encounter Jins Hijaz on 5, we must have modulated to Maqam Suznak. Taking the scalar understanding of *maqam* seriously, we should expect modulation sequences always to occur as shown in figure 17.11.

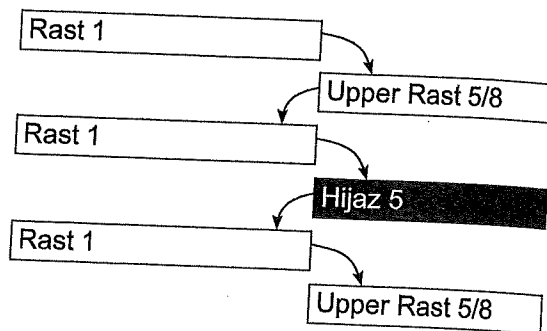


FIGURE 17.11 Modulation sequence in Rast using full scales to modulate.

In other words, the change of the upper *jins*, in that case, would always occur as part of a reference to the full “Maqam Suznak scale”; Jins Rast 1 would always serve as the reference or go-between for other *ajnas*. That’s not what we find; instead we see sequences like those in figures 17.12 and 17.13.

As a final observation, the high frequency of Jins Hijaz modulations, intertwined and in different sequences with the other *ajnas*, suggests that this *jins* is actually part of the core melody of Maqam Rast. (Marcus corroborates the fact that in practice, most musicians understand that upper *jins* modulations are part of, rather than separate from, the prevailing *maqam*.⁷)

⁷ Marcus (1989b; 2002; 2007, p. 23; and 2015a, p. 283).

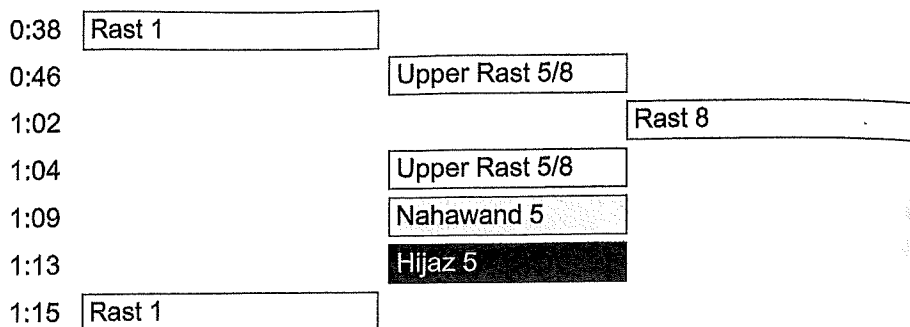


FIGURE 17.12 Jins sequence from "hayrana leh."

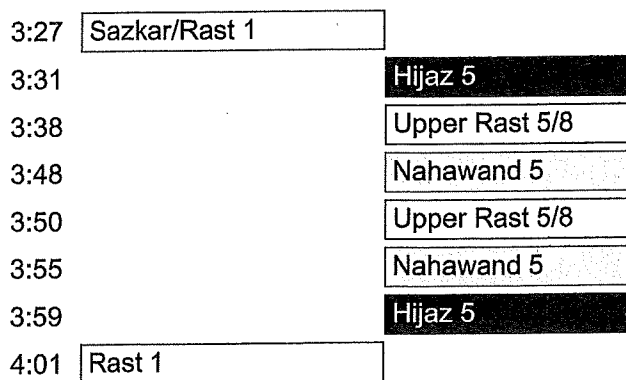


FIGURE 17.13 Jins sequence from "ya wabur."

Listening to all four of these pieces together, we can begin to see that despite stylistic differences, all four feel like the same *maqam*. So what happened to Maqam Suznak? As shown in chapter 18: The *Maqam* Scale, there are *other* songs in which Jins Hijaz on 5 is much more dominant than it is in these songs, occurring at a frequency closer to the frequency with which Nahawand and Upper Rast occur here.

Finding the Right Metaphor

How we conceptualize melody is largely metaphorical. "High" and "low" for pitches are metaphors, using a visual/spatial reference to represent differences in pitch frequency. A scale is often visualized as a staircase, another metaphor. *Maqam* itself is a metaphorical word for position, which in Arabic is used for social class position as well as position in a melodic scale. Examining the metaphors more closely can help us critique the analysis and the theory; finding a better metaphor that is more analogous to the musical reality can help us conceptualize *maqam* more clearly.⁸ Let's consider the strengths and weaknesses of several metaphors.

⁸ Here we follow the view advanced by Lakoff and Johnson (1999, 2003) that cognition is highly conditioned by metaphor. The metaphors forming the basis for music theory explanations are—like all the

THE STAIRCASE

The staircase is a great metaphor for top and come back down again. But there are lots of other kinds of motion.

THE CHAIN

We can represent the motion and approach is that we can analyze sequentially, for example:

Rast 1—Hijaz 5—Nahawand 8

In this example, the chain analogy Nahawand on the octave above Rast Maqam Hijaz, Jins Nahawand is the degree above Jins Hijaz.

However, the chain metaphor has that it is *linear*. Actual Arabic mel only move up and down the *ajnas* i that these *ajnas* are stacked above ea

THE TREE WITH BRANCHES

This metaphor is commonly used to aphor, *maqamat* in the same family the "root *jins*" of the *maqam*), and the *ajnas*. This metaphor is great for understanding the relationship among different *jins* doesn't change, but there are numerous

The weakness of this metaphor is branches without going back to the other. This was the third point we (that upper *ajnas* can move among different *jins*), and the problem with the conventional theory, which views the fu

metaphors embodied in cognition—largely them more closely here in order to give a convincing metaphors, we have developed addit

THE STAIRCASE

The staircase is a great metaphor for a scale; we can go up and down. We reach the top and come back down again. But Arabic melodies don't only behave this way; there are lots of other kinds of motion.

THE CHAIN

We can represent the motion among *ajnas* as links in a chain. The benefit of this approach is that we can analyze sequences that go beyond the 8-note scale more effectively, for example:

Rast 1—Hijaz 5—Nahawand 8

In this example, the chain analogy helps us understand why we might encounter Nahawand on the octave above Rast, because it is actually linked to Hijaz 5, and in Maqam Hijaz, Jins Nahawand is the most common *jins* to occur on the 4th scale degree above Jins Hijaz.

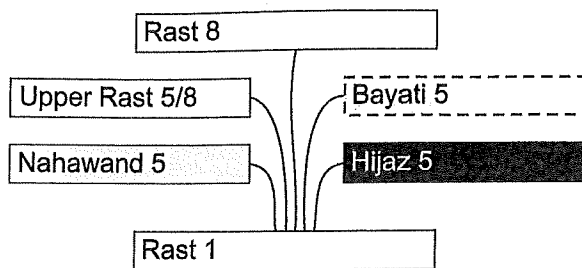
However, the chain metaphor has the same problem as the staircase metaphor in that it is *linear*. Actual Arabic melodies, as we see from the examples above, don't only move up and down the *ajnas* in a linear sequence, even if it appears abstractly that these *ajnas* are stacked above each other or chained together.

THE TREE WITH BRANCHES

This metaphor is commonly used to explain *maqam* families. According to the metaphor, *maqamat* in the same family share the same trunk (what we've referred to as the "root *jins*" of the *maqam*), and the different branches represent the variant upper *ajnas*. This metaphor is great for understanding that in a typical Arabic song, the root *jins* doesn't change, but there are numerous upper variants. It is also useful for understanding the relationship among different *maqamat* that share the same bottom *jins*.

The weakness of this metaphor is that it doesn't allow for movement between branches without going back to the trunk; the branches aren't connected to each other. This was the third point we raised when observing the preceding examples (that upper *ajnas* can move among each other without reference back to the bottom *jins*), and the problem with the metaphor is analogous to the problem with conventional theory, which views the full scale as the primary unit rather than the *jins*.

metaphors embodied in cognition—largely unrecognized and unquestioned. We attempt to examine them more closely here in order to give a clearer picture of the *maqam*. In addition to examining existing metaphors, we have developed additional metaphors in chapters 19–22, as conceptual aids.

FIGURE 17.14 The “Tree with Branches” metaphor used to describe a *maqam* family.

Representing Maqam Rast as a tree based on the examples above, we would have something that looks like figure 17.14, which is more or less the visualization traditionally used to describe *maqam* families.

THE SUBWAY MAP

The subway map metaphor captures two things very well. First is the sense that the motion among *ajnas* in a *maqam* can be viewed metaphorically as a kind of journey, traveling to multiple stops and then returning home. Second, in a robust subway system there are multiple pathways among major hubs, as shown in figure 17.15.

Other advantages of this metaphor are the fact that there is more than one hub (unlike the tree, which has only one trunk), there are several hubs with multiple connections, and there are peripheral hubs with few connections (like the occurrence of Jins Saba 5 in “*ma takhudshi ‘ala kida*” or Jins Nahawand 8 in “*ya wabur*”).

The disadvantages of this metaphor are not as significant as those already mentioned, but they are worth mentioning. In the subway map in figure 17.15, there are many stops in between hubs that have only one path in or out (e.g., 23rd Street on the I train), which is not usually true among *ajnas* in *maqam*. In other words, the *maqam* system is *more densely connected* than the subway map, with more lines among *all* of the stops. The second disadvantage is that the subway map is more static than the *maqam* system. It took nearly 80 years to add a 2nd Avenue Subway Line in New York City after it was first proposed in the 1940s, but in that same time period the *maqam* system has undergone dynamic changes.

THE HOUSE WITH ROOMS

The late New York-based Armenian ‘ud player Haig Manoukian came up with his own metaphor to describe the *maqam* system to students: he viewed a *maqam* as a house with many rooms. Everybody, both those living in the house and their guests, spends a lot of time in the main living room. This, for Manoukian, was the main *jins* of the *maqam*. There are other rooms off the main room, up the stairs, and even in

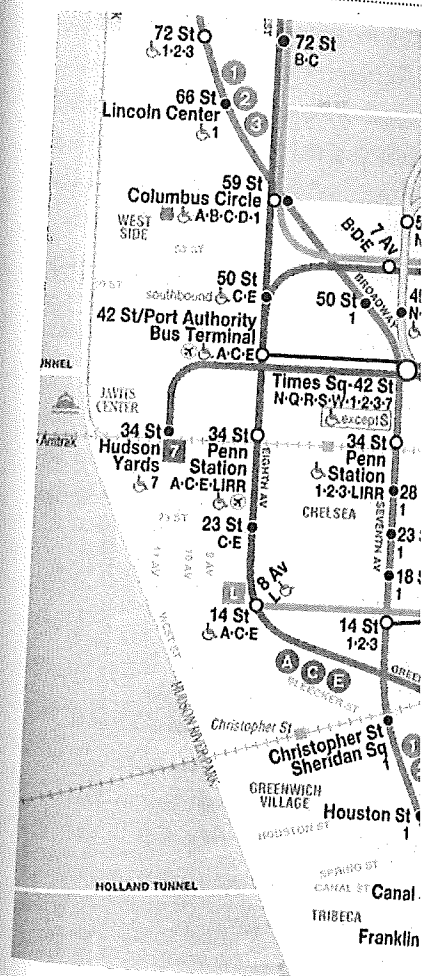


FIGURE 17.15 The New York City subway system Avenue line was built.

the basement, which people visit less frequently than the main living room, whether they occur above or below the main living room.

This metaphor shares the strengths and weaknesses of the subway map metaphor. It captures very well the fact that there are many pathways among them, and some rooms that are more central than others. The house is a much less dynamic entity than the subway map.

THE NETWORK

Though it is more of an abstraction than the subway map, the network metaphor has become easier for most people to understand. Modern life explicitly involves systems that

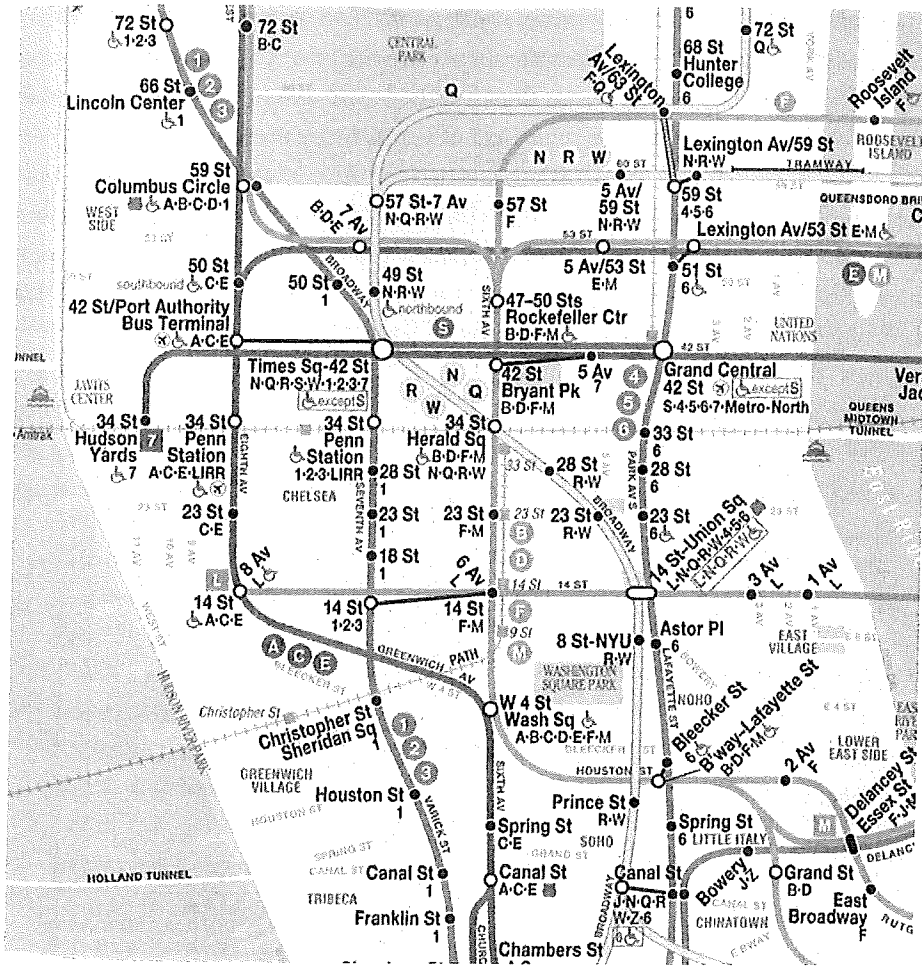


FIGURE 17.15 The New York City subway system in midtown Manhattan, shown before the Second Avenue line was built.

the basement, which people visit less frequently. These are the secondary *ajnas* to the *maqam*, whether they occur above or below the main *jins* or even on the same level.

This metaphor shares the strengths and weaknesses of the Subway Map metaphor. It captures very well the fact that there are multiple areas, and multiple possible paths among them, and some rooms that are more important than others. However, a house is a much less dynamic entity than the *maqam* system.

THE NETWORK

Though it is more of an abstraction than the previous metaphors, the network structure has become easier for most people to visualize. Not only do more elements of modern life explicitly involve systems that are linked through complex networks.

but we have also begun to understand the network structures underlying many naturally occurring systems. Social relationships can be represented as a network among people; spoken language has been shown to be based on a network system (with words being hubs and possible sequences of words being the links); and the brain is a network of neurons linked through synapses.⁹ And of course, we have the internet, with its complex network of hyperlinks. All of these networks have a number of characteristics similar to the *maqam* system: there are multiple hubs; there are numerous pathways to get from any hub to any other; and any two hubs, no matter how apparently distant, can be linked through a short pathway with a small number of steps (the “six degrees of separation” phenomenon of global population).¹⁰

Each *jins* can be represented as a node in the network (a box), and each sequence of one *jins* to the next can be represented as a connection (a line). Taking into account all of the possible sequences from one *jins* to another occurring in the songs analyzed here, we get the network shown in figure 17.16.

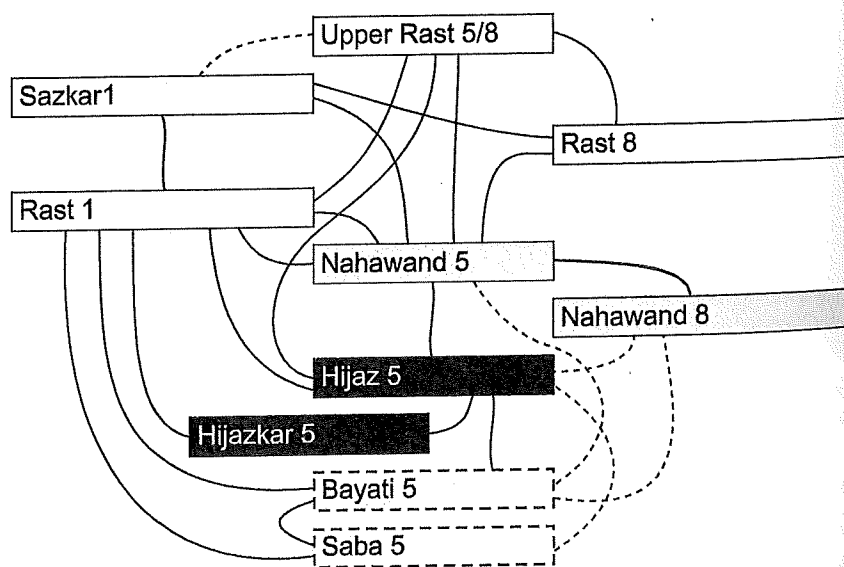


FIGURE 17.16 The network metaphor used to explain the Maqam Rast family. The dashed lines represent connections that did not occur in the five songs analyzed here, but that do occur in other songs and improvisations in Maqam Rast.

⁹ Strogatz (2003); Watts and Strogatz (1998).

¹⁰ Abu Shumays (2013) makes the claim that the *maqam* system is an example of a “Small-World Network,” which has the characteristic of short pathways even in a large and complex system. In the late 1990s this type of network was defined mathematically by Stephen Strogatz and others and discovered to occur in a large number of natural systems (as summarized accessibly in Strogatz, 2003). In future research, we hope to demonstrate that the *maqam* system has this mathematical structure not just among *ajnas* but also among the units of melodic vocabulary.

The dashed lines in figure 17.16 represent five songs analyzed here, but that do occur in Maqam Rast.

We can make several observations

- While Jins Rast 1 is clearly the eight direct connections, to all Nahawand 5 is almost equally important.
- Hijaz 5 also has seven direct connections occurred in the examples above.
- Upper Rast 5/8, which is the most important upper *jins* for Maqam Nahawand 5 or Hijaz 5 (five connections occurred in the examples).
- Finally, even the more peripheral Sazkar 1) have multiple connections.

The longest path length occurs between using the links that occurred in the examples and the dashed connections.

There is one more *jins* that occurs left out of this network because it did not occur in the five songs analyzed. This *jins* has links to Rast 1, Sazkar 1, and Rast 5/8.

One important characteristic of this network structure: infinite possibilities. In other words, even though there is a finite number of connections, there are an infinite number of paths that can be produced, simply by following the links. In other words, it is possible for each song/improvisation to be different from every other, while at the same time still belong to the same *maqam*. These unique compositions within a group having the same overall melodic structure.

This characteristic of *maqam* is complex. It is a finite number of words in any individual composition, but it is new and unique, and an infinite number of compositions remain comprehensible within the larger system through reference to the network structure.

The dashed lines in figure 17.16 represent connections that didn't occur in the five songs analyzed here, but that do occur in other songs and improvisations in Maqam Rast.

We can make several observations:

- While Jins Rast 1 is clearly the most important hub of the network (with eight direct connections, to all the other *ajnas* except Nahawand 8), Jins Nahawand 5 is almost equally important, with seven direct connections.
- Hijaz 5 also has seven direct connections (five if we only count those that occurred in the examples above).
- Upper Rast 5/8, which in the traditional theory is considered the most important upper *jins* for Maqam Rast, actually has fewer connections than Nahawand 5 or Hijaz 5 (five connections, only four if you count those that occurred in the examples).
- Finally, even the more peripheral *ajnas* (Saba 5, Nahawand 8, Hijazkar 5, and Sazkar 1) have multiple connections.

The longest path length occurs between Saba 5 and Nahawand 8: it takes three steps using the links that occurred in the examples, but only two steps if we include the dashed connections.

There is one more *jins* that occurs quite frequently in Maqam Rast, which was left out of this network because it didn't occur in the examples above: Jins Sikah 3. This *jins* has links to Rast 1, Sazkar 1, Nahawand 5, Hijaz 5, Bayati 5, and Upper Rast 5/8.

One important characteristic of Arabic music becomes clearer when we look at this network structure: infinite possibility and variation resulting from a finite collection. In other words, even though the network has a finite number of nodes and a finite number of connections, there are an infinite number of different sequences that can be produced, simply by following different pathways in different orders. In this way, it is possible for each song/improvisation/*maqam* pathway to be unique from every other, while at the same time sounding similar enough to other songs using the same *maqam*. These unique compositions can be clearly identified as one unified group having the same overall melodic shape, just like the five songs analyzed here.

This characteristic of *maqam* is common to spoken language. Although there are a finite number of words in any individual's vocabulary, every sentence he or she utters is new and unique, and an infinite number of sentences could be produced that still remain comprehensible within the language. This phenomenon is easy to visualize through reference to the network structure of both *maqam* and spoken languages.

Modulation and *sayr* are two important concepts necessary to understand more fully the structure of *maqam*. Although we cover these two concepts in a lot of detail in the following chapters, here we offer a brief introduction to how they fit into our understanding of *maqam*.

Modulation

Modulation is the process of moving from one place to another in music. It involves a shift of perception: the melody resolves to a different note, hence the feeling of resolution (to a note called a “tonic”) changes. In chapter 13 we redefine the concept of *jins* to emphasize the importance of resolution (“tonicization”) within it. Modulation, then, is the movement from one *jins* to another: the shift of tonicization. While there are numerous specific techniques to accomplish that (discussed in chapter 19: Modulation), the movement from *jins* to *jins* is its essence.

In the traditional theory, modulation is viewed as a process outside of *maqam*: there are *maqamat*, and the music modulates from one to the other. Instead, we view modulation as being part of the fundamental *inner* structure of *maqam*. Take “*hayrana leh*”: in the first 4'23" of the song there are 40 modulations, averaging one every six seconds. The longest time spent in one *jins* is from 1'41" to 2'44", slightly more than a minute in *Jins Hijaz*—and this is longer than any other period in any of the other four songs. Something that happens so frequently must be a fundamental component of *maqam*, not something extraneous to it. Clearly *maqam* can't exist without modulation.

We have defined a *maqam* as being a pathway among a small set of *ajnas*; the pathways are the modulations from one *jins* to the other. Hence *Maqam Rast*, as defined by the musical example above, is the *ajnas* *Rast*, *Upper Rast*, *Hijaz*, *Nahawand*, *Rast* on the octave, and a few others, along with the modulations among them.

This begs the question: Can music modulate from *maqam* to *maqam*? What does that look like if a *maqam* already has modulation from *jins* to *jins* built into it? The answer is yes, with two caveats. First, modulation from *maqam* to *maqam* is difficult to perceive or understand before one has a clear sense of what the core *ajnas* within every *maqam* within the system are.¹¹ This is because a modulation from *maqam* to *maqam* looks at first like any other modulation from *jins* to *jins*, until one realizes that the music has moved to a new *jins* that isn't part of the identity of the original *maqam*. Second, the phenomenon is extremely rare in the older, more traditional

¹¹ Although that perception may very well be implicit for listeners and musicians immersed in the system. By “understand” we do not mean “intellectualize” or “conceptualize”; we mean something more like “to have experience of.”

pts necessary to understand more
r these two concepts in a lot of de-
f introduction to how they fit into

ne place to another in music. It
ves to a different note, hence the
) changes. In chapter 13 we rede-
ortance of resolution ("toniciza-
nent from one *jins* to another: the
specific techniques to accomplish
movement from *jins* to *jins* is its

s a process outside of *maqam*: there
the other. Instead, we view modula-
e of *maqam*. Take "*hayrana leh*": in
is, averaging one every six seconds,
2'44", slightly more than a minute
riod in any of the other four songs.
ndamental component of *maqam*,
't exist without modulation.

nong a small set of *ajnas*; the path-
er. Hence Maqam Rast, as defined
pper Rast, Hijaz, Nahawand, Rast
modulations among them.

om *maqam* to *maqam*? What does
from *jins* to *jins* built into it? The
rom *maqam* to *maqam* is difficult
ense of what the core *ajnas* within
use a modulation from *maqam* to
rom *jins* to *jins*, until one realizes
part of the identity of the original
are in the older, more traditional

isteners and musicians immersed in the
or "conceptualize"; we mean something

Arabic music, and very rare in any shorter song. In Egypt, Muhammad Abdel Wahab was almost the only composer in the early 20th century to utilize *maqam-to-maqam* modulations. Later, with the invention of the long-song (*ughniya*—very popular in Umm Kulthum's repertoire post-1948) in the mid-20th century, the technique became more fully developed as a way to give greater structure to compositions that were 30–60 minutes long.

Sayr

Sayr is a concept that describes the overall melodic direction of a *maqam*. The concept is not fully developed in traditional theory, where it mainly refers to whether the melody tends to start at the bottom or the top of the scale, and whether it goes up or down before resolving at the end. But despite that lack of depth in analysis, the concept is very thoroughly manifested by the repertoire itself. Although there are many possible ways to travel through the core *ajnas* of a *maqam*, a closer look reveals that there are dominant pathways that give the music an overall sense of direction.

If we were to refine our network metaphor by looking back at the musical examples, we would see that among the wide variety of options for traveling through the *ajnas*, there are a few common sequences that are repeated over and over, sometimes identically and sometimes with slight variations. So the network drawing, to be more accurate, would show some pathways as being much thicker (more heavily trafficked) than others.

"*Hayrana leh*" and "*ya shadi al-alhan*" both follow very similar pathways; they open at the octave with Jins Upper Rast and pass through Nahawand and Hijaz on the way down to a resolution to Rast 1. This pathway is repeated over and over with variations (including the minute-long passage in Jins Hijaz in "*hayrana leh*"), and it is that overall direction that is the *sayr* of this version of Maqam Rast. It's not just a descending scale as the traditional theory would put it, but an emphasis on Upper Rast, Nahawand, and usually Hijaz (with particular emphases on the lowered 7th and lowered and raised 6th scale degrees), that defines the *sayr* (as shown in figure 17.17).

The other three songs reveal a different *sayr* for Rast. Although "*ma takhudshi ala kida*" starts with an opening improvisation that copies the descending *sayr* of

0:28	Upper Rast 5/8
0:32	Nahawand 5
0:36	Hijaz 5
0:38	Rast 1

FIGURE 17.17 *Jins* sequence from "*hayrana leh*."

"*hayrana leh*," and "*ya wabur*" starts with an instrumental melody that has the descending *sayr*, both of these songs, along with "*il-hubbi kullo*," actually use a different *sayr* for most of their main melody. This alternate *sayr* for Maqam Rast starts with the root Jins Rast and ascends to the 5th, typically using modulations to Nahawand and/or Hijaz 5, before briefly reaching the octave with Upper Rast and coming back down again, usually with Nahawand. While it is true that we could simplify this by saying that the *maqam* has an "ascending *sayr*," in fact a close look at the repertoire overall reveals that there are specific *ajnas* and specific melodies that are a core part of the *sayr*; it is not simply about a direction (see figure 17.18).

2:15	Rast 1	
2:42		Hijaz 5
2:44	Rast 1	
2:50		Nahawand 5
2:52	Rast 1	
3:01		Upper Rast 5/8
3:04		Nahawand 5
3:06	Sazkar/Rast 1	

FIGURE 17.18 *Jins* sequence from "*ya wabur*."

In fact, melodic vocabulary is a key part of the identity of *sayr*. Specific opening and closing melodies provide the identity of the *maqam*, allowing for a certain degree of variation and ornamentation. The student wishing to truly understand *sayr* and *maqam* must actually learn the fundamental melodic vocabularies of each *maqam*, a process that can only be done by ear. This is because the real expression of *sayr* is the sense of aural expectation regarding which *jins*/melody is going to come next. This sense of expectation is built from years of hearing music that has similar sequences and similar melodies.

This higher-level sense of expectation ingrains in listeners and musicians particular longer sequences of *ajnas*; *maqam* then becomes not just a sequence of *ajnas*, but rather a sequence of these larger-scale, multiple-*jins* sequences. To sum up: modulation is the process of moving from one *jins* to another, and *sayr* is the expectation of certain typical sequences. These phenomena are the core building blocks of *maqam*, as shown in table 17.2.

TABLE 17.2

Core Building Blocks of the *Maqam* System

<i>Jins</i>	An area for melody with a distinct identity
Modulation	A motion from one <i>jins</i> to another
<i>Sayr</i>	A typical sequence of modulations/larger melodic pathway
<i>Maqam</i>	A larger melody network built from multiple <i>sayr</i> -s

in instrumental melody that has the de-
h "il-hubbi kullo," actually use a different
ternate *sayr* for Maqam Rast starts with
pically using modulations to Nahawand
crave with Upper Rast and coming back
it is true that we could simplify this by
yr," in fact a close look at the repertoire
and specific melodies that are a core part
(see figure 17.18).

Hijaz 5

Nahawand 5

Upper Rast 5/8

Nahawand 5

vabur."

the identity of *sayr*. Specific opening
he *maqam*, allowing for a certain de-
lent wishing to truly understand *sayr*
mental melodic vocabularies of each
This is because the real expression of
which *jins*/melody is going to come
arts of hearing music that has similar

ns in listeners and musicians partic-
comes not just a sequence of *ajnas*,
iple-*jins* sequences. To sum up: mod-
to another, and *sayr* is the expecta-
nena are the core building blocks of

Inside Arabic Music

ARABIC MAQAM PERFORMANCE AND THEORY
IN THE 20TH CENTURY

Johnny Farraj and Sami Abu Shumays

OXFORD
UNIVERSITY PRESS