

Krimanchuli: A yodeling phenomenon in Georgian traditional polyphonic music

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Recordings of Georgian folk polyphonic songs make a great musical impression. They are recorded in a tradition of active reproduction of Georgian folk music the origin of which begins from ancient times. It is a wonderful finding and can give to the performance much more than all the modern music can... Yodel or 'Krimanchuli' as it is called in Georgia is the best song which I have ever heard. (Igor Stravinsky, 1967)

IT took several decades from Stravinsky's 1960s statement before Georgian traditional polyphony reached all continents of the world, gradually gaining the attention of a wide range of international musicians and scholars. In the late Soviet period (the 1970s and 80s), Georgian traditional music was brought to the outside world by the ensemble *Rustavi*, which acted as an important ambassador through their international tours. UNESCO's recognition of Georgian traditional polyphonic song as a "Masterpiece of the Oral and Intangible Cultural Heritage of Humanity" (2001) and the associated protection and popularization campaign played an important role in this process.

The wide variety of vocal polyphonic forms found in the small territory of Georgia, with their distinctive formal structures, complex modulations, and elaborate harmonic interrelationships, caught the attention of the world. Furthermore, Georgia harbors a local and distinct yodeling technique, *krimanchuli*, which plays an important role in the musically most complex polyphonic songs, which come from the western part of Georgia.¹

Krimanchuli refers to a certain kind of high-pitched top voice in Georgian traditional polyphonic singing (songs with three or four voices), performed with a specific technique and creating a distinct acoustic effect. The word *krimanchuli* consists of two old Georgian words — *krini* (falsetto) and *manchva* (twisting, twirling) and literally translates to "twisted falsetto" or "twisted jaw" (Gabisonia 2011, 214), depicting the process of producing the *krimanchuli* voice. Scientific discussions around *krimanchuli* go back to 1901, when Georgian singer and scholar Philimon Koridze, in his article "On Georgian Music" (*kartuli musikis shesakheb*) explained *krimanchuli* as a twisting of the tenor voice ("sung in the chest") into a *krini* (descant) voice, while twisting, twirling, and whirling on high-pitched notes (Manjgaladze 1982, 5). Dimitri Araqishvili, founder of the Georgian school of ethnomusicology, was among the first scholars to research *krimanchuli*. He recorded *krimanchuli* singers during his 1901–03 expeditions, later published *krimanchuli* transcriptions, and described this phenomenon in his scholarly work about western Georgian folk songs (Araqishvili 1908), mentioning in particular the different performance manners of two Gurian *mokrimanchule* (*krimanchuli* performers) recorded by him. Araqishvili describes

1. *Krimanchuli* is mainly found in traditional polyphonic songs from the Guria and Achara regions; it is only rarely found in songs from Imereti and Samegrelo.

krimanchuli as a voice “that sings independently on the sounds i-a and u-a, with an unusually strong falsetto, sounding similar to tremolo and appoggiatura; at the same time, following the general harmony” (Araqishvili 1908, 135).

In contemporary scholarship, the definition of *krimanchuli* varies among scholars. The so-called twisted falsetto is considered a “guttural voice creating melodic figurations and jumps depending on the performer’s wishes and his ability to keep the breath” (Manjgaladze 2005, 289); “a rhythmic, often syncopated (and often improvised) pattern of breaking the voice through rapidly alternating falsetto (for men; ‘head voice’ for women) and chest voice, usually in fifths, often going down a third below the break” (Kaganova 2021, V). Alternatively, it has been described as “an extremely high voice using a glottal *krini* falsetto resembling a rooster’s crow” (Erkomaishvili 2019, 107). These varied definitions contribute to a depiction of *krimanchuli*, but fall short of an analytical discussion that lets us understand how this unique vocal technique works.

Thus, the aim of this article is to further determine the *krimanchuli* phenomenon by putting a special emphasis on its musical character and its function in Georgian traditional polyphonic songs; to represent other specific top voices (with a closer look at *gamkivani*) from Georgian folk music, which are similar to *krimanchuli*, and to reveal their different musical characteristics; and to demonstrate traditional patterns and contemporary variations (if present) of *krimanchuli* through performance practices of leading Georgian folk musicians, so-called *mokrimanchuleebi* (*krimanchuli* performers) of different times. My research is based on existing Georgian and Western literature on the phenomenology of *krimanchuli*, as well as systematic analyses of several Georgian *krimanchuli* songs (both notated and recorded samples) through multiple musical parameters including timbre, melodic formulas, harmony, rhythm, and lyrics. This paper also describes the few modern variations of *krimanchuli* presented in recent recordings and data revealed by my fieldwork (interviews with contemporary Georgian folk musicians).

There are several possible origins of *krimanchuli*, directly linked to its initial function, such as imitating birds’ “whistling, twittering and chanting” (Gvaramadze 1901, 574), especially the rooster’s cook-a-doodle-doo (Manjgaladze 2005, 290); encouraging oneself while being alone on the road, in the field or forest and feeling lonely, bored or afraid; communicating with others over a long distance; or giving a signal to a waiting loved one (Tsuladze 1971, 13). As we can see, *krimanchuli* singing has multiple possible functions, sometimes requiring a solo performance, separate from the multipart singing practice. It should be mentioned that contemporary folk singers also sing *krimanchuli* alone when in need of emotional relief from either boredom or anxiety (Khukhunaishvili, Veshapidze 2021). As a private act, such spontaneous performances are not recorded and thus it is largely unknown whether solo *krimanchuli* singing is different from *krimanchuli* sung in polyphonic songs. Generally, *krimanchuli* appears in three- and four-part polyphonic songs, representing the highest sounding voice and serving as an ornamented variant of the song’s “harmonic basis” (Chijavadze 2019, 62). Thereby, *krimanchuli* is originally linked to the construction of the whole song.

CHARACTERISTIC KRIMANCHULI PATTERNS AND THEIR PHONEMES

An interesting historical recording to analyze was provided by the famous *krimanchuli* singer Teopile Lomtadze singing the top voice in *Alipasha-Adila*. The recording was made in such a way that the volume of the middle and bass voices is extremely low, and the top voice almost entirely conceals the others. As usual, the *krimanchuli* part is the loudest and as a result, when it appears in this particular recording, it covers the other voices and creates the impression that Lomtadze is singing alone, without the other two voices of the polyphonic song. Thus, it creates the illusion of a solo *krimanchuli* voice and produces an interesting acoustic effect (audio example 1).

Listening to the given recording, we may notice that despite *krimanchuli*'s ability to create acoustically impressive sounds, the variety of melodic and harmonic formulas is small, consisting mainly of repeated, varied motifs. As the contemporary *krimanchuli* singer Lasha Bedenashvili states, "in fact, there are only basic structures of *krimanchuli* formulas and all else depends on your virtuosity" (Bedenashvili 2021).

The basic structure of a *krimanchuli* voice is built on two or three central tones, with various combinations serving as different formulas. The most common formula is a repeated movement from the upper to the lower pitch of a perfect fifth (see figure 1).



Figure 1. Typical *Krimanchuli* formula (Erkomaishvili 2019, 107).

In the second case, the above-mentioned movement is followed by a downwards motion of a minor third and a return to the initial tone, thus creating an outer interval of a minor seventh (see figure 2).



Figure 2. Variations of the formula from figure 1 with diminutions and different underlying vowels (Erkomaishvili 2019, 107).

Krimanchuli has a distinct text from the other voices, using a combination of different elements called *samgherisi*,² such as *i-a*, *u-a*, *iri-a*, *uru-a*, *irva-urva*, *iri-a-ho*, *uru-a-ho*. Erkomaishvili (2019, 107) notes: "Each phoneme has its own *samgherisi* elements. For example, 'iri' and 'uru' are sung only in the seventh, that is, the highest note of a seventh chord, 'ah' in the lowest note of a fifth, while 'ho' in the lowest note of a seventh chord" (see figure 3).

2. *Samgherisi* is a relatively new term that denotes any asemantic element in singing, such as meaningless syllables, vocables, and interjections. The word *samgherisi* is derived from the Georgian word *simghera* (song).



Figure 3. Different *krimanchuli* formulas demonstrating the use of syllables (*samgherisi*) correlated with pitch and scale degree (Erkomaishvili 2019, 107).

Despite possible changes in the order or combinations of the *krimanchuli*'s central harmonic tones, they always keep their respective *samgherisi*. *Krimanchuli* performers tend to change the rhythm often and regulate it at will. Due to this, the central tones of *krimanchuli* (usually found in the highest note of the formula) sometimes happen to be on weak beats. In coordination with other voices, the metric placement may produce the effect of unstable beats (see figure 4).



Figure 4. The central tones of *krimanchuli* being sung on weak beats (Erkomaishvili 2019, 107).

KRIMANCHULI AND GAMKIVANI: HISTORICAL AND AESTHETIC DIFFERENCES BETWEEN TWO RELATED SINGING TECHNIQUES

Besides *krimanchuli*, Georgian scholars find three other names given to top voices in western Georgian polyphonic songs with a distinct sound and singing technique: *gamkivani*, *tsvrili*, and *krini*. Some of these terms are not used in modern singing and their historical meanings are explained differently by different scholars. For instance, *krini* is considered a Georgian synonym of falsetto, the highest voice from which the etymology of *krimanchuli* (twisted falsetto) is derived. According to some researchers, most notably Ivane Javakhishvili, *tsvrili* also depicts the highest, very active top voice in western Georgian folk music practice and thus represents the same voice as *krini* (Javakhishvili 1938, 299–300). To some extent, *tsvrili* is an intermediate between *krini* and *gamkivani*, as some other scholars consider *tsvrili* to sound the same as *gamkivani* (Erkomaishvili 2005; Veshapidze 2021), another high-pitched, distinctly sounded voice like *krimanchuli*.

Kivili means crowing in Georgian, so *gamkivani* would be translated as “one who crows.” But there are still many different understandings of *gamkivani*. Famous Gurian singer and Georgian folk song collector Anzor Erkomaishvili states that “*gamkivani* is a voice similar to crowing, it is a high figurative yodel. It’s not the leading voice in the song, although it has an endless possibility of improvisation” (Zurabishvili 2000). Lasha Bedenashvili, a young virtuoso of *krimanchuli*, considers that the “*gamkivani* sound is somewhere in between falsetto and chest voice, but always mixed with crowing” (Bedenashvili 2021). Levan Veshapidze, one of the most proficient modern *krimanchuli* singers and a member of the famous Anchiskhati Choir, argues that the main difference between *krimanchuli* and *gamkivani* is that *krimanchuli* is more of an interchange between falsetto and a “crowing voice,” the same kind used in *gamkivani*. He also states that if *krimanchuli* moves in a low

register, it is sung by oscillations between chest voice and falsetto, before it gets higher in pitch and, at some point, inevitably changes back into a combination of falsetto and “crowing voice.” As for *gamkivani*, it is performed “when one’s singing technique is being in a constant crowing position” (Veshapidze 2021). Admittedly, *gamkivani* has a very specific timbre and unlike *krimanchuli* has ostinato-based, rhythmically and melodically varying formulas with smaller ranges. Erkomaishvili (2019, 108) explains the difference between the two voices: “While the *krimanchuli* performer sings higher phonemes in a special type of *krini* falsetto voice, which makes singing easier, the *tsvrili* [*gamkivani*] performer must have a natural tenor or a voice resembling descant.” Thus, a baritone or bass with the proper skills may be able to sing *krimanchuli*, but never *gamkivani*. Due to this, there was a tendency toward professionalization among *krimanchuli* and *gamkivani* performers.

As historical facts prove, some famous singers were known as performers of only one kind of top voice. It was also common to invite separate performers for *krimanchuli* and *gamkivani* while singing a particular song (Akhobadze 1961, 16). Nowadays, *krimanchuli* performers always sing *gamkivani* as well, which is convenient when we consider that in most songs, *krimanchuli* and *gamkivani* are combined and represented either in the same stanza or different stanzas alternately. Overlap in *krimanchuli* and *gamkivani* technique is well demonstrated in a video of the Gurian singing technique of the top voice, performed by Levan Veshapidze (video example 1). In this example, *krimanchuli* formulas are taken from the three-part Gurian song *Khasanbegura* (video example 2), although they are combined with other top voice techniques such as *gamkivani*.

According to some *krimanchuli* singers (Veshapidze, Khukhunaishvili), *gamkivani* is a much older phenomenon than *krimanchuli*. This is supported by two pieces of evidence. First, in old recordings, *gamkivani* appears much more often than *krimanchuli*. Second, *gamkivani* songs are usually mentioned together with the prefix *dzveli* (old); for instance, *Dzveli Orira* or *Dzveli shvidkatsa*. The songs *Orira* and *Shvidkatsa* (without the *dzveli* prefix) are performed with *krimanchuli*.

Dzveli orira

ასრულებდა ოზურგეთის რაიონის სოფელ მაკვანეთის ვაჟთა გუნდში
გიგო ერქომაშვილის ხელმძღვანელობით.
ჩანერილია 1907 წელს ქ. თბილისში.

Choir of Makvaneti.
Leader: Gigo Erkomaishvili.
Recorded in Tbilisi 1907.

Moderato = 63

Orira

ასრულებდა აჭარის სახელმწიფო ეთნოგრაფიული გუნდი
არტემ ერქოშაიშვილის ხელმძღვანელობით.
ჩაწერილია 1933 წელს ქ. თბილისში.

Choir of Ajaria.
Leader: Artem Erkomaishvili.
Recorded in Tbilisi 1933.

Moderato $\text{♩} = 61$ 

Figure 5. *Dzveli Orira*: Old (*dzveli*) version of the song *Orira* with a *gamkhivani* (crowing) voice (audio example 2, transcribed by Levan Veshapidze (2006, 29)).

Figure 6. *Orira*: A more recent version of the song with a *krimanchuli* voice, showing the typical formulas discussed above (audio example 3, transcribed by Veshapidze 2006, 220).

There are songs (for example, *Khasanbegura* and *Alipasha*) where one can find both *gamkivani* and *krimanchuli* mixed within a single formula. There are also songs where at the will of the singer, some stanzas are sung only with *krimanchuli* or only with *gamkivani*. For instance, in the Gurian song *Khasanbegura*, there is a response of the choir (represented by two voices) and a trio. The first stanza of the trio is sung using *gamkivani* (with a few *krimanchuli* formulas mixed in), the second one with *krimanchuli*, then continuing to alternate between the two (audio example 4).

According to Veshapidze (2021), *krimanchuli* was initially practiced in Guria and later spread to neighboring regions, such as Achara, Imereti, and Samegrelo. This seems logical if we consider the fact that in *Naduri* working songs from Achara, *gamkivani* is sung much more often than *krimanchuli*, compared to *Naduri* songs from Guria. In fact, the Kobuleti district in Achara (which historically belonged to the Gurian region) is the only place where *krimanchuli* is as actively performed as in Guria, where *Naduri* songs are sung mostly with *krimanchuli*. There, it serves not as an ornamental addition, but rather is tightly related to the main musical characteristics of the song (Chijavadze 2019, 25–26).

In clarifying the difference between these two techniques, it should be mentioned that both *krimanchuli* and *gamkivani* are performed on different combinations of syllables or vowels, often at the same time as text is sung in other voices. However, *krimanchuli* is sung on completely different

samgherisi (syllables or glossolalia with unknown meaning) than *gamkivani*, which tends to improvise on the following texts: “*rim-ti-ri-ri-ra*,” “*o-vo-di-la*,” “*ho-i-a*,” “*di-la-vo*,” “*o-de-lo-vo*” and different combinations of those *samgherisi*. Sometimes *gamkivani* borrows from the following *samgherisi* of the middle or bass voice: “*di-la*,” “*va-di-la*,” “*vo-de-lo*,” “*na-ni-na*,” “*a-ba-vo-de-li-a-sa*,” “*o-vo-ri-ra*,” “*de-lo-vo*,” “*vo-de-lo-vo*,” and “*a-ba-de-la*.”



Figure 7. Typical syllables of *gamkhivani* voice that differ from *krimanchuli* voice and sometimes borrow short segments from the text sung in the lower voices (Erkomaishvili 2019, 108).

Despite the differences discussed above, it is not always possible to distinguish *krimanchuli* and *gamkivani* voices. Siegfried Nadel, one of the first foreign scholars to research *krimanchuli*, wrote: “Georgians know two types of *krimanchuli* — one is equal to our appoggiatura and mordents, which is sung in a thinner voice on *i-a*, *u-a*, and the other — similarly to the voice singing the main melody, is a full voice, which sometimes follows the melody in parallel, sometimes he comes closer and sometimes goes farther, or he decorates a melodious voice by three horizontally dismembered tones” (Javakhishvili 1938, 31). Presumably by “two types of *krimanchuli*,” Nadel meant *krimanchuli* and *gamkivani* voices, which are also not clearly distinguished by many Georgian folk music performers or listeners. Rather, *krimanchuli* may represent an umbrella term, including various kinds of top voices from western Georgian folk songs with a distinct sound.

THE FUNCTION OF *KRIMANCHULI* IN FOUR-PART WORKING SONGS: *NADURI*

A majority of *krimanchuli* songs are in three parts, but some are in four parts. As already mentioned, *krimanchuli* is found throughout western Georgia (specifically in the *Guria* and *Achara* regions; rarely in *Samegrelo* and *Imereti*) and occurs in some wedding (*sakortsilo*), working (*shromis*), traveling (*mgzavruli*), and in round dance (*saperkhulo*) songs. Four-part songs with *krimanchuli* are represented by a special type of working songs, *Naduri*. *Nadi* is one of the oldest forms of collective work processes in western Georgia, created for increasing the productivity of collective labor. *Naduri* means songs performed in *Nadi*. Italian traveler Archangelo Lamperi in 1938 described the practice of *Nadi*:

He who has already sown the cornfield and is going to hoe it invites for help those whose cornfield is not yet ready for hoeing, and whom others will help in its time. Since this hard labor must be borne by man in terrible heat, to facilitate it they invented such a thing: *Nadi*, singing and abundant food, served by the landowner. *Nadi* often comprises 50 or 60 ordered hoers... The song that follows *Nadi* was invented not only to encourage this joyful gathering but also to make them work quickly. For this they have a particular song to which they set up hoeing like a dance to an instrument: they accelerate hoeing as much as they do singing. (Lamberti 1938, 51–52).

As we can see, *Naduri* songs accompanied the entire working process, lasting for many hours. Thus there was a whole cycle of *Naduri* songs intended to be performed during the working day — most of them in four-part polyphony, with *krimanchuli* and *gamkivani* as top voices (generally a combination of both voices through the song). One of the oldest video recordings of the *Naduri* performance in its natural working environment is given in the documentary *Four-part Singing* by Otar Chiaureli (1958). The documentary is based on the scholarly findings of Vladimer Akhobadze, who himself describes the phenomenon of *Naduri* songs there (see video example 3).

From Vladimer Akhobadze's description from the documentary, we can see that in four-part *Naduri* songs, a special kind of voice, *shemkhmobari*, is incorporated. This so-called “upper pedal drone” usually sounds above the middle voices and bass, and is characterized by stasis, or very limited movements. According to Akhobadze's theory, the function of *krimanchuli* is particularly interesting in the case of four-part *Naduri* songs: “*krimanchuli* joins the song only when the low-pitched voice, the *bani* (bass), becomes the performer of the active melodic line, that is, the *bani* loses the function of a harmonic basis whereas *krimanchuli* restores the harmonic basis of the song by means of specific ornamental embellishments from above” (Akhobadze 1961, 23). Akhobadze therefore suggests that *krimanchuli* should be considered a voice with a certain harmonic function and not only a high-pitched ornamented voice, performed with a specific singing technique. Thus, he emphasizes the important role of the *krimanchuli* part in building the characteristic polyphonic structure of the song. Joseph Jordania (cited in Manjgaladze 2005, 291) agrees with this idea, although he states that *krimanchuli* joins a song not only when the bass loses the function of the harmonic basis, but can frequently be heard with another, stable voice simultaneously. In the case of *Naduri* songs, *krimanchuli* often goes together with the aforementioned *shemkhmobari*.

DISCUSSION AND INSIGHTS FROM CONTEMPORARY PERFORMERS

As demonstrated, *krimanchuli* is not only significant through its impressive sound; it also has a very specific harmonic function in multipart Georgian songs, which makes this voice an essential part of the polyphonic structure. Considering the main characteristics discussed above, we might find an interesting interrelation between Georgian *krimanchuli* and alpine *yodel* — “a style of singing or calling by syllables without meaning that involves switching the registers of the voice rapidly from head voice (or falsetto) to chest voice” (Haid 2005, 274). As we can see, the vocal techniques of *krimanchuli* and *yodel* are quite similar, although *krimanchuli* tends to be sung with more tension in the throat (revealed even by the facial expressions of the singers) and thus, it is much louder and more forceful. *Krimanchuli* is always performed by the top voice only (by a solo

singer), whereas yodel could be performed by several voices simultaneously. Both *krimanchuli* and yodel, sung on syllables without meaning, are mainly built on fluctuations of fifths, thirds, and minor sevenths, but in quite different combinations.

Similar to *yodel*, *krimanchuli* can be sung by female performers, although to some extent female performers have always been exceptions in the *krimanchuli* tradition. Historically, the dominance of male *krimanchuli* singers was conditioned by the social function of the *krimanchuli* songs — the majority were performed while working in the cornfields, traveling long distances, during wedding ceremonies, etc. These activities were led by men and thus male *krimanchuli* singing was necessitated by social function. Nevertheless, women always took part in family gatherings, where all sorts of celebratory repertoire were performed, including wedding songs. The most famous female *krimanchuli* singer, Zhenia Shavishvili, was a sister of the well-known male *krimanchuli* singer Mikheil Shavishvili. Obviously, the singing tradition was very strong in their family, having been started by their mother, Vera Vashalomidze. In this family, singing was never observed from the perspective of gender roles. Listening to the recording of *Orira*, performed by the Shavishvili siblings (Mikheil and Zhenia are singing *krimanchuli* in two choirs) one can't tell if the *mokrimanchule* (*krimanchuli* singer) of the second choir is female or male, or less virtuosic than the first choir's *mokrimanchule* (audio example 5). It might seem paradoxical that in today's era of gender equality and a movement away from dividing social functions and roles by gender, the Georgian folk scene doesn't have any distinct female *mokrimanchule*. In fact, female singers perform *krimanchuli* very rarely during folk events (the exception being some private folk parties) as they feel responsible for reviving and preserving historically female folk music genres (lullabies, indoor working songs, etc.), whereas many foreign female folk singers interested in Georgian folk music are actively practicing singing *krimanchuli*. Among them is French musician Zoe Perret, one of the most experienced foreign female performers of Georgian folk music. She was taught Georgian songs by old folk masters from different regions. Perret often sings *krimanchuli* parts in western Georgian songs, not only at folk parties but also in concert and in recordings with her folk ensemble, Kimilia, which currently includes two other Georgian folk singers (audio example 6).

Georgian folk music is still perceived as not only a musical art but as a national treasure, in need of preservation in its original forms. This could be one of the reasons why *krimanchuli* singing was hardly transformed during the last decades, since the birth of stage folklore practice. One of the most virtuosic *krimanchuli* singers of our time, Lasha Bedenashvili, confirms that he hasn't seen major developments in *krimanchuli* performance during recent decades. Coming from the Shemokmedi (a village in Guria), famous for its rich singing traditions, Bedenashvili thinks that today, "There are more performers who copy old recordings exactly or master one variant of *krimanchuli* and repeat the same one in all concerts. Do you think I'm the exception there? [Laughs.] Sometimes when I don't have time to start the processing of the material heard from the old recordings and think of some new variation, I repeat it rather exactly and the problem is solved. [Laughs.]" (Bedenashvili 2021). But in fact, Bedenashvili could be one of the rare *krimanchuli* singers today who is capable of improvising on stage while singing *krimanchuli*, and he has created some new transformations as well: "At first, I was also just coping *krimanchuli* from the recordings, but then I started trying to catch only main character from there and improvise by myself. I was always

adoring unstable rhythms and started trying to incorporate it in my *krimanchuli* performance, although I also had moments of messing it up at the stage.” Basically, to vary the rhythm, Bedenashvili either changes the accents of beats independently from the other voices, or he changes the rhythmic formula of a stanza (audio example 7). “I haven’t happened to hear something similar in recordings, I just messed up during rehearsal once, but I liked a new combination and then tried to master and use it in my *krimanchuli*,” states Bedenashvili.

We can also find some other, small spontaneous variations in modern *krimanchuli* performance. For instance, young *krimanchuli* singer Giorgi Khukhunaishvili, descendent of the famous Gurian folk singers, the Khukhunaishvili brothers, remembers: “sometimes when we sing together in two choirs, we tend to overlap two *krimanchuli* at the end of the phrase. Basically, before the first *krimanchuli* ends the phrase, a second already enters the song. It is always very natural, especially when you’re having a sort of competition between two *krimanchuli*, although I haven’t heard anything similar in recordings” (video example 4).

There have been experimental attempts at creating new *krimanchuli* songs or adding *krimanchuli* voices to pre-existing songs. For instance, Levan Veshapidze’s version of the originally two-part *Khasanbegura* from Achara, transformed it into a three-part song by adding *krimanchuli* as a top voice. This recording is particularly interesting because both singing and accompaniment are performed with equidistant tonal scales. In the equidistant tonal system, there are no semitones, no major and minor thirds and sixths, no major sevenths. Instead, an octave consists of seven equal intervals (and thereby eight equally spaced notes). All voices were measured and equalized by a computer program. This tuning was also applied to the four-string Georgian traditional instrument *chonguri* (video example 5).

The appearance of a *Krimanchuli* voice gives a song a more impressive and exotic sound, especially for foreigners who are most amazed while listening to *krimanchuli* songs during international tours of Georgian folk choirs (Khukhunaishvili 2021). Traditionally, locally held Georgian folk concerts end with a *krimanchuli* song, which always spreads positive emotions to the audience.

Krimanchuli, this specific high pitched top voice, usually occurs in the most complex polyphonic songs from the western part of Georgia. It not only provides effectively sounded and beautiful ornamentations, but also plays an important role in the harmonic structure and dramatic development of a song, and with its improvisatory character encourages the variability of singing practices. Considering those features as well as the increasing number of Georgian folk music performers (not only in Georgia, but internationally as well), there is the potential for *krimanchuli*’s further evolution, not simply preserving it through revived variants from old recordings, but developing it by using all the improvisational qualities that make up the essence of this extraordinary voice.

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FIELDWORK DATA

1. Interview with Giorgi Khukhunaishili, *krimanchuli* singer. Tbilisi, 2021.
2. Interview with Levan Veshapidze, *krimanchuli* singer and researcher. Tbilisi, 2021.
3. Interview with Lasha Bedenashvili, *krimanchuli* singer. Tbilisi, 2021.
4. Interview with Giorgi Khukhunaishili, *krimanchuli* singer. Tbilisi, 2021.
5. Interview with Marina Kaganova, anthropologist, researcher and performer of Georgian folk music (including *krimanchuli*). Tbilisi, 2021.

AUDIO EXAMPLES

1. Teopile Lomtadze singing Krimanchuli in Adila-alipasha, *Echoes from the Past: Georgian Folk Music from Phonograph Wax Cylinders*, CD 12. <https://soundcloud.com/veshapo/mtq3fpywph8>.

2. Dzveli Orira. Performers: Men Choir from Makvaneti Village of Ozurgeti District (Guria region), led by Gigo Erkomaishvili, 1907. Published in *Gurian Folk Songs*, CD, 2005.
http://www.alazani.ge/base/Erkomaishvilebi/Erkomaishvilebi_-_Dzveli_Orira.mp3?fbclid=IwAR3zIACBM85iTkaiOEgCyiL-ltcnZKLwYcp65hGMWix9jEfPCganzQYciJs.
3. Orira. Performers: National Ethnographic Choir of Achara, led by Artem Erkomaishvili, 1933. Published in *Gurian Folk Songs*, CD, 2005.
http://www.alazani.ge/base/Erkomaishvilebi/Erkomaishvilebi_-_Orira.mp3?fbclid=IwAR2mQ2sGc2bMVYUJ89e09FFS7NssUuLTioxyNEV4gIKuBMS5LixXuimPo.
4. Khasanbegura. Performed by Artem Erkomaishvili's Choir.
http://www.alazani.ge/base/Artem/Erkomaishvilebi_-_Khasanbegura1.mp3.
5. Orira (Gurian Wedding song). Performed by Ladiko Erkomaishvili's choir, 1954. Mikheil and Zhenia Shavishvili as a *krinamchuli* performers. <https://itv.ge/audio/chakrulo-qartuli-khalkhuri-simgherebi/> (at 06:57).
6. Adila-Alipasha. Performed by the ensemble Kimilia with Zoe Perret as a *krimanchuli* singer.
<https://kimilia.bandcamp.com/track/adila-alipasha>.
7. Khasanbegura (short fragment). Performed by the ensemble *Adilei* at one of the private folk-parties. Lasha Bedenashvili as a *krimanchuli* and *gamkivani* performer.
https://soundcloud.com/khukhunaishvili2/lasha?fbclid=IwAR2355EMB_hfQwB-5T55vqouR8g_uWFzYznS_cpGCCFSUx-KNIi3NCozos4.

VIDEO EXAMPLES

1. "Levan Veshapidze demonstrating Gurian Singing Techniques" by Mountains of Tongues. Tbilisi, April 2013. <https://youtu.be/RqvPXPSPD9Y>.
2. "Anchiskhati Choir Georgian Folk Song Khasanbegura (Guria region)" by TV "ARTE."
<https://youtu.be/vUoS9VNtd9M>.
3. "Naduri, Fragment from the Documentary *Four-part Singing* by Otar Chiaureli, 1958."
<https://www.youtube.com/watch?v=qgcDiV7AUOo>
4. "Ensemble Adilei — Naduri Jikura." Lasha Bedenashvili and Giorgi Khukhunaishvili as Krimanchuli Singers. <https://youtu.be/FKNL8aA5uCo>.
5. "Khasanbegura with Chonguri." Performed by Levan Veshapidze.
<https://youtu.be/rTEHICq3GRg>.

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