Sources, Sounds and Meanings of *Turali* (Noseflute) Music in Dusunic Cultures of Sabah[1]

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Abstract

The *turali* noseflute (also known as *turahi* among some of the Kadazan Dusun of Tambunan) is traditionally played solo as a form of personal entertainment and expression among most of the indigenous Dusunic societies of Sabah, the east Malaysian state of Northern Borneo. This instrument has the same basic structure and performance technique in all Dusunic communities where it is played, but can vary in length. In most cases, as among the Lotud Dusun and some of the Kadazan Dusun, its music expresses happiness and imitates the melodies of traditional songs. Among the Rungus, it can also be played by a novice priestess (*bobolizan*) to help her memorise the melodies of ritual chants (*rinait*) when practising alone outside of the ritual context. Its soft sound is also considered soothing when played at night in the longhouse. For the Kadazan Dusun in the central part of Tambunan District, however, *turali* music expresses melancholy and usually copies patterns in the stylised crying of female mourners during a wake. It is not played during mourning, but months or years later to express sorrow for a deceased relative. Drawing upon more than thirty-five years of research by the author, this article compares and contrasts different examples of *turali* music, discussing the sources, sounds and meanings of the music, and showing the transformation of vocal motifs and emotive patterns into melodies played with the instrument. These motifs and patterns may vary and transform over time, based on the personal artistry of the *turali* player whose cultural aesthetics are shaped by her or his individual improvisatory skills yet rooted in the tradition.

Keywords: aerophones, Dusunic cultures, flute, Sabah, transformation, *turali* noseflute

Introduction

The transformation or appropriation of existing music into other forms and genres involves various processes that have been widely discussed in the literature. Writing in the context of Western musicological discourse that began from his analysis of the music of Charles Ives, for example, Burkholder (1994) identified fourteen interrelated processes or typologies of musical borrowing from 'modeling' to 'extended paraphrase' that are used as compositional techniques across historical periods and musical genres (p. 854). More recently, Williams (2009) uses various case studies to examine in detail the processes of musical borrowing and intertextuality inherent at various levels and dimensions in hip-hop music and discusses the listeners' response to the various genres. Drawing from an ethnomusicological perspective of music as sound that is organised into socially accepted patterns (Blacking, 1995, p. 33), this article examines the transformation of music from different sources to form *turali* noseflute music among Dusunic communities in Sabah, the east Malaysian state on northern Borneo.

The semi-transverse noseflute *turali* (also known as *turahi* among the Kadazan Dusun of older villages in the central part of Tambunan District, and *tuahi* in one village among the coastal Kadazan of Penampang District) has the same basic structure wherever it is found. Although its length may vary according to culture and personal preference, it consists of an open-ended piece of narrow *sumbiling* bamboo (called *sumbihing* in central Tambunan, and *humbising* in Penampang) with an air hole in the top, one thumb hole in the middle of the back and three finger holes in the lower front. This is similar to many noseflutes found in the Philippines (Maceda, 1990, pp. 197, 199). The *turali* should not be confused with the rare *suling todung* (*suling*: flute, *todung*; nose) occasionally played among the Kadazan Dusun in the Kiulu to Ranau, which has a back air hole near the closed top, two pairs of finger holes on the front, and is held vertically from the nostril.

The *turali* is played as a solo form of personal expression in non-ritual contexts among most of the ancient indigenous Dusunic ethnic groups of Sabah, including the Rungus, Lotud, Kimaragang, Tobilung, Labuk-Kinabatangan Dusun, Kuijau, and others, as well as the Kadazan Dusun, Sabah's largest ethnic group.[2] In exploring *turali* performance, I seek to answer the following questions. What are the sources of *turali* music, that is, from where does the individual musician derive her or his creative inspiration? How is the source utilised to form *turali* music? What is the meaning of particular *turali* music, that is, what does the individual performer express, and how do any listeners perceive the music? After examining *turali* construction and performance technique, examples from among the Kadazan Dusun of Tambunan, the Rungus of Kudat and the Lotud of Tuaran will be discussed, to answer these questions (Figure 1).[3]

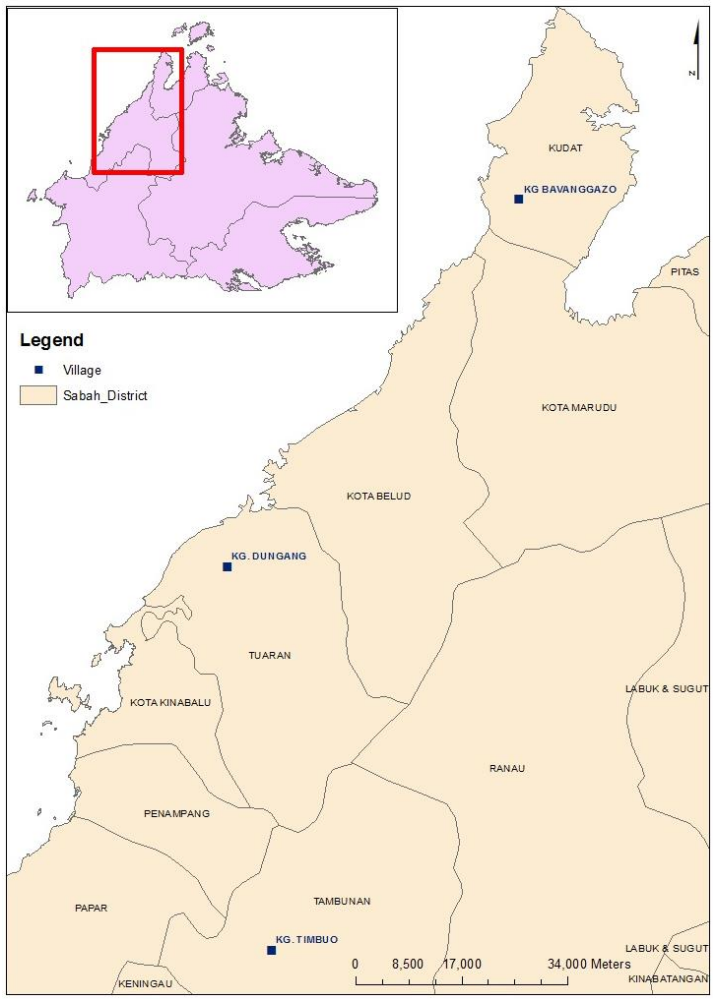


Figure 1. Map of Sabah showing the villages and administrative districts from where the musical examples discussed here originated (Source: Oliver Valentine Eboy, GIS Laboratory, Faculty of Humanities, Arts and Heritage, Universiti Malaysia Sabah)

Turali Construction and Performance Technique

The length of a *turali* varies according to culture and individual preference, as well as the nature of the available bamboo. Among the Rungus and the Labuk-Kinabatangan Dusun, it can be as short as 35 centimetres, while the *turali* played by the west coastal Kadazan Dusun of Kinarut can be over a metre long. In the Kadazan Dusun culture of Tambunan, the *turali* usually varies from 45 to 65 centimetres in length, while in the far southeast of the District it is up to a metre long. As will be shown below, the Lotud have two *turali*, named according to their length.

When constructing a *turali*, the performer cuts a length of the bamboo with a node at one end. He or she uses a sharp knife or *pais* to trim the node and bore a hole therein. This will become the top end for blowing across. A piece of hot wire is used to bore the first hole at the back or ventral side which is located more or less in the middle of the length of bamboo. The circumference of the bamboo is then measured with a piece of string. A mark is cut with a *pais* in the surface of the bamboo on the front or dorsal side, at a point directly opposite the first hole on the back. This may be a small cut or a line encircling the circumference of the bamboo. After this, similar cuts or lines are used to mark circumference lengths below this point. The first (upper) front hole is then bored with a hot wire at a distance of one circumference length below this first mark. The second (middle) and third (lower) front finger holes are then formed one and two circumference lengths below the first front hole respectively, so that all three front holes are equidistant (Figure 2). On some *turali*, however, the distance between the first and second front holes may be slightly longer than the circumference, sometimes up to one and a times the circumferencial length, according to the preferred pitches of the performer. This technique of constructing a noseflute by measuring the circumference with a string is similar to that used for making some noseflutes in the Philippines (Maceda, 1990, pp. 197-198). Sometimes, the surface of the bamboo where the three front holes lie is cut away to form a groove, especially if the surface is rather thick. This groove is said to support and enhance the movement of the fingers over these holes.

During performance, the *turali* is usually held with the left hand in the middle and its lower end lying across the palm of the right hand. The thumb of the left hand operates the hole at the back in the middle of the instrument, while third, second and first (pointer) fingers of the right hand control the first, second and third front finger holes respectively, while (Figure 3). This hand arrangement can be reversed according to preference or if the performer is left handed. The nose hole at the top of the instrument is usually held against the nostril on the opposite side from the hand that operates the three front holes, but the other nostril may be used if preferred (or if the performer has a cold in the nose and cannot use the usual nostril). Breath from the nostril passes across the open top hole, producing a soft breathy sound (Figure 4).

In Tambunan during the early 1980s, the late Mr. Tinggi Ungkiban of Kg. Sungoi in the south central part of the District modified the *turali* into an endblown mouthflute. On the modified mouth *turali*, the node end remains closed, and a long somewhat oval-shaped air hole is cut near the top on the left of the ventral side below the node, then a mouthpiece or *sumpang* (“ring fastener”) is added. This *sumpang* is a bamboo ring that fits around the top end to cover half of this upper hole, and it extends above node end of the *turali*. The thumb and finger holes of the modified *turali* are in the same positions as on the traditional instrument, and the same fingering is used during performance. When playing this modified *turali*, however, the performer presses his or her lips against the *sumpang* and blows with the mouth. Although the top of the instrument appears closed with the ring around it, the breath is forced between the inner surface of the mouthpiece and the rim of the

node to flow across the new air hole on the upper left at the back of the instrument, thus producing sound (Figures 5 and 6).

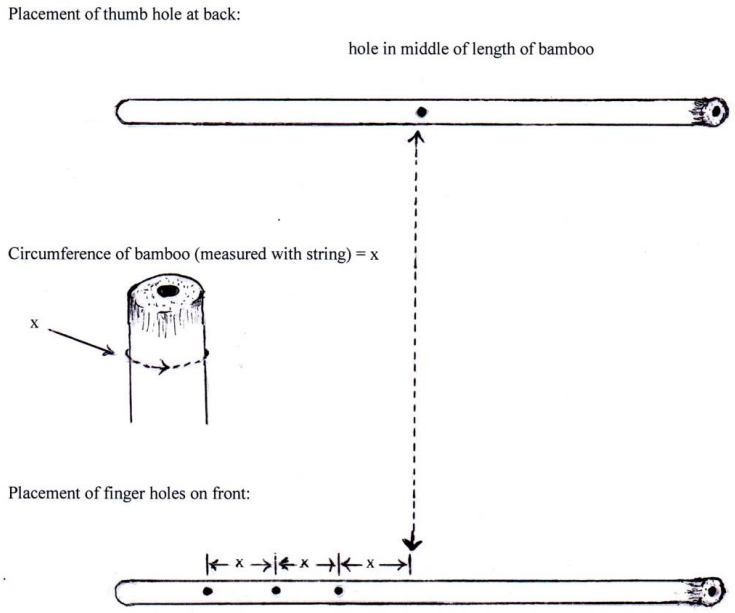


Figure 2. General measurements for constructing a *turali.*

Figure 3. Hand positions when playing a *turali,* by Madam Gontit Poyotuk of the Kadazan Dusun community of Kg. Tikolod, Tambunan (Source: Jacqueline Pugh-Kitingan, 3 April 2012)

Figure 4. Madam Gontit blowing her *turali.* (Source: Jacqueline Pugh-Kitingan, 3 April 2012; see also Pugh-Kitingan 2012, p. 170)

Tinggi's reason for this physical transformation of the *turali* was because the noseflute is considered difficult to play compared to an endblown mouthflute, and he hoped that its modification would increase its popularity thereby ensuring its continuity. The music played with the mouthflute is the same as that of the traditional *turali*, except that the volume of the modified instrument is louder and somewhat piercing in its upper octave compared to the softer sound of the traditional instrument.

The names used for the various parts of the instrument vary according to the language, dialect and personal preference of the individual performer. As shown in Figure 5 among the Kadazan Dusun of Tambunan, for example, the *turahi* players Madam Kimoi and her sister the late Madam Jinulim of Kg. Timbou referred to both the nose hole on the traditional instrument and the upper back air hole under the mouthpiece on the modified flute as *pongunian* ('the place where the *tuni* or sound comes out'), while *pongirusan* ('the hole that manages the sound') referred to the thumb hole at the back of the instrument which determines its basic pitch. They called the three lower finger holes collectively *mokorudu.*

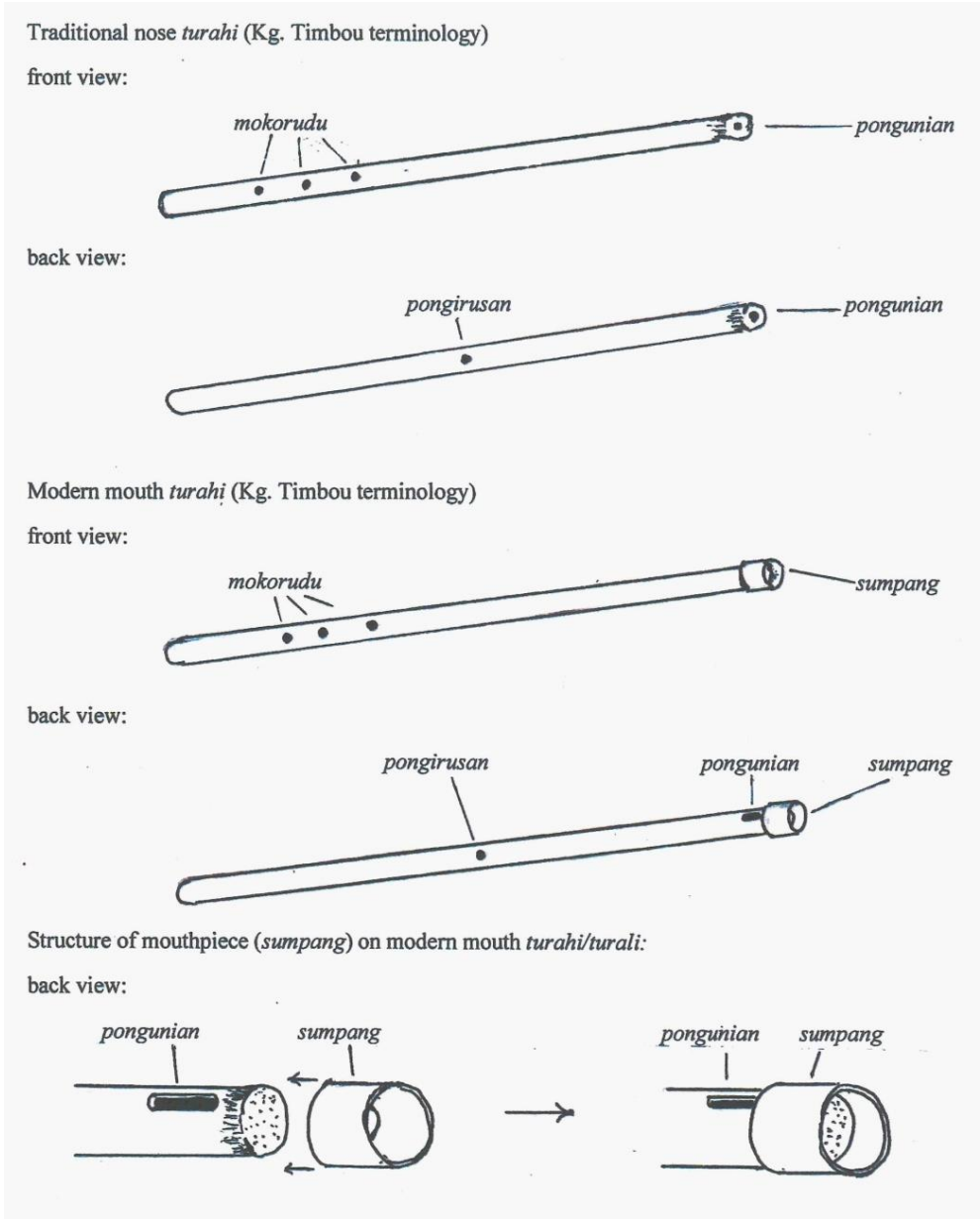


Figure 5. Structure of the traditional *turali* (*turahi*) and its modified version from Tambunan. (See also Pugh-Kitingan 1988, p. 38; 2003, p. 15)

Figure 6. Madam Kimoi of Kg. Timbou, Tambunan, playing her modified *turahi* which has a mouthpiece around the top end. (Source: Jacqueline Pugh-Kitingan, 20 July 1985)

Tinggi, however, used the term *kabang* (‘mouth’) for the hole added below the mouthpiece of his modified *turali*, while he referred to the back thumb hole and lower front finger holes as *pongombiton.* This term connotes ‘strumming’ and is normally used to describe the up and down finger movements when playing a stringed instrument. In the case of the *turali*, he used this term because the finger movements above the holes resemble plucking or strumming the various strings on a *tongkungon*, an idiochordal bamboo tube zither, and on the strings on a *sundatang* lute. Mr. Joseph Amat of Kg. Kuala Monsok in the far southeast of the District, who played a traditional long *turali*, used a similar term *kombiton* for the thumb and fingerholes on his instrument, but explained that the nosehole was *poobusan pinobo todung* or ‘the place where the breath from the nose comes out’ (Pugh-Kitingan, 1988, p. 55; 2003, 38).

Other performers often simply call the nose and finger holes on their *turali* ‘holes’. Madam Layang Ungkat, a performer from the Labuk-Kinabatangan Dusun

community of Telupid in the middle of Sabah, used the term *lubang* ('hole') for each of the holes, while the Lotud performers from Tuaran District, Madam Lansaran Pawig and Madam Isim Amai called them each *lobu turali* ('*turali* hole').

Music of the Kadazan Dusun *Turali/Turahi* from Tambunan

Tambunan District is a large inland upland plain surrounded by the Crocker and Trusmadi Ranges (see map in Figure 1). In the northern hills and in the far southeastern part of the District, *turali* music is played for entertainment. It may imitate the tunes of traditional songs, or can copy the melodic patterns of various *rinait* (long sacred ritual poetry), suggesting it was once used by novice *bobolian* or traditional priestesses to practice the melodies of the chants as an aid to memorising the long poetic verses, outside of their ritual contexts. It can also be played early in the morning as 'wake-up' music for a family.

In the older central to south central villages on the plain, however, the sound of the *turali* is considered 'melancholy.' Its music may sometimes express longing for an absent beloved, but it usually copies the patterns of *pogigiad* or crying by female mourners or *mogigiad* only in these villages during a wake (from *miad* 'to cry'). The *turali*, however, is not played during mourning for the dead, because all music is forbidden except for *pogigiad* and *dunsai,* the solemn gong ensemble music played for three days prior to burial that announces a death to the living and the world of the dead. Months or years later, however, the *turali* is played here to express sorrow and remembrance of a deceased relative.[4]

In their overview of research on interrelationships between music and language, Feld and Fox (1994) devote a section to mourning laments as stylised sung-spoken intersections. They note that worldwide these laments are usually gendered as women's genres. The performative event may include features such as crying breaks, voiced inhalation and sobbing. Some laments consist purely of vocables, while others may use conversational everyday speech, and yet others are articulated in formal speech registers with distinct metrical structures and utilise "highly affect-laden lexical or discourse areas" that may include relationship terms (Feld & Fox, 1994, pp. 39-43).

In Tambunan, *mogigiad* are usually women, although I recall one wake where a man also joined in the *pogigiad*. Each *mogigiad* cries individually and the composite sounds of many voices often produces layers of vocalised sound. *Pogigiad* is based on short poetic phrases in which the words cried reflect the relationship of the mourners to the deceased. '*Idi Idi oroi Idi*' is for a mother who has died; '*Amaiya Amaiya oroi Amaiya*'or '*Amaiyai Amaiyai oroi Amaiyai,'* depending on the individual mourner, for a father; '*Oto Oto oroi Oto*' or *'Oyou Oyou oroi Oyou*' for a child; '*Aka' Aka' oroi Aka"* for an older sibling; '*Adi' Adi' oroi Adi"* for a younger sibling. *Idi, Amai,* and *Oto* or *Oyou* are familial or pet names for 'mother' (*Ama'*), 'father' (*Apa'*) and 'child' (*Tanak*) respectively, while *oroi* is a poetic variant of *odoi,* an expression of sadness. In some families, the name *Ama'* is a term of address for a father, and *Idi* connotes an older person.

Pogigiad is usually a form of heightened speech, although some mourners seem to use a soft melodic singing voice, while others sob the words. Two examples of *pogigiad* for a deceased mother are shown in Figure 7. The repeated word *Idi* has a rising pattern of pitch, roughly at the interval of a third, with a stress on /-di/. This syllable is sometimes sustained, as in the second example. The second syllable of the expression of sorrow *oroi* is also sustained on a higher pitch, before it cascades down to the word *Idi*, often at the melodic interval of a fifth. Some performers do not utter a falling cascade, but merely step down to the lowest pitch level. Although, *pogigiad* is normally in heightened speech, some performers appear to utilise a tritonic scale-like pattern focused on intervals of thirds with the fall of a fifth at the end of the utterance.

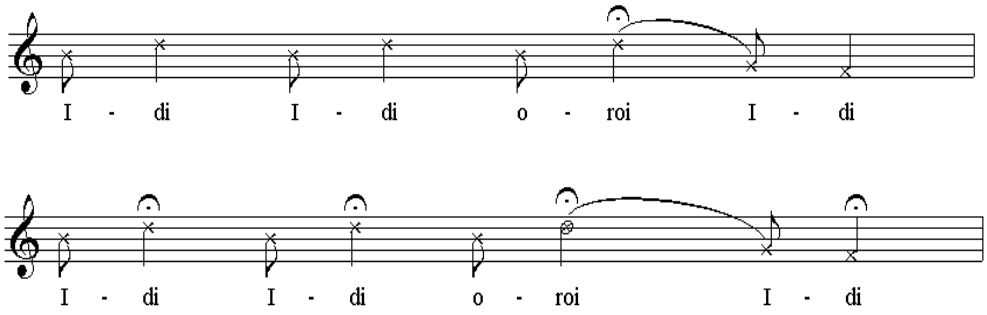
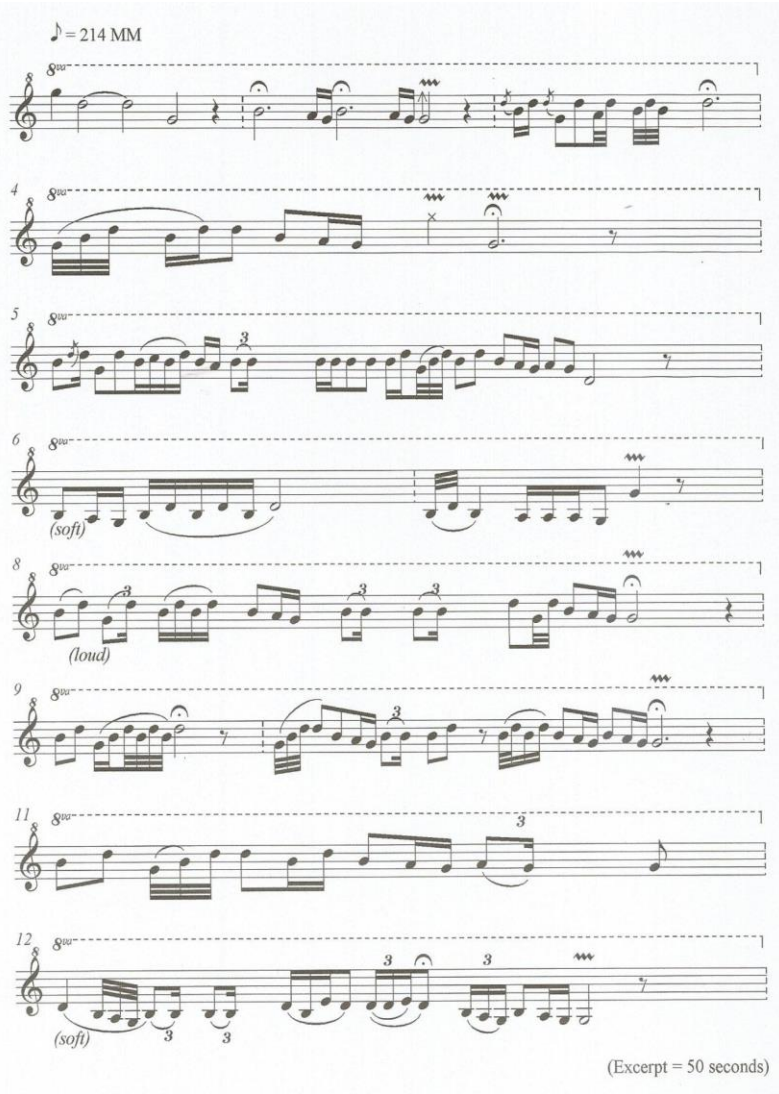


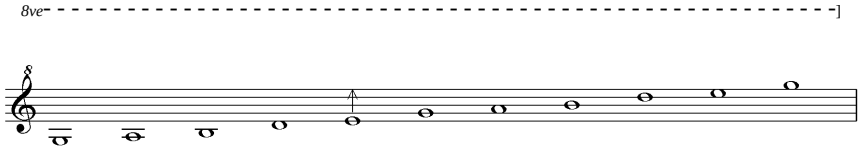
Figure 7. Rhythmic and melodic patterns for *pogigiad* cried for a deceased mother from central villages of Tambunan District. (Source: Jacqueline Pugh-Kitingan, from attending family wakes in Tambunan over 35 years)

Figure 8 shows a short excerpt from the start of a mouth *turahi* performance by Madam Kimoi of Kg. Timbou. It is based upon *pogigiad* for a deceased mother (Figure 6).

Kimoi's *turahi* has a range of two octaves and is based on a pentatonic scale-like pattern without semitones. This is the same instrument that was played by her sister, Madam Jinulim, also in imitation of *pogigiad* for a deceased mother, which was discussed previously (Pugh-Kitingan, 1988, pp. 28-29, 47; Pugh-Kitingan, 2003, pp. 14-17). It is an endblown *turahi*, and the space between the first and second front finger holes is slightly longer than that between the second and front third holes that lie a circumference length apart. Unlike Jinulim's music which was wholly pentatonic, Kimoi's performance tends to be tetratonic in the upper octave, and pentatonic in the lower octave.



Entire range of pitches played on the *tuahi*:



Key to symbols: ~~~ = tremolo; ↑ = sounds ¼ tone higher than written; | = end of melodic line

Figure 8. Short excerpt of *turahi* music for remembering a deceased mother, by Kimoi of Kg. Timbou, Tambunan. (Source: Jacqueline Pugh-Kitingan, recording PUG-KIT Kg. Timbou 850720/5)

As in Jinulim's music, Kimoi's entire performance consists of the alternation of episodes in the higher octave or upper register, with sections in the lower octave. Each episode consists of melodic lines that end with a pause either on the tonic pitch or the pitch a fifth above this, here for convenience referred to as the 'dominant'. As in the *turahi* piece by Jinulim, this performance opens in the louder upper register with a slow downward stepping motif spanning the upper octave followed by line 2 which consists of a phrase of two descending motifs from the pitch a third above the tonic. The material in lines 3 to 5 provides the basis for generating the other melodic lines in the example, in both upper and lower octaves. Table 1 analyses the iterative structure of this short excerpt from the performance.

Just as each *mogigiad* has her own style of crying that is clearly recognisable as *pogigiad,* so each *tuahi/turali* performer has their own style which recalls aspects of the mourning crying. The tetratonic tendency of Kimoi's music in the upper octave may be similar to some *pogigiad,* although her pentatonic lower octave and also Jinulim's previously discussed pentatonic performance equally reflect the crying. For the listener, however, it is not the actual pitches played by the *turahi* that recall *pogigiad*, but rather the repetitive shapes outlined through the music of the instrument. Elements of the *pogigiad* for a deceased mother can be perceived in the motif shapes in Kimoi's *turahi* performance through repeated upward motifs of intervals of thirds and the fall to the tonic at the end of lines (Figure 9). Sustained high pitches on the pitch an interval of a fifth above the tonic recall the long drawn out second syllable in the expression *oroi* in *pogigad*, while sustained lowest pitches with tremolos suggest sobbing on the second syllable of the concluding word *Idi*.

In terms of Burkholder's typology of borrowing (Burkholder 1994, p. 854), *turahi* music may be described as a "stylistic allusion" to *pogigiad* for a deceased mother. It does not directly copy the actual pitches of the crying, but alludes to these through the shapes of the motifs played. The rapid repeated upward motifs alternately in the upper then lower octaves convey a sense of different voices crying individually at a wake.

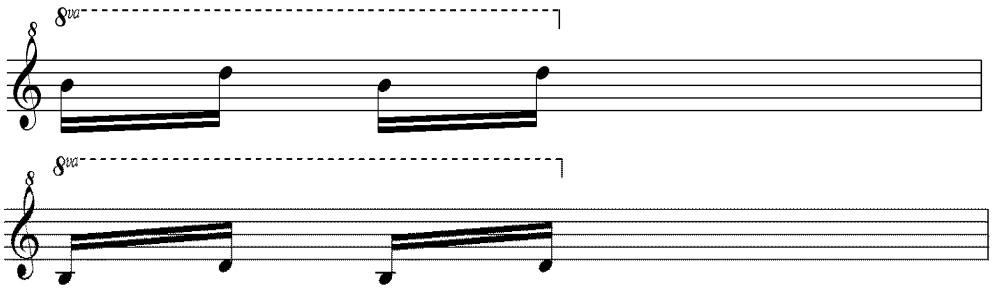
According to Kimoi and Jinulim, the *turahi*, as it is named in the 'Tambunan' sub-dialect spoken in some villages on the plain, was created many generations ago when the Kadazan Dusun of today's Tambunan District still lived in longhouses.[5] A woman and her seven mute daughters lived in a separate house in the bush, some distance from their longhouse. One day, the woman died. Unable to cry out and in deep grief, the daughters could only weep. One of the daughters cut a length of *sumbihing* bamboo and formed a *turahi*. Since she could not use her mouth to cry *pogigiad*, she played the *pogigiad* patterns with the instrument using her nose. When the villagers heard the haunting sound of the noseflute coming from the forest, they came running and found the daughters mourning over their mother.

Table 1

A summary of the structure of the turahi music excerpt by Kimoi in Figure 8.

Octave	**Line**	**Phrasal and Motif Material**
Upper octave	Line 1	Downward stepping motif spanning upper octave, ending on the tonic.
	Line 2	Phrase of two descending motifs from pitch a third above the tonic; ends on the tonic.
	Line 3	Rapid upward motifs based on intervals of thirds and fifth; ends on the dominant.
	Line 4	Similar rapid upward motifs to line 3 that eventually fall to the tonic.
	Line 5	A combination of melodic material from both lines 3 and 4 that is joined in the middle by a syncopated figure and repeated notes on the pitch a major third above the tonic; falls momentarily to the tonic, then ends on the dominant, but in the lower octave.
Lower octave	Line 6	Based on melodic material in line 3.
	Line 7	Based on motifs from line 4, but concludes on tonic in upper octave.
Upper octave	Line 8	Melodic repetition of line 5 that ends on the tonic.
	Line 9	Repeats melodic motifs from line 3.
	Line 10	Repeats melodic material from line 5, but ends on the tonic as in line 8.
	Line 11	Expansion of motifs in line 4; here serves as a bridge into the lower octave.
Lower octave	Line 12	Draws on material from lines 5, 8 and 10, but includes the fifth pitch; ends on the tonic in the lower octave.

Idi motifs:



Oroi Idi motifs:

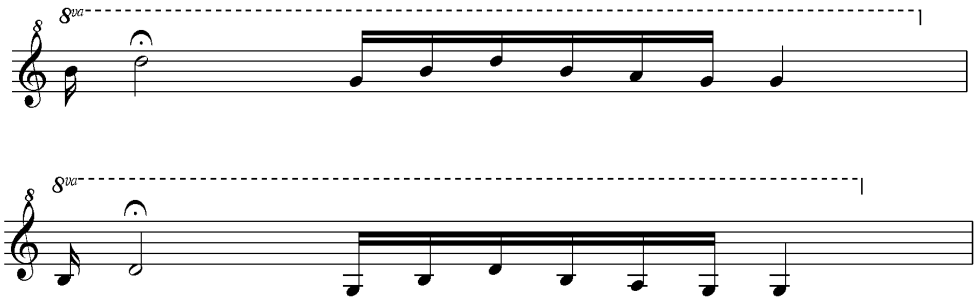


Figure 9. Motifs suggesting *pogigiad* in Kimoi's *turahi* music.

Tinggi and other performers in villages on the plain towards the south have a similar story about the origin of the *turali*, but their story concerned a father and seven mute sons. Since then, the *turahi* or *turali* in older villages in Tambunan has been associated with an expression of sorrow when remembering a relative who has passed away. Tinggi also said that the *turali* can also be played to express sadness in other contexts, such as longing for an absent beloved.

During the 1970s, the *turahi* was introduced into the Penampang area on the west coast where it is called *tuahi* in the coastal Kadazan dialect of Penampang District. There, it was taken up by the late Mr. Stephen Jintoni Lojuwin, who played melancholic music with the instrument. Although his music did not directly imitate crying during mourning (the Kadazan of Penampang usually do not cry *mogigiad*), one of his *tuahi* pieces is today played over Radio Malaysia, after News broadcasts in the Kadazan Dusun language, to announce the list of recent deaths among the Kadazan Dusun across Sabah. From this, many people assume that the *turali* is played to announce a death, but this is incorrect. This *tuahi* performance is considered an appropriate musical introduction for this radio program, whereas *dunsai* gong music that announces a death in a village is ritually prohibited outside of its actual mourning context.

Among the Kadazan Dusun of Tambunan, the *turali* like other solo instruments, including the *suling* mouthflute, *sompoton* mouthorgan, *bungkau* palmwood jew's harp, idiochordal *tongkungon* bamboo tube zither, and the rare strummed double-stringed jackfruit wood *sundatang* lute, is played by both men and women.

Music of the Rungus *Turali*

Among the Rungus of Kudat, parts of Kota Marudu and Pitas Districts of northern Sabah, the *turali* is only played by women. The Rungus *turali* is comparatively short when compared to the Kadazan Dusun noseflutes, at around 35 centimetres long, and its three front finger holes are usually equidistant (Figure 10).

Figure 10. Madam Inompiling of the Rungus community of Kg. Bavanggazo, Matunggong, Kudat District, playing her *turali.* (Source: Jacqueline Pugh-Kitingan, 20 November 2011)

Music of the Rungus *turali* sometimes draws upon the tunes of secular songs, but usually directly imitates the melodies of Rungus *rinait*, the huge corpus of ritual chants, especially when the instrument is played by a novice *bobolizan* (priestess). Chanting styles of *rinait* vary from loud to soft 'singing', from heightened speech to monotonous whispering, according to the nature of the long verses articulated, and their place in the ritual. Logogenic melodic patterns used in chanting *rinait* serve to support and maintain the articulation. *Rinait* fall into pairs of lines. The first in the daily language is for the human world, while the second (of the same meaning) is in the ritual language for the spiritual realms.

Although it is not a ritual instrument and is not performed during ritual, *turali* performance provides an opportunity for the novice priestess to memorise the music of various *rinait* and helps her to recall the verses, while practicing in a non-ritual context when the articulation of the actual verses is prohibited (Laura W.R. Appell, personal communication, 2002). *Rinait* can only be chanted during the correct ritual ceremony. It is believed that their performance outside of the ritual context will incur the wrath of the supernatural world. Hence, the need for an alternative sound medium, such as the soft sound of the *turali*, to practice the melodies of the various *rinait.*

A short *turali* performance by Madam Inompiling of Kg. Bavanggazo, Kudat District, is shown in Figure 11. This is based on an excerpt of *rinait* that she learned as a young woman. The music utilises tetratonic melodic material without semitones and in this particular example only the lower register of the instrument's range is played. As suggested in the key following the transcription, the second lowest pitch sounds a quartertone lower than written and the intervals are not exactly as in western tempered scales.

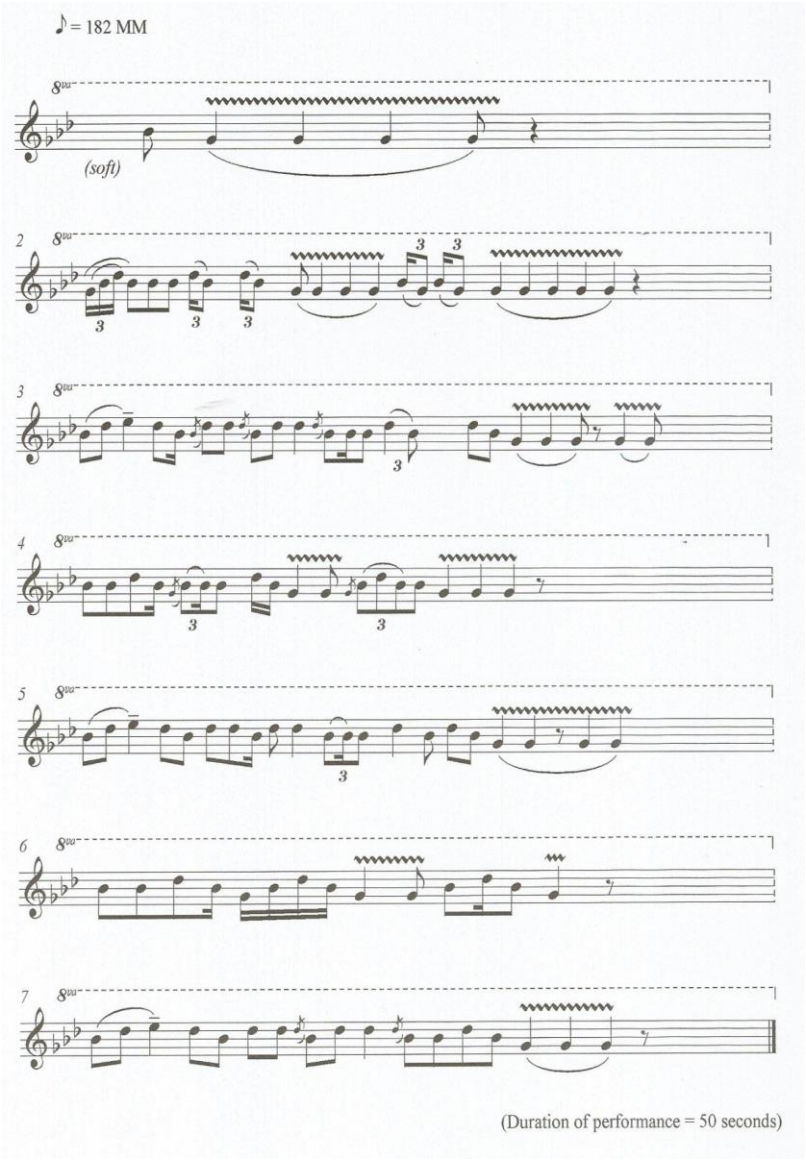
The phrasal and motif structure of this *turali* piece by Inompiling is outlined in Table 2. This short piece consists of only seven lines, but the *rinait* from which it was it was derived would have been part of a longer chant.

The logogenic patterns of the ritual poetry are directly imitated in this *turali* performance. The rising motif to the sustained pitch, which opens lines 3, 5 and 7, other rising and falling minor thirds and recurring falling major third figures onto the tonic pitch are taken directly from melodic patterns in chanted *rinait*, which can be based on tritonic and tetratonic scale-like patterns without semitones depending on the type and purpose of the particular *rinait* (see Figure 12). Tremolos on the tonic pitch at the ends of sections also recall the chanting patterns of verses in *rinait* that have lines ending in long monotonal articulation. Motifs with similar rising and falling intervals of major and minor sounding thirds are also often found in the older secular singing genres of the Rungus. These motifs can be expanded and varied as the performer develops her personal *turali* music repertoire beyond imitating *rinait.*

When practicing *rinait*, a novice *bobolizan* normally utilises the lower quieter octave of the *turali* range, as in this example. She may, however, use the slightly louder higher octave, just as some *rinait* are loudly chanted, and Inompiling also performed another piece in the higher octave on the same occasion as that discussed here.

Using Burkholder's typology, the music of Inompiling's *turali* performance can be described as completely modeling the music of the *rinait,* because it directly copies the melodic and rhythmic patterns of the chanting, but without articulating the words. Among the Rungus, the *turali* was always a women's instrument because of its use by novice ritual specialists of the traditional religion, who are always women. Although it was and still is used by a novice *bobolizan* to practice the music of certain *rinait* chants, the *turali* is essentially a non-ritual instrument that can be played for entertainment in any secular context by a skilled woman, regardless of her religious affiliation.[6]

For the listener, its soft sound is said to be soothing and to have a calming effect. If the performer plays at night in her family's private apartment in the longhouse, the families in other apartments will hear the soft *turali* and children will settle down for the night.



Main pitches in this *turali* performance:

Key to symbols: ~~~ = tremolo; ↓ = sounds ¼ tone lower than written; | = end of melodic line

Figure 11. Turali performance by Madam Inompiling of Kg. Bavanggazo, Kudat imitating *rinait.* (Source: Jacqueline Pugh-Kitingan, video clip 20 November 2011)

Table 2

A summary of the structure of the turali piece by Inompiling in Figure 11.

Register	**Line**	**Phrasal and Motif Material**
Lower register (throughout this example)	Line 1	Brief introduction characterised by a long tremolo on the lowest (tonic) pitch
	Line 2	Begins with a rising motif followed by two descending phrases, both ending in long tremolos on the tonic.
	Line 3	Begins with a distinctive rising motif that leads to a pause on the highest pitch which sounds a sixth above the tonic. This motif is followed by expanded melodic patterns from the first descending phrase of the second line, and ends with a tremolo on the tonic.
	Line 4	Consists of two phrases drawn from the last two phrases of the second line, each ending in a tremolo on the tonic.
	Line 5	Based on the melodic patterns of the third line that opens with the rising motif to pause on the highest pitch.
	Line 6	The two phrases of line 4 are repeated here, but the second phrase is shortened
	Line 7	Based on the melodic patterns of the third (and fifth) line that opens with the rising motif to pause on the highest pitch.

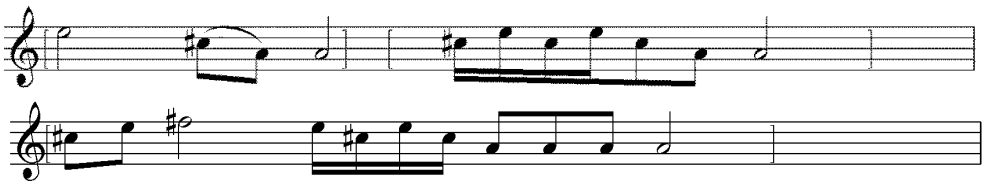


Figure 12. Selected melodic motifs from Rungus *rinait.* (Source: Jacqueline Pugh-Kitingan, from *Moginum* ceremonies at Kg. Ontolob, Kota Marudu, September 2007)

Music of the Lotud *Turali*

Like the Rungus, the *turali* is also played solo by women among the Lotud of Tuaran District on Sabah's west coast. The Lotud have two *turali*, the *turali toniba* ("short *turali*") and the *turali do anaru* ("long *turali"*). The shorter *turali* is around 60 centimetres long (Figure 13), while the longer instrument has a length of up to 1 metre. Unlike the Rungus *turali* on which the three front finger holes are equidistant, the space between the first and second finger holes on both Lotud *turali* is longer than the circumference.

Both the *turali toniba* and *turali do anaru* are solo instruments performed for personal entertainment, and the same music can be played on either instrument. Music of the Lotud *turali* does not normally imitate the chanting of *rinait* by a *tantagas* or Lotud priestess. Instead, it usually copies the tunes of non-ritual songs, or can be the personal creation of the performer.

The transcription in Figure 14 shows the start of a performance using the *turali toniba* by Madam Lansaran of Kg. Dungan, Tuaran (see Figure 13), who held the flute in her left palm and to her left nostril because she had a cold in the nose. This is her own composition entitled *"Buio-Buio"* ("free style"). Lansaran said that she often plays this to welcome guests who come to her home, as a form of greeting and entertainment. It essentially expresses her feelings of happiness.

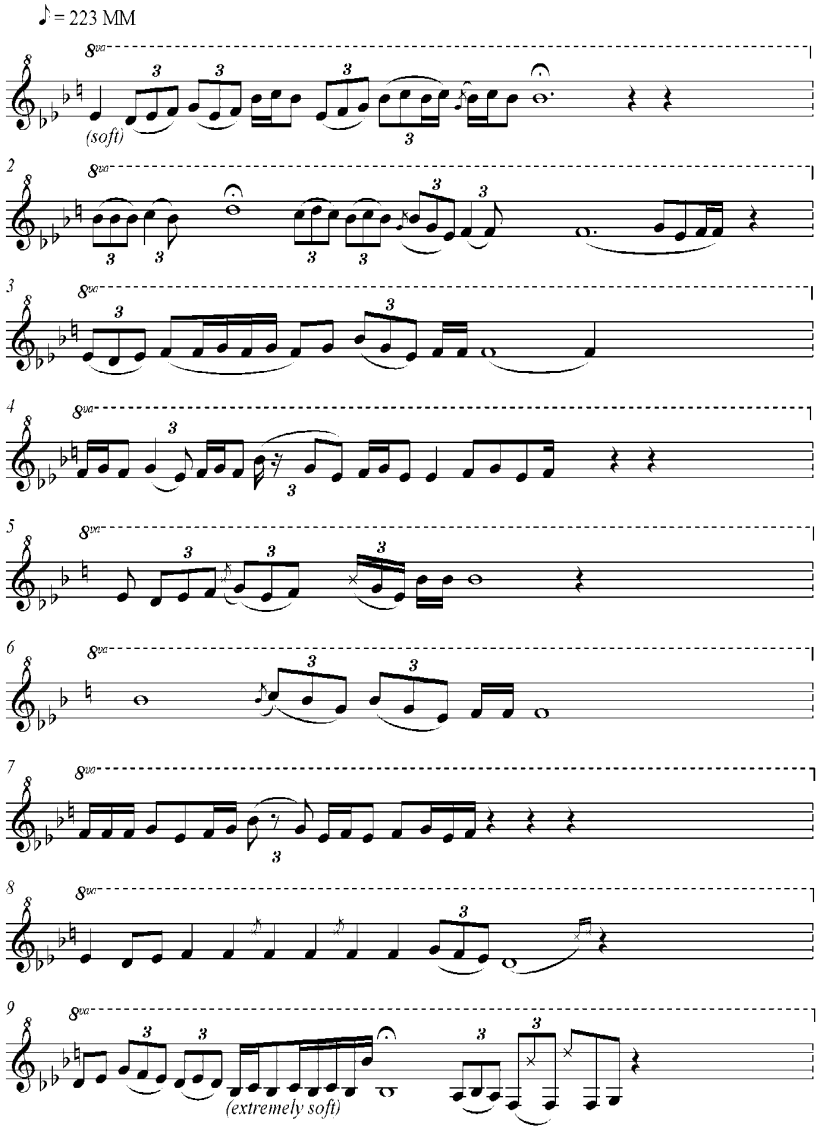
This piece appears to utilise a quasi-hexatonic scale-like pattern, and its range extends almost across two octaves. The perceived tonic is the starting pitch of the excerpt (here notated as E flat two octaves above middle C). Each of the five pitches above this starting pitch in the higher register sounds an octave above the five pitches in the octave below the tonic, except for the highest upper register pitch which is a ninth above the fifth highest pitch in the lower octave. The latter sounds a whole tone below the tonic and a semitone above the fourth pitch. The presence of semitones in scale-like systems and traditional music in Sabah is uncommon. But this pitch is not used melodically to form a semitone with the fourth lowest pitch. It occurs momentarily in forming upward motifs near the beginnings of lines that start from the tonic, as well as in bridging lines leading into passages in the lower octave.

The musical form consists of sections in the upper register interspersed with episodes in the lower octave. Its music is characterised by rapid embellished ascending triplet motif runs up and down the upper register, followed by similar motifs in the lower octave. The sound of the *turali* is very soft, especially in the lower octave where it is almost inaudible at the end of the excerpt.

Although she described this piece as being in free style, Lansaran does use compositional techniques such as imitation and variation within her music. Most lines in the higher sections end with a long pause either on the pitch a fifth above the tonic, or on the pitch a whole tone above the tonic. The concluding pitch of a line is usually the starting pitch for the next line. Table 3 summarises the phrasal and motif structures in the excerpt.

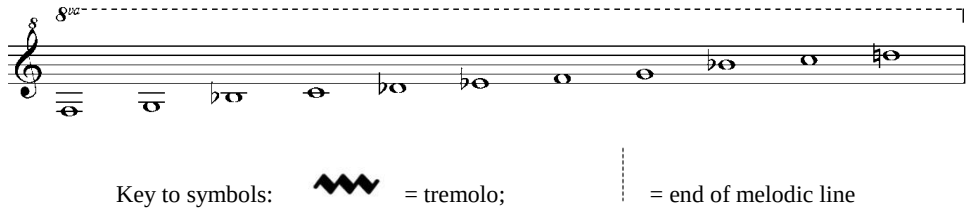
Figure 13. Madam Lansaran Pawig of Kg. Dungan, Tuaran plays the Lotud *turali toniba*. (Source: Jacqueline Pugh-Kitingan, 6 August 1985)

Since the performance is composed entirely by Lansaran and is not derived directly from existing vocal music, it has free rhythm. To the listener, the music conveys a vivid sense of exuberant joy and demonstrates the virtuosity of the performer. This sense of joy is especially reflected in the upward rise to the pause on the highest pitch in line 2, followed by descending triplet motifs to the pitch above the tonic.



(Excerpt = 63 seconds)

Pitches of the *turali* by ear:



Key to symbols: = tremolo; = end of melodic line

Figure 14. Excerpt of *turali* piece *Buio-Buio* by Madam Lansaran Pawig of Kg. Dungan, Tuaran. (Source: Jacqueline Pugh-Kitingan, recording PUG-KIT Sabah Museum 850806/7)

Table 3

A summary of the structure of Buio-Buio excerpt by Lansaran in Figure 14.

Register	**Line**	**Phrasal and Motif Material**
Upper register	Line 1	Consists of ascending triplet-like motifs from the starting (tonic) pitch up to the sustained ending pitch a fifth above the tonic.
	Line 2	The melody ascends to the highest sustained pitch that lies a seventh above the tonic, before descending in triplet figures down to the pitch lying a whole tone above the tonic.
	Line 3	This starts with the opening motif of line 1, which is extended and concludes with the closing phrase of line 2.
	Line 4	A variation of line 3 material, but starting from the pitch a whole tone above the tonic with an inversion of the opening motif shape, and extension of its closing phrase.
	Line 5	A shortened version of line 1.
	Line 6	A shortened version of the second phrase in line 2.
	Line 7	A variation of line 4 with the opening motifs shortened, but the second phrase intact
	Line 8	Begins with the opening motif of line 1, but extends into repetitions of the pitch a whole tone above the tonic before ending with a descending motif that concludes on the pitch a whole tone below the tonic. This line functions as a bridge between the upper register material and the lower octave material in line 9
Lower register	Line 9	Begins with an expansion of the closing motif of line 8, before descending into the lower octave utilising motif material derived from lines 1 and 2

Pieces of Lotud *turali* music that copy the tunes of songs tend to have more clear-cut rhythmic structures and repetitive melodic patterns directly derived from the sung source. Sections may also alternate between upper and lower octaves.
For the Lotud, the soft sound of the *turali* expresses happiness and a sense of peace. It is a traditional classical genre performed by a skilled soloist, but it is not associated with ritual or ritual music.

Observations on Fingerhole Positions, *Turali* Tunings and Music

When writing about flutes from Austronesian cultures of the Philippines, Maceda (1990) noted that many have a central back hole that divides the air column into two. This produces a pitch an octave higher than the fundamental. He noted that most mouthflutes of this kind have three lower front holes, located at distances of measured circumferential lengths. After careful measurements and calculations, he concluded that "The mid-bore system of scale measurement produces mostly a four-tone structure, not a pentatonic structure." (pp. 198-203). He also noted that in some flutes, "auxiliary tones are produced by half opening holes being played" and "overblowing produces melodies in two octaves, resulting in a wider musical range" (ibid., p. 202). He further pointed out that imprecision and slight changes in measurements, friction, and uneven internal bamboo tube quality may produce different pitches outside of a tetratonic scale system (ibid., pp. 203-204).

From examining the musical examples discussed here, it can be seen that the open central back hole does produce a pitch an octave above the fundamental especially in the performances by Kimoi and Inompiling. Melodies can be played in two octaves for each of the three instruments discussed, and the upper octave pitches are much louder than those in the lower octave, indicating that overblowing may be used to produce these. Of the three instruments, however, only the Rungus *turali* appeared to be based on a tetratonic scale-like system, although the pitches in the music was primarily determined by imitating Rungus *rinait* which can be tritonic or tetratonic. The Kadazan Dusun *turahi* largely produced pentatonic music without semitones, and the Lotud *turali* example was based on a hexatonic system with a semitone in the lower octave.

These differences may be partially determined by the placement of the front finger holes on the three instruments. On the Rungus *turali* discussed here, the three front finger holes are equidistant, each a circumference length from the other. Among the front holes on the *turahi* and the Lotud *turali*, however, the first finger hole is almost a circumferential length and a half from the second. In playing her piece *Buio-Buio* ('free style') Lansaran may have also employed techniques such as half opening her finger holes to produce additional pitches, while other variations in measurements and friction may also have contributed to the distinctive pitch arrangement of her instrument.

Conclusions

From the foregoing, it can be seen that the *turali* noseflute has essentially the same basic structure wherever it is played among various Dusunic cultures in Sabah. Its sound is soft and its music uses melodic material that can range across two octaves. The lower octave is comparatively softer than the higher. When playing the *turali*, performers draw upon their emotions and can utilise genres of vocal music as sources for their music. They employ various compositional techniques for creating

their music. *Turali* music also conveys different meanings according to its culture and source.

Among the Kadazan Dusun, *turali* music from the northern and southern parts of Tambunan District may imitate secular song tunes and the melodic patterns of *rinait* or ritual chants, but among older villages on the central part of the plain, the *turahi* or *turali* is based on the crying motifs of *pogigiad* by female mourners at a wake. Rungus *turali* music can also imitate secular songs, but is traditionally used by a novice priestess to practice the Rungus *rinait*. Among the Lotud, the *turali* player draws upon the tunes of traditional secular songs, or she can create her own music.

The transformation of vocal music patterns into *turali* music involves various processes, depending on the nature of its source. When drawing upon Kadazan Dusun *pogigiad,* the performer uses an iterative process in which the main crying motif is repeated rapidly, forming long phrases in both upper and lower octaves. These are interspersed with drawn-out pitches at the ends of phrases, that recall the words *oroi* or *Idi* and often with tremolo that suggests sobbing. Variations can be developed by the individual performer to create a personal style. But the overall performance reflects its origin from *pogigiad,* and listeners can perceive patterns within the music with shapes that connote the crying.

For learning *rinait* as among the Rungus, however, *turali* performance is a direct melodic and rhythmic imitation of the chanted music, usually in the lower register of the instrument but sometimes at an octave higher. The logogenic origin of music is clearly heard in its melodic patterns, especially in the long tremolos on the tonic pitch at the ends of sections. Over time, these melodic patterns can be developed as the individual performer's self-composed *turali* music.

Lotud *turali* music may also copy the tunes of secular songs, or be the free composition of the performer. In the latter case, the *turali* player draws purely upon her happy emotions and expresses these in sound. Her compositional processes involve creating a theme and developing this by the repetition and variation of motifs across the two octaves of the instrument.

The meanings expressed by the performer through *turali* performance are clearly perceived by listeners. For the Lotud, the Rungus and generally among the Kadazan Dusun, the *turali* is a happy instrument played for entertainment and personal expression. Even when its music imitates the chanted *rinait*, the Rungus say its soft sound is emotionally soothing and conveys a sense of calm that helps families to settle down for sleep at night.

During Lotud free-styled *turali* performances, as in the example above, listeners readily grasp the meaning of the music. Phrases of ascending triplet-like motifs to the higher pitches of its upper range, followed by descents to the lower range convey a clear sense of exuberant joy and happiness.

Among the Kadazan Dusun on the central part of the Tambunan plain, however, the sound of the *turahi* or *turali* is described as melancholic. Through melodic transformation of elements of *pogigiad* with the instrument, the performer expresses deep sadness when remembering a deceased loved one, even years after a death. Listeners also associate its sound with sadness and longing, and perceive

elements from the mourning laments that are embellished and developed in the music. Although it is not played during mourning for the dead when the performance of all music is forbidden (except for *dunsai*), *turali* music in Tambunan draws upon the *pogigiad* crying during mourning as an expression of deep grief and continuing loss.

Transformation is thus seen in *turali* performance among Dusunic societies in Sabah as the feelings of the performer are articulated through the musical sound of the instrument, by drawing upon and frequently directly imitating the melodic patterns of certain vocal music genres for its composition. Meanings inherent in the music, expressed through the development of melodic motifs and phrases, are recognised by listeners within the culture concerned. The *turali* is thus a vehicle for the personal emotional expression of the skilled performer. Over time, the skilled *turali* player may vary and transform these motifs and phrases according to her or his individual improvisatory skills, as well as the cultural aesthetics of the tradition.

Acknowledgements

I wish to acknowledge all the *turali* performers who have played their music for me to record over the years, particularly Mdm. Kimoi and the late Mdm. Jilulim, the late Mr. Tinggi, Mr. Joseph Amat, the late Mr. Stephen Jintoni, Mdm. Gontit, Mdm. Inompiling, Mdm. Lansaran, the late Mdm. Isim, Mdm. Layang, and also the Mr. Molikum who showed me how to make the traditional instrument. I especially want to acknowledge the late Mrs. Laura W.R. Appell, ethnographer and wife of Professor George N. Appell, who first told me about the use of the *turali* for memorising *rinait* among novice *bobolizan* in Rungus culture. I also want to thank co-researchers in the field over the years, Dr. Paul Porodong, Environmental Anthropologist and Senior Lecturer, Faculty of Humanities, Arts and Heritage (FKSW) at Universiti Malaysia (UMS) for information on the Rungus, and Miss Judeth John Baptist, Senior Assistant Curator and Head of the Research Unit, Department of Sabah Museum, for further information about Lotud *turali* performance. Special thanks to Dr. Oliver Valentine Eboy of the GIS Laboratory, FKSW, UMS for producing the map in Figure 2, Miss Fifiana Christin Morie for converting my handwritten musical transcriptions into Sibelius software notation, and my husband Mr. Laurentius Kitingan, who first introduced me to the music of his culture in Tambunan over forty years ago, for scanning my diagrams for this article.

Glossary

Adi' Adi' oroi Adi' – poetic utterances of stylised crying (*pogigad*) during a wake for a deceased younger sibling; *Adi'* is a term of address for a younger brother or sister, while *oroi* is a poetic version of *odoi*, an expression of sorrow.

Aka' Aka' oroi Aka' – poetic utterances of stylised crying (*pogigad*) during a wake for a deceased older sibling; *Aka'* is a term of address for an older brother or sister, while *oroi* is a poetic version of *odoi*, an expression of sorrow.

Amaiya Amaiya oroi Amaiya / Amaiyai Amaiyai oroi Amaiyai – poetic utterances of stylised crying (*pogigad*) during a wake for a deceased father; *Amaiya* or *Amaiyai* are variants of *Ama'* which is often used as a familial term of address for *Apa'* or 'father;' *oroi* is a poetic version of *odoi,* an expression of sorrow.

bobolian – Kadazan Dusun priestess, also called *bobohian* in the 'Tambunan' dialect spoken among some of the older central villages of Tambunan District and *bobohizan* in Coastal Kadazan dialect of Penampang District

bobolizan – Rungus priestess

bungkau – jew's harp made from *polod* palm skin

dunsai – solemn gong ensemble music for the dead played during a wake among older villages in Tambunan District; its sound expresses mourning and is said to announce a death to the living, as well as to the dead who will travel on to the afterworld or Nabalu

humbising – see *sumbiling*

Idi Idi oroi Idi – poetic utterance of stylised crying during a wake for a deceased mother; *Idi* is a poetic term of address for *Ama'* or 'mother,' while *oroi* is poetic for *odoi*, an expression of sorrow.

mogigiad – mourners, usually women, who cry stylised laments around the body of the deceased during a wake, among older Kadazan Dusun villages of Tambunan District; from *miad* 'to cry'

Oto Oto oroi Oto / *Oyou Oyou oroi Oyou* – poetic utterances of stylised crying during a wake for a deceased child; *Oto* and *Oyou* are poetic pet names for *tanak* or 'child', while *oroi* is poetic for *odoi*, an expression of sorrow.

pais – a small, very sharp metal knife, traditionally used for intricate work in making solo musical instruments and refined handicrafts; there are various sizes of *pais*, used according to the intricacy of handiwork required

pogigiad – stylised crying around the body of the deceased by *mogigiad* who are usually female relatives of the deceased; the expressions cried identify the deceased as a mother, father, child, older sibling or younger sibling; from *miad* 'to cry'

rinait – long poetic ritual verses memorised and recited by priestesses in traditional religious ceremonies among indigenous Sabahan cultures; each culture has its own *rinait*

sompoton – Kadazan Dusun mouthorgan with a gourd wind-chamber, a double-layered raft of eight bamboo pipe resonators containing *polod* palm skin reeds

suling – endblown mouthflute with five or six fingerholes

suling todung – rare noseflute played by men in the Kiulu to Ranau area; it has a different structure from the *turali*

sumbiling – thin bamboo species, also known as *sumbihing* in the 'Tambunan' dialect of Kadazan Dusun, spoken among some villages on the central part of Tambunan District, and *humbising* in the Coastal Kadazan dialect of Penampang District

sundatang – long-necked strummed lute made from one piece of jackfruit wood with two brass or wire strings

tantagas – Lotud priestess

tongkungon – idiochordal tube zither made from large *poring* bamboo

turali – noseflute with a central back thumb hole and three lower front fingerholes, played among Dusunic peoples in Sabah; known as *turahi* in the 'Tambunan' dialect spoken among some of the older central Kadazan Dusun villages of Tambunan District, and *tuahi* among coastal Kadazan Dusun of Penampang District

turali do anaru – 'long *turali*' of the Lotud

turali toniba – 'short *turali*' of the Lotud

Endnotes

[1] This article has been developed from a paper of the same title that I presented at the combined conference of the Musicological Society of Australia and the New Zealand Musicological Society, at the Queensland Conservatorium of Griffith University in Brisbane, Australia, from 18 to 21 November 2013. It is based on field research over 35 years of my life in Sabah.

[2] Sabah has over 50 Austronesian isoglots, of whom around 32 are indigenous to the state. The indigenous peoples of Sabah speak languages mostly from the ancient Dusunic, Murutic and Paitanic families of languages. Historically, the Kadazan Dusun were the both largest Dusunic group and the largest ethnic group in Sabah.

[3] For convenience, these musical excerpts have been transcribed into Western staff notation from ear. This does not mean, however, that the pitches shown are exactly as in Western tempered scales. At best, the transcriptions are approximations describing the music played.

[4] The genres of *pogigiad* and *dunsai* do not occur among villages in the northern or far southeastern parts of the District, and hence *turali* music there is not based on *pogigiad.*

[5] Like other indigenous peoples of Borneo, the Kadazan Dusun formerly lived in longhouses in which each family had its own private apartment. The smallpox epidemic of 1904 to 1905 and the Japanese occupation of North Borneo during World War II led to the demise of the longhouse among the Kadazan Dusun and in most places, although they still predominate among the Rungus and most Murutic groups.

[6] Most indigenous peoples of Sabah are Christians, while some have converted to Islam and others continue to follow their traditional religions. Today, around 95% of Rungus are Christians, mainly of the Protestant Church in Sabah (Lutheran), while over 4% follow the traditional Rungus religion and less than 1% are Muslims (pers. comm. Dr. Paul Porodong, Rungus anthropologist, 2007). Although the numbers of practicing *bobolizan* have declined over the years, Rungus women continue to play the *turali* as a pastime.

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Biography

Jacqueline Pugh-Kitingan is a Professor of Ethnomusicology, and Fellow of the Borneo Heritage Research Unit in the Faculty of Humanities, Arts and Heritage at Universiti Malaysia Sabah, where she previously held the Kadazandusun Chair (2003-2012, 2013-2015). She graduated Bachelor of Arts with Honours (Class I) from Monash University (1976) and Doctor of Philosophy from the University of Queensland (1982), with theses on the music of the Huli of Papua New Guinea. She first came to Sabah in 1977 having married a member of the Kadazan Dusun, Sabah's largest indigenous ethnic group, in 1976. Over the years she has conducted ethnomusicological research among many of Sabah's cultures. Winner of two PEREKA gold medals, her research interests include music and language, music, dance and ritual processes, organology, ethnographic mapping, and the sociolinguistic review of *Ethnologue* descriptions of languages in Sabah. She is a fellow of the Borneo Research Council, an Executive member of the ICTM Study Group on Performing Arts of Southeast Asia, sits on two expert committees of *Jabatan Warisan Negara Malaysia*, and was Adjunct Research Fellow of Anthropology in the School of Political and Social Enquiry, Monash University (2009-2010).