

RHYTHMIC ORGANISATION IN POLYNESIAN VOCAL MUSIC: A COMPARISON OF PUKAPUKAN AND MĀORI GENRES

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The small atoll of Pukapuka in the northern Cook Islands hosts a language and culture that are transitional between Nuclear Polynesian and East Polynesian. Vowel length is phonemic in Pukapukan as with most other Polynesian languages. The traditional chant genres show a high degree of interaction between the organisational features of language and music (K. Salisbury 1983:111-177). Acoustic analysis of spoken language shows that stressed vowels are slightly longer than unstressed, and that a long vowel or diphthong is twice as long as an unstressed short vowel (M. Salisbury 2002:36-41).

In 1980 Bruce Biggs discovered that a high proportion of traditional Māori *waiata* song texts contain eight vowels to each half line of the poetic text, counting short vowels as one and long vowels as two. After reading Biggs' brief report in 1982, I started counting vowels in Pukapukan intoned chants (*mako*) and quickly discovered that the vast majority of textual lines contained the equivalent of 12 short vowels (12 morae), while many instances of long lines occur containing 18 morae. The remarkable feature of Pukapukan *mako* is that a syllable with a short vowel occurs on a short note, while a syllable with a long vowel or a rising diphthong (*ae, ao, ai, au, ei, eu, oi, ou*) occurs on a note precisely twice the length of a short note. These textual lines generally coincide with grammatical phrases, though the flow of the chant continues without breaks. Where a line has less or more than the optimum mora count, the succeeding line (or lines) provides the complement so that the correct count is achieved. Performers are aware of the prevailing duple patterning, so that when irregular word rhythms occur that run counter to the prevailing duple metrical pulse, there is an expectation that the even metrical flow will be restored in due course.

Thus mora-timing is a fundamental organisational principle in musical performance, and the basic rhythmical unit of two morae is sometimes varied or transformed to an extended foot of three morae in length when a different *tānga* ('chanting metre') prevails. The latter is prominent in the sports celebratory chant genre (*tila*) that manifests a triple metre underscored by handclapping (Salisbury 1983).

My interpretation in the 1980s was that Pukapukan chant is mora-timed, exemplifying and highlighting the way that spoken language is structured. Recent literature questions the validity of categorising the rhythm of languages according to their timing, as being stressed, syllable-timed, or mora-timed (Arvaniti 2009). Does this mean that the concept of mora-timing for describing the rhythm and metre in a single language (or language family) is obsolete or in some way defective?

By revisiting the analysis of Pukapukan traditional chant and surveying a number of other Polynesian poetic traditions, I seek to show that the mora-timing of Polynesian poetry as conceived and the genres of music as performed, are in essential harmony or continuity with the language as spoken.

McLean (1982) claimed that "Biggs' discovery establishes "rule of eight" Māori song texts as governed by a quantitative or numerical metre as absolute in its way as that of Greek or Latin verse, though dependent on vowel rather than syllable count." He went on to refine the precise operation of the "rule of eight" by examining 15 *waiata* (published in McLean and Orbell 1975). Among his conclusions he notes that the "linguistically most essential element—the long vowel—is followed faithfully in the music".

In assessing the antiquity of this numerical metre, McLean (1996:259) reports that Steven Fischer had verified its presence in the oldest witnessed chants from Tokelau, Mangareva, Hawai'i, Mangaia, the Tuamotus and elsewhere, and proved the value of the "rule of eight" to provide a tentative reconstruction of a Rapanui song text long regarded by scholars as incomprehensible (Fischer 1994).

A brief comparative survey of poetic and musical genres across Polynesia has been undertaken in order to determine the prevalence of uniform line lengths. Preliminary results suggest that bimoraic or duple metrical patterning can be considered to be a foundational organisational principle in many musical traditions. In particular, those genres that do not have a highly elaborate melodic structure are more likely to retain the natural rhythm patterns of speech.

The musical line in Pukapukan *mako* chant:

1. Normal *tānga* ('chanting style'):

- comprises multiples of six morae, typically 12 but often 18
- frequently coincides with a grammatical unit (phrase or clause)

<p>ko momoe ai ona tūpele, ona mulivaka, ko wakalea ai ona lōpā, ko popō ai nā kili ki te una o te kea, mālialialali, pāyekeyeke, taulia e te tio ma te yope, taupūpū, tauwelawela, nā kili pāla o Mātanga, ni ika wakawotu i te moana, e wākālèa, wākālèa, [9m + 4'] yau mai te kau matanau. [11 morae] (Kupu Lalau o Ngake)</p>	<p>there sleep their old men, their canoe captains, their young men speak out with inspiration, they rub their skins with turtle shell, glistening/smooth and slippery, encrusted with warts and barnacles full of spreading holes are the wahoo skins of Mātanga lineage, the distinctive fish of the ocean calling out with inspiration, then come the northern people.</p>
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2. *Tānga wakatotō* ("dragging style")

- comprises sequences of eight morae with lengthening on the penultimate mora;

3. Triple metre procedures, comprising trochaic feet (long-short) with the accent falling with the length, or iambic (short-long) with the accent on the short vowel and working against the beat. When these metres are employed, the optimum line lengths are still maintained.

References

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