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TUVAN THROAT SINGING: EXPERIENCE AND SCHOLARSHIP

Summary. Throat singing requires an ear attuned to many nuances of timbre and harmonics. The article discusses the three basic techniques of Tuvan throat singing, referring to three different recorded examples: *khöömei, sygyt* and *kargyraa*. Another subject of article is Tuvan native narratives about throat singing.

Keywords: Tuvan throat singing, overtone singing, *khöömei*, *sygyt*, *kargyraa*

Тірек сөздер: тувиндік көмеймен ән айту, обертондық ән айту, хоомей, сыгыт, каргыраа.

Ключевые слова: тувинское горловое пение, обертоновое пение, хоомей, сыгыт, каргыраа.

In his essay ‘Music: a very short introduction’, musicologist Nicholas Cook states that studying music also means to study your own participation in music [1, 84]. In this essay I focus on my own experiences of Tuvan throat singing, not only as a participating, musicking person, but also as a listener participating, in multiple ways, in Tuvan ways of listening. Music is not something completely fixed, outside a self that is also completely fixed: both music and individuals change over time, with every new performance or even with every repeated play of recorded music. This holds true not only for associations, metaphors and memories that may be attached to music, but also for the inherent sound structures of music itself. Repeated performances of the same piece will often bring something new to light to the performer him – or herself, be it a rhythmical accent, a dynamic change, a new melodic pattern in an improvised piece.[1] Personal, subjective accounts of musical experience from informed listeners can yield viable additional data to more systematic and objective scholarly theories and ideas about sound. In this article, I first draw upon the subjective experiences of Tuvan musicians, before discussing my own experiences as a *khöömei*/overtone singer. Which elements of throat singing get overlooked? How can we talk about them?

Throat singing, which is one way of doing overtone singing, has been found to be most developed among Turco-Mongol peoples in the Altai region. Learning to listen to the subtle play of timbre and overtones is part of the cultural strata that children are raised with. Musicologists Ted Levin and Valentina Suzukei have suggested that this is also the case in the wider Turco-Mongol cultural world [2, 50-51, 75]. Many listeners outside the Turco-Mongol regions are unaware that the voice is capable of producing several tones at the same time. It is an art of sound-making that, according to many people, is responsible for a change in their listening behaviour, a shift from their own deeply engrained patterns of listening to sound and music. Valentina Suzukei points out that the most common system of listening is ‘pitch-centred’, because it emphasises play with melodies and harmonies on the basis of idealised timbres which themselves hardly change. Throat singing, on the contrary, requires an ear attuned to many nuances of timbre and harmonics and is therefore called ‘timbre-centred’ [2, 50-58]. For many listeners attracted to Tuvan music around the world, this way of listening is new. It requires an adaptation in order to understand its musical messages.

Levin and Suzukei’s book, as well as Suzukei’s earlier books, have done a lot to clarify how Tuvans listen. In her seminal 1993 monograph ‘Bourdon-overtone basis of traditional instrumental music-making of the Tuvans’, Suzukei began elaborating on theories dealing

[1] In recorded music the sound signals may be the same, but the perceived sound is still influenced by our consciousness, as for example the ‘minimalist’ pieces of composers like Steve Reich and Philip Glass famously demonstrate.

with the Tuvan sound world in new ways. She had previously led elder Tuvan instrumentalists find terms to talk about the characteristic sounds of the *khomus* and the *igil*. After all, a word paralleling the Western term ‘overtone’ was not known in folk terminology. Overtones as such were not conceptualised by native musicians, even though they were obviously known from experience, and sought after in the musical process. It took Suzukei a great deal of effort with many frustrating moments for musicians, for whom the question was incomprehensible, and for herself. They replied with phrases like:

“*kol ünde yyap-la chergeleshkek, kattyzhyp turar ünner turar*” (“the basic sound definitely has following sounds”)

“*chergeleshkek azy dakpyrlashkak ünnerning kattyzhary*” (“layers or stratifications of accompanying sounds”)

“*chergeleshkek, ederinchi ünnerning kakkylazhyry*” (“pulsing of accompanying sounds”) [3,38]

One typical element across various Tuvan sound practices is the idea of ‘sounds-in-themselves’, for example, “*xomustung boduning ayalgalary*” or “jew’s harp-in-itself-motifs” [2, 56]. These are not generally sound imitations with external references, but more abstract, though associations may be made with certain sounding environments.

The ‘sounds-in-themselves’ phrasing suggests an abstract way of thinking about sound, in the way that modern composers, philosophers and scholars have talked about ‘sound (in) itself.’ But for the Tuvans, it is not abstract sound in itself, as a contemplated subject, but a concrete sound-source, an instrument or a voice, that makes itself heard in a special way. This is clear from the difficulty Suzukei had to let musicians talk about sound. There was no ready terminology to talk about sound in the abstract. In the western music tradition sound has been talked about in the abstract for about 2500 years, since the time of Pythagoras.

I will discuss the three basic techniques of Tuvan throat singing, referring to three different recorded examples. For all three styles, part of my description is based on my experience as a singer. The second and third singers I have heard myself live in a private, acoustic setting. The first singer I have never heard live myself.

In 1981 Melodiya released a three-record set of Tuvan recordings, *Tuvinskii Folklor*. One entire record is dedicated to the music of Oorzhak Khunashtaar-ool, the best-known Tuvan throat singer of his time. He was able not only to sing the main styles of Tuvan throat singing, but also created many of his sub-styles. The most obvious approach to many of his pieces in musicological terms is to follow the melody. Surely Oorzhak was also thinking of that: he excelled at crafting ingenious improvisations on the most commonly used harmonics (mainly numbers 6, 8, 9, 10, 12). But besides, there are other subtle changes going on. In one track, simply called *khöömei*, there are mainly three overtones, numbers 9, 8 and 10, appearing in that order.[2] But besides the melody, there is a strong presence of the third harmonic, sounding an octave and a fifth above the fundamental, which gives the whole piece a distinct low and full quality. Another characteristic are rattling high overtones, about an octave above the melody. They are not as sharp in focus as the lower ones, but are nevertheless clearly distinguishable for a trained ear. For untrained ears, they may not be ‘clearly distinguishable’ but they are certainly perceived, in the sense of ‘registered’, by normal ears. And of course, there is a drone, a pedal-tone going on all the time, which also has its own quality. Altogether, then, the listener’s ear is impressed with at least four frequency ranges: the drone, a low harmonic that hardly changes and that gives the whole voice quality a sense of fullness, an overtone melody where most of the musical variations happens, and higher harmonics still that add some brilliance and clarity to the full-bodied sound of Khunashtaar-ool’s voice. In addition, the overall sound in its entirety, has a spatial quality that is particularly clear in the live situation for the singer himself and, if the

[2] *Tuvinskii Folklor*. Melodiya S3014937, 1981. Oorzhak Khunashtaar-ool, *khöömei*, track 13.

performance is acoustic, for the audience. *Khöömei* also changes the space around the singer. With the taut lips, the sounds are half-swallowed, reverberating close around the head of the singer, who immerses himself in his sounds.

Personal varieties of throat singing by individual singers may also possess what I call a 'density' of its own. Khunashtaar-ool's low, full *khöömei* is comparatively dense, because of its strong lower harmonic (number 3). Singers play with these densities, when they change from one technique to another, or sometimes within a single piece, by making very small, precise, rhythmic movements of the tongue.

The Tuvan variety of throat singing called *sygyt* is produced in a very different way. If we compare Khunashtaar-ool's *khöömei* with, for example, Mongush Kommunovich Mergen's interpretation of *sygyt*, we can notice many differences.[3] Mergen's *sygyt* is of unusual strength, due to great tension on the muscles surrounding the larynx. He suppresses the drone almost entirely. There are no clear harmonics between the drone and the melodic overtones; nor do their seem to be clear harmonics *above* them. The quality is more aerial and less dense. The fullness of voice is gone, giving rise to a kind of 'emptiness of voice': an absence of the normal perception of vocal sound, by many compared to non-human sounds, synthesised sounds, etcetera. In a live situation, and less so with the use of loudspeakers, the sound changes from being close around the singer and rather internalised (as was the case with *khöömei*, to being projected outward and extending far into the space. At times, *sygyt* even obliterates our usual sense of space by filling the environment with its solid sound waves. Indeed, in the case of *sygyt* the sense of disembodiment of the sound from the human source is strongest. In live situations one cannot, or hardly, locate the sound-source either aurally or visually. The sense of density I often perceive in *khöömei* is absent. Sometimes, there may be a sensation of the actual physical contact between the air molecules transmitting the sound and the sensing organ, the ears.

Throat singers like Oorzhak Khunashtaar-ool and Mongush Mergen temporarily alter the sense of space around them. By listening closely to these musicians (live or recorded) and by singing myself, the sense of being embodied in space changes. The sounds issue from inside the body, they resound around the singer and there they touch his ears. Air molecules inside the lungs push hard on the vocal cords, pass through in measured proportions (according to the frequency). This is the border between the inside and outside world, and the selected frequency also effects the air molecules in the wind pipe. Then they leave the mouth and hit the ear drums from where nerve signals return them to the brain. The quiet equilibrium established by the air molecules is focused around the vocal cords, which is where that, which we perceive to be sound, originates. While the singer actively steers the whole process from inside, he himself is also part of the sound field through the other border areas, the two ear drums. He immerses himself in this soundfield, and fine-tunes the equilibrium of the rhythmic expulsion of molecules with the shapes of his mouth.

The alteration of the sound field is more subtle for *khöömei* than *sygyt*, but no less dramatic and significant. In both cases the singer does not only make melodies, he can also play with the presence of the sound, altering the acoustic space from a passive receptor into an active agent that can be manipulated, to some extent. As I notice from time to time these changes can be felt as physical pressure differences on the ears. It is not uncommon to have a subjective sense of 'displacement' when the filtered frequencies of throat singing hit hard walls and become standing waves: sound energy that is very equal distributed inside a certain space. It should be noted, however, that such occurrences are not part of older traditional

[3] *Tuva: Voices from the Centre of Asia,* Smithsonian Folkways 1990. Mergen Mongush, *sygyt*, track 2.

practises, because performing in spaces with hard walls used to be rare for the nomadic people of Tuva.

In 1993, I made a recording of singer and *igil*-player Khovalyg Kaigal-ool.[4] It took place in the small bedroom of my hosts in Kyzyl in 1993, right after he returned from the first tour in the USA. Kaigal-ool's *kargyraa* resounded majestically in the small room. The technique is based on a lowered fundamental. Compared to the other throat singing techniques, this adds one frequency layer to the total sound, one octave below the normal fundamental. The amount of harmonics in a given frequency range double when the *kargyraa* mechanism is applied, giving the listener a much clearer 'picture' of the resonances as they pass through the vocal tract. This is why we may call *kargyraa* the *khöömei*-equivalent of high-definition television. It was an auspicious moment for me, as a singer and listener, because I felt I could not only hear, but also sense physically the thundering voice of Kaigal-ool at this close range. The spatiality was strongly focused on the body of the singer, that is, more akin to my description of *khöömei* than *sygyt*. Yet there was a puzzling amount of sounds engulfing the ears, some dense and thick, others thinner. Some sounded closer to the body and to me, others resounded more in the space around us, however small it was. As is typical for *kagryraa*, vowels and harmonics seamlessly work together with each other. Then again, one can also change one's listening to perceive the whole. There is an overarching timbre that also changes, and which is typical for the singer. Trained listeners can quickly identify whose *kargyraa* they hear, based partly on the complete timbre-impression (the same holds true for other throat singing techniques). All in all there are up to five frequency layers that can be heard, without resorting to tools for digital sound analysis. The fundamental is essentially two-fold, because the lowered octave doubles it. What I hear is not two frequencies, but a fundamental with roughness and rattling sounds. There is often a lower, more or less static buzzing harmonic, like in *khöömei*. There are melodic overtones, coinciding with the vowel changes, between the sixth and twelfth harmonic. There may be higher overtones, as there were in this case, roughly an octave above the melodic ones.

I spent many months trying to transcribe the piece, listening again and again. I used different kinds of equipment (amplifiers, loudspeakers, headphones, at home, in the university, on a Sony walkman), which added to the confusion. It turned out that each and every set of playback tools decisively changed the audible output. This led me several times to reject earlier versions or erase parts, only to re-introduce certain notes later on again. Although I published the notation in my MA thesis, I never quite felt I succeeded in capturing in a notation what I had experienced, or what I heard again from the recorded audiotape.

How did Oorzhak Khunashtaar-ool listen himself? We hardly know. The many recordings available of him do testify to an extraordinary ability to exploit the sense of timbre that Tuvans naturally possess and to create new variations of throat singing. As Suzukei's work has shown, native narratives about throat singing were not concerned with taking timbre apart into its harmonic elements. Established scholarly terminologies, both on the physical-acoustic side and on the aesthetic-musical side, have given us a fuller understanding of the nature of sound, without necessarily a fuller experience. Yet it is important for scholars to enrich their understanding of music with as many valid ideas and strategies as possible: theoretical analyses, acoustic representations, but also reasoned subjective impressions and thorough, verbal descriptions. In his book *Music and the numinous*, philosopher Richard Elfyn Jones talks about "the essential unreality of music", calling it "a sort of constant flickering of presence and absence together" [4, 51]. This way of phrasing comes close to the

[4] Van Tongeren 2004, CD with *Overtone singing. Physics and metaphysics of harmonics in East and West* [5], Khovalyg Kaigal-ool, kargyraa, track 7.

subjective impressions I have given here of how the complex sounds of a single human voice, or any other sounds, work on the mind.

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Марк ван ТОНГЕРЕН

ТУВИНСКОЕ ГОРЛОВОЕ ПЕНИЕ: ОПЫТ И ИССЛЕДОВАНИЕ

Резюме

Горловое пение предполагает наличие хорошего слуха, ориентированного на различные нюансы в тембровой окраске звучания, в том числе обертоновых гармоник. В статье рассматривается техника исполнения тувинского горлового пения на примере трех его видов: *хоомей*, *сыгыт* и *каргыраа*. Другой предмет исследования – описания и преставления самих тувинцев о горловом пении.

Ключевые слова: тувинское горловое пение, обертоновое пение, хоомей, сыгыт, каргыраа.

Марк ван ТОНГЕРЕН

ТУВАЛЫҚ КӨМЕЙМЕН ӘН АЙТУ: ТӘЖІРИБЕ МЕН ЗЕРТТЕУ

Түйін

Көмеймен ән айту - жақсы есту қабілетінің тембр ерекшеліктері мен обертон гармоникасына негізделген. Мақалада тувалық көмеймен ән айтудың ерекшеліктеріне қарай мысал ретінде орындалуының үш түрі қарастырылады: *хоомей*, *сыгыт* және *каргыраа*. Мақалада тувалықтардың көмеймен ән айтуына қатысты сипаттама жасалып, пікір келтірілген.

Тірек сөздер: тувиндік көмеймен ән айту, обертондық ән айту, хоомей, сыгыт, каргыраа.

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