

A Treasury of the Art of Pop Music Composition  
**A VIEW FROM THEORY TO CREATION**

# 從理論看創作

流行曲譜曲藝術精選

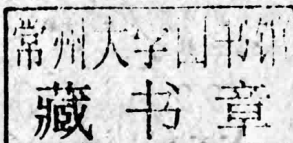
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EWEN LEUNG



# About the Author

## 作者簡介



Ewen Y. W. Leung is an engineer. He received his MSc. Degree in Mechanical Engineering from the University of Alberta, Canada. Mr. Leung is interested in research and development and computer programming. He is also the author of several engineering papers.

In recent years, he has become passionately fond of music, especially music composition. His recent works pertinent to music include book writing, pop song composition and computer software development for music analysis and composition.

梁裔泓現任職工程師，畢業於加拿大亞伯達省大學，取得機械工程碩士學位，熱愛科技研究及電腦程式寫作，曾出版多份工程論文。

近年醉心於音樂，尤其是音樂創作，他的有關音樂作品種類包括書、音樂軟件及流行歌曲等。



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# Preface

This book is intended to provide essential foundation knowledge of music theory for pop music composition. Although today's technology can speed up the process of pop song writing, and computer programs can even help you complete a full music arrangement in just a few hours, you cannot do much if you do not know the basic theory (such as chord progression and harmonization).

This book gives a thorough but brief exposure of what you should know about during the process of pop music composition (i.e. from writing the first musical note to the completion of the whole work including the use of instruments). In other words, this book includes the complete essence of music theory for pop music composition. The main concepts are presented, basically, in point form and written in both English and Chinese, so that they can be easily read and clear to comprehend. The book consists of, mainly, two parts:

- (1) Melody Writing, and
- (2) Music Arrangement.

The first part includes the theory of triads, diatonic and chromatic scales; explanation of tonal music and its key's center, intervals of notes and the technique to convert noises into music. (i.e. resolution of dissonant notes) The

methods to create the melodic lines and express a song are also included.

Part two describes the chord theory (including triads, 7<sup>th</sup> chords and others) and explains the application of chords to chord progression and also the use of musical punctuation (cadences) for expression of musical phrases. Resolution of dissonant chords is also described. The methods to change one tonal center to another (modulation) are presented. Applications of the above mentioned theory in sample pop songs are demonstrated. The theory of harmony and the rules for four-part and counterpoint writings are explained. The features of the string, woodwind, brass and percussion families are described. Part 2 also explains the uses of instruments for modern pop with the background of popular music included. The author has written several computer programs to identify chord notes, generate related melodic lines, and to check parallel and exposed 5<sup>th</sup> / 8<sup>ave</sup> in harmony writings. These programs are explained. Finally, the computer software commercially available and what they can do in music production are briefed.

For references, six extra sections are appended at the end of this book. Appendix A describes the fundamental

physics of sound, music and noise and the 3 dimensions of music. Appendix B lists more common expression marks of music. Appendix C presents some sample cases of tonic keys and their related keys. Sample drum beats of several musical styles are provided in Appendix D. The abstracts of several genres of popular music from Wikipedia are given in Appendix E. The instruction manuals of two computer programs developed by the author are included in Appendix F.

The author understands the problems most people encountered when learning music theory. Therefore, the materials, tables and figures in this book are presented in a way so as to clear their doubts. Understanding music theory can broaden your vision and enable you to appreciate and enjoy more about music.

The author wishes to express his gratitude to Mr. Don Ashley for his advice on drum techniques and popular music cultures. Thanks are extended to Mr. Vladimir Tamari for his permission to use his works in music painting.

Ewen Y. W. Leung

此書旨在提供流行音樂作曲所需的基礎理論知識。儘管今天的科技可以加速流行歌曲寫作的進程，甚至電腦程式也可以協助您在幾小時內完成樂曲編寫；若果您對基本樂理毫無認識(如：和弦進行法、和聲編寫等)，科技也不能發揮相對的作用。

此書目的是，使學習音樂理論的讀者更容易了解流行音樂創作過程中應注意的理論部分(即由寫第一個音符開始至完成整篇作品所需的理論概念包括樂器應用)。換言之，本書包括全套流行音樂創作之理論精髓。其重點概念以點列、中英對照的形式陳述，清晰及深入淺出的內容務求讓讀者更易於理解及閱讀。該書主要包含兩個部分：

- (1) 旋律寫作
- (2) 樂曲的編寫。

第一部分包括三和弦的理論，自然音階和半音音階的理論分析，解釋甚麼是調性音樂及音程，不協和音的處理及如何創作及表達優美的旋律。

第二部分講解和弦理論(包括三和弦、

七和弦及其它和弦)，解釋如何運用和弦進行法來配合樂曲，並如何使用終止式(即音樂標點符號)來表達樂句。

此外，本書亦描述不協調和弦的解決方法、轉調技巧、作品分析、四聲部編寫；介紹弦樂、木管、銅管及敲擊樂的功能及應用。第二部分還解釋現代流行音樂所用的樂器及流行音樂的文化背景等。筆者編寫了幾個電腦程式，以確定和弦音，可提供不同的旋律線條，幫助四聲部寫作，檢查平行及外場五度/八度。筆者除介紹這些程式外，還敘述了一些現今市面上流行的電腦軟件及其在音樂製作上的功能。

本書加入六個附錄作參考。附錄A描述聲音、音樂及噪音的基本物理學原理及音樂的三度空間；附錄B列出更多音樂上常用的表情記號；附錄C陳述一些主調及其近系調的例子；附錄D提供一些基本的流行鼓節奏種類；附錄E撮要及節錄自維基百科的各類流行音樂風格及文化背景；最後，筆者編寫的兩個電腦程式之使用手冊附加在附錄F中。

筆者理解大多數人學習音樂理論時遇到的問題。本書的素材、文字和圖表表達正是為了消除讀者的憂慮。認識音樂理論可以擴大您對音樂的視野，令您更懂得細味音樂、享受音樂的薰陶。

筆者在此衷心感謝Mr. Don Ashley對運用鼓的技術和流行音樂文化作出寶貴的意見，及Mr. Vladimir Tamari允許在本書內使用他的音樂繪圖作示範例子。

梁裔泓



Dedicated to whoever has the passion for music.  
給所有音樂愛好者。

# **Part One: Melody Writing**

## **第一部：旋律創作**

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# 1

## Introduction

### 前言

As everybody may know, a complete piece of pop song contains the melody, lyric and the music that back up the song. The first part of this book will cover only the portions of the theory and concepts that are required in melody writing, while the second part will cover mainly that for music arrangement. Lyric writing is beyond the scope of this book because it is regarded as not part of the music and therefore ignored.

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To write a melody, most people may rely on their inspiration which usually comes and leaves instantly. Melody writing merely based on instant inspiration is ineffective since nobody would know when it would come. A method that can help to get inspired anytime is therefore needed.

Inspiration can come from many sources such as the surroundings (things happening around you, everyday news, etc.), research and survey (new techniques, new sounds, different music cultures and so on), other people's works (by analysis and quotation) and even dicing (i.e. picking the tones randomly).

眾所周知，流行音樂創作主要分有作曲、填詞及編曲等部分。作曲(即旋律創作)所需的理論概念將包含在本書第一部分內，而第二部分將講述音樂編寫的重點理論。因為填詞不被視為音樂創作，故將不包括在本書內。

通常創作旋律曲調由靈感啟發，但因靈感一般都難以捉摸。等待靈感的來臨很多時都徒勞無功，靈感最終變「零感」，所以單憑靈感創作不太可靠，我們需要一個可以隨意啟發靈感的好方法。

靈感可以來自許多方面，如周邊環境、生活上觀察、每日所見所聞、身邊所發生的一切事物等。靈感也可以通過研究、分析或資料搜集中獲得(例如通過別人的作品、新技術、新音響、或不同音樂文化背景等)，甚至可以引用名樂句加強自己作品的表達能力(英文稱此為Quotation)。擲骰子選擇音高也是一個啟發靈感的好方法。