

從指揮角度思考現代國樂團之音響

文、圖 / 江振豪（臺北市立國樂團副指揮）



江振豪於TCO學院國樂團音樂會《絲路紀行》中向聽眾介紹即將演奏的作品—余忠元《緣》。照片源自北市國

交響樂團從17世紀開始發展，經歷了漫長的時間逐步演進，在每個時代皆反映了當代社會的結構與審美思維。¹而國樂團為華人世界的樂種，起源於五四運動後，在西學中用的倡導之下被發明，以傳統樂器為基底，引入交響樂團的聲部概念，是特定時代背景的產物²，雖然國樂團的產生是刻意為之，但仍反映了當代社會對於文化以及民族自信心的需求。經過了近一世紀的發展，國樂團不但在華人世界開枝散葉，且各國皆有各具特色的發展，特別是在臺灣，由於推廣成功，擁有很高的普遍性。

國樂團在近百年的發展過程中誕生如彭修文：幻想曲《秦·兵馬俑》、劉文金：《長城隨想》二胡協奏曲等代表性作品，奠定了一條清晰的發展道路，但由於國樂器的音色性格相當鮮明，聲音也較為突出，在大編制的合奏中要達到和諧的音響效果並不容易³。然而國樂團個別聲部在樂團中的演奏方式還沒有完全的共識，並且對於音響的審美仍未有一致的想法，但這些都是在合奏藝術的實踐中不可或缺的重要因子，而當中最重要的關鍵角色，莫過於主掌著樂團音響塑造以及詮釋的指揮，故專業國樂指揮人才在合奏音響的訓練與養成是當務之急。

¹ 徐頌仁（1983），《歐洲樂團樂團之形成與配器之發展》，臺北：全音樂譜出版社。

² 高子銘（1959），《現代國樂》，臺北：正中書局。

³ 陳澄雄（1997），〈探討現代國樂交響化〉，《中樂發展國際研討會論文集》，余少華編，香港：香港臨時市政局。

⁴ 于潤洋（2003），《音樂史論新稿》，北京：人民音樂出版社。

在現今專業管弦樂團的體制中，所有成員之間有著專業分工的合作關係，而指揮扮演了藝術上的掌舵者。指揮憑藉著對曲目的理解、自身的音樂素養、審美品味以及指揮技術帶領樂團演奏，指揮不但主導了樂曲的詮釋，也影響了樂團的音響特性與聲部平衡，形塑了樂團聲音的方向，管弦樂團經歷了三百多年的發展歷史，積累了數代音樂家建立的演奏傳統，不但實際經歷了從古典、浪漫、現代到當代的音樂史進程，也歷經了無數個世代的審美演變，對於演奏法、編制與聲部平衡都有可供依循的基準⁴。今日樂團與指揮的工作模式，便是根據這些前人建立的傳統執行，即使指揮的詮釋再有創見，也都是在原先的基底上尋求突破。



2024年江振豪於奧爾堡音樂廳指揮奧爾堡交響樂團（Alborg Symfoniorkester）

演奏觀念、音色群性、聲部平衡

今日職業國樂團擁有著與管弦樂團相同的工作模式，指揮與樂團團員有著專業分工，但國樂團發展的歷史只有僅僅不到一百年時間，且在各樂器於樂團中演奏時的演奏法、各聲部的編制人數、音響平衡等方面都還沒有累積出一套四海皆準的標準，樂曲的詮釋以及演奏方式都是仰賴指揮。由此可見指揮的角色對於國樂團是非常重要的，其重要性甚至超越交響樂團與指揮的互動關係。作為國樂指揮，要將樂團妥善引導，以「演奏觀念」出發，達到「音色群性」後，追求「聲部平衡」，或許會是一條可行的方向。

以下將分別說明演奏觀念、音色群性、聲部平衡三個概念，再以表格方式呈現研究內容。

一、演奏觀念

國樂合奏作品之中，有相當多取材自民間音樂、傳統音樂的創作素材⁵，樂團演奏者面對這些素材時，對於其風格、記譜、運音需要擁有相同的演奏觀念，才能達到一致，例如胡琴類樂器的揉弦方式、琵琶使用輪音⁶或是滾奏⁷等。且合奏與獨奏有很大的不同，演奏時不能完全以表現自身特色為主，更多時候需要將自己的聲音融入群體，其中如何拿捏與取舍，以建立保有國樂器特色的合奏模式，就必須仰賴演奏觀念的一致性。透過對管弦樂團中演奏者的觀察，相信能找到足以參考的方式。

二、音色群性

有別於管弦樂團融合性高的音響特質，國樂團的樂器在獨奏樂段有著亮麗耀眼的音色，但齊奏時的音響容易糊成一團，音樂行進時和聲中各音高之間的融合性也備受挑戰⁸，但若借用管弦樂團的合奏習慣，建立對於音色群性的追求，樂團演奏時互相靠攏的習慣，相信能夠塑造出擁有豐富表現力的合奏聲響。

三、聲部平衡

前兩項探討的是樂團演奏員的實踐，而聲部平衡便是考驗指揮對於樂譜文本詮釋的理解，以及音響調配的能力。要使合奏音樂的音響具有藝術性，音樂結構以及配器的研究都是不可或缺，透過樂譜洞悉作曲家之意圖更是必須的。⁹除此之外，國樂團在聲部平衡上的挑戰，還有大量打擊樂器的使用，以及各音域樂器的調配，不讓高頻樂器的音量蓋掉中低頻樂器，以保留泛音的飽滿，而這些都有賴於更多實務經驗的積累，找到有效的實踐方法。

⁵ 胡登跳（1997），《民族管弦樂法》，上海：上海音樂出版社。

⁶ 琵琶的輪音為右手五根手指快速來回撥奏同一根弦。

⁷ 琵琶的滾奏為右手拇指與食指快速來回撥奏同一根弦。

⁸ 陸櫻（2005），《國樂團配器之我見》，國立臺北藝術大學音樂學系碩士論文，臺北：未出版。

⁹ Rudolf, Max. (1995). *The Grammar of Conducting*. 3rd ed. New York: Schirmer.

研究項目	研究對象	研究內容
演奏觀念	演奏家	<p>1. 風格 (Style) 「風格」是演奏的重要前提。因應不同的社會環境、聽眾組成、審美品味以及樂器硬體，每個時代與地區都會有不同的音樂風格，對風格要有正確的掌握才能有好的呈現。</p> <p>2. 記譜 (Notation) 對風格有了認識，才能正確的判讀記譜。古典時期和浪漫時期之後的記譜思維不一樣，例如在句尾結束音，古典時期作品常見以四分音符記譜，但演奏實務上必須奏成短音，才能達到風格上的正確。</p> <p>3. 運音 (Articulation) 運音的選擇是建立在對風格、記譜的敏銳度之上，在當下的音樂情境選用適當的發音方式。例如古典時期曲目中的銅管樂器長音，很多時候需要演奏發音點清楚但隨即收弱的聲音，這都是基於風格和記譜的理解之後作出的藝術判斷。</p>
音色群性	合奏	<p>1. 群體中的一員 合奏是集樂團中眾人之力所共同完成的，樂團內的每個演奏家都有其特定的責任，各司其職，但並不僅止是各行其事，而是對於樂團所要完成的整體，以及在整體之中扮演的角色有著全面的理解。</p> <p>2. 聲部內的統一 聲部內的成員需要彼此協調，讓彼此的聲音方向一致，過程中依賴各聲部首席的領導以及演奏家對自身角色的認識。</p> <p>3. 聲部間的整合 每個聲部除了內部的統一之外，各個聲部之間也需要有良好的合作模式，互相聆聽，了解彼此音響上的需求並給予支撐，讓每個聲部在合奏時能夠更恰如其分地扮演好自己的角色，使得樂團發出的聲音能擁有良好的互動性和整體感。</p>
聲部平衡	音響	<p>1. 主題的呈現 音樂主題的突顯，除了依循作曲家在樂譜上面的紀錄，也仰賴演奏者對曲目的理解。指揮在排練時給予引導，讓團員明白演奏的同時，應該聽見的聲部是什麼，如此才能使音響清晰，主題的個性才有好的發揮空間。</p> <p>2. 配器的層次 配器技術可說是作曲家的調色盤，特別是在浪漫時期與其之後作品中，配器有時甚至主導著音樂氛圍的流動，而配器層次的展現更是樂團演奏的音響性考驗。作曲家配器技術的呈現主要是在各樂器組合的搭配，每個聲部之間音量的比例考驗著指揮對於配器音響的掌握。</p> <p>3. 作曲家意圖 指揮透過樂譜，可以理解到作曲家對於音樂表現的一些意圖，並透過樂團的演奏將這些意圖呈現。</p>

透過指揮角色提升國樂團音響性

指揮作為主導樂團演奏的帶領者，是經由理解、表達、接收、演奏四個步驟的工作模式與樂團產生互動，因此指揮用手勢展現所理解的音樂內容，演奏者看到指揮的動作而給予相應的演奏，指揮的分析與讀譜工作做得越精實，樂團不但演奏得更好，呈現出的各聲部細節和整體感也會更精緻，才能真正表現出指揮對曲目詮釋的想法。音響效果上也是如此，不僅只是作曲家完成配器之後，作品的藝術價值就完全被定案。透過指揮理解後的再詮釋，以及樂團良好的合奏造就出的結果，往往能賦予曲目全新生命，如此的工作模式不只是在管弦樂團，在國樂團也適用。這樣的過程，不外乎就是溝通，只是不透過語言。



國樂團是將交響樂團概念移植到中國民族樂器上而產生，由於發展時間較短、樂器音響特性之故，在音響上仍有其侷限¹⁰。為了解決音響的問題，在過往的二、三十年間，無論是香港或是臺灣國樂界，都曾大刀闊斧地進行樂器改革¹¹，嘗試在硬體層面改進樂團，讓國樂器更適合用於合奏。然而演奏樂器的畢竟都是活生生的人，除了硬體之外，人的精神與思想更是成就音樂的重要因素，樂器改良依賴製琴師，而合奏觀念的建立則是依賴指揮與樂團的共同努力。以演奏的角度看國樂團音響性提升的基礎，便是透過指揮與樂團的互動，建立一套從個別演奏家的合奏意識，到聲部內的一致、各聲部之間的音色群性，到整體音響平衡的完整工作模式¹²，透過模式建立，達到提升國樂團音響性之目的。若能夠再透過指揮將國樂團的合奏音響上有進一步的突破，必將大幅提升臺灣在國樂團演奏藝術上的成就，甚至對音樂教育的品質產生正面的影響，以達厚植臺灣文化軟實力之效。



2024年江振豪受邀於義大利Siena參加Academia Chigiana，接受大師Daniele Gatti指導

¹⁰ 關迺忠 (1997)，〈從技術層面看現今中國民族樂隊的幾個問題〉，《中樂發展國際研討會論文集》，余少華編，香港：香港臨時市政局。

¹¹ 香港中樂團有專門的樂器研發部門，其最重要成果有一系列從低音到高音的人造皮環保胡琴；臺北市立國樂團在鍾耀光任團長期間曾經開發新的樂器加入國樂團中，例如高音琵琶、小阮、大胡等樂器。

¹² 徐頌仁 (1992)，《音樂演奏的實務探討》，臺北：全音樂譜出版社。

Rethinking the Sound of Modern Chinese Orchestras from a Conductor's Perspective

Text and Image / CHIANG Chen-Hao (Associate Conductor of the Taipei Chinese Orchestra)

The Symphony Orchestra began developing in the 17th century and has evolved, reflecting each era's social structures and aesthetic ideals.¹ In contrast, The Chinese Orchestra, unique to the Chinese-speaking world, originated after the May Fourth Movement. Created under the influence of Western learning, it combines traditional Chinese instruments with symphonic sectional concepts, reflecting a historical need for cultural expression and national confidence.² Over nearly a century, it has flourished across Chinese-speaking regions and developed uniquely in various countries. In Taiwan, successful promotion has made it widely popular and accessible.



Conducted a rehearsal of Brahms' Symphony No. 3 with the Copenhagen Philharmonic at Konservatoriets Koncertsal in Denmark in 2024

The Chinese Orchestra has since produced iconic works such as *Fantasia: The Terra Cotta Warriors* by PENG Xiuwen and *The Great Wall Capriccio* Erhu Concerto by LIU Wenjin, paving a clear path for development. However, the unique tonal characteristics of Chinese musical instruments present challenges in achieving harmonious sound effects in large ensembles.³ Additionally, there needs to be a consensus on the performance methods of individual sections within the orchestra or a unified aesthetic approach to sound. These factors are essential elements of ensemble artistry. Among them, the conductor shapes and interprets the orchestra's sound and plays a pivotal role. Therefore, cultivating professional Chinese orchestra conductors with expertise in ensemble sound training is an urgent priority.

Each member operates within a specialized collaborative framework in modern professional Symphony Orchestras, with the conductor as the artistic leader. Conductors guide the orchestra's performance through their understanding of the repertoire, musical expertise, aesthetic judgment, and conducting techniques. They not only shape the interpretation of the music but also influence the orchestra's sound characteristics and sectional balance, steering the overall sonic direction of the ensemble. The 300-year history of the Symphony Orchestra has established a legacy of musical practices passed down through generations of musicians, spanning the Classical, Romantic, Modern, and Contemporary eras. These practices provide benchmarks for techniques, instrumentation, and sectional balance. Today, the collaboration between orchestras and conductors continues to build on this rich heritage, with even the most innovative interpretations seeking breakthroughs within this established framework.

¹ HSU, Song-Jen (1983), *The Formation of the European Orchestra and the Development of Orchestration*, Taipei: Chuan Yin Music Publishing.

² GAO Zi-Ming (1959), *Modern Chinese Music*, Taipei: Cheng Chung Bookstore.

³ CHEN Cheng-Hsiung (1997), "Exploring the Symphonization of Modern Chinese Music", *Proceedings of the International Symposium on the Development of Chinese Music*, edited by YU Shao-Hua, Hong Kong: Hong Kong Provisional Urban Council.

Performance Concepts, Tonal Groupings, and Sectional Balance

Today's professional Chinese Orchestras operate similarly to Symphony Orchestras, with a clear division of labor between the conductor and the orchestra members. However, with less than a century of development, Chinese Orchestras lack universally accepted standards for performance techniques, sectional instrumentation, and sound balance. Consequently, the interpretation of the repertoire still heavily relies on the conductor, whose role is even more critical than in Symphony Orchestras.

To effectively guide a Chinese Orchestra, a conductor could begin with performance concepts, progress toward achieving timbre cohesion, and ultimately pursue sectional balance. This path provides a practical approach to shaping the orchestra's overall sound.

The following sections will elaborate on the three concepts—performance concepts, tonal groupings, and sectional balance—followed by a table summarizing the research findings.

1. Performance Concepts

Chinese orchestral works often draw on folk and traditional music.⁴ To achieve consistency, performers must share unified performance concepts, including style, notation, and articulation. Examples include vibrato techniques for huqin and tremolo⁵ or rolling techniques⁶ for pipa. Unlike solo performance, ensemble playing requires blending individual sounds into the group while retaining the unique timbre of Chinese instruments. A shared performance concept is key; insights can be drawn from observing Symphony Orchestras.

2. Timbre Cohesion

Different from the highly blended sound characteristics of Symphony Orchestras, the instruments of Chinese Orchestras often produce bright and striking timbres in solo passages but can sound muddled during tutti sections. Achieving harmonic cohesion between pitches as the music progresses also presents a challenge.⁷ However, by adopting the ensemble practices of Symphony Orchestras and cultivating a pursuit of timbre cohesion, musicians can develop a habit of aligning their sounds during performance. This approach has the potential to shape a richly expressive ensemble sound.

3. Sectional Balance

While the first 2 aspects focus on the performers' practice, sectional balance challenges the conductor's ability to interpret the score and shape the ensemble's sound. Achieving an artistic ensemble sound requires a thorough understanding of musical structure and orchestration and insight into the composer's intentions through detailed score study.⁸

Chinese Orchestras face unique challenges in sectional balance, including the extensive use of percussion and the distribution of instruments across various registers. Ensuring that high-frequency instruments do not overpower mid- and low-frequency ones is crucial for preserving a rich overtone spectrum. Addressing these challenges requires hands-on experience and the implementation of targeted strategies to achieve effective results.

⁴ HU Dengtiao (1997), *The Music Method of National Orchestra*, Shanghai: Shanghai Music Publishing House.

⁵ The tremolo technique on the pipa involves the rapid back-and-forth plucking of the same string using all 5 fingers of the right hand.

⁶ The rolling technique on the pipa involves the rapid back-and-forth plucking of the same string using the thumb and index finger of the right hand.

⁷ LU Yun (2005). *My Perspective on Chinese Orchestra Orchestration*. Master's thesis, Department of Music, Taipei National University of the Arts, Taipei: Unpublished.

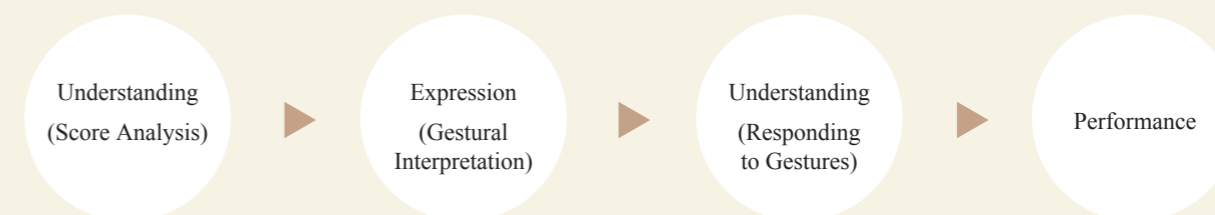
⁸ Rudolf, Max. (1995). *The Grammar of Conducting*. 3rd ed. New York: Schirmer.

Research Focus	Research Subjects	Research Content
Performance Concepts	Performers	<p>1.Style: Understanding the style is essential for performance. Musical styles vary by era and region, influenced by societal contexts, audience tastes, and instruments. Mastering the correct style ensures accurate interpretation.</p> <p>2.Notation: Understanding the style is essential for accurately interpreting notation. For example, phrase-ending notes are often notated as quarter notes in Classical-era works but are typically played shorter to align with stylistic conventions.</p> <p>3.Articulation: Articulation choices rely on a nuanced understanding of style and notation, guiding performers to adopt the most suitable approach for the musical context. For instance, in Classical works, long notes for brass instruments are often played with a clear attack followed by a swift decay, reflecting both stylistic and notational considerations.</p>
Timbre Cohesion	Ensemble Members	<p>1.Being a Team Member: Ensemble performance is a collective effort. Each player must understand their role within the orchestra and contribute to the overall sound.</p> <p>2.Sectional Unity: Members within a section must coordinate their sound direction, relying on leadership from section principals and an awareness of their roles.</p> <p>3.Inter-Sectional Integration: Sections must collaborate effectively, listening to and supporting one another to ensure cohesiveness and dynamic interaction within the orchestra.</p>
Sectional Balance	Sound Dynamics	<p>1.Highlighting Themes: Emphasizing musical themes requires adherence to the composer's notation and the performers' understanding of the score. During rehearsals, conductors provide guidance to help the ensemble identify which parts should be heard prominently. This ensures clarity in the overall sound and allows the themes to be expressed with distinct characters.</p> <p>2.Orchestration Layers: Orchestration serves as the composer's palette, especially in Romantic and later works, where it often shapes the flow of musical atmosphere. Orchestration layering presents a challenge in achieving the desired ensemble sound, testing the conductor's ability to balance the orchestra's sound texture. The composer's orchestration relies on the interplay of instrumental combinations and the volume balance between sections, requiring the conductor to skillfully manage the resulting dynamics.</p> <p>3.Composer's Intent: Through score study, the conductor interprets the composer's intentions and ensures they are faithfully conveyed through the orchestra's performance.</p>

Enhancing the Sound of Chinese Orchestras Through Conducting

As the ensemble leader, the conductor interacts with the orchestra through a four-step process: understanding, expression, reception, and performance. Using gestures to convey their interpretation of the music, the conductor prompts musicians to respond with aligned performances. The more precise the conductor's analysis and score study, the better the orchestra can execute the music, resulting in enhanced sectional detail and overall cohesion. This, in turn, reflects the conductor's vision for the piece.

The artistic value of a work is not fully realized through the composer's orchestration alone. A piece can be brought to life through the conductor's interpretation and the ensemble's performance, transforming it into a fresh artistic expression. This process relies on non-verbal communication and applies equally to Symphony Orchestras and Chinese Orchestras.



The Chinese Orchestra originated by adapting the concept of the Symphony Orchestra to Chinese musical instruments. With a relatively short history and distinct acoustic characteristics, Chinese Orchestras still need help with sound quality. Over the past two to three decades, significant efforts in Hong Kong, Taiwan, and beyond have focused on instrument reforms to make Chinese instruments more suitable for ensemble performance.⁹

Yet, instruments are ultimately played by people, and the performers' spirit and mindset remain crucial to musical expression. While instrument reform depends on luthiers, building a cohesive ensemble relies on collaboration between conductors and orchestras. Enhancing the sound of Chinese Orchestras begins with fostering individual ensemble awareness, achieving sectional unity, creating timbre cohesion across sections, and balancing the overall sound.¹⁰

Such a framework can greatly improve acoustic cohesion in Chinese Orchestras. Further breakthroughs in ensemble sound, guided by conductors, will elevate Taiwan's achievements in Chinese Orchestra performance and enhance music education, contributing to the growth of Taiwan's cultural soft power.



Conducted the Odense Symphony Orchestra in the summer of 2023

⁹ The Hong Kong Chinese Orchestra has a dedicated instrument development department, with its most notable achievement being a series of environmentally friendly synthetic-skin huqin instruments, ranging from bass to soprano. During CHUNG Yiu-Kwong's tenure as General Director, the TCO developed new instruments to incorporate into the Chinese Orchestra, such as the soprano pipa, small ruan, and da hu.

¹⁰ HSU Sung-Jen (1992). *A Practical Study of Musical Performance*. Taipei: Chuan Yin Music Publishing.