

# **Tonic Sol-fa in Asia-Pacific Countries—The Missionary Legacy**

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## **ABSTRACT**

*The Tonic Sol-fa method of teaching choral singing was developed in England by John Curwen and propagated throughout the British Isles as a means of both enhancing Christian worship and achieving social reform. It was also introduced to countries in the Asia-Pacific Region by Christian missionaries who sought to exploit the attraction of hymn singing as a means of evangelizing the indigenous populations. In particular, Tonic Sol-fa gained a significant foothold in Pacific Island countries, especially in Fiji where today the Fijian Hymn Book is notated exclusively in Tonic Sol-fa.*

*Drawing chiefly on nineteenth century journal sources, this article documents the introduction and dissemination of Tonic Sol-fa in Chinese and Pacific Islander cultures. There is also a consideration of the contemporary uses and applications of Tonic Sol-fa in the region, with specific reference to Fiji. It is argued that countries where Tonic Sol-fa notation has become the norm should resist external pressure to transfer to the standard staff notation merely for the sake of conformity. In the case of Fiji, almost universal music literacy has been achieved through Tonic Sol-fa and this should be recognized as an enviable social and cultural asset.*

## **INTRODUCTION**

The Tonic Sol-fa method of teaching choral singing was propagated throughout Britain during the nineteenth century with the dual objectives of enhancing Christian worship and of achieving social reform. It was also introduced to British colonies in Africa, Asia and the Pacific where it was disseminated among the local population initially through Christian missionary activity and later through colonial school systems. Although entirely of foreign origin, Tonic Sol-fa was, together with Western musical genres—principally hymns and choral masterworks, incorporated into the local musical culture or, alternatively, parts of it were adapted and adopted for local use. The result was that, in many countries, Tonic Sol-fa effectively became “indigenized” to the extent that it was incorporated in whole or part into the culture and ethos of the country. Regrettably however, there has been little or no research into the method’s introduction to such countries during the nineteenth century nor any consideration of the nature and extent of its use in contemporary choral music practice.

The Tonic Sol-fa method of teaching choral singing and its system of music notation was developed in England by the Methodist minister, Rev John Curwen, from the early 1840s and was propagated throughout the British Isles. Tonic Sol-fa was developed by Curwen as a means of fulfilling his commission from a conference of Sunday school teachers to recommend “some simple method to the churches which should enable all to sing with ease and propriety” (quoted in Rainbow, 1980, p. 17). Tonic Sol-fa ultimately became the mainstay of congregational singing, not only in Methodist churches, but also in churches of other denominations. The method was also widely employed by temperance workers and other social reformers, particularly in the north of England, as a means of attracting mill and factory workers away from ale houses and other undesirable pursuits to the more “wholesome occupation” of choral singing (see Nettel, 1944).

One area where Tonic Sol-fa made considerable in-roads was the overseas missionary work of organizations such as the London Missionary Society (LMS)—founded in 1795, the Church Missionary Society (CMS)—founded in 1799, and the Baptist Missionary Society (BMS)—founded in 1872. Indeed groups of missionaries from both the LMS and the CMS were trained at Curwen’s pastorate at Plaistow by one of his assistants, Alfred Brown, from the early 1860s (*TSf Rep*, 1863, p. 139). Tonic Sol-fa was widely used by overseas missionaries who sought to exploit the novelty of four-part hymn singing as a means of evangelizing indigenous people.

In most countries where it gained a foothold through church congregational singing and later through choral societies established within indigenous communities, Tonic Sol-fa may now be identified not only as an instrument of Christian evangelism but also as a means of European cultural imposition. Nevertheless, as well as embracing Tonic Sol-fa, indigenous communities also readily accepted other aspects of Western musical culture including a choral repertoire comprising masterworks by Handel, Bach, Mozart and other European composers. This often resulted in the emergence of a school of indigenous composers writing in Tonic Sol-fa notation and in the Western tonal-harmonic idiom. In South Africa, for example, composers such as John Knox Bokwe and Enoch Sontonga both wrote numerous hymns and songs in the European style using Tonic Sol-fa notation but within the context of their indigenous, albeit Christianized, African culture.<sup>1</sup> The result has been that in several countries—including South Africa and Fiji—Tonic Sol-fa has been so fully assimilated into the local ethnic culture that it has been fully “indigenized”.

This article reports on the work of Christian missionaries who disseminated the Tonic Sol-fa method both in British colonies and in other countries in the Asia-Pacific Region during the nineteenth century. The focus will be specifically on those Asia-Pacific countries where, unlike Australia and New Zealand, the indigenous population has maintained its own demographic and cultural predominance and has either adopted or adapted Tonic Sol-fa for local use to a significant extent. The contemporary use of Tonic Sol-fa or adaptations of its pedagogy and notation in Asia-Pacific countries and by Asia-Pacific communities living in Australia will also be considered. Although the origins and the pedagogical and notational principles of Tonic Sol-fa have been described elsewhere (Stevens, 2003a), it is useful to briefly summarize the fundamentals of the method and its notation as a basis for a fuller appreciation of its role in missionary work.

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<sup>1</sup> For a brief account of the influence Tonic Sol-fa on compositional work of Enoch Sontonga, see Stevens, R.S. and Akrofi, E.A. (2004), Tonic Sol-fa in South Africa—A Case Study of Endogenous Musical Practice. In M. Chaseling (Ed.), *Proceedings of the XXVIth Annual Conference of the Australian Association for Research in Music Education* (pp. 301-314). Tweed Heads: AARME.

## THE TONIC SOL-FA METHOD AND NOTATION

Tonic Sol-fa was developed by John Curwen (1816-1880) from several English and Continental sources including Sarah Glover's Norwich Sol-fa (see Rainbow, 1967). The motto of the Tonic Sol-fa movement—"Easy, Cheap and True"—was adopted by Curwen during the 1860s (Rainbow, 1967, p. 38). This motto aptly describes firstly the relative ease of teaching music literacy through the Tonic Sol-fa method as compared with other contemporary approaches, secondly the fact that standard printing press characters could be used for Tonic Sol-fa notation instead of the special characters and printing processes required for staff notation, and finally the underlying logic of the system's theoretical and notational principles. Although Curwen had originally used his method as a means of teaching music reading from staff notation, the Tonic Sol-fa method in its "purest" form—as set out in the 1872 edition of *The Standard Course*—dispensed with staff notation altogether and relied instead on its own system of "letter" notation based on lower case alphabetical letters and punctuation marks (Stevens, 2003b).

### Pedagogical Features

The Tonic Sol-fa method represents a carefully graded and systematic method of teaching not only music literacy but also aural perception and audiation (mental hearing). Its pedagogical mainstay was the use of solmisation (sol-fa syllables) as a mnemonic (or memory) aid. Solmisation was devised by the eleventh-century monk, Guido d'Arezzo, and developed over several centuries to become a fixed doh solmisation system in Europe; however, Curwen—like Glover—employed the movable doh system. The seven tones of the major scale—*doh, ray, me, fah, soh, lah, and te*—were applied not only to major scales, but also to relative minor scales by starting and ending on *lah* and using *ba* and *se* for the raised sixth and seventh degrees. Modulation to related keys is effected by means of "bridge-tones" such as *fe* for the leading note when modulating to the dominant key, *ta* as the dominant seventh note for the subdominant key, and so on.

Curwen borrowed Glover's *Norwich Sol-fa Ladder* which he adapted into *The Tonic Sol-fa Modulator*. This vertically-arranged chart of sol-fa names enabled pitch exercises to be "pointed out", thereby instilling in students the relationship of each note to its tonality and to each other. In 1870, Curwen devised the sol-fa hand-signs (Curwen & Graham, n.d., p. 23) and later introduced the "mental effects"—extra-musical associations for each of the seven tones; for example, *doh* was the strong or firm tone, *ray* was the rousing or hopeful tone, *me* was the steady or calm tone, etc. For teaching rhythm, Curwen adopted French time names in 1867 and also devised a system of finger-signs for time. The French time names began with the consonant "t" (or "f") for tones, with the consonant "s" for rests as in the following table of examples.

**Table 1**

**Examples of French Time Names**

Durations	French Time Names
one beat note followed by a one beat rest	<i>taa saa</i>
two beat note followed by a two beat rest	<i>taa-aa saa-aa</i>
four beat note	<i>taa-aa-aa-aa</i>
two half-beat notes followed by a one beat note	<i>taatai taa</i>
four quarter-beat notes	<i>tafatefe</i>
three third-beat notes	<i>taataitee</i>
a half-beat note and two quarter-beat notes	<i>taatefe</i>
a half-beat rest and two quarter-beat notes	<i>saatefe</i>

In addition, Curwen devised a “Six Step” learning sequence that included aspects such as vocal tone production, breathing, and the progressive introduction of pitched tones, rhythmic durations and metres, expression, tempo, harmony, tonality, modulation, etc. Another feature of the Curwen method was a well-founded pedagogy which he set out as precepts in his *Teacher’s Manual*:

- ... let the easy come before the difficult.*
- ... introduce the real and concrete before the ideal or abstract.*
- ... teach the elemental before the compound and do one thing at a time.*
- ... introduce, both for explanation and practice, the common before the uncommon.*
- ... teach the thing before the sign, and when the thing is apprehended, attach to it a distinct sign.*
- ... let each step, as far as possible, rise out of that which goes before, and lead up to that which comes after.*
- ... call in the understanding to assist the skill at every stage. (Curwen, n.d., p. 221)*

**Notational Features**

A defining year in the development of Tonic Sol-fa was 1872 when Curwen decided that its notation should no longer be applied to staff notation but rather become a notational system in its own right. Pitch was notated using the first letters of the solmisation syllables together with vertical dash above or below note to indicate octave placement. The only exception to “first letter” representation was the use of chromatic note syllables such as *fe*, *se*, *ba*, *ta*, etc. to indicate accidentals either in a minor mode or for modulation. Rhythmic notation consisted of vertical “bar” lines—a double bar to indicate the end of a musical section, a barline to indicate main metrical divisions, half bar lines for subsidiary metrical divisions (as with the third beat in quadruple metre)—and standard punctuation marks—a colon to indicate beat divisions, a period for half-beat divisions, a comma for quarter-beat divisions, a rotated comma for third-beat division (i.e. for triplets), with a dash to indicate the

continuation of a note to a subsequent beat. Rests were notated by a blank space preceded by a punctuation mark to indicate duration. The following example indicates these notational elements in the first two phrases of a well-known chorale melody.

**Figure 1. An Example of Tonic Sol-fa Notation**

<p>KEY C <i>L is A. M. 60 Slow</i> <span style="float: right;">Hassler</span></p> <p style="text-align: center;">: m   l : s   f : m   r : —   m : t   d : d   <u>t, l</u> : t   l : —   </p> <p style="text-align: center;">O Sa- cred Head sur- round - ed By crown of pierc- ing thorn.</p>
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### SOURCES OF DATA AND RESEARCH PROCEDURE

This article draws on data from nineteenth century journal sources—specifically *The Tonic Sol-fa Reporter*, 1853-1888 (*TSf Rep*), later *The Musical Herald*, 1889-1920 (*Mus Her*). This journal, which was the official periodical publication of the Tonic Sol-fa movement, included numerous “foreign intelligence” reports during its almost seventy year history that were sent from correspondents abroad. Although it represents a contemporary record of the dissemination of Tonic Sol-fa, this journal should perhaps be considered more as a secondary than a primary source of data given that its editors (John Curwen and later his son, John Spencer Curwen) together with others involved in its publication undoubtedly interpreted events reported by overseas correspondents with “English eyes”; the result is that many “foreign intelligence” reports may well have lost some of their “first-hand” authenticity. Nevertheless, this journal forms one of the few sources of consistent and generally reliable data. An additional source of information was the *Mundus Gateway to Missionary Collections in the United Kingdom* web site<sup>2</sup> which has been used extensively as a means of cross-referencing and verifying some of the often sketchy details provided from sources such as *The Tonic Sol-fa Reporter* and *The Musical Herald*.

The research procedure employed a review and analysis of documentary evidence which was categorized initially on the basis of its geographic location and then arranged chronologically. An essentially narrative approach has been adopted for presenting this historical data, although the article concludes with an analysis and interpretation of how historical developments have influenced contemporary choral music practice in Chinese and Pacific Islander cultures, including reference to the uses and applications of Tonic Sol-fa by indigenous communities from these countries who are now resident in Australia.

### DISSEMINATION OF TONIC SOL-FA

Although Tonic Sol-fa was introduced by missionaries to several Asia-Pacific countries including India, Japan, China, Hong Kong, Samoa, Tonga, Fiji, Tahiti, Vanuatu and

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<sup>2</sup> The *Mundus Gateway* is a web-based guide to more than four hundred collections of overseas missionary materials held in the United Kingdom. Available from <http://www.mundus.ac.uk>.

so on,<sup>3</sup> the focus for this article will be on its adoption and/or adaptation specifically within Chinese and Pacific Islander cultures. While the story of Tonic Sol-fa in these countries may be far from complete and, in some instances, even sketchy, the overall picture is one of Tonic Sol-fa being introduced by missionaries as a means of propagating the Christian religion and then being incorporated almost seamlessly into the local indigenous culture.

### **China and Hong Kong**

The first report of Tonic Sol-fa teaching to the Chinese population was in 1862 when a correspondent associated with the missionary work of Dr James Legge of the London Missionary Society in Hong Kong described the progress made using Tonic Sol-fa by a class of 20-30 Chinese converts (*TSf Rep*, 1862, p. 382). Despite the correspondent's own preference for the English sol-fa syllables, Dr Legge apparently developed an alternative Chinese language version of the solmisation syllables. A few years later (1867), Alfred Lister, a civil servant in Hong Kong, sent a copy of a tunebook and modulator in Chinese with an accompanying letter to the editor of *The Tonic Sol-fa Reporter* (*TSf Rep*, 1867, pp. 51-52). Due to the difficulty of pronouncing D and R in Cantonese, *Toh* was substituted for *Doh* and *Lay* for *Ray*. The impetus for both the tunebook and the modulator in Chinese came from a singing class formed to provide a choir for the Union Church. James Legge, as head of the LMS in Hong Kong and minister of Union Church, assisted the venture by printing the tunebook with the result that a Chinese choir was able to contribute to the services held there for the local indigenous community. Another correspondent, John Feyer writing from Peking in June 1864 reported on his Tonic Sol-fa work initially with English-speaking Chinese in Hong Kong and then with Chinese-language converts in Peking (*TSf Rep*, 1864, pp. 332-333). As a tutor at St Paul's College (founded in 1851 and the first Anglo-Chinese school in the Far East), Feyer had introduced Tonic Sol-fa to his pupils before transferring to a mission school in Peking where all of the singing was in Chinese and he again taught Tonic Sol-fa.

In 1870, two Chinese Tonic Sol-fa publications written by an English Presbyterian missionary, Rev Carstairs Douglas (1830-1877) of Amoy (an island verging on the Taiwan Strait and now called Xiamen) were shown at meetings of the Tonic Sol-fa College in London (*TSf Rep*, 1870, p. 408). These included a songbook entitled *Yeung Sam Shi Tui* (*Music for Moral Songs*) and a textbook entitled *Ngok Fat Kui Mung* (*An Introduction to the Art of Singing*) and both incorporated changes to the standard solmisation syllables to accommodate the Chinese dialect. Douglas died in 1877 and obituaries describe him as an enthusiastic propagandist for both hymn singing and Tonic Sol-fa, having been an avid collector of hymn books, a performer on the American organ, and a Tonic Sol-fa teacher at local teacher training institutions as well as in "juvenile" schools (*TSf Rep*, 1880, p. 227).

Another Tonic Sol-fa publication in the Chinese language came in 1877 with a tunebook by Rev J.S. Barradale of the London Missionary Society who was stationed at Tientain in Northern China (*TSf Rep*, 1877, p. 33). Significantly this publication utilized the "tonic numeral" system (the numbers 1-7 with a circle for the continuation mark) in place of the sol-fa syllables for notating hymn tunes. These numbers were arranged downwards in

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<sup>3</sup> For a more detailed description of the introduction of Tonic Sol-fa to these countries (including India), see Stevens, R.S. (2005), *Missionaries, Music and Method: Dissemination of the Tonic Sol-fa in Asia-Pacific Countries during the Nineteenth Century*. In S. Morrison *et al* (Eds.), *Proceedings of the Fifth Asia-Pacific Symposium on Music Education Research*. Seattle, USA: University of Washington School of Music, and for its introduction to Japan, see Stevens, R.S. (2000), Emily Patton: An Australian Pioneer of Tonic Sol-fa in Japan, *Research Studies in Music Education*, 14, 40-49.

vertical columns which were read from right to left to conform with the way that Chinese characters are read. It was pointed out, that, turned on its side, these pages could—with translation of the numerals into sol-fa syllables—be read by anyone familiar with Tonic Sol-fa. This easy adaptation of Tonic Sol-fa notation to the traditional way of writing and reading of Chinese characters—albeit in numerals rather than solmisation syllables—was well illustrated by the inclusion of the first hymn in staff notation which demonstrated the problem of attempting to apply a left to right progression for reading to the Chinese system.

Another missionary who adapted the Tonic Sol-fa modulator for Chinese use and produced a book in Chinese on the history and theory of music was Rev Timothy Richard who, from about 1882, was located in the Province of Shansi in North-West China (*TSf Rep*, 1882, p. 224). Richard (c.1847-1891) was a Welsh Baptist missionary who was associated with the Baptist Missionary Society and established the Society for Diffusion of Knowledge in China as well as being a linguist, famine relief administrator and advocate of Chinese national reform (see Bohr, 2000). Richard produced two different Chinese modulators, the second of which was said to be “an evident improvement on the old one” (Bohr, 2000). Richard’s Tonic Sol-fa work was also taken up by Agnes Lancaster—who came from Plaistow and had qualified for the Tonic Sol-fa Matriculation Certificate. Lancaster (who married George Clarke [1849-1899], a missionary with the China Inland Mission, in 1886) came to work at T’ai-yuen (Taituen), capital city of Shansi Province, in 1880 (*Mundus Gateway* [1]). With Mrs Richard (the wife of Timothy Richard) of the Baptist Missionary Society, Lancaster taught Tonic Sol-fa to local children with considerable success and enjoyment (*TSf Rep*, 1882, p. 225). Mrs Richard evidently continued her own work with Tonic Sol-fa after Agnes Lancaster (now Clarke) relocated with her husband to Tientsin (Tianjin) where she later died in 1892 (*Mundus Gateway* [1]). In a paper read to the “Literary Society” in Tientsin in 1891, Mrs Richard spoke of helping her husband during the early 1880s when he published a work on Chinese music in ten volumes (*Mus Her*, 1891, p. 17).<sup>4</sup> Mrs Richard not only taught Tonic Sol-fa but led hymn singing by Chinese Christians from the harmonium. She also made use of a Chinese Tonic Sol-fa modulator extending to tonalities in four sharps and four flats (*Mus Her*, 1891, p. 17). In 1898 Mrs Richard contributed an article to a popular journal entitled *Leisure Hour* which was subsequently reprinted in *The Musical Herald* (1898, p. 42). In it, Mrs Richard gave an outline of the historical development and theoretical basis of Chinese music and drew a parallel between Tonic Sol-fa and a Chinese music book of 1544 in which “there is a complete modulator given, modulating on one side by fifths and on the other side by fourths, precisely on the same principle as Curwen’s modulator, but counting from the top downwards” (*Mus Her*, 1898, p. 42).

Other “pockets” of Tonic Sol-fa teaching included Fatshan (now Foshan) in South-East China where Rev W. Birdie (a former pupil of James Thompson of the Wesleyan Missionary College, Richmond) taught the system to boys at his mission school (*TSf Rep*, 1883, p. 178), and Peking where Rev E.G. Tewksbury taught Tonic Sol-fa at Storrs College (*Mus Her*, 1892, p. 271). Much later, in the 1910s, Rev C.S. Champness who was a Methodist missionary at Ysyang in Hunan Province reported on his Tonic Sol-fa work and the success he achieved in teaching local Chinese children to sing using the method (*Mus Her*, 1911, p. 64).

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<sup>4</sup> This paper was apparently also read before the China Branch of the Royal Asiatic Society, Shanghai, in November 1898. It was published in at least two editions as *Chinese Music*, 2nd ed. (by Mrs. Timothy Richard). A copy is held in the Mary Bosworth Treudley Chinese Studies Collection in the Hiram College Archives, Ohio, USA.

## Pacific Islands

Tonic Sol-fa was widely propagated throughout the Pacific Islands almost exclusively by Christian missionaries. Four-part hymn singing by missionaries, when first heard by Pacific Islanders, was frequently regarded as a form of “magic” and the missionaries themselves fully exploited the attraction of hymn singing as a means of evangelizing indigenous people. The Tonic Sol-fa method gained an initial foothold in Tonga (although it was soon adapted into a tonic numeral form), and significant footholds were gained in Fiji and Norfolk Island as well as in other mid-Pacific countries such Vanuatu and Samoa.

The first missionaries to come to Tonga were from the London Missionary Society in the late 1700s but these early attempts failed and it was not until 1822 that the first Wesleyan missionary, Rev Walter Lawry, arrived in Tonga (Gunson, 1978, pp. 17-18). However, rivalry developed between different churches—the Wesleyans (*Siasi Fakaongoongo*) and the Free Church of Tonga (*Siasi Tau'ataina 'o Tonga*)—and it was not fully resolved until the “reconciliation” of 1924 with the formation of the Free Wesleyan Church of Tonga. Tonic Sol-fa appears to have been introduced in the early years of Wesleyan missionary influence. However, in the 1860s, Rev Dr J.E. Moulton (1841-1909), who was founding principal of Tupou College<sup>5</sup> and the composer of several hymn texts in Tongan, decided to substitute Curwen’s solmisation syllables with Tongan note names and a system of numeral notation (Moyle, 1987, pp. 25-26). This somewhat drastic action was however entirely warranted given the cultural and religious context of the time—unfortunately the first two solmisation names when sounding consecutively formed a word in Tongan which was inappropriate for saying in public. Moulton therefore decided to substitute numeral names for the sol-fa names—starting on 3 for the tonic and progressing to 9 for the leading note—presumably in order to correlate as closely as possible with the pronunciation of the original sol-fa syllables. He also replaced the first letters of the Tonic Sol-fa syllables with numerals to develop a Tongan form of music notation. The Tongan note names were derived from the Tongan numeral names which are shown with note numbers and Tonic Sol-fa equivalent equivalents in the table below (adapted from Moyle, 1987, p. 26). For convenience, this system is referred to as the “Tongan Tonic Numeral method”.

**Table 2**

**Tongan Tonic Numeral System and Tonic Sol-fa**

<i>Tongan Note Number</i>	<i>Tongan Numeral Name</i>	<i>Tongan Note Name</i>	<i>Equivalent scale degree number</i>	<i>Equivalent Tonic Sol-fa Syllable</i>
9	<i>hiva</i>	<i>hī</i>	7	<i>te</i>
8½		<i>ā</i>		<i>ta / le</i>
8	<i>valu</i>	<i>vā</i>	6	<i>lah</i>
7½		<i>fī</i>		<i>la / se</i>
7	<i>fitu</i>	<i>tū</i>	5	<i>soh</i>

<sup>5</sup> Tupou College was established in 1866 by the Wesleyans and is now the oldest secondary school still operating in the Pacific Islands.

6½		<i>nō</i>		<i>ba / fe</i>
6	<i>ono</i>	<i>ō</i>	4	<i>fah</i>
5	<i>nima</i>	<i>nī</i>	3	<i>me</i>
4½		<i>mā</i>		<i>ma / re</i>
4	<i>fa</i>	<i>fā</i>	2	<i>ray</i>
3½		<i>lū</i>		<i>ra / de</i>
3	<i>tolu</i>	<i>tō</i>	1	<i>doh</i>

However Moulton retained the Tonic Sol-fa method of notating rhythm, using the same system of bar lines to separate bars (measures), half bar lines to mark the mid point and medium-accent beat within a symmetrical bar (for example, the third beats in 4/4 time), colons to indicate separate beats, etc. and a dash to indicate continuation of a note into the following beat. Lower and upper octave pitches were indicated by subscript and superscript periods (full-stops) after the respective notes. The following musical example (reproduced from Moyle, 1987, p. 28) serves to illustrate the notational system used in the Tongan Tonic Numeral method.

**Figure 2. Tongan tonic numeral notation of the beginning of the hymn 'Ei mā'oni'oni**

3 : 3 | 5 : 5 | 4 : - | 3 : - | 3 :-3 | 7 : 5 | 8 : - | 7 : -  
 2 : 2 | 7 : 3 | 9 : - | 8 : - | 7 :-7 | 3 : 7 | 8 : - | 7 : -  
 5 : 5 | 7 : 7 | 6 : - | 5 : - | 7 :-7 | 5 : 7 | 6 : 4 | 5 : -  
 3 : 3 | 3 : 3 | 7 : - | 3 : - | 3 :-3 | 5 : 3 | 6 : - | 3 : -

The Tongan Tonic Numeral method was widely used for notating of music throughout the Tongan islands and was also in use in Samoa where it was reported in 1916 that “figure” notation was being used (*Mus Her*, 1916, p. 200).

Christian evangelizing, initially by three Tahitian missionaries sent by the London Missionary Society and later by European missionaries, was undertaken in the neighboring islands of Fiji from the 1830s. Early missionaries included David Cargill (1809-1843) from the Wesleyan Methodist Missionary Society who was initially located in Tonga before going to Fiji where he worked with William Cross and others to lay the foundations for Wesleyan Methodism as the predominant denomination in Fiji (*Mundus Gateway* [2]). Although there

are few contemporary reports of Tonic Sol-fa being introduced to Fiji, the method and its notation were widely used. Certainly, by 1873, two Wesleyan missionaries, Rev J.H. Simmonds and Rev J. Carey (principal of the District Training Institution) who were stationed at Levuka in Ovalau were promoting Tonic Sol-fa among the European population as well as local Fijians, and were preparing a collection of tunes and exercises in the Fijian language for the indigenous community (*TSf Rep*, 1873, p. 59). The work of these two missionaries was undoubtedly that referred to by John Curwen in a letter describing the use of Tonic Sol-fa by Christian missionaries abroad which was published in *The Christian World* in 1875 (*TSf Rep*, 1875, pp. 83-84). Ratawa in her research on Fijian vocal music and the *vanua* (the Fijian social system) makes several references to Tonic Sol-fa being widely used during the 1980s and early 1990s (Ratawa, 1991). Otherwise, however, there is little historical data presently available on the dissemination of Tonic Sol-fa in Fiji where the method and its notation are still in use by Methodist Church congregations.

### CONTEMPORARY USAGE—THE MISSIONARY LEGACY

The dissemination of Tonic Sol-fa by Christian missionaries in the Asia-Pacific Region has shaped both church and community choral music cultures in several countries. Two examples of contemporary choral music practice are now considered. The Fijian example is one where there has been an *adoption* of the Tonic Sol-fa system almost in its entirety to the extent that it has been fully assimilated into the musical culture of congregational hymn singing in particular. The Chinese example is one where there has been an *adaptation* of certain aspects of Tonic Sol-fa and an *application*, particularly of the sol-fa syllables, to the existing system of music pedagogy and notation.

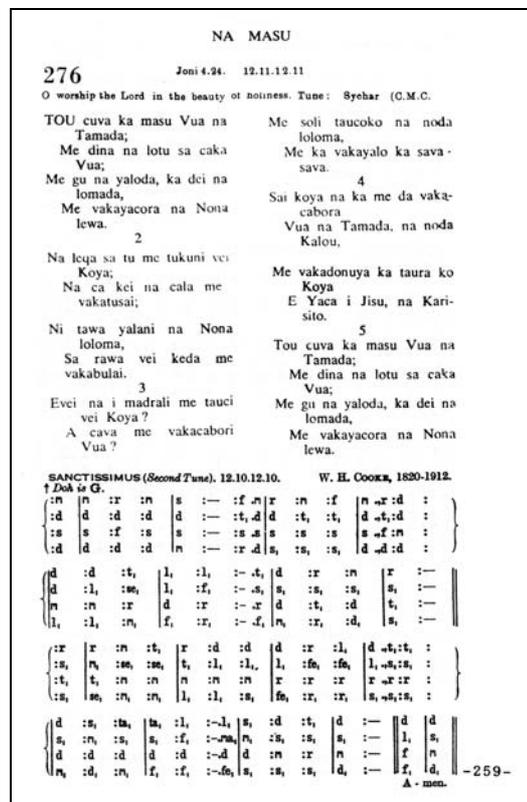
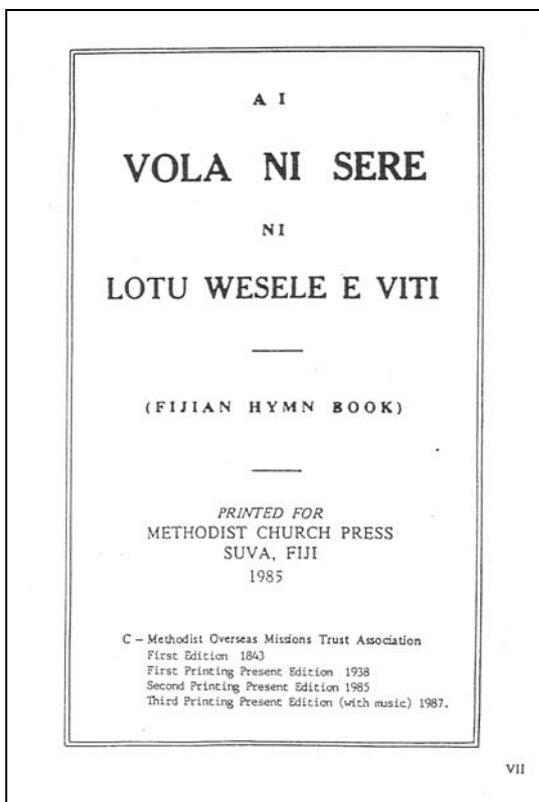
#### *Fijian Adoption*

As with the present-day situation in South Africa (see Stevens, 2004a), Tonic Sol-fa is currently the most widely-used form of music notation and therefore the most widely-accepted music teaching system among indigenous Fijians involved with community and church choral music making. Although Fijians have a rich and diverse musical culture, congregational hymn singing is one of the most important forms of musical expression and, with about 80% of Fijians being affiliated with the Methodist Church (Russell, 2001), it is also an important medium for religious expression as well as a now traditional form of cultural practice. The *sere ni lotu* is one of several Fijian and specifically Labasan<sup>6</sup> musical genres identified by Ratawa (1991, p. 165) that includes both congregational hymns and choir anthems. The main source of hymns for Fijians is *Ai Vola ni Sere (Fijian Hymn Book)* which was published most recently with music notation in 1985 by Methodist Church Press in Suva. This hymnal includes over 400 hymns arranged in four parts and notated exclusively in Tonic Sol-fa (see title page and a sample hymn in Tonic Sol-fa notation in Figures 3a and 3b below). Transcriptions of other choral music from staff into Tonic Sol-fa notation are widely used by Fijian choirs. Ratawa (1991, p. 167) cites an example of the Nasea Methodist Church choir at Labasa being taught an anthem by Mendelssohn using Tonic Sol-fa.

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<sup>6</sup> Labasa is in the north of the Fijian island of Vanua Levu.

**Figures 3a and 3b. Title page and sample hymn in Tonic Sol-fa notation from *Ai Vola ni Sere [Fijian Hymn Book]* (Suva, Fiji: Methodist Church Press, 1985).**



Many local as well as overseas Fijian congregations enter choirs in annual choral competitions held all over Fiji with the major choral competition being held in August as part of the Methodist Church Conference in Suva. Anecdotal evidence from conversations with members of a local Fijian congregation in Melbourne (Australia) which has entered a choir in the annual Methodist Church Conference choral competition in Suva each year for several years suggests that vast majority, if not all, of these choirs use the Tonic Sol-fa method and notation as the basis for their choral work. Personal observations while attending a Fijian church service in Melbourne in 2000 were that all members of the congregation were musically literate—all could read Tonic Sol-fa notation and all were able to sing their respective soprano, alto, tenor and bass parts to perform hymns in four-part harmony.

**Chinese Adaptation and Application**

Numeral notation, sometimes known as cipher notation, has its European origins with the movable tonic numeral system devised by Jean-Jacques Rousseau (1712-1778) (see Rainbow, 1967, pp. 57-66) and further refined by Pierre Galin (1786-1821) (see Rainbow, 1967, pp. 81-94). A similar system is widely used in China where it is known as *jianpu* (“simplified”) notation. However, there is no currently available evidence to support the contention that *jianpu* notational system was imported to China from Europe—accordingly, it could well have developed independently as an entirely Chinese invention. Nevertheless, *jianpu* notation is used extensively in China and many Chinese hymnbooks use this form of

music notation. As already mentioned, a tunebook of hymns with the words in Chinese and the music notated in numerals was published about 1877 by Rev J.S. Barradale at Tientain in Northern China (*TSf Rep*, 1877, p. 33). Like Tonic Sol-fa, the *jianpu* is based on a movable system with each of the tones of the major scale being numbered 1 to 7.<sup>7</sup> Dots are placed above or below the numbers to indicate that notes are in an upper or lower octave. The natural minor scale therefore begins on 6 [dot beneath] 7 [dot beneath] 1 2 3 4 5 6. Accidentals (sharp, natural and flat signs) are placed in front of notes to indicate chromatic alteration.

Numerals without other indication are assumed to be single beats (crotchets/quarter notes). Longer notes are indicated by the addition of one or more dashes to indicate their continuation to successive beats. Half-beat notes (quavers/eighth notes) are indicated by a line underneath the note (for example, 1 3 = two quavers) and a dot placed after a note prolongs its duration by half as much again (for example, 1· 3 = a dotted crotchet followed by a quaver). Two lines beneath a numeral indicated a quarter-beat note (semi-quaver / sixteenth note). Single beat rests are indicated by “O”, lines below indicate rests of less than one beat’s duration and a dot placed after a rest increases its duration by half again (for example, O· is a dotted quaver rest). Bar lines are used to group notes in bars (measures). Slurs are used to indicate one or more notes sung to one syllable.

A dual notation system of *jianpu* and staff notation is still used extensively for hymns published for Chinese congregations, as illustrated in Figure 4 below.

**Figure 4. Sample hymn in *Jianpu* (tonic numeral) notation from *Hymns of Praise* (Singapore: Christian Nationals’ Evangelism Commission, 1978).**

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<sup>7</sup> For a detailed explanation, see “Numbered music notation”, *Explore Dictionary of Music Theory*. Available at [http://www.explore-music.com/music\\_theory/N/Numbered\\_musical\\_notation.html#History%20and%20Usage](http://www.explore-music.com/music_theory/N/Numbered_musical_notation.html#History%20and%20Usage).

基 督  
35  
SAMUEL MEDLEY, 1738-1799

述說主恩  
His Matchless Worth

CHRIST  
"普天頌讚"  
LOWELL MASON, 1792-1872  
Possibly adapted from  
W. A. Mozart, 1756-1791

5 | 5 3 3 | 3 1 1 | 1 7 1 3 | 3 2 2 | 3. 4

1. 我 願 述 說 寶 貴 之 言, 稱 揚 救  
2. 我 必 頌 他 他 所 流 之 寶 血, 救 我 脫  
3. 我 快 樂 頌 他 他 期, 不 久 來 臨, 頌 恩 主  
4. 快 樂 時 期, 不 久 來 臨, 頌 恩 主

1. O could I speak the match - less worth, O could I  
2. I'd sing the pre - cious blood He spilt, My ran - som  
3. I'd sing the char - ac - ters He bears, And all the  
4. Well, the de - light - ful day will come When my dear

5 5 6 7 | i - 7 2 | 2 i 7 6 | 5 - 3 4 |

主 慈 悲 恩 典, 榮 耀 光 明 燦 爛; 我  
離 深 重 罪 孽, 免 得 主 怒 臨 身; 我  
性, 頌 他 到 慈 愛 庭, 大 我 顯 榮 耀 光 臨 身; 我  
我 回 到 家 庭, 我 得 親 見 聖 顏; 我 同

sound the glo - ries forth Which in my Sav - ior shine, I'd  
from the dread - ful guilt Of sin and wrath di - vine! I'd  
forms of love He wears, Ex - alt - ed on His throne: In  
Lord will bring me home And I shall see His face; Then

5. i i 5 | 6. 6 5 | 3 4 | 5. i i 5 | 6. 6 5

要 飛 騰, 升 上 高 天, 與 衆 天 使 一 同 頌 讚,  
必 頌 他 光 榮 公 義, 做 我 完 全 聖 潔 之 衣,  
必 頌 救 主 高 雅 清 新 友, 歡 欣 喜 樂, 無 窮 無 盡,  
我 救 主 即 兄 弟, 歡 欣 喜 樂, 直 到 永 久,

soar and touch the heav'nly strings, And vie with Ga - briel while he sings  
sing His glo - rious right - eous - ness, In which all - per - fect heav'nly dress  
loft - iest songs of sweet - est praise, I would to ev - er - last - ing days  
with my Sav - ior, Broth - er, Friend, A blest e - ter - ni - ty I'll spend,

Aside from the principle of a movable, tonic-based system which they have in common, the connection between *jianpu* notation and the Tonic Sol-fa system is not an obvious one. However, in practice, many Chinese people learn to read music from *jianpu* notation by using the Tonic Sol-fa pitch syllables as a mnemonic aid for reading the numerals. In this sense, there is perhaps an even closer correlation between Tongan tonic numeral notation and Chinese *jianpu* notation.

An interview with a Chinese-Australian who was the choir director of a local Chinese church congregation provided anecdotal data that many of the older generation of Chinese people who had been educated by, or had otherwise been associated with, Christian missions in China would most probably have been taught through and would have used Tonic Sol-fa. This was certainly the case with this choir director's own parents who were fluent in Tonic Sol-fa. The choir director also stated that, although reading the notes from the *jianpu*

notation, he nevertheless audiated the pitch by applying solmisation syllables to the numerals—as he put it, “I read the numbers, but think in sol-fa”.

## CONCLUSION

This article documents an initial study of the nineteenth century dissemination and now contemporary use of Tonic Sol-fa in Chinese and Pacific Islander cultures in the Asia-Pacific region. Although the sources of data have been limited to what may be considered second-hand, albeit contemporaneous, accounts of the dissemination of Tonic Sol-fa by Christian missionaries, one of principal findings from this research to date, specifically in relation to Asia-Pacific countries but also in South Africa (see Stevens, 2004b), is that Tonic Sol-fa was disseminated far more widely and had a much greater influence than many scholars have previously thought. Moreover, in some of the countries in the Asia-Pacific Region (as well as in Sub-Saharan Africa), the Tonic Sol-fa method and its notation have not only survived to the present day but have flourished. Almost certainly, this accounts to large extent for the vibrant choral music cultures that now exist in both church and community settings in many of these countries. Some scholars have assumed that Tonic Sol-fa simply died out after its heyday in the latter half of the nineteenth century had passed. It may, for example, be inferred from Jorgensen that the Tonic Sol-fa method is one such instance of a pedagogical approach that has had “its own time and place” and is now defunct:

*Music education history is replete with examples of theories and practices that largely disappear or die as others are born. For example, the use of the gamut gave way, in turn, to fasola and tonic sol-fa... Each theory and practice has its own time and place, and the search for the one eternal high road to music education is illusory and eventually futile. Each is more or less time-bound as it is also place-bound.* (Jorgensen, 2001, p. 344)

However the evidence—both documented and anecdotal—is that Tonic Sol-fa is very much “alive and well” in several countries in the Asia-Pacific Region and has been one of the key factors in maintaining a rich choral music tradition, particularly in Pacific Island countries. In other ethnic communities in the region—particularly the Chinese community (whether in mainland China or as part of the overseas Chinese population in countries such as Australia)—Tonic Sol-fa has clearly be incorporated into other forms of music notation as a pedagogical aid to music reading.

Overall, the result has been that in several countries in the Asia-Pacific region, Tonic Sol-fa has been so fully assimilated into the ethnic culture that it has been “indigenized” and may now be said to represent a significant *exogenous*<sup>8</sup> aspect of the musical culture in these countries. Given the richness of such musical cultures, it may be argued that countries where Tonic Sol-fa notation has become the norm should resist any external pressure to transfer to the standard staff notation merely for the sake of conformity. In the case of present-day Fiji, almost universal music literacy has been achieved through Tonic Sol-fa and this should be recognized as an enviable social and cultural asset.

## ABOUT THE AUTHOR

Robin Stevens is an associate professor of music education in the Faculty of Education at Deakin University, Australia where he teaches music education courses to pre-service teacher education students and supervises post-graduate research students. He graduated from The

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<sup>8</sup> The term “exogenous”, borrowed from the field of medicine (particularly pathology) and sometimes applied in the discipline of ethnomusicology, means “derived or originating externally”.

University of Melbourne with BMus, BEd and PhD degrees. Professor Stevens is the Editor of the *Australian Online Journal of Arts Education*, is Research Editor of *The Australian Journal of Music Education*, is the Editor/Compiler of the *Bibliography of Australian Music Education Research (BAMER)*, and is a member of the Editorial Boards of *Research Studies in Music Education*, *The Asia-Pacific Journal for Arts Education*, *Music Education Research International* and the *International Journal of Music Education–Research*. He has published in several national and international journals and conference proceedings on both the applications of technology in music education and music education history. Professor Stevens is immediate past President of the Australian Association for Research in Music Education and an inaugural member of the History Standing Committee of the International Society for Music Education. He is currently undertaking research for a book on the historical development and current uses of Curwen’s Tonic Sol-fa method and notation in countries outside the United Kingdom.

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