EXPRESSING INTENT THROUGH AZERBAIJANI *MUGHAM*

Azerbaijan is a country in the south Caucasus Mountains, sharing borders with the other south Caucasus countries of Georgia, Armenia, and the north Caucasus Mountains autonomous region of Russia called Daghestan, and Iran, south of Azerbaijan. Other autonomous regions of the north Caucasus not directly bordering Azerbaijan but near enough to be cultural influences are; Chechnya, Balkaria, Cherkessia, Ossetia, and Abkhazia. East of Azerbaijan is the Caspian Sea, which is surrounded by the Central Asian countries of Kazakhstan and Turkmenistan. To the west of Azerbaijan is Turkey.

The culture of Azerbaijan is an integral part of the unique cultural entity local to the Caucasus Mountain ranges, but because Azerbaijan is in the southeast of the Caucasus Mountain ranges bordering Iran, it is geographically and culturally closer to Asia, whereas the western countries of the Caucasus Mountain ranges are geographically and culturally closer to Eastern Europe.

Azerbaijani culture as a whole is too diverse to pin down to any simple categories, but its heritage of traditional music can be said to belong to the east. One of the several forms of its ancient musical traditions is called *mugham. Mugham* is a very specialized kind of music that needs a careful description because it has numerous unique and interesting features.

Related to other forms of traditional eastern music such as Arabic *maqam,* Turkish *taqsim,* Persian *dastgah,* and other traditions played across North Africa, the Middle East, and Central Asia, Azerbaijani *mugham* is monophonic, modal, microtonal, meter-free, densely ornamented and semi-improvised.

Monophonic music consists of melodies which do not use or make reference to chords. Instead they refer to only one tone of the scale in which the melody is composed. This is achieved by making the reference tone a drone or by repeatedly playing the reference tone during the exposition of the melody.

A common form of monophonic music is called modal music. Modal music is normally composed of seven tones within an octave – although there can be as few as five or as many as nine tones – which are relatively evenly distributed across the octave, with small variations in the proximities of the tones to each other that enable us to derive a number of different modal scales.

Mugham melodies make use of the same notes on the scales used in western melodies as well as a range of notes not widely used in western music known as microtones. To explain what microtones are, a brief discussion on tonality in general is in order. Music is composed of acoustical oscillations that vibrate with frequencies in the range of human hearing which spans from 20 oscillations per second to 20,000 oscillations per second. Slow oscillations are commonly described as low tones, and fast oscillations as high tones.

The difference between two musical tones oscillating at different frequencies is called an interval. Sometimes the word 'interval' is used to describe the difference between the moment that one tone sounds and the next, but then we call them 'time intervals'.

When the two differing tones of most intervals interact, they give rise to a third tone, and depending on the ratio, produce either consonance or dissonance. The less the energy that goes into the production of a third tone, the greater the consonance, and conversely, the more energy that goes into producing the third tone, the greater the dissonance. A few intervals produce a high degree of consonance, while most intervals produce dissonance.

The interval of maximum consonance is known as the octave (ratio 2:1); no energy emerges from that interval to produce a third tone. All the energy from both tones remains intact, as if the two tones were vibrating at the same frequency. The next most consonant interval is known in music as the perfect 5^{th} (ratio 3:2); of all intervals other than the octave, it produces the least amount of energy from the interaction of the two tones of that interval, Do and Sol. The third tone produced from two tones that comprise a perfect 5^{th} interval is inaudible to the untrained human ear.

In the modern western system of scales, there are 12 tones to the octave that make intervals with the 'Do' of the scale within an octave, and including Do they correspond to the 12 notes on a piano, or guitar, or on a variety of instruments that are designed around that scale. Of those 12 notes, seven are relatively consonant and five are relatively dissonant, on a graded scale of decreasing consonance and increasing dissonance. Beyond those 12 intervals exists an infinite number of dissonant intervals composed of tones that are located in between the 12 tones within an octave on a piano, and they are known as microtones. The dissonance of microtones is a product of the energy released from the interaction of the microtone with the note 'Do'.

The human ear is capable of distinguishing very small differences in frequency (pitch). If two musical tones are vibrating at exactly the same frequency, one cannot distinguish between the two. In order for the human ear to distinguish two tones, be they sounded simultaneously or sequentially, they have to be oscillating at two different frequencies. The untrained human ear can distinguish the difference between two tones that are oscillating at a ratio of $1/84^{th}$ of an octave. Any interval smaller than that, and we cannot tell the difference between the two. For reference, an octave on the piano is divided into 12 tones so each tone is $1/12^{th}$ of an octave. That means there are potentially 72 unused microtones in music played on a piano. A few of those microtones are used in western musical traditions such as blues and jazz, and the musicians call it note bending, possible on string instruments and wind instruments, but not on the piano.

Microtones are at their best when used in monophonic modal music; incorporating the tones of those intensely dissonant intervals into the composition of polyphonic music (harmony) will produce a cacophony of dissonance, and be unpleasant if not painful to listen to.

In monophonic modal music, however, the intense dissonance of microtones can be used to produce interesting effects on human consciousness and feeling. The energy released by the interaction of two tones that compose a dissonant interval has a real effect on us, similar to the effect that the tones of consonant intervals have, but more intense.

Microtones represent another dimension of musical power, and in order to explore that further, one more thing must be said about microtones, which is, that unless the musician is able to convince the listener that the dissonance coming from the microtone is intentional, the listener will 'refuse' the energy and instead of feeling the intensity of the energy, simply react to it as a 'wrong note', 'out of tune', a 'sour' note.

How is it possible that one and the same tone, oscillating at one and the same frequency, can have two diametrically opposite effects on the listener, depending on whether the listener is convinced the musician intended it or not? This question touches on the mystery of human intent, and how music can express that. Before we directly experience the mystery of microtonal music, we can analyze its intent by examining the effect it has on us listeners.

The effect of microtones can be better appreciated by first examining the effect of playing a sequence of non-microtonal notes in a given musical scale. One feature of all traditional eastern music is that their melodies never skip around the scale like many western melodies do, but proceed up and down the scale in a way that resembles practicing scales, in a pattern called staircase composition. Unlike practicing scales, which can be boring and repetitive, eastern melodies tend to be relatively complex and intriguing but they always follow the staircase composition pattern overall.

Playing melodies composed in the staircase pattern induces the mysterious sense of transport. Beginning with the Do of a given scale, the melody proceeds "up" the scale, passing through the notes on that scale, and as the sequence of tones "rise" in pitch, we begin to anticipate the sounding of the Do on the octave "above" the starting Do. When that octave "higher" Do sounds, we feel we have arrived; we feel a palpable sense of closure, the resolution of the tensions we feel as the tonal sequence "rises" in pitch. (I put these words in quotes because even though they are spatial qualifiers, that is how we commonly refer to pitches increasing in frequency, as "rising". This sense of ascent is an inexplicable feature of music, and it gives rise (!) to the common usage of referring to the increase in the rate of vibration of the pitch as going "up" the scale, and the decrease in the rate of vibration as going "down" the scale, with the corresponding inexplicable sense of descent).

To highlight this mysterious effect of feeling transported by the change in the rate of the vibration, or frequency of the pitch, we can delay the sounding of that final note in the series, the Do of the octave "above" the starting Do. Waiting for that final note in the series is annoying and frustrating. Most listeners will feel uncomfortable to the point of distress waiting for that resolving note to be played. This calls attention to the mysterious power of music to make us wish to hear a specific note.

Microtones possess that power. They make us wish to hear the harmonious note that is closest in pitch to the dissonant microtone. By repeating the microtone, our desire to hear the more harmonious, more consonant interval is intensified, but feeling the musician is intending this effect, we experience a strange and unexpected feeling: now we want to hear the microtone. The chosen microtone, when played with convincing deliberateness, renders the yearning for closure as pleasurable as the closure, if not even more so, and that feeling is what transports us to the most mysterious place in music, the world of intentional microtones.

Another feature of *mugham* for expressing intent is the meter free condition of *mugham* melodies. Meter free melodies have no time signature; they have no overt beat, no steady rhythm. Meter free melodies are all the time speeding up and slowing down. With no steady rhythm to inform the musician *when* to play the next note, the musician must play that note, be it micro-tonal or macro-tonal, with a clear, vivid, strong intent.

Another feature of *mugham* that must be intended is the asymmetric clustering of notes in a phrase. This aspect of *mugham* calls to mind the syntax of declamatory speech, the style of oratory in relating old myths and legends, heroic deeds, and the exposition of philosophical themes. The intent of *mugham* is a close match to the intent of human speech, with the crucial difference that speech tells a story about something other than the actual sound of the speech, whereas *mugham* tells the story of its own sound, the story of its intervals, the story of its microtones, and the mystery of its intent.

Another defining characteristic of *mugham* is the flexibility of the melodic line. Somewhat analogous to jazz' theme and variation, *mugham* offers the opportunity to experiment with the development of the melodic line, not by radically altering the mode or scale, but to vary which microtones are used and vary which microtones are emphasized in a given passage, to vary the tempo of the progression of the melodic line, and to experiment with the labyrinthine twists and turns that the melody can take, for the sake of postponing the resolution of the melody for as long as possible, but without overdoing it and risk losing the listener's attentiveness.

There is a principle in mathematics that describes very well the strange clustering of notes in mugham improvisations. It is called fractals. Visually, fractals are found in nature, such as the serrations on the edges of some leaves are a miniature version of the shape of the leaf, and the serrations have micro-serrations, and so on down into infinitesimilitude.

The melody contours of mugham lend themselves to a kind of fractalization. Without the benefit of chords, the monophonic microtonal melodies of mugham can only be developed by being driven inward, into micro-detail of timing and clustering. It is hard to say what the relationship is between intent and the fractalization of the melodic contours of mugham, however, I have personally experienced unprecedented intensity of intent expressed through the simplest versions of mugham, so I would have to say they are not interdependent, that is, intent and melodic complexity are independent realms.

When they come together within the ancient tradition of mugham, it delivers an apogee of artistic creativity.

It cannot be said that the intent to play *mugham* belongs to the player. Those who can play *mugham* learned how to do it from a master, and from the musical culture in which the player has listened to *mugham* all his or her life. The intent to play music which has the effect that *mugham* has belongs to a long chain of transmission of the tradition. The musician can only tap into that chain, become a link, and express the ancient intent to transform human consciousness the way that *mugham* does.

Mugham evolved from the convergence of at least two traditions, one that developed long ago in what is today called Egypt and one that developed in the Caucasus. Both forms of music were powerful conductors of human intent. When the ancient and esoteric knowledge of microtones and the principle of flexible rhythm emerged from the ancient temples of Egypt and gradually made its way to Mesopotamia and further north to the Caucasus, it met with an indigenous tradition of bardic storytelling that required a prodigious memory and great presence of mind to execute, and the phrasing of the musical texts were exposited with ponderous deliberation.

This is what *mugham* is made of: the dual currents of the intent of two distinct cultures, one folkloric, the other one esoteric. Together, they produce a current of intent that the contemporary player can only express, to the best of his or her ability, and within the limits of his or her awareness of the original intended effect.

One more feature of Azerbaijani *mugham* that should be mentioned is the ornamentation. Like most ancient traditional music from the east, *Mugham* melodies are densely ornamented. The grace notes, slides and trills are so frequent and ubiquitous throughout all *mugham*s that it appears to be an integral part of the music. Careful listening reveals something interesting about these ornamentals. They recall sounds from nature: birds chirping and warbling, horses whinnying and neighing, breezes blowing through tree leaves, water flowing over rocks in burbling brooks, and so on.

The present day Caucasus and Central Asia inherited an ancient spiritual culture of animism and nature worship. Early humans certainly noticed the charming, enchanting sounds of nature, and strove to imitate them in their music. These natural sounding inflections serve as a gentle infusion of extra energy released by the ornamentals. The extra energy, continuously released throughout the development of the melody, serves to elevate even further the increasingly intensifying mental state of the listener, and as with every other element of *mugham*, must be intended.

THE MOODS OF MUGHAM

Writing about the moods of *mugham* poses a unique challenge and opportunity. Historically, at least, according to published works, each *mugham* casts a specific mood. This matches with experience, to a certain extent. All the *mugham*s have so much in common that the specific-ness of a given *mugham*, especially in its power to cast a specific mood, appears as a detail. And as with all the details already discussed, the specific mood of a given *mugham* must be intended. If anything, the mood of a *mugham* must be intended at least as much as any microtone in pitch and micro-moment it timing. As the clustering of the notes of the scale must be intended, so too the mood all these details serve. One can even go so far as to declare that all the details of *mugham* exist to foster a specific mood.

The question is, what is the mood of *mugham* and what is the specific mood of a given *mugham*?

It should not be so surprising that familiar moods have been assigned to and subsequently associated with specific *mugham*s. The very notion that any one *mugham* casts the same mood over all people seems to fly in the face of the utter subjectivity of all art, music in particular. It may not be possible to find a piece of music that everyone feels the same about. Music is a cultural artifact and human beings feel very strong feelings toward culture, both familiar culture and alien cultures. We are nothing if not strong emoters over cultural preferences. So the idea of uniformity, or 'objectivity' regarding any form of music can be a compelling influence over the mood of such music, even when the specific moods offered may or may not have any basis in objective reality.

Objective reality? As opposed to what, subjective reality? In any case, whether or not we can even agree on the question of reality and if it has either objective or subjective qualities, or whether what seems like reality is just a collective projection of the power of human imagination, the idea of objectivity in art persists. And *mugham* is a good example of what can happen when a form of art is objectified.

So, it may come as a surprise, after what I just wrote, that I too support the notion that a form of art can be 'objective', not, however, in the sense of uniform cultural acceptance, but more along the lines of, those who are predisposed to accept a particular form of art as worthy, or even sacred, there can be a uniformity of mood. But it is most unlikely that the moods evoked by specific *mugham*s would be among the moods we are familiar with as social beings. Rather than assign the moods of social beings, I am inclined to assign the moods of cosmic, eternal relationships, such as the mood of intervals.

What is the mood of the octave interval? What is the mood of the so-called perfect 5^{th}, commonly known as Do – Sol? Do – Fa? Do – Re? And so on. Because our language lacks words to designate the experience of such moods, so easy to miss in the rush of life with its deluge of melodies and chords, tunes and symphonies, we have no way to talk to ourselves or with each other about those specific, cosmic moods.

Why ‘cosmic’? Perhaps because I can’t think of a better word to designate something that is both eternally true and everywhere present, and not sound pious.

In any case, the moods emerging out of the dozens of intervals between pitches are unique, powerful, and cosmic. And since *mugham* is composed of intervals, the moods of *mugham* will of course reflect the mood of intervals. In fact, *mugham* is specifically constructed to focus the moods of intervals very sharply and elicit a mood that can only be called cosmic.

What about the specific moods of specific *mughams*? Because all *mughams* are based on modal scales, the intervals of any one *mugham* are few and consistently repeated throughout the composition. This selectivity and repetitiousness lends an awesome power to *mugham*, and any form of music related to it, in the broadest sense possible. It enables the *mugham* to convey the specific mood of its select few intervals long enough to cast a very specific mood, but it is a cosmic mood, not the mood of a social human being. It is the mood of the cosmic human being. And for the *mugham* to be effective, it must be intended for that effect. If any other intent should creep into the rendition of a *mugham*, such as some ordinary human concern, the power of *mugham* is not revealed as well and the human ambition or anxious concern is conveyed instead.

One of the apparently universal ways of describing the array of possible intervals is in terms of other physical experiences. The metaphor of ‘up’ and ‘down’ in describing the faster and slower frequencies in relation to each other morphs into ‘bright’ and ‘dark’, ‘heavy’ and ‘light’, ‘sweet’ and ‘sour’, intense and mild, and so on.

No one mistakes these descriptors for anything other than metaphor. The experience of the specific moods of the various intervals and by extension the specific moods of the various *mughams* clearly does not belong to the repertoire of ordinary human sentiments. It belongs to the cosmic dimension of the human being. The intent of *mugham* in general is to reach the cosmic dimension of the human being, and reach right through the ordinary everyday social human mind.

So rather than suggest a lexicon for specific moods of intervals and *mughams*, it is better to suggest that one spend some time listening to various *mughams* and feel the cosmic dimension in oneself responding.