DISTINCTIVE FEATURES OF TRADITIONAL SINGING IN SRI LANKA

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Abstract

It is evident that Sri Lankan musicologists have mainly used the meanings of traditional folk poetry/verses and the occasions on which they are sung to categorize them. The authors of this paper attempt to introduce a classification that can be used according to the characteristics of the melody/pitches, focusing on *seepada*, currently only known as a poetic stanza in Sinhala folk songs. The authors explain the distinctive features of *seepada* identified employing yathi and the notion of 'Cents', a logarithmic unit used for measuring musical intervals, and reveal those characteristics, acknowledging *seepada* as a traditional singing style unique to Sri Lanka. Suggestions for sustaining this fading art form are presented in this article including the urgent need for action by stakeholders to preserve the identity of traditional Sinhala folk songs, music and melodies of Sri Lanka.

Keywords

Sri Lanka, Seepada, Singing styles, Folk music, Sustaining musical traditions.

Definition of Folk Music

In many countries of the world, the terms folk songs, folk music and folk melodies are used to describe the type of music sung in a local way and played within the communities (Ronald, 2006). The English word "folklore" was first used by the English antiquarian William Thoms in 1846 (Asaqli and Masalha, 2020) to describe customs, beliefs and stories of people (Scholes, 1977). Transmitted orally (Vansina, 1965), traditional folk songs and music are associated with the word 'folklore' which means stories of people. Folk music is related to folk literature which stems from folklore (Asaqli and Masalha, 2020), and Savage et al. (2022) explains that folk song melodies can be considered as culturally transmitted sequences of tones that lead to constructing unique cultural identities. There are various definitions of folk music, songs and melodies in the world. Amongst the various methods of defining folk songs and music, Elbourne (1975: 9) observes that there are "two main approaches to the definition of folk music" (White, 1984), is a type of music produced by a particular ethnic group in a certain society or a country (in this case, Ireland). The other method contemplates the internal properties such as sound and pitch or the elements of music (Elbourne, 1975). Both of theabove-mentioned characteristics of folk songs, music and melodies are often seen in the Sri Lankan folk songs and which have been

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passed down from one generation to another. This study attempts to apply the latter method that uses internal musical properties to define a particular type of Sri Lankan folk music called *seepada*, and to explore existing definitions and characterize it based on singing (specifically in terms of pitching, and the ratio between the two frequencies of tones sung). Abeyaratne (2001: 5) points out that "There is a definite need for the awareness of Sri Lankan folk music" as it plays an important role in the daily lives and sociocultural activities of people in the country.

Sri Lankan Traditional Sinhalese Folk Music

Sri Lanka is an island nation in South Asia. It lies in the Indian Ocean, southwest of the Bay of Bengal, and southeast of the Arabian Sea. Sri Lanka is also known as the "Teardrop of India" or the "Granary of the East" (Gunasekara & Momsen, 2007). It is a multinational state and is home to various cultures, languages, and ethnicities. The rich traditional practices shared by Sri Lankan cultures are the basis of the country's long-life expectancy, high health standards, and high literacy rate (Spain 1984). Sri Lanka currently has a population of about 21.5 million. The largest ethnic group who speaks the Sinhala language and 74.9% of Sri Lankans are Sinhalese, and about 70% of its citizens are Buddhist while the Tamil language is spoken by almost all other Sri Lankans (Department of Census & Statistics, 2012). Earlier ethnomusicologists noted that these cultural and religious influences are embedded in the folk songs, music and melodies of Sri Lanka. The influence of Indian music can also be seen through the Sri Lankan musical flow (Amarasinghe & Jayaratne 2016). However, it is possible to find traces of evidence of a unique folk music style based on the Sinhala/Sinhalese culture in Sri Lanka (Dassenaike, 2012). This music style is often identified by the terms Sinhala folk music or traditional music of the Sinhala people. Aravinda (2000) explains that folk songs, folk verses or poems sung by village folk are associated with their daily routines, occupations, and rituals. Ranathunga (2018: 9) points out that "Sri Lankan music plays an essential role in signifying a unique cultural identity. Musical instruments, methodology of playing, performance, and occasions for playing still follow traditional customs".

Therefore, as an essential characteristic, it is possible to understand that Sri Lankan folk song, music and melodies are named, categorized and defined using the meaning of the lyrics and the occasions or purposes for when they are sung. However, it is evident that the use of these methods may overlook and constrain other important aspects of *Seepada* that are meaningful and critical for sustaining it as a singing style. Dassenaike (2012: 5) pointed out that "Sri Lanka's musical identity seemed to be undefined and hidden beneath layers of political, philosophical and social limitations" and "Sri Lankan Sinhala folk music is yet to be adequately recognized" (2012: 77). Therefore, this study has been conducted to explore and reveal the identity of the Sinhala folk songs in Sri Lanka and extend the body of existing scholarship and understandings. In this process we also hope to define the identity of *seepada* and contribute to the conservation of Sri Lankan folk music. Dassenaike (2021: 77) indicated that "Sri Lanka's musical identity seemed to be amorphous and Sinhala folk music which encapsulates the nation's musical identity appeared to be in a fragile state with very few practitioners left". This claim clarifies the problematic nature of this context and the urgency of the need for intervention by the stakeholders.

Aim and Objectives of the Study

It is expected that this study will contribute to establishing and preserving the identity of *seepada* as a folk singing style and as an initiative that investigates the existence of communally-oriented original folk art of form called the Sinhala Music of Sri Lanka.

This study has three objectives:

- To determine differentiations between Siwpada (a type of Sinhala quatrain poem) and Seepada by exploring the unique characteristics of each term commonly used interchangeably in order to resolve the ambiguity.
- 2. To explore and introduce the musical tones used in *seepada* singing that do not fit into the currently accepted values of musical tones in most countries of the world.
- 3. To present the facts that identify seepada as an autonomous singing style and urge stakeholders to take the required action to preserve it for posterity.

Many stakeholders who attempt to classify Sinhala folk music tend to ignore a range of important factors and this has been the case in the past. It is evident that factors such as the intonation and feelings of the creators (composers) and users (singers), and the emotional aspects involved - including musical gualities - are hardly considered in the process of grouping. When discovering associations between music and emotion, Lekamge and Marasinghe (2014: 2) point out that Sri Lankan folk melodies can be regarded as "transformations of true and innate feelings of the native community in the form of music". Up-to-date, the classifications of folk songs in Sri Lanka have been presented by writers and reporters of folk literature. The majority of these writers seem to have a very poor knowledge of the practical aspects of folk music. There are only a very few folk musicians among them who possess the subject knowledge, although most of them have backgrounds in Western or Indian music. Sykes (2011: 179) explains that "The discourse on folk music that emerged through the Shantiniketan experience encouraged Sinhala musicologists to look to the rural areas of their own country for authentic Sinhala folk music". Not surprisingly, most scholars with Western and/or Indian music education backgrounds have disregarded the unique qualities of folk music like seepada, assuming Sri Lankan music stems from Indian genres or as a primitive art form. The recommendations of pioneer disciplinary experts in Sri Lanka, such as C. De S. Kulathilaka and W. B. Makuloluwa (Ariyaratne, 1989), have often been ignored. As a result, there are many misconceptions in the classification of folk music in Sri Lanka. Even in modern school education, classifications based on the expressed meaning of the lyrics of folk songs produced in folk literature are used. Such education will eventually lead to a diminution of the authentic identity of Sri Lankan folk music.

Approach to the Study

As the primary source of data, traditional Sinhala folk songs recorded under the direction of C. De S. Kulathilaka during the 1970s and 1980s at the Sri Lanka Broadcasting Corporation (SLBC) have been used, including the archived recordings from the C. De S. Kulathilaka Research Unit maintained by the University of the Visual and Performing Arts in Sri Lanka. Folk poems recorded by the first author of this paper while conducting fieldwork in various areas; mainly in the villages of Sri Lanka are also used. Permission to use the actual names of traditional singers in public domains was obtained before

the recordings were made. In total, 248 *seepada* were analyzed for this study. The first author is an ethnomusicologist who conducts research in the fields of Ethnomusicology, Folk Music and Folklore, Anthropology; and culture in Sri Lanka. In this study of *seepada*, the first author conducted the musical analysis and was involved in the process of writing. The second author, who is a phenomenologist with an extensive international background in music education, teacher education, and multicultural music, was engaged in conducting the literature review to explore existing knowledge related to the selected topic and was also involved in the process of writing this paper.

The terms kavi (poems/verses), gee (songs) and siwpada (quatrain) are used interchangeably when naming these folk songs, focusing on the composition of lyrics. However, the term *seepada* is also used in place of Kavi and Gee leading to ambiguity. A selected range of work related to *seepada* sung in different places of Sri Lanka is used for the purpose of this study. These are also known as Mehe gee (occupational songs) (Kulatillake and Abeysinghe, 1976). Mehe gee divides into further groupings such as: karaththa kavi (cart poems), pel kavi (watch hut poems), páru kavi (boat/ferry poems), pathal kavi (mining poems), nelum kavi (weeding, planting/transplanting poems), goyam kavi (paddy harvesting poems) and bambara kavi (wasp poems).³

As can be seen from the examples provided above, the types of kavi are named and differentiated based on usage or, in other words, using context-related naming. All these different types of kavi or gee are written as four-line poems and sung using the *seepada* style when required, according to the context. Kulathilaka (1980) claims that most of the Sinhala traditional kavi are sung in *seepada* style and known as *seepada* along with the relevant 'descriptive' adjective for example: karaththa *seepada* (cart poems), pathal *seepada* (mining poems), pel *seepada* (poems sung from a hut temporarily built in Chena farming), babara *seepada* (wasp poems), and paaru *seepada* (boat/ferry/raft poems).

The Ambiguity: Siwpada versus Seepada

The words *seepada* and siwpada have similar pronunciations and sound almost the same, especially to people who are unfamiliar with the Sinhala language. Some believe that *seepada* and Siwpada are the same (Wijethunga, 1999). The Oxford Reference describes seepada as a "Sri Lankan poetic stanza used very commonly in folk songs. *seepada* is the colloquial form of sivapada [siwpada]" (*seepada n.d.*). This description is incorrect and the two words *seepada* and siwpada cannot be used interchangeably as they have very different meanings. Kulathilaka (1991: 49) states that when "*seepada* are used in practice, it has a different meaning" and *seepada* can be referred to as a folk singing style. The word Siw means four in Sinhala and pada means lines. The combined word siwpada is used for poems consisting of four lines similar to quatrain poetry (Field, 2014); a verse with four lines.

"Ganasaki vasam kisi ema math sama karathahoth sama Eli viram pada uva sivupada nameyi danne" (Ven. Walivitiye Soratha Thera 2016).

 The Ph.D. study of Saman Panapitiya is based on this research. https://www.youtube.com/watch?v=RLMZPfwnwKE, https://www.youtube.com/watch?v=PvdwpHFSU3c https://www.youtube.com/watch?v=-qcEzRuPIcE In the above Sinhala guideline of lyrics writing method, Ven. Walivitiye Soratha Thera (2016) indicates that 'when the dosage (quantity in metre) is written equally in all four lines, it is called a siwpada viritha' (quatrain observance).

Identity Characteristics of Seepada Singing

Several features unique to the singing of the *seepada* can be identified from the following analysis. Those features are not found when other types of kavi or gee poems are sung. Sykes (2018) explores the links between sound and musical identities in Sri Lanka. In this study, it was found that specific singing techniques are deliberately used by the villagers, and retained for singing *seepada*.

• Singing with equal pauses (yathi)

Venkataraman (2007) describes "arranging different groups of syllables into a beautiful combination that gives a particular shape to music" as being called Yathi or Yati" and that "expanding and/or decreasing syllabic patterns that, when written, create a geometric shape" (Schnee 2013). A common feature of this singing is the uniform placement of Yathi. The first line is sung without using Yathi but in the second line, Yathi is placed after singing a couple of words followed by a Yathi placed at the end. This pattern repeats with the placing of Yathi until the end of the verse of a certain *seepada*.

First linewel yaayaka gon dennek kakaa uniSecond Linein eka gonekYathi.......valigaya nethiva veni veniYathi......

It should be noted that the lyrics provided above are in the Sinhala language and the example (a cart poem) has been recorded by the authors during their fieldwork. This example is provided only for the purpose of demonstrating the placings of Yathi (melodic improvisation) from a publicly accessible online resource, which is not quoted here. This style of singing and phrasing can be clearly identified as the main identity of the 248 *seepada* style folk poems analyzed in this investigation from different areas of Sri Lanka, and sung by different people. The other main feature is that the singing takes place using one breath until the first pause. It can be explained further using the image below



Figure: 1 Yathi placing in lines. Scheme by the authors.

Dassanayake (2021: 33) explains that "This fashion of phrasing thoughtfully and embellishing in selected areas may have influenced the way the peasants sang folk melodies in Sri Lanka although, fascinatingly, this appears to be a common theme for folk music in rural areas". However, it is important to mention that contemporary singers place Yathi at random places as they prefer in performing contexts, leading to the destruction of the authentic style of *seepada* singing due to their lack of knowledge.

Contexts of Seepada Singing

The singing of these songs takes place far away from the singers' homes. It could be at a mine, threshing floor of a paddy field, at a chena farm, in a river, or a forest. These poems are designed to suit the occasion and the need, and these aspects are explained below for each type:

Poetry type	Place/Occupation	Purpose	Time
Mining Poems	Mines/ miners	overcome loneliness, motivation	Day and night
Wasp Poems	Forest/ honey collectors	safety, motivation, overcoming fear	Day, scary times
	Roads/ carters	communicate, motivation	Day and night
Cart Poems	River/ ferrymen	communicate	Day and night
Hut Poems (Chena farming)	Forest/ Watchmen	ensuring safety, chasing wild animals, overcome loneliness and fear	Night

Figure 2: Table of details of the poems. Table by the authors.

These poems are used by village folk based on their needs as explained above. They are sung in forests, jungles, meadows, roads, rivers or in empty spaces. The basic purposes of singing in these contexts are for communication, for overcoming fear, and also to chase wild animals away. Most songs are full of sorrow and pain (Wijesekera 1945). Therein lie the real worries and bitterness of the singers' lives. Some of the poems also retain traits of devotion and appeal.

Voice Production Used for the Singing of Seepada

Most voices fall into one of the eight vocal categories, of which there are four male and four female types. Voice type, sometimes also called vocal type, is the classification of a singer's voice based on several different criteria including gender, vocal range, vocal weight, tessitura, vocal tone, and bridge location. Eight classifications are presented below: (Figure 1)

- 1. Bass: lowest male voice type with a vocal range of E2-E4
- 2. Baritone: 2nd lowest male voice type with a vocal range of A2-A4
- 3. Tenor: 2nd highest male voice type with a vocal range of C3-C5
- 4. Countertenor: highest male voice type with a vocal range of E3-E5
- 5. Contralto: lowest female voice type with a vocal range of E3-E5
- 6. Alto: 2nd lowest female voice type with a vocal range of F3-F5
- 7. Mezzo Soprano: 2nd highest female voice type with a vocal range of A3-A5
- 8. Soprano: highest female voice type with a vocal range of C4-C6 (Ramsey, 2020)

Seepada is a type of singing using an open voice (Tenor and Countertenor voice).⁴ The highest male vocal range normally extends from approximately E3 to E5; an extremely high voice, extending into the countertenor range, is usually termed a countertenor. Almost all *seepada* used in this research are associated with the Countertenor voice range.

^{4.} If compared to belcanto-singing of European provenience.



Figure 3: Vocal range of human voice. Scheme

Seepada singing can be easily heard from a distance as these singers use their full body energy to produce a strong and loud voice.

The Use of Fixed and Prolonged Yathi

Another important feature of the *seepada* singing style is sustaining the same tone for a long time. From that tone, various movements, beautiful trills, and other displays of singing prowess are performed. The following figure (Figure 2) presents an example of the use of such a long *yathi*.



Figure 4: Image of a Yathi melodic contour. Scheme by the authors.

The above image shows the use of a Yathi in a *seepada* sung by Dingiri Mudiyanselage Abeykoon (aged 65) at the Kurunegala Kōnweve.

The initial time is 1 second and 452 milliseconds.



Figure 5: Image of another Yathi melodic contour.

The end time is 11 seconds and 166 milliseconds. (1 MS = 0.001 268 sec). The duration of the Yathi should be calculated by using the subtraction as below.

11 Sec. 166 Ms 01 Sec. 452 Ms 09 Sec. 714 Ms The duration of the Yathi in this song is 9 seconds 714 milliseconds. It is amazing to be able to sing Yathi continuously without using the words of the poem in specific places, as required. We have provided this example to demonstrate that the use of Yathi in the singing of the *seepada* is a common feature. Implementations of similar placing of Yathi were identified in *seepada* recorded from different places, mostly villages, of Sri Lanka. Those areas are Rambukkana, Matale, Mathalapitiya, Monaragala, Hulangamuva, Laggala, Dambulla, Kalundeva, Pannampitiya, Kandy, Kaluthara, Galle, Mathara, Halawatha, Badulla, Kegalle, Rathnapura, Balangoda, Minneriya, Horana and Warakapola. However, it was found that the duration of the Yathi used are different, and it is possible to understand that the following reasons may contribute to those variations:



Figure 6: Yathi conditions. Scheme by the authors.

Breathing activity and ability vary according to the age of the singer. Breathing has a direct effect on maintaining the Yathi of the song. The Yathi may also vary depending on the occasion in which singing is performed; for example, Yathi used in the *seepada* sung from a watch hut while sitting freely at night and when working in a mine while doing heavy manual work are each influenced by the physical and mental state of the singer, including the environmental factors. Kulathilaka and Abeysinghe (1976) explain that *seepada* is a sung quatrain that serves a communicative purpose. It is noticeable that folk singers in Sri Lanka apply a unique set of syllabic patterns and musical intervals which are different from existing pitches of different music styles for singing *seepada*.

Qualities of Musical Tones

In this process of analyzing *seepada*, we also investigated the difference in the position of musical tones. It became clear that the locations of the musical tones applied in the singing of the *seepada* are not the tonal positions that we currently and commonly use. Therefore, a different method is required for analyzing the frequencies of the tones sung in *seepada*.



Figure 7: Quality spectrum of tones as an overview of frequency ratio. Scheme by the authors.

A scientific analysis of the dynamics, timbre, and frequency of recorded folk melodies can be performed by analysing them using various technological devices. The main purpose of employing such an approach is to conduct a scientific analysis of the elements of music, including expressions of singing, as sequences of tones and their characteristics of folk song melodies can construct unique cultural identities (Savage et al, 2022). The scientific method that we used for this analysis is currently the globally accepted 'Cent' system, as the precise representation of individual pitches or intervals, in general, cannot be described using "vibrations per second" (Stock, 2007: 306).

The width of musical intervals is often expressed in Cents which is a unit of pitch developed by Alexander Ellis (Helmholtz & Ellis, 1954; Stock, 2007). The notion of Cent for measuring musical intervals (Ellis, 1880) is based on the acoustic logarithms decimal semitone system introduced by Gaspard de Prony in the 1830s (Dumbrill, 2018). 1200 Cents are considered in this study for the 12 tones that we currently use from the Western Music model. The cents system is explained in the chart below (Yang, 2012).

A comparison of equal-tempered intervals showing the relationship between frequency ratio and the intervals' values, in Cents.

We expected to find a difference in the musical tones of the groups of *seepada* (listed below) by applying the following formula.

If the frequencies of F1 and F2 tones are known in Hertz, the number of Cents for measuring the interval from F1 to F2 can be calculated using the above formula. A Cent is a unit of measurement for the ratio between two frequencies. An equally tempered semitone (the interval between two adjacent piano keys) spans 100 Cents by definition. An octave—two tones that have a frequency ratio of 2:1— spans twelve semitones and therefore 1200 Cents. Since a frequency raised by one Cent is simply multiplied by this constant Cent value, and 1200 Cents doubles a frequency, the ratio of frequencies one Cent apart is precisely equal to $21/1200 = 1200\sqrt{2}$, the 1200th root of 2, which is approximately 1.0005777895 (Yang, 2012).

$$\ln\left[\frac{f_2}{f_1}\right] = \frac{\varphi}{1200}\ln 2 \quad \text{or} \quad \varphi = 1200\frac{\ln\left[\frac{f_2}{f_1}\right]}{\ln 2}$$

Figure 8: Cents formula.

The *seepada* used in this investigation were measured employing the above method. The diagram below illustrates the pitching of the *seepada* called *"male male ara naamala nelaa varen,"*



Figure 9: Speech Analyzer image. This poem was sung by Mathalapitiya, Wedikkaragedara Piloris (aged 67 at the time of recording).

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The frequency of the first note here is 246 Hz (Arrow No. 1). The frequency of the second part is 275 Hz (Arrow No. 2). The frequency of the third part is 306 Hz (Arrow No. 3). These 3 sound locations of the tones sung are clearly displayed in the Speech Analyzer. 246 Hz is the frequency between the Bb and B musical tones.

The following calculation was made based on the above musical tones (Wolfe, n.d.), (MIDI Note reference chart- newt.phys.unsw.edu.au/jw/tones.html).

1st - 246 Hz 2nd - 275 Hz 3rd - 306 Hz.

The difference between the first and second places was calculated using the Cent measurement formula (presented in Figure 10 and 11).



Figure 10: Interval in Cents.

The gap between the first and second places is 192 cents.



Figure 11: Interval in Cents.

The gap between the second and third places is 184 cents.

Below is a chart of the currently accepted note positions and alignments in the world based on these data.



Figure 12: Tone distances in Cent.

This shows that the musical tone positions used in this *seepada* singing are different from those commonly accepted.

Below is the accepted frequency table currently used in most countries.



Figure 13: Keyboard frequency table.

The position between the two musical tones C and C sharp indicated above is not included in the current frequencies. These frequencies can only be calculated using the Cent Meter System.

- Distance between C and C# = 100 Cent
- Distance between C and new tone = 99 Cent

The following table shows the frequencies of pitch of *seepada* that we have analyzed in this study using the Cent System.

Name of Singer, Age at	Poetry type	Musical Tones	
Village		The difference between the first and second tones	The difference between the second and third tones
Gama <u>Gedara Ukkubanda</u> . (65) <u>Mathalapitiya</u> , Kandy.	seepada. Cart poem	1 st 225 Hz = A 2 ^{sd} 295Hz = D 468 Cents 28 cents less than the D Note	1 st 295 Hz = D 2 nd 318Hz = D/E 129 Cents 70 cents less than the E Note
Millagahagedara Bayyaa. (54) Naagalaweya, Nuwaraelliya.	<i>seepada</i> , Cart poem	$1^{st} 242 Hz = B$ $2^{sd} 329 Hz = E$ 531 Cents 64 cents less than the F Note	1 st 329 Hz = E 2 nd 348 Hz = F 97 Cents 98 cents more than the E Note
Koralegedara Chandana <u>Hami, (</u> 67) Kivulpana, Balangoda	seepada. Mine poem	1 st 235Hz = B ^b 2 nd 349 Hz = F 684 Cents 14 cents less than F	$1^{st} 349Hz = F 2^{nd}$ $317 Hz = E^{b}$ -166 Cents $34 cents less than E^{v}$
Morandavana Mahanakathige, Pattee. (45) Ihalamaliduuya, Ketanyala, Mathara.	<i>seepada.</i> Ferry poem	1 st 354Hz = F 2 nd 327Hz = E -137 Cents 57 cents less than E	1 st $327Hz = E 2^{nd}$ 265 Hz = C -363 Cents 30 cents less than middle C

Figure 14: Table with Cent measurements of tone intervals from authors' field work.

The examples above are selected for demonstration from the first author's fieldwork. It is important to point out that these positions of musical tones are different from the currently accepted standard 12-tone equal temperament of Western Music and are microtonal pitches. Microtonal music includes

other equal temperaments, just intonation-based scales, mean-tone temperaments and is different from the pitch organization that modern pianos are set up to use. It is known that microtonal music is embedded in Thai, Indonesian, Indian, Chinese, Japanese and Maqam Music (e.g. from Turkey and Iraq). In the Indonesian traditional music context, each village has its own gamelan and each one is tuned differently; there are as many tunings as there are gamelans, although with certain common principles (Becker, 1968; Brinner, 1995). We assume that this is also the case with *seepada* singing in terms of variations of microtonal qualities in different villages and sensitivity to minute inflections of pitch.

The placings of Yathi are similar in *seepada* although the durations differ based on the factors explained above (including context specific pitching differences). Such intentional microtonal qualities are also found in all 248 recordings of the various types of *seepada* collected from different locations in Sri Lanka, sung by different villagers. Confirming the use of microtonal music, Dassenaike (2012: 32) states: "During my fieldwork, I noticed that many traditionalists are of the opinion that contemporary, trained pitch-conscious vocalists are compromising the soul of Sinhala folk music" as a result of their pitch awareness. It is difficult to generalise the musical tones and or pitches used for *seepada* singing without using modern technology and measurement methods. However, from this study, it was revealed that some frequencies of *seepada* singing are different and worthy of further research employing scientific methods including "both the mathematical and psychological perspectives" (Lekamge & Marasinghe, 2014: 2).

From this study, seepada was identified as a singing style used in Sri Lanka by workers such as miners, ploughmen, reapers, watchmen, boatmen, carters, and apiarists (collectors of honey from wild wasps) who engage in related occupations (Wijesekera, 1945). It was found that Yathi and pitching used for singing seepada are different and unique. Therefore, the singing styles of Sri Lankan folk songs should be identified and acknowledged beyond grouping them using existing restricted systems. When categorizing Sri Lankan folk music, we suggest considering musical and melodic analysis that includes emotional feelings expressed by the singer through the use of musical tones. In this process, the intentions of poets, lyricists and singers (of folk songs) should also be considered along with the background and purpose of use, singing style and techniques. (Dassanaike (2012: 32) explains that "it was not uncommon to hear a vocalist or leader shift key centers within one phrase during her fieldwork" and "the lack of attention to pitch is not only unique to Sinhala folk music". She assumes that "the reasons for this unconscious or conscious release of intonation could be due to the implementation of the untampered? scale which is known as just intonation ... or perhaps the performers are hearing the music microtonally" (Dassanaike, 2012: 32-33). Surya Sena (2008) states that Buddhist monks deliberately implement microtonal ornamentation to enrich their chanting and be more impactful. From this study, it was found that performers of seepada also use microtonal ornamentation in their singing as a natural method of expression.

Concluding Remarks

Possibly, some researchers of the past argued that it is not possible to formulate a precise scientific definition to identify or differentiate embedded characteristics of folk songs. However, we tried to find a measure appropriate for an interval too small to be distinguished by human hearing (Dawson and

Medler, 2010) and accordingly employed the Cent measure in this study. Cent intervals may also be appropriate in other non-Western music contexts such as South Indian Carnatic music. Krishnaswamy (2003: 630) points out that Carnatic music employs "microtones" with at least 22 pitch positions in an octave and many people "may not even know what a 20-cent interval difference sounds like". Almost seven decades ago, Devar Surya Sena (1954: 11) mentions that "Many of the Sinhalese folk songs are little more than chanted poetry". In fact, it is possible to claim that some Sinhalese folk songs such as *seepada* are more complex than what had been estimated at the time, in terms of the use of musical elements. In simplifying the nature of Sinhalese folk songs, Western (music) trained practitioners may have not known about the unique features of *seepada* singing at the time, including microtone interval differences of pitch (Krishnaswamy, 2003). The findings from our study confirm the premise that *seepada* is a singing style that embeds complicated techniques. It is possible to find different versions of popular songs reproduced in genres such as Jazz and Reggae in the West and versions of popular songs sung in styles such as Opera, Classical music, and Soul singing (Butte et al, 2009). In most of these instances, the same melodies are

sung by different singers using different vocal techniques and styles related to a particular music. These reproductions or cover versions are identified and acknowledged using the relevant terms based on the singing styles used. Similarly, seepada can be acknowledged as a traditional singing style used in Sri Lanka, which moves beyond the existing generalized description as a "poetic stanza", that is, their definition as being "the composition of lines of a poem as in the Oxford Reference (seepada, n.d.). Savage et al (2022) found that even creative art forms such as music are subject to evolutionary constraints. Asagli and Masalha (2020) note that in the process of transition, folk songs adapt to social, political and economic changes as the content moves through society and time from one generation to another. Therefore, it is important to sustain the unique features of seepada singing, as most of the 'home-grown traditional family professions' (Kundalia, 2015) related to seepada, such as mining, boat/ferry/raft and bullock cart transportation including wasp honey making, are rapidly declining in Sri Lanka due to the effects of globalization and the emergence of modern technology. Lakamge and Marasinghe (2014) note that the storage of Sri Lankan songs, music and melodies in digital form allowing future researchers to analyze and further explore them, remain an important need yet to be acknowledged. Researchers should consider the changing social contexts when studying musical changes (Blacking, 1977). Dassenaike (2012: iii) observes that "Considered a dying art form by practitioners, scholars, nationals and expatriates interviewed during this research, Sinhala folk music is scarcely practiced yet holds the key to the nation's musical identity". To safeguard the musical identity of Sri Lanka, particularly the dying occupations, there is an urgent need for further research with larger samples collected through fieldwork from a range of locations where these traditional singing practices are still performed and used. Support from all relevant authorities, including the government of Sri Lanka, will be vital to achieve this. Finally, we also suggest retrieving seepada (e.g. from existing culture bearers and archived recordings) and teaching these singing styles and techniques to students at all levels of education: primary, secondary and tertiary, using authentic pedagogies in an attempt to

conserve both the identity and practices of Sri Lankan Sinhala folk songs, music and melodies.

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Data access statement: Please note that all the recordings used for this study are archived at the C. De S. Kulathilaka Research Unit and are copyrighted material as stated in the metadata coming with the recordings. Access can be provided to stakeholders upon a formal request made to the University of the Visual and Performing Arts, Colombo, Sri Lanka through the first author of this paper. Depicted materials are reprinted by written permission as stated by the authors.

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