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PHONOLOGIES AND LANGUAGE USE IN *BINDAE* 評彈, A GENRE OF TRADITIONAL CHINESE MUSIC AND STORYTELLING

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To music and beyond.

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ACKNOWLEDGMENTS

Since this dissertation is possibly my last piece of work in the field of academic linguistics, even starting to write this feels like a farewell – going through all the years is like playing a film where a bunch of kind and helpful characters appeared and guided me in various ways, and saying 'thank you's over and over again might be too pale. Instead, I'd like to talk about specific memories and say a few words about them if possible.

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ABSTRACT

This dissertation is an exploration of the genre of traditional Chinese music and storytelling called 蘇州評彈 *Suzhou Pingtan/Soutseu Bindae*, focusing on its phonologies and language use. It spans many different aspects of language: sound systems, phonetic registers, phonological changes, historical evolution, and literary and colloquial language; as well as their intersection with music in tone-melody mapping, melismata and vocal techniques, instrumentation and musical training in the disciplines. Through investigating into those topics, this dissertation dissects the complexity of *Bindae*'s linguistic system, treating it as its unique 'grammar of grammars' and analyses its specific linguistic components accordingly. Given the various language varieties and linguistic devices used in *Bindae,* it concludes that the linguistic components within *Bindae* are both a fossilised form of language, mainly Soutseu dialect 100 years ago, but also innovative because of the frequent use of different phonologies and linguistic registers, including the literary *Zhongzhouyun* phonological layer and its corresponding register with elements from Mandarin and Classical Chinese; that there is a clear difference of language use between the spoken and sung sections of the performance; and that the different phonological layers and linguistic devices, as well as the interaction between language and music, together make the strings and threads of *Bindae*. Apart from examining these large overarching questions in different parts of *Bindae* phonologies and language use, it also serves as an important documentation of the language used in this unfortunately declining art form and an additional illustration of the symbiotic and interwoven relationship between language and music.

CHAPTER 1

INTRODUCTION

1.1 Language and music

'Music is the universal language of mankind.' This popular quote credited to Henry Wadsworth Longfellow succinctly outlines the folk understanding of language and music – highly intertwined and similar in function and origin. Regarding cultural perceptions of music and its universality, Samuel Mehr, director of the Music Lab, takes an interdisciplinary approach to tackle this issue in recent years: through a thorough analysis of cross-cultural song corpus and ethnographic data, Mehr et al. (2019) concludes that music is fact universal: It exists in every society (both with and without words), varies more within than between societies, regularly supports certain types of behaviour, and has acoustic features that are systematically related to the goals and responses of singers and listeners. Similarly, Bainbridge et al. (2021) finds that across demographics and recent history, most parents sing to their infants and toddlers daily. Such findings are in direct parallel and conversation with hallmark linguistic theories like Noam Chomsky's Universal Grammar (Hauser et al., 2002) as well as Prince and Smolensky's Optimality Theory (Prince & Smolensky, 1993) – theories that explore the fundamental properties and universality of language in humans. Hypotheses concerning origin of language also overlap with those concerning origin of music: from early ventures like Müller (1996[1861])'s pow-wow, ding-dong and yo-he-ho theories – which hypothesise language came from imitation of animal cries, imitation of objects' inherent natural resonances and collective rhythmic labour respectively, to Brown (1999)'s coinage of the term 'musilanguage' that aims to describe the common precursor of both language and music, we can clearly see the link between how the two might have arisen simultaneously through a shared process. Formally, there are numerous connections between the two, including but not limited

to: pitch/melody and tones (Quain, 2022), rhythm and prosody, vocables, and musical languages (McPherson, 2018) - each probably deserves their own separate dissertations to address - but through these intersections we can gain deeper understandings of both through one another thanks to the complementary nature of interdisciplinary studies involving language and music, in that studying one may lead to exciting discoveries in the other.

Given the above, this dissertation aims to be yet another bridge between the two by exploring the art form *Suzhou Pingtan/Soutseu Bindae* 蘇州評彈 [səʊᵝ˥ tʃʏ˥ bin˩ dɛ˦] ~ [səʊᵝ˥ tsɵʏ˥ bin˩ dẹ˦] [1], a very special genre of performance art that combines singing, storytelling, instrument playing and acting, I seek to analyse each connection point between language and music in *Bindae* – how language is used both inside and outside musical contexts, and how the two match each other, serve each other or contradict to each other. Since *Bindae*'s musical components are almost always with lyrics but the majority of times performers just speak instead of sing, there are two modalities in play, one purely linguistic and one musilinguistic using Brown (1999)'s terms – throughout the dissertation I will differentiate the two and describe both their similarities (so that *Bindae* can be a self-consistent and enregistered genre of art) and their differences (what the functions of different segments are and how they contribute to the overarching goal of storytelling in different ways). For the linguistic modality, I will provide an analysis of each relevant subfield of linguistics - phonetics, phonology, prosody and historical linguistics; whereas for the musilinguistic modality, I will focus on the specific attributes that link the two while also providing insights from an ethnomusicological perspective. A

1. The former is the Standard Mandarin pinyin romanisation, while the latter is based on 吳語學堂 Wugniu's romanisation of Suzhou/Soutseu dialect of Northern Wu, one of the main language varieties of this dissertation's focus. I will provide both for the first time that a term appears but will use the Wu romanisation from the second time on despite the fact that the Mandarin romanisations are more commonly used and more widespread, due to respect for endonyms and the fact that Wu language is consistently overshadowed and misrepresented by Mandarin. This applies to all romanisations in the dissertation: whenever two romanisations are presented, the former is Pinyin and the latter is romanisation of local Wu variety, which will appear on its own subsequently.

more detailed historical and ethnomusicological description of *Bindae* as a performative art form, its history and current landscape will follow in Chapter 2.

1.2 Research questions and methodology

Rather than simply titling the dissertation 'linguitics of *Bindae*', I chose the phrase 'language use' next to 'phonologies' because they encompass not only the functional aspect of language but also the social, narrative and musilinguistic aspects, which are also the prime foci of this dissertation. It will span many different aspects of language: sound systems, phonetic registers, phonological changes, historical evolution, and literary and colloquial language; as well as their intersection with music in tone-melody mapping, melismata and vocal techniques, instrumentation and musical training in the disciplines.

Given the various language varieties and linguistic devices used in *Bindae*, I will attempt to answer the following questions: 1) In what ways are the linguistic components within *Bindae* a fossilised form of language? 2) In what ways are they innovative? 3) How is language used similarly and differently between the spoken and sung sections of the performance? 4) How do different phonetic and linguistic registers/layers, as well as different linguistic varieties, work together in *Bindae*? 5) How do language and music work together?

To answer these questions, I will use a combination of formal linguistic analysis, musical analysis based on Western music theory, as well as supplementing it with traditional Chinese music theory and ethnomusicology when necessary, all fields in which I have a lot of past experience in. The addition of the latter two is particularly worth-noting because to my knowledge there are not many linguistics papers written in English which incorporates those methods or takes them into consideration. This is the basic principle of the dissertation – while theoretical linguistics tends to use a unified set of models and theories outside of traditional epistemological domain (biased towards Western academia

in general) to investigate into language phenomena and that is indeed useful, I believe that studying something within its own system also has great merits, and incorporating local knowledge and internal ways of thinking about a deep-rooted regional discipline is beneficial, if not necessary, to fully understand it and give it justice: that is to say, without the proper understanding of *Bindae* as an organised art form, both from musical and linguistic perspectives that stem from within – from all participants, both the performers and the audience – one can never fully understand or analyse *Bindae* just from an 'objective' or purely linguistic point of view. As a person born and raised in China myself and joined Western academia later, I am constantly aware of the acute differences between the two ways of thinking and practice – I am especially aware after seeing and experiencing examples of moribund minority language varieties and musical forms all around the world (but especially pre-colonial Americas) being studied like they are ancient relics or pure scientific artefacts: to me, linguistics and musicology devoid of any kind of attention to the people involved does not suffice – it may be the utmost scientific by Western academic standards, but there is a certain lack of 'temperature' and 'human flavour' as we say in Chinese languages. Therefore, I will employ extra care when dealing with this tradition with hundreds of years of history and always try to include insiders' insights whenever possible.

The vast timespan and sheer size of *Bindae* repertoire makes it impossible to compile and include every single work/書目 *Srymoh* (lit. book programme). Therefore, I collect a personalised corpus of 40 *Bindae* works aiming to encompass a wide range of time periods, lengths and subgenres (a complete list can be found at the end of the dissertation). These works serve as the foundation of the dissertation and I will analyse them in the following chapters.

1.3 Relevance and significance of the research

This dissertation is the first of its kind in that it comes from a unique combination of approaches and disciplines: it is the first piece of English-language research with sole focus on *Bindae* and its language use. Not much previous literature exists in linguistics for *Bindae* - the best I could find were several scattered blog and forum posts online by amateur *Bindae* fans or aficionados who dabbled in linguistics, and introductory articles on *Bindae* Soutseu dialect's phonology without going into any detail about the conservative and innovative aspects as well as how language use is linked to the musical material. Therefore, I believe that my professional training in both linguistics and ethnomusicology will definitely shed new lights on the art form itself as well as the budding field of language and music.

Given the general scarcity of directly relevant literature in both the field of linguistics and English language, most of the sources used in this dissertation will be from other disciplines (mainly *Bindae* studies and Chinese musicology in particular) and in Standard Mandarin, the official written Chinese language (since Soutseu dialect does not have a widely used Standard orthography). The vast majority of the dissertation will be completely original research.

As a musician and linguist myself – someone whose life revolves around both language and music – this topic is near and dear to my heart. *Bindae* is arguably my favourite art form in traditional Chinese music (a brief overview will follow in Section 1.4). I do not remember the first exact instance of encountering *Bindae*, but before my first official fieldwork to Soutseu in 2015 I had been long and well mesmerised by its virtuosity, its elegance and the amount of training required to reach such artistic heights. Thanks to doing International Baccalaureate (IB) in Music and an excellent music teacher at the time, I had the honour to embark on several musical fieldwork trips, which included *Bindae* in 2015. A fellow student and I frequented the various performance venues/書場

Sryzran [2] (lit. book space) in the city, trying to listen to as much *Bindae* as possible in the limited few days when we were there and interviewed performers and audience alike. Back then I only had rudimentary understanding of linguistics and the language, so the interviews were more about people's attitudes and general opinions about *Bindae* rather than focusing on specific linguistically driven points. Several years later in 2019, with basic knowledge of Soutseu dialect in hand (on my mouth to be more exact), I conducted another round of research on *Bindae*, this time focusing more on the intersections of language and music. I gathered mainly ethnographic data from the two fieldwork trips, but also a hands-on experience with the performers and matured as a listener: the core of *Bindae* is storytelling, and storytelling would not work without a deep understanding of the language – hence my main motivation of learning the language was to appreciate *Bindae* better. I am glad to say a decade later I have a relatively good grip of the language, which greatly contributes to my ability to write this dissertation and do further research on its linguisgtics and musilinguistics.

Although *Bindae* is something that I love and appreciate for myself and has a loyal fanbase, this dissertation also tries to serve as an introduction of this spectacular form of art to a wider audience in the Anglophone world and beyond. Thus, I will not presume knowledge of particular terms and always try to explain and specify when necessary. Since it has its internally consistent system and a large set of terminologies, I dedicate Section 2.5 to outline some of the most important jargon relevant to the dissertation, and it doubles as an introduction to its discipline-internal way of thinking - how *Bindae* performers themselves envision it. Due to limitations on this dissertion's scope, more discussion on how it is taught and how modern music industry affects its intergenerational transmission will be explored in potential future projects.

As stated in Section 1.2, it is tricky to negotiate between the need to conform to the

2. This dissertation uses consonant + <r> to denote palato-alveolars ('retroflexes') in *Bindae* Soutseu dialect.

Western academic and scientific rules – specifically treating language as a fixed studiable product – and the need to give speakers (and performers in the context of this dissertation) their well-deserved representation and independent agencies. In this dissertation there will be some chapters focusing more on one than the other, but I hope that the final product can strike a delicate balance between the two, and I hope both linguists and musicians can learn a thing or two after reading and/or referencing it. I will constantly switch hats from musician to linguist to *Bindae* fan just to make sure the dissertation has a multitude of viewpoints drawing from equally valid and authentic people in different fields, and I will not shy away from including essential musical and ethnographical details.

1.4 A brief overview of traditional Chinese music

To situate *Bindae* in its musical context, I think it is appropriate for me to include a section on traditional Chinese music in large: do keep in mind that this is an entire musical repository spanning thousands of years so I cannot possibly include every nook and cranny, but I will summarise its trajectory and how it leads to the beginning and subsequent thriving of *Bindae*.

In ancient China there was not a clear distinction between poetry and songs: 詩經 *Shi-jing/Classic of Poetry* (11th-7th centuries BC) was the prime example of pre-Qin literature, and all of its poems can be sung with melodies. Up to the Golden Era of poetry – Tang (618-907 AD) and Song (960-1279 AD) dynasties - this tradition was still unchanged, though we have very limited preserved scores directly accompanying the literature because most of the sung melodies were improvisations. During Zhou dynasty (1046-256 BC), a formal system of court and ceremonial music later termed 雅樂 *yayue* (lit. elegant music) was established. The word for music, 樂, in ancient China can also refer to dance, as music and dance were considered integral part of the whole, and its meaning can also be further extended to poetry as well as other art forms and rituals (Fei, 2002) - this shows

a very integrated landscape of art and a single performance can contain a multitude of modalities and elements, which we will see again specifically in *Bindae* in Chapter 2. This tradition of court music also extended throughout the feudal dynasties, which established a formal and rather rigorous system of both musical performance and education under Confucianism, which states that a *correct* form of music is important for the cultivation and refinement of both the individual and the government (Bresler, 2007). 雅樂 *Yayue* shaped most of Chinese music and there are still groups who study and perform it today, especially in Confucian rituals.

Right beside court music/雅樂 *Yayue*, folk music flourished throughout Chinese history: from 詩經 *Classic of Poetry* to 樂府 *Yuefu* (lit. music bureau), a form of poetry/folk song stylistically stemming from its namesake Music Bureaus in Han dynasty. In the more recent dynasties, different genres of regional music appeared and established themselves: unaccompanied vocal music (民歌 folk songs or 山歌 mountain songs) can be found basically anywhere in China, but certain regions developed specific instrumental ensembles, both with and without vocals, as well as operatic traditions using local languages. It is impossible to include a full list, but some notable genres include 京劇 Beijing Opera, 越劇 Yue/Zoshing Opera, 粵劇 Cantonese Opera, 南音/南管 *Nanyin/Lam'im/Lamkuan*, 崑曲 *Kunqu/Khun Opera* and 江南絲竹 *Jiangnan Sizhu/Kaonnoe Sytsoh* [3] (lit. South of River Silk and Bamboo), the latter two of which, originating in Wu-speaking region, greatly influenced the formation of *Bindae*.

Different from *Yayue* which may implement more complex heptatonic scales and occasional out-of-scale notes, most folk songs stay in the Chinese pentatonic scale 五聲音階, with notes 宮 *Gong*, 商 *Shang*, 角 *Jue*, 徵 *Zhi* and 羽 *Yu* corresponding to the 1st (do), 2nd (re), 3rd (mi), 5th (sol) and 6th (la) degrees of the major scale. Each of the five notes can be the tonic, generating five different modes. Certain modes take prevalence

3. Wugniu romanisation uses <q> for [-ʔ], this dissertation uses <h>.

Figure 1.1: 古琴 *Guqin* master 呂培原 Lü Pei-Yuan playing 梅花三弄 *Three Stanzas of the Plum Blossom*

in particular regions: Northwestern Chinese folk songs favour 商調 *Shang* mode and 羽調 *Yu* mode, which are the pentatonic equivalents of Western Dorian and Aeolian modes; where as the majority of Wu-speaking area, i.e. the cradle of *Bindae*, uses mostly 宮調 *Gong* mode/major pentatonic. A more detailed discussion of scales/modes used in Bindae can be found in Section 2.4.

Traditional Chinese music employs an array of instruments, divided into eight different categories: 金、石、土、革、絲、木、匏、竹 metal, jade/stone, clay, leather, silk, wood, gourd and bamboo. Some categories consist of much more instruments than others: the most noteworthy and prolific categories are 絲 silk and 竹 bamboo. The silk category includes all the well-known plucked chordophones in ancient China, namely 古琴 *Guqin* (lit. Ancient Instrument), 古箏 *Guzheng* (lit. Ancient Zither) and 瑟 *Se*; while the bamboo category is self-explanatory, comprising of aerophones made from bamboo like 笛 *Di* (Chinese bamboo flute) and 簫 *Xiao* (panflute). The name 'silk and bamboo' is applied to aforementioned 江南絲竹 *Kaonnoe Sytsoh*, an instrumental ensemble in the Wu-speaking area south of the Yangtze River (*Jiangnan/Kaonnoe*) with a flexible reper-

Figure 1.2: A performance of 江南絲竹 *Jiangnan Sizhu/Kaonnoe Sytsoh* in casual setting, Soutseu, 2022

toire of instruments mainly consisting of plucked, bowed, strummed and struck string instruments; flute and mouth organs; and small percussions (Thrasher, 2008). (See Figure 1.2 for a typical informal performance.) Two of the instruments, 琵琶 *Pipa/Bibo* and 三弦 *Sanxian/Saeyii*, adopted by *Bindae*, will be introduced in Section 2.2.3.

崑曲 *Kunqu/Khun* Opera is another precursor and great influence for *Bindae*: originated in 崑山 Kunshan/Khunsae between Soutseu and 上海 Shanghai/Zaonhe, it uses the two similar linguistic systems to *Bindae* – 蘇白 Soutseu vernacular and 中州韻 *Zhongzhouyun* with minor differences (a full explanation of each will be followed in Chapter 3), while being very musically distinct: lengthy melismata are at the core of Khun opera in that a single syllable can sometimes last 30-60 seconds or even longer; although it depicts various historical scenarios, the music is generally kept solemn and mellow, and performers' movement on stage slow and elegant; vocal techniques in Khun Opera are also more restrained and in general the pitches are higher with rampant use of falsetto; costumes and makeup are way more delicate and extravagant as well. Khun Opera was widely regarded as the highest form of Chinese performance art in 16th-18th centuries and it is listed as one of the Masterpieces of the Oral and Intangible Heritage of Humanity

Figure 1.3: A scene from 牡丹亭 *The Peony Pavilion*, one of the most prominent works in Khun Opera

by UNESCO (2024). To this day, it is one of the two most prominent cultural symbols of Soutseu city alongside *Bindae*.

1.5 Overview of the dissertation

The rest of the dissertation consists of another six chapters focusing on different linguistic, musical and musilinguistic topics:

Chapter 2 gives a historical and musical overview of *Bindae*. Starting from its origins to snapshots of its some 400-year-old history, it aims to familiarise the readers with *Bindae* as a unique genre of music, storytelling and performative art; then it explains the relevant musical concepts, with descriptions stemming from both Western and Chinese musical theories; finally, an overview of important terminologies is provided to help the reader get into the discipline and how performers conceptualise *Bindae* themselves.

Chapter 3 provides a description of the main phonologies / sound systems in *Bindae*, including separate phonologies for the storytelling and musical portions because the two are distinguished by several key characteristics. There is ample variation when it comes to the specific phonetic system used in the musical portion among performers, which will be discussed in the last section. Overall, these phonologies are very specific and learning to fluently speak and sing in the language varieties required is a must for *Bindae* performers, even if they are not themselves native speakers of Soutseu dialect.

Chapter 4 dives into the historical phonology of the varieties outlined in Chapter 3: it shows how *Bindae*'s phonologies are different descendants of Middle Chinese through different pathways of sound changes, what aspects are fossilised and what others innovated, and how substrate influence from the ancient languages spoken in the region of miscellaneous origins shape the contemporary language varieties in *Bindae*.

Chapter 5 explores one of the centrepieces of Wu phonology (and other southern Chinese languages alike): literary versus colloquial phonologies. It discusses both different

layers of pronunciations of certain characters/morphemes, as well as the use of entirely different linguistic registers when dealing with different textual material and topics - for example, historical recounts in *Bindae*, which is very commonplace, requires a certain literary register that is both independent but also reflected in the pronunciations.

Chapter 6 investigates into tonal phonologies and tone-melody mapping in *Bindae*. Soutseu dialect, like all other Wu languages, have widespread left-dominant tone sandhi, and their domains can be variable and unpredictable, which leaves room for artistic choices. In general, 入聲字 syllables with glottal stop coda and 升降調 contour tones on the first syllable of a sandhi domain are compulsorily mapped, whereas other syllables have more leeway and freedom with regard to their pitches. Music in *Bindae* is also known for its highly virtuosic melismata, and that poses a challenge to the usual analyses of tone-melody mapping: I state that usually the first two or three notes in a given melismatic passage is the key to mapping, which conforms to left-dominant sandhi in the language, but present various cases of mapping and mismapping that illustrate the nuances of tone-melody mapping in *Bindae*.

Finally, Chapter 7 draws conclusions from the previous chapters and include an outlook for future research possibilities.

CHAPTER 2

HISTORICAL AND MUSICAL INTRODUCTION TO *BINDAE*

2.1 History of *Bindae*

The name 蘇州評彈 *Soutseu Bindae*, the art form at the centre of this dissertation, comprises of the following parts: 蘇州 Soutseu signifies its origin in the city, the cultural capital of Northern Wu and 太湖 *Taihu*/Lake *Tha* region. 評 *Bin* stands for 評話 *Bingho* [biɲ˩ ʱo↓] (lit. comment-speech), the foundational part of *Bindae* which is focused on storytelling. *Bingho* usually comprises of only storytelling and no musical accompaniment – it also corresponds to other Chinese traditions such as 評書 *Pingshu* in the Mandarin-speaking North; whereas 彈 *dae* represents 彈詞 daezy [dɛ˩ zɻ↓] (lit. string-plucking rhymes / songs), which is a mixture of storytelling (still the main body of *Bindae*) interspersed with the other integral part that is musically driven – performers often sing technically difficult and melismatic passages as interludes to accompany the oral storytelling. As per its name, it is a form of 曲藝 *Quyi*, different from opera, theatre and purely musical performances, yet integrating elements from each (周良 Zhou, 2012). It has been popular not only in its origin Soutseu, but also expanded to virtually all Northern Wu speaking areas and the Yangtse Delta, thanks to the rise of prominence of 上海 Shanghai/Zaonhe as a global metropolis from the 19th century. Today it is performed, albeit scatteringly and commercialised at tourist hotspots, throughout the region and sometimes beyond. It is the utmost important cultural symbol of Soutseu city and Wu-language music, thus frequently used in television series and films set in either Soutseu or Zaonhe as a symbol of upper class, elegant lifestyle.

Nevertheless, contrary to the current public perception of it as a high art form with a very limited number of experienced performers and audience, *Bindae* started its life as a purely folk and spontaneous form of art, and it was not really as organised and

institutionalised in the beginning stages. Since there were already numerous other forms of storytelling in various parts of China at the time (and the universality of oral history recounts in large globally), the exact date of emergence of *Bingho* is largely uncertain; nevertheless, *Daezy* as an artform and the addition of musical elements, be it instrumental or vocal, were for sure later inventions. The earliest account of *Daezy* performance dates back to 1547 AD, in 田汝成 Tian Rucheng's essay 西湖遊覽誌餘 *Recount of touring the West Lake* (陳汝衡 Chen, 1983). 吳縣誌 *Wu County* [1] *Records* recorded that "in Ming and Qing dynasty, *Bingho* and *Daezy* are both popular: the two were drastically different to begin with, but there was a miscellaneous name of 說書 *Srehsry* [ʃəʔ˥ ʃʒʷ˧] ～[səʔ˥ sʐʷ˧] 'storytelling' (lit. speak book) unifying the two". The term is still widely used today by *Bindae* performers as the prescribed insider term for the act of performing *Bindae*.

During Qing Emperor 乾隆 Qianlong's reign (mid-18th century), a *Bindae* performer called 王周士 Wang Zhoushi/Waon Tsreuzry established the first *Bindae* venue called 光裕社 *Kuaon'yu Zo* (lit. Bright and Prosperous Society/Association) in Soutseu, which served as a precursor to the growth of *Bindae* venues and its institutionalisation as an art form. It developed rapidly in the following decades, and well-known *Bindae* entertainers started to appear in bulk. In mid-19th century, female performers began to take the lead and became the fad of the time, recounted in 馬如飛 Mo Zryfi's *Bindae* programme 陰盛陽衰 *Yin waxes, Yang wanes*: "The patterns of Soutseu changes year by year, female performers are more and more used in *Sryzrans*." However, the classic 雙檔 *Sraontaon* (lit. double shelf/stall/arrangement) where two performers – usually one male and one female – did not appear until late 19th century. (Nowadays, depending on the particular episode's requirement, Bindae can be performed by up to 4 people on the same stage, though two is still considered the golden number.)

Late Qing dynasty (-1911) and the Republic of China era (1912-1949) saw further

1. Present day Soutseu.

expansion and innovation: renowned *Bindae* performers developed their own personal styles with subtle differences, often using a syllable in their name as the name of said style [e.g. 蔣調 *Tsian* style from 蔣月泉 Tsian Yuhzii (1917-2001), 麗調 *Li* style from 徐麗仙 Zi Lisii (1928-1984)] - all styles were transmitted orally through a line of teaching and apprenticeship, so it is hard to define the exact characteristics between styles; overall the differences are genre-internal and don't challenge the well-established norms within *Bindae* performance, focusing more on gender performance, pitch and vocal styles. To this day *Bindae* performers often trace back to specific *Bindae* masters in the first half of 20th century and claim that certain programmes are best with certain styles.

Cultural Revolution (1966-1976) caused a calamity to most forms of art and knowledge: artists were among the most abused group, many of whom suffered great losses, including but not limited to beating, starvation, suicide, forced labour and death under all sorts of abnormal circumstances. 上海評彈團 Zaonhe *Bindae* Association was the only *Bindae* institution that was not disensembled by the government, thus the only nonstop group still able to perform, yet severe censorship at the time banned most of the available repertoire and performers had to write politically correct scripts to please the Communist Party's agenda, most noticeably conforming to the styles of 樣板戲 *Yangbanxi* 'Revolutionary Opera' in that 'traditional' musical elements are dismissed to be counter-revolutionary and Chairman Mao-approved 'new Chinese music' is the only permissible form of musical entertainment. Thankfully, lots of *Bindae* performers and unofficial institutions survived the ten years and rebounded in the 1980s when China reopened its door and cultural activities resumed.

In the past thirty years, *Bindae* suffers the fate of being deemed as too inaccessible and complicated by younger generations so it ceased to be a mainstream art form in its origin Soutseu and the neighbouring Wu cultural area. *Bindae* is seen as a great asset for tourism in Soutseu, but most places offering it only include the short musical preludes known as

開篇 *Khephii* [kʰe˥ pʰi↓] as independent songs, neglecting the storytelling aspects of *Bingho* entirely. It takes careful searching to find available *Bindae* performances because venues are few and far between. Currently, as per my fieldwork in 2015 and 2019, the real, lengthy *Bindae* series mostly attract regular audience members which are retired elderly locals and they are confined in proper *Bindae* venues – 書場 *Sryzran* [ʃʒʷ˥ ʒã↓] ～[sẓʷ˥ zã↓] [(lit. book venues) - which almost always double as teahouses: audience would spend hours sipping their tea while listening, watching, laughing and immersing in the brilliant performances.

2.2 *Bindae* Performance

The centrepiece of *Bindae* is storytelling – every linguistic and musical aspect serves this purpose. There is an extensive system of jargons and insider knowledge that was passed down orally through generations prior to the Second World War, but after the establishment of PRC in 1949 there has been *Bindae* schools and city-/county-level *Bindae* performance groups that specialise in *Bindae* teaching and performance. There are five pillars of *Bindae* performance codified in the field: 說譴彈唱演 'talk, joke, pluck, sing, act' – storytelling, humour/hooks, instrument-playing, singing and acting. The multimodal nature of *Bindae* is crucial as to how much effort it requires for performers to master each aspect and give a coherent performance which excels in all of them, and why the number of professional *Bindae* artists is dwindling in real time. The following subsections give a brief introduction to storytelling, singing and instrument playing.

2.2.1 Storytelling

Plain, nonmusical storytelling comprises of approximately 70-80 percent of the duration of a *Bindae* performance, hence the aforementioned alternate name 說書 *Srehsry* which

literally means storytelling. *Bindae* is organised into episodes (回 *we,* [fiueɻ]), and it is usually a daily affair in that there is one episode in venues every day, spanning from half an hour to two hours, rather like a modern television series in that there is a fixed time each day when *Bindae* is on. Historically, this is done rather informally and there is only advertisement outside the venue, not anywhere else; but now you can check online in some places to see such information, though it is still not widely advertised as other more mainstream forms of entertainment. Due to the episodical nature, cliffhangers are common practice because performers would arrange the material in a way that at the end of each episode you entice the audience with what is about to come. Both first-person and third-person perspectives are used, but most of the times the neutral third-person narrator is present in the story as the main thread except for parts when performers "take on" characters and act out individual scenes.

Hooks, jokes and humour in general are also essential, and there is a delicate window for its frequency. Jokes are mainly classified into two types: 肉裡噱 (lit. hooks inside meat) context-internal jokes generated from characters' personalities and plots, and 外插花 (lit. planting flowers outside) context-external/tangential jokes which include metaphors, linguistic jokes and explanatory footnotes said out loud. The former is used way more than the latter because they are designed for the specific plotpoint of the story, while an occasional use of the latter serves as a breather to let people laugh before going back into the often times serious historical drama.

2.2.2 Singing

Singing in *Bindae* is highly technical: a wide vocal range is required, which often contains very high notes and low notes, with a certain degree of melismata depending on subgenre and plot. Improvisation is very common and the specific notes can change from performance to performance, but it is the 'skeleton' that performers train to remember

and give hours-long performances only by memory. This has similarities to other improvisatory musical forms around the world such as jazz and Indian classical music, but in general *Bindae* melody is much more rigorous and memorised than the above two genres: only the ornamentation is improvised, and it could be fully memorised as well according to personal and stylistic choices. More details about how the melodies are related to language can be found in Chapter 6.

2.2.3 Instruments

The prescribed instrument combination for *Bindae* performances is 琵琶 *Pipa/Bibo* and 三弦 *Sanxian/Saeyii*: the 'Chinese lute' (pear-shaped plucked string instrument) and 'Three Strings' (as its name, a three-stringed plucked string instrument). *Saeyii* is responsible for most of the rhythm and percussive elements, while *Bibo*, with its more flexible and virtuosic capabilities, takes on most of the more intricate ornamentations, even though this division of labour is not fully fixed and sometimes the roles can be reversed. The two instruments can have countermelodies to each other at times, but the progression of the music is in unison for the most part, which conforms to the prominent melody-centric characteristic of horizontally structured traditional Chinese music, in direct contrast with the harmony driven, vertically structured Western classical music.

Singing and instrumental often alternate with each other in a *Daezy* excerpt, in that some highly melismatic passages are vocal only and the instruments will stop playing, only after which the instruments resume into its default rhythm. Vocal techniques are at the foreground, while the instrumentals take the background. The musical characteristics of *Bindae* will be further explored in Section 2.4 under a more theoretical light, and some specific musical tropes will be examined in Chapter 6 in relation to tone-melody mapping.

Figure 2.1: A typical *Bindae* performance, with *Saeyii* on the left and *Bibo* on the right

2.3 *Bindae* repertoire

Most of *Bindae* repertoire stems from famous literature and folktales from Chinese history: for example, the four Classic Chinese novels in Ming and Qing dynasty – 西遊記 *Journey to the West*, 三國 *Romance of the Three Kingdoms*, 水滸傳 *Water Margin* and 紅樓夢 *Dream of the Red Chamber* – all have their corresponding long *Bindae* series. They lend themselves very well into each other because the chapters of those classical novels are directly borrowed from the earlier storytelling traditions (*Pingshu*) similar to *Bindae*, so the beginnings and ends of episodes do not need to be redesigned most of the time. Historical stories are popular because in feudal China current issues were taboo and there was basically no critiques of the current governmental administration allowed, so both writers and artists alike used history to comment on their current political situations discreetly. Biographies and dramaticisation of household names in history are also popular so that people can enjoy a more romanticised fuller version of the historical figure's life. Examples include 岳傳 *Biography of Yue Fei/Ngoh Fi* (patriotic general in Song dynasty)

and 文徵明 *Wen Zhengming/Ven Tsenmin* (famous Ming dynasty painter). As for folktales, 楊乃武 (與小白菜) *Yan Nevu (and Little Cabbage)* is a very popular *Bindae* series based on one of the 晚清四大奇案 Mysterious Criminal Cases of late Qing dynasty that the wife of a man and an academic getting framed for murder of the man, so just like modern crime stories there are many climactic moments of high tension and drama.

There is also a distinction between 大書 *Dousry* (lit. Big Books) which focus on specific historical folktales and epics using only storytelling and no music, and 小書 *Siausry* (lit. Small Books) which emphasise singing and may incorporate wider and newer topics such as romance, daily life and familial conflict (孫伊婷 Sun, 2022). Some *Siausry* series are very close to modern soap opera when there is a central mini-conflict each episode which does not necessarily serve the overarching plotline. Whether *Big* or *Small*, most *Bindae* series contain numerous characters and very complex storylines because they are often set around a grand theme and there are many subplots which can be explored individually, making the whole series more variegated and colourful.

The length of a *Bindae* series can range from a single episode (短篇 short-form), under ten episodes (中篇 mid-form), up to fifty episodes (長篇 long-form) and even about a hundred episodes (超長篇 super-long form), although middle to long form (about ten to thirty) is the most popular option because the venues like to change series every month or so. Sometimes guest performers can perform a single highlight episode, which is more and more common nowadays. Various performers can also be gathered to perform episodes from different series, and this form of ensemble performance is called 會書 *Wesry* (lit. meet book).

2.4 Music of *Daezy*

Music in *Daezy* is both consistent and variable: consistent because it is always in the major key if we view it from the Western lens, or *Gong* mode in the traditional Chinese

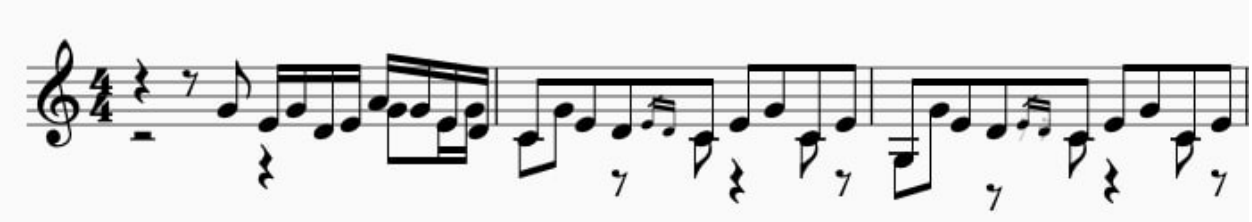

Figure 2.2: A typical accompaniment passage in between vocals. The notes pointing upwards belong to *Bibo* and the notes pointing downwards belong to *Saeyii*. It is written in C but both instruments can be tuned to any key.

system – that means it always returns to the tonic, *Gong*, which is the first degree of the scale. There are a number of templates to start a musical number in *Daezy*, one variant of which is shown in Figure 2.2 above:

Note the pentatonicism of this very much crucial passage omnipresent in *Bindae*, which corresponds to most folk music of the region. You can find a similar passage in the majority of *Daezy*, especially *Khepiis*/preludes. *Saeyii*, as the more 'percussive' instrument, generally plays fewer notes; while *Bibo*, the more virtuosic, plays more notes with ornamentation which is easier to do on it compared to *Saeyii*. Rhythmically, a half-full-half-full-full beat pattern as shown in Figure 2.2 is most common in a 4-beat cycle, with a syncopated first half and a nonsyncopated second half. Although there are many subtly different variants, this motif is heard in more than 95 percent of *Daezy* numbers – the exception being certain dramatic moments when notes other than tonic and dominant can be emphasised as a plot device.

Pentatonic scale, specifically *Gong* mode / major pentatonic, is the basis of *Bindae*, but sometimes the two extra notes from the major heptatonic scale – the equivalent to the major scale that Western musicians know and love – can be found, which changes and enriches the tonic-dominated harmony (even though *Bindae* artists definitely do not think of harmony the same way as Western music) (呂思敏 Lü, 2019). Dwelling on either fourth or seventh degree for a long time is seen as a way to build up tension, much similar to functional harmony in Western music. An example from the *Khepii* 蘇州的橋 *Bridges*

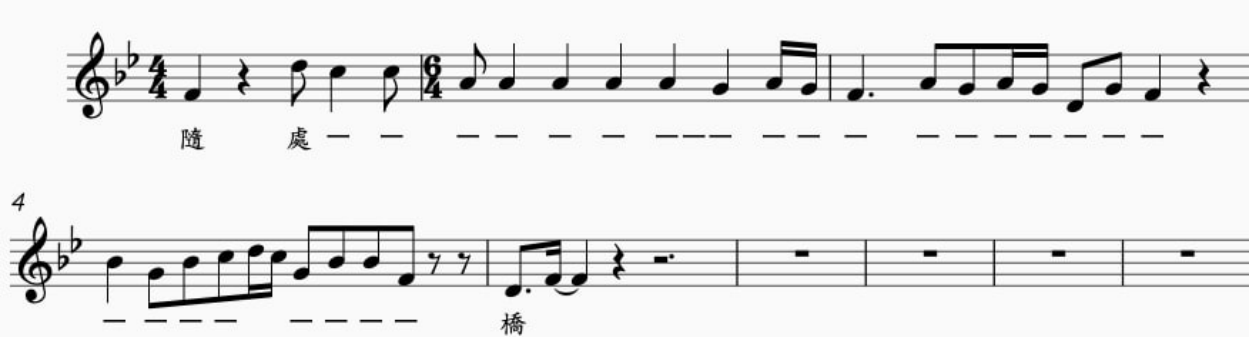

Figure 2.3: A sustained note on the seventh degree in 蘇州的橋 *Bridges of Soutseu*

of Soutseu is shown in Figure 2.3:

This excerpt uses the seventh degree of the heptatonic scale (here A in B♭ major) as a leading note waiting to be resolved, which we can find numerous analogies in Western music. It is not really a modulation (key change) per se since *Bindae* music never deviates farther than the heptatonic scale, but it functions similarly to modulation. What is worth noting is that the melismatic syllable spans several bars and is often quite a high note in the singer's range, which is a common occurrence in *Daezy* to showcase the singer's vocal prowess, but also a direct inheritance from various genres of Chinese regional operas who almost exclusively favour melismata rather than the one-syllable-one-note pattern. A notable exception to melismata is the tone-melody mapping for checked syllables with glottal stop codas [-ʔ], which will be explained in more detail in Chapter 6, along with a more thorough investigation into the many instances of how linguistic tones and melodies work together in *Bindae*.

2.5 A glossary of important *Bindae* terminologies

As an independent discipline of more than four hundred years, *Bindae* performers developed a collection of jargon that is only understood by ones who study *Bindae*, be it artists themselves, enthusiastic and experienced audience members, or scholars. In this section I will try and include the most important ones from *A Mini Dictionary of Bindae* (吳宗

Term	IPA	Literary translation	Meaning and notes
說書	ʃəʔ˥ ʃʒ̩ʷ˩	speak/talk book	perform *Bindae*
說表	ʃəʔ˥ piæ˦˥	speak act	acting in storytelling
書目	ʃʒ̩ʷ˥ moʔ˩	book content	a *Bindae* series/work
書場	ʃʒ̩ʷ˥ ʒã˨˩	book place	*Bindae* venue
書台	ʃʒ̩ʷ˥ dɛ˨˩	book platform	table at centre of performance
會書	ɦue˨˩ ʃʒ̩ʷ˥	meet book	an assortment of performers performing together
堂會	dã˨˩ we˩	room meet	a private performance at someone's house
大書	dəuᵝ˩ ʃʒ̩ʷ˥	big book	nonmusical *Bindae* based on historical epics
小書	siæ˦˥ ʃʒ̩ʷ˩	small book	*Bindae* of various topics containing music
檔	tã˦˥	shelf, stall	time slot > number of people performing
單檔	te˥ tã˦˥	single stall	1 person on stage
雙檔	ʃã˥ tã˦˥	double stall	2 people on stage, the most common arragement
三個檔	sɛ˥ kəuᵝ˩ tã˦˥	three stall	3 people on stage
敵檔	diəʔ˩ tã˦˥	enemy stall	the competing group of performers
拆檔	tsʰəʔ˥ tã˦˥	separate stall	not perform as a group anymore
響檔	ɕiã˥ tã˦˥	loud stall	famous and high caliber performer
漂脫	pʰiɛ˦˥ tʰəʔ˩	float away	cancel, not perform despite being scheduled to
報單	pa˦˥ tɛ˩	announce form	programme, often times directly outside the venue
關子	kuɛ˥ tsz̩˨˩	pass (diminutive)	points of during an episode
陰功	ʔiɲ˥ koŋ˨˩	Yin work	a more feminine and reserved style of singing
火功	həuᵝ˦˥ koŋ˩	fire work	a more masculine and fiery style of singing
家生	kɑ˥ sã˨˩	furniture	performing tools, specifically the instruments
腳本	tɕiɑʔ˥ pən˦˥	foot script	a skeletal script of the storyline
開篇	kʰe˥ pʰi˨˩	open piece	prelude, opening musical number
念白	ȵi˧ bɑʔ˩	read white	spoken words on top of music
扦講	tsʰi˥ kã˦˥	skewer speak	introductory remarks
簽子	tsʰi˥ tsz̩˨˩	label, tag	a single audience member (tags were used to count audience members)
抽簽	tʃʰʏ˥ tsʰi˨˩	remove label	audience member leaving during performance
上手	ʒã˧ ʃʏ˥	up hand	upper hand > more experienced performer
下手	ɦo˧ ʃʏ˥	down hand	lower hand > relatively new performer
噱頭	ɕyəʔ˥ dʏ˩	funny head	hook, joke
噱書	ɕyəʔ˥ ʃʒ̩ʷ˥	funny book	*Bindae* series with lots of humorous elements
真嗓	tʃən˥ sã˦˥	real throat	modal voice
假嗓	tɕiɑ˦˥ sã˩	fake throat	falsetto
肉裡噱	ȵoʔ˨˩ liᶻ˩ ɕyəʔ˨˩	meat in hook	in-context joke
外插花	ŋɑ˨˩ tsʰaʔ˥ ho˨˩	out plant flower	tangential joke

Table 2.1: List of important *Bindae* terminologies

錫 Ghou, 2011), a very comprehensive resource on *Bindae* terminology which includes more than 1500 entries. Table 2.1 is a list containing the original term, IPA, literary translation (transcribed and translated by myself respectively), and meanings in English.

Obviously this hand-picked list is far from comprehensive, but it demonstrates the several characteristics of *Bindae* terminology fairly well: 1) nonliteral language is used extensively, including a lot of simile and metaphor; 2) some terms (e.g. 簽子 and 抽簽 on Rows 26-27) can be linked directly to the idiosyncrasies of people's actual practice in *Bindae* industry; 3) some terms are semantic narrowings and widenings from usual language use (e.g. 家生 'furniture > instrument' on Row 21); and 4) though most terms are *Bindae*-exclusive, it also borrowed terms from outside *Bindae* – including the name of Bindae performance itself (說書) and the term for general script (腳本), both are common words in all Chinese languages, not limited to Soutseu dialect itself. This glimpse into *Bindae* terminology shows that language use in *Bindae* is extremely dynamic, metaphorical and creative – it borrows from common language but also differs from it and creates new exclusive language out of it. This theme can be found in all of the following chapters, demonstrating the multilayeredness of language use in *Bindae* that it draws from all available linguistic sources for maximal artistic effect.

CHAPTER 3

SOUND SYSTEMS IN *BINDAE*

Phonetics has long been a central focus of *Bindae* teaching and learning: whether from my own fieldwork or online interviews alike, *Bindae* performers emphasise the significance of pronouncing things 'right'. Performers must master all the language varieties appearing in *Bindae*, and the complexity of Soutseu dialect in particular is an additional obstacle for non-Soutseu natives. (Most Bindae performers hail from the Northern Wu-speaking region so at least they have a closely related mother tongue to Soutseu dialect.) The pronunciation standards are prescribed, but loosely regulated, so there exists ample variation.

The main storytelling part of *Bindae* uses an older and arguably more conservative form of Soutseu dialect, while the musical part of *Daezy* uses a variant of 中州韻 *Zhongzhouyun*, which has a range of Mandarinised features despite also being based on Soutseu dialect. This chapter focuses on the two phonological systems commonly uttered and sung by *Bindae* performers, as well as their internal variations.

3.1 Soutseu dialect used in *Bindae*

This section will focus on the phonology of the variety that is most commonly used in *Bindae* storytelling: as previously stated, it is a fossilised form of older and more conservative Soutseu dialect, situated within the Northern Wu/Taihu (Lake Tha) Wu branch.

Here in this dissertation I follow the tradition in Sinitic (historical) linguistics of dividing syllables into initials and rhymes because there are limited codas and ample vowel allophony in the language.

Figure 3.1: Geographic distribution of Wu dialects. All varieties labelled (Taihu) belong to Northern Wu, where Soutseu is located in the centre of the lime green area.

	Labial	Alveolar	(Palato-alveolar)	Alveopalatal	Velar	Glottal
Stop	p p^h b	t t^h d			k k^h g	ʔ
Affricate		t͡s t͡s^h	t͡ʃ t͡ʃ^h	t͡ɕ t͡ɕ^h d͡ʑ		
Fricative	f v	s z	ʃ ʒ	ɕ		h ɦ
Nasal	m	n		ȵ	ŋ	
Lateral		l				

Table 3.1: Initial onsonants of *Bindae* Soutseu dialect

3.1.1 Initial consonants

The consonant inventory of *Bindae* Soutseu dialect is shown in Table 3.1 above.

Regarding consonants, *Bindae* Soutseu dialect is different from modern Soutseu dialect mainly by the retention of the post-alveolar series (here marked as palato-alveolar in particular): these are descendants of the Middle Chinese retroflex series 潘悟雲 Pan (2000). The distribution of this postalveolar series differs greatly from Standard Mandarin though – details will be discussed in Chapter 4. Based on my own transcription and contrary to popular transcriptions such as 汪平 Uaon (2011), these consonants are not retroflex but rather palato-alveolar. Their status is highly variable from performer to performer: in general older performers tend to use them more and younger performers less, due to the influence of their native tongues: most modern Northern Wu varieties lack a palato-alveolar or retroflex series, with 常熟 *Changshu/Dzranzroh*, a county-level city under jurisdiction of Soutseu, being a notable exception. Within *Bindae* industry, it is prescribed but not rigorously reinforced.

Like all Northern Wu varieties, *Bindae* Soutseu dialect exhibits a three-way voice onset time (VOT) contrast in stops preserved from Middle Chinese, with plain/tenuis, aspirated and voiced series. Based on spectogram data in 汪平 Uaon (2011), the VOTs of the three series are close to 0, >100 and <0ms respectively. (An exception is voiced fricatives in initial positions, discussed in the next paragraph.) In affricates and fricatives the contrasts are more complicated and there are gaps: there are /t͡s t͡s^h/ without /d͡z/ (which shifted to

/z/), similarly /t͡ʃ t͡ʃʰ/ without /d͡ʒ/ (which shifted to /ʒ/), but /t͡ɕ t͡ɕʰ d͡ʑ/ are all present while /ʑ/ shifted to /d͡ʑ/ [1]. (In comparison, neighbouring Zaonhe dialect has /ʑ/ which came from the palatalisation of */zi/, which stays /zi/ in Soutseu.) These mergers show a closer affinity between affricates and fricatives than affricates and stops which have never merged into one another. The general retention of voiced obstruents yields more than 30 initials in Soutseu dialect, considerably more than other branches of Chinese – most non-Wu natives struggle to pronounce them correctly or even perceive the voiced series as different from the voiceless unaspirated series. This explains why virtually all *Bindae* performers come from a Wu, especially Northern Wu-speaking background.

The voiced fricatives exhibit what is called 清音濁流 'Voiceless sound with voiced flow' in Wu phonological literature, where in word-initial position they partially devoice. This is in line with the general trend of obstruent devoicing in Chinese languages, for most Chinese languages have lost voiced obstruents completely already – Wu is currently going through this sound change in real time in certain positions, which is how this allophony arose (楊秀芳 Yang, 1989). For example, /z/ may be transcribed as [sz], [sfi] or [z̥] by different linguists. This can be compared to slack voiced consonants in Xhosa and Zulu, or breathy voiced consonants in Indo-Aryan languages. There is much variation on exactly how devoiced and murmured/breathy voiced word-initial fricatives are, and this variation is most prevalent when sung in *Daezy*, which will be discussed in Section 3.3 later. Overall, the voiced phonemes can still be easily distinguished through multiple cues, including different pitches – voiceless initials are always followed by a high-starting tone and voiced initials followed by low-starting tone – and different sandhi patterns (the sheer complexity of tone sandhi in Soutseu dialect will be described in Section 6.1).

Through spectral analyses, Koenig & Shi (2014) finds that /ʔ/ /h/ /fi/, the three glottal consonants, also participate as part of the three-way stop contrast phonologically – that

1. In Middle Chinese, 俟母 *ʑ is not a common initial at all with scarce characters despite being one of the 三十六字母 Thirty-six Initials, so this shift is relatively minor.

Word-initial	Word-internal
上海 [ʒ̊ɑ̃˩ he˥] ‘Shanghai’	看上去 [kʰɵ˨ ʒɑ̃˧ tɕʰiᶻ˨] ’it seems like’
飯店 [ɣɛ˩ ti˥] ‘restaurant’	吃飯 [tɕʰiə̯ʔ˥ vɛ˧] ‘eat’
前頭 [ʑi̥˩ dɤ˧] ‘front’	門前 [mən˧ zi˧] ‘in front of’
學堂 [ɦioʔ˧ dɑ̃˨] ‘school’	大學 [dɑ˩ o̤ʔ˧] ‘university’
會書 [ɦue˩ ʃʒ̊ʷ˥] ‘ensemble performance’	機會 [tɕiᶻ˥ we˩] ‘opportunity’
弦索 [ɦi˩ soʔ˥] ‘strings‘	三弦 [sɛ˥ ji˩] ‘three strings‘

Table 3.2: Consonant allophony in *Bindae* Soutseu dialect

is, /h/ and /ɦ/ function just like stops. Younger speakers also tend to merge /ɦ/ with /ʔ/, not /h/, as would be expected if it were phonotatically a fricative (顧欽 Gu, 2008). /ɦ/ also does not participate in the partial devoicing above because one of the prominent realisations of that is some [ɦ]-like element, which again indicates that /ɦ/ does not phonologically behave like a fricative. [ɦ] is deleted at the middle of a phonological word that belongs to the same sandhi domain, leaving a breathy-voiced vowel behind. /ɦi-/ and /ɦu-/ sequences lose [ɦ] and become full glides [j] and [w] in the same environment. Some examples of alternations of the voiced fricatives and glottal consonants can be found in Table 3.2.

The alveopalatal series is phonetically a bit fronter and closer to the palato-alveolar series than either modern Soutseu dialect or Standard Mandarin, akin to values in Slavic languages like Polish or Russian.

3.1.2 Final rimes

Similar to the rich inventory of initial consonants, *Bindae* Soutseu dialect also has a comparatively large set of final rimes, shown in Table 3.3 with example characters [2] [3]. This table includes the most common pronunciations of the rhymes – more fine-grained vari-

2. Underlining in the table represents this rime only exists in the literary register. This will be explained more in Chapter 5.

3. Key: F̩ = syllabic fricatives, V^F = fricativised vowels, Ṽ = nasalised vowels, VN = with nasal coda, Vʔ = with glottal stop coda, N̩ = syllabic sonorants

	-	i-	u-	y-
F̩		ʐ̩ 絲師		ʒ̩ʷ 書水
V^{F}	əu^{β} 歌多	i^{ʑ} 地閉	u^{β} 波無	y^{ʑʷ} 虛女
V		i 天全		ʏ 頭流
	o 巴花	io 靴		
	ɑ 買家	iɑ 嗲佳	uɑ 乖歪	
	a 好貓	iæ 橋小		
	ɛ 蘭蛋		uɛ 關寬	
	e 海雷		ue 歸為	
	ɵ 搬短	iɵ 捐圈	uɵ 歡館	
Ṽ	ɑ̃ 上檔	iɑ̃ 江	uɑ̃ 光黃	
	ã 場梗	iã 香洋	uã 橫	
VN	ən 根尊	iᵊɲ 金銀	uən 溫滾	yᵊɲ 群雲
	oŋ 動工	ioŋ 窮用		
Vʔ	ɑʔ 客嚇	iɑʔ 腳約		
	aʔ 襪插	iaʔ 甲	uaʔ 刮挖	
	əʔ 不得	iəʔ 級一	uəʔ 活骨	yəʔ 噱缺
	oʔ 八綠	ioʔ 局肉		
N̩	ᵊl̩ 而	m̩ 嘸	n̩ 唔	ŋ̩ 五

Table 3.3: Final rhymes in *Bindae* Soutseu dialect

ation will be discussed in Section 3.3. Common rhymes are represented by two example characters and uncommon ones by a single example.

Overall, like all Northern Wu dialects, *Bindae* Soutseu dialect possess a large number of rhymes, and many distinct vowel qualities within the rhymes. Together with Danish, Northern Wu is among world's languages with the most vowel qualities (There are some dialects from suburbs of Zaonhe that have even more than Soutseu). Pinning down the number of individual vowel phonemes is a difficult task because of the extensive allophony, and whether to treat /i/ /u/ /y/ as glides in certain rhymes versus others – if so, they should be treated as consonants so the number of consonants will in turn be increased. Per Sinological traditions here I transcribed them as vowel sequences, but if /i/ /u/ /y/ precede a vowel they might as well be pronounced [j] [w] and [ɥ] respectively.

Soutseu dialect also has plenty of crosslinguistically unique rhymes, including syllabic nasals /m̩/ /n̩/ /ŋ̩/ (only in colloquial register), syllabic fricatives /ʐ̩/ /ʒ̩ʷ/ and fricativised

vowels /iᶻ/ /uᵝ/ /yᶻʷ/. The level of frication in the phonemic fricativised vowels varies greatly from speaker to speaker or even within the speech of a single speaker; however, they should at least have some frication in order for them to be distinguished from their 'plain' counterparts one row below. The distinction between /ɑ/ and /a/ is marginally found in other Northern Wu dialects (e.g. in Shanghainese/Zaonhe dialect where only /ã/ /ɑ̃/ are distinguished), but here it is a very prominent phonemic distinction all over the phonological system.

My transcription differs from 汪平 Uaon (2011) and traditional descriptions of Soutseu dialect in several places. 汪平 Uaon (2011) considers both phonetics and phonology so he ends up landing on something in the middle, which shows inconsistency: for example, he notes the fricativisation of /iᶻ/ in the body text but does not show it at all in his transcription (as /i/), whereas he uses /ɪ/ (and other traditional descriptions may use something like /iɪ/) for the value [i] in characters like 天 which can be misleading and counter-intuitive. The reasoning he gives for that is to match the /i/ elements in other rhymes with the /i/ rhyme (corresponding to my /iᶻ/ rhyme), but phonetically the second column rhymes with /i-/ are not fricativised as he suggests – therefore, using the same symbol for both does not make sense phonetically. He also treats my /iᶻ/ and /uᵝ/ differently (as /i/ and /ʮ/), which is unintuitive because they behave similarly with same amount of frication. The key difference between rhymes in rows 2 and 3 is frication, and my transcription shows exactly that. *Bindae* performers consistently pronounce /ʏ/ as [ʏ] instead of the modern [øʏ], so I transcribed it accordingly. For /o/, some descriptions have [ʊ], but considering it does not pattern with /ʏ/ at all and the phonetic value is indeed [o], I chose the more common /o/. Comparatively, 葉祥苓 Yih (1988) gives a more thorough description, which includes certain vowel allophony, like /iəʔ/ is pronounced [iɪʔ] after labials and alveolars. He also points out the central quality of traditional /ø/, which I hence described as /ɵ/. /ɛ/ /uɛ/ merged with /e/ /ue/ into central /ẹ/ /uẹ/

in modern Soutseu, but the majority of *Bindae* performers still have the distinction, so I separated them out.

The entire system is also full of gaps and asymmetries, and some rhymes are more marginal than others. 葉祥苓 Yih (1988) points out that /əuᵝ/ and /uᵝ/ are in complementary distribution: /uᵝ/ is only after labials whereas /əuᵝ/ never occurs, and vice versa – the phonetic qualities are different enough, so I treated them as different rhymes in my transcription. /ʐ̩/ and /ʒ̩ʷ/ are also in complementary distribution: /ʐ̩/ can only be preceded by alveolar affricates and fricatives, and /ʒ̩ʷ/ with palato-alveolars, hence the lack of counterparts /ʒ̩/ and /ʐ̩ʷ/. (More variation on these will be discussed in Section 3.3.) /i/ corresponds to /ʏ/, and /a/ to /iæ/, which shows that there is sometimes just asymmetry and allophonic vowel quality differences in a single series. /io/ is a marginal colloquial rhyme with only a handful of characters like 靴 and 亞 – they only occur in the colloquial register; conversely, /iɑ̃/ and /ia?/ are marginal literary rhymes (notice how they don't correspond to each other as well, /iã/ and /iɑ?/ are the more common counterparts). The /u-/ rhymes can only follow velars and glottals, and /y-/ rhymes only follow palato-alveolars. 汪平 Uaon (2011) places the /u-/ rhymes into consonants (thus having five additional consonants /ku/ /kʰu/ /gu/ /hu/ /u/ using a vowel symbol /u/), but leaves the more limited /y-/ behind, which is again inconsistent. Taking a more phonetic approach, I leave the rhymes as they are and organised them in a way to show the gaps more clearly: a lot of rhymes lack counterparts, and their frequencies generally decrease from left side to right side of the table. Again, further speaker variation will be explored in Section 3.3.

3.1.3 Citation tones

Bindae Soutseu dialect, like modern Soutseu dialect, has seven citation tones – when pronounced fully on their own as single syllables – as shown in Table 3.4.

Name	Number	Five-degree	IPA	Examples
陰平 Light Level	T1	44	˦	天低虛書千關
陽平 Dark Level	T2	213	˧˩	頭橋爬齊王樓
陰上 Light Rising	T3	52	˥˧	死好館永水景
陰去 Light Departing	T5	513	˥˩	去閉店盼四愛
陽去 Dark Departing	T6	231	˨˧	老語慢我爛大
陰入 Light Entering	T7	4ˀ	˦ˀ	忽吃筆得一急
陽入 Dark Entering	T8	23ˀ	˨ˀ	級絕綠白襪月

Table 3.4: Citation tones in *Bindae* Soutseu dialect

As indicated by their Chinese names stemming from Middle Chinese, most tones come in voiceless (light) and voiced (dark) pairs: 1-2, 3-4, 5-6 and 7-8 – the missing T4 (dark rising) merged with T6 (dark departing), so it does not matter which name it takes exactly – by convention I use T6 陰去 dark departing here. In general, syllables with voiceless initials can only take T1/3/5/7 and syllables with voiced initials can only take T2/6/8; the only exception is that some literary pronunciations of nasal initials can be T1, for example 我 (colloquial [ŋəuᵝ˨˧] T6, literary [ŋəuᵝ˦] T1 and 拿 (colloquial [no˧˩] T2, literary [no˦] T1 and [nɑ˦] T1). Furthermore, checked syllables (with glottal stop codas) can only take T7/T8 while other syllables take T1/2/3/5/6 – phonemically one can argue that it has only three citation tones: T1-2-7-8, T3 and T5-6; however, this is not helpful for several reasons: 1) native speakers will recognise them as different tones; 2) they have completely different contours and 3) they lead to completely different sandhi patterns. Thus, I will keep the phonetic approach usually employed in this dissertation and treat them as 7 separate tones. My transcription differs from 汪平 Uaon (2011) and 葉祥苓 Yih (1988) in that I record T2 as 213 because there is a significant enough dip in the middle, T3 as 52 because comparatively it does not fall to the lowest point of T5; otherwise my description conforms to the literature.

Compared to other Chinese languages and even to Northern Wu dialects, the tonal picture of Soutseu dialect is complex: it contains only one true level tone T1 ˦ (44), other tones either have two or at most three targets, which is rare crosslinguistically. Citation

T5 and T6 are specifically hard to pronounce for non-native learners. There are also significant length differences, mainly between shorter checked and longer non-checked syllables, but also among the non-checked syllables there are relatively shorter tones (T1/3/6) and longer tones (T2/5). Note that length does not always correspond to how many tonal targets there are, specifically in the case of T6 where the three targets are often reached in quick succession.

Tone sandhi will be (attempted to be) described in Section 6.1.

3.2 *Zhongzhouyun* 中州韻 in *Bindae*: a minimally Mandarinised Wu

If you ask a *Bindae* performer what pronunciation standard they abide by when singing, they would tell you it is *Zhongzhouyun* 中州韻 (lit. central prefecture rhyme), also known as *Yunbai* 韻白 (lit. rhyme vernacular). However, historically and regionally, *Zhongzhouyun* is very much a moveable target – it is the name of a non-regulated folk standard in various Chinese music and operas. Roughly speaking, *Zhongzhouyun* is based on – or has elements of – the Yuan dynasty rhyme book 中原音韻 *Central Plains Rhymes*, which describes the phonology of contemporary Mandarin. For example, *Khun* Opera (see Section 1.4 for a brief introduction) also has it, as well as Beijing Opera, Cantonese Opera and *Lam'im*. These genres span the entirety of Eastern China and distinct linguistic areas, so their specific *Zhongzhouyuns* are in turn very different. Given its prevalence in musical operatic performances, it also has another name called *Xipeng Guanhua* 戲棚官話 (lit. opera stall Mandarin). This name reveals the perception held by the participants of these genres that it is a form of Mandarin, or literally 'official speech' – but is it? This section will examine the *Zhongzhouyun* variant used in *Bindae*, which is exclusively used in the musical numbers of *Daezy*.

Originating from *Khun* Opera dictions, *Zhongzhouyun* used in *Bindae* has elements of both Wu and Mandarin. To discern exactly which elements it has, let us take a look at

its phonological system: its initial consonants can be shown in Table 3.1 – oh, there is not another new table. The *Zhongzhouyun* initials are exactly the same as regular Soutseu dialect in *Bindae*, with retention of three-way stop and affricate contrast which is the defining characteristics of Wu. However, there are differences for certain characters. Firstly, some characters with colloquial velar and glottal initials /k/ /k^h/ and /h/ in Soutseu become /tɕ/ /$tɕ^h$/ /ɕ/ in *Zhongzhouyun*: e.g. 江 'river' /kɑ̃/ (Soutseu) ～/tɕiɑ̃/ (*Zhongzhouyun*, same below), 嚇 'scare' /hɑʔ/ ～/ɕiaʔ/ – nonetheless, this phenomenon is already Wu-internal lexically and *Zhongzhouyun* is a mere extension to more lemmas. (See Section 5.1 for a more thorough description.) Secondly, because /ȵ/ (before front vowels) ～/ŋ/ (before back vowels) ceases to be a phoneme during Yuan and Ming dynasties in Mandarin (胡安順 Hu, 2003), *Bindae Zhongzhouyun* mimics it by deleting the corresponding initials: e.g. 眼 'eye' /ŋɛ/ ～/ɦi/ , 藝 'art' */ŋi/ > /ȵi/ ～/ɦi/ (de facto zero initial, see discussion of the relationship between /ʔ/ and /ɦ/ in the previous section 3.1.1); yet this is not a systematic change, some characters in some circumstances still keep it, e.g. 鑽研 /t͡sɵ ȵi/ 'investigate, delve into' and 熱情 /ȵiəʔ ziᵊȵ/ 'enthusiastic'.

These lexically-based changes show the somewhat idiosyncratic nature of *Zhongzhouyun* in general, which can be seen more through its final rhymes, shown in Table 3.5. Again, one single character represents an uncommon rhyme and two shows a common one – if there are more than two characters, it involves different sounds between Soutseu dialect and *Zhongzhouyun*, be it merger or correspondences.

Noticeably, *Zhongzhouyun* here collapses a lot of rhymes and rearranges many of them as well, compared to *Bindae* Soutseu dialect. The number of rhymes decreased from 49 to 37. Several rhymes and rhyme classes (rows in the table) are deemed 'colloquial' so they never appear on the musical *Zhongzhouyun* side: the fricativised vowels largely disappear, with /$u^β$/ merging into /əu/ even after labials (frication removed), /$i^ʑ$/ and /$y^{ʑʷ}$/ both lose their frication. /o/ and /ɑ/ classes collapse into central [ä], the Mandarin

	-	i-	u-	y-
Ḟ		ʐ̩ 絲師		ʒ̩ʷ 書處
V		i 地天全眼	əu 歌無	y 虛女
	ʏ 頭流			
	a 巴大	ia 佳家	ua 花瓜	
	au 好	iau 橋		
	ɛ 蘭蛋寒		uɛ 關寬	
	e 海雷買		ue 歸為水外	
	ɵ 搬短	iɵ 捐圈	uɵ 歡館	
Ṽ	ɑ̃ 上浪	iã 香洋江	uɑ̃ 光黃	
VN	ən 根尊	iᵊɲ 金銀	uən 溫滾	yᵊɲ 群雲
	oŋ 動工	ioŋ 窮用		
V?	a? 襪插脈	ia? 甲嚇	ua? 刮挖	
	ə? 得色客	iə? 級一	uə? 活骨	yə? 噱缺
	o? 不八綠	io? 局肉		
Ḷ	ᵊl̩ 而			

Table 3.5: Final rhymes in *Bindae Zhongzhouyun*

equivalent (here I use /a/ for convenience and also /ä/ is a bit misleading in IPA since it's not an umlaut) whereas /a/ class corresponds to /au/, a Mandarin-like diphthong. (Wu is evidently quite monophthong heavy and Standard Mandarin the opposite.) A similar merger occurs for /a?/ and /ɑ?/ classes into /a?/, as well as /ã/ and /ɑ̃/ into a /Ã/ phoneme that is allophonically conditioned – fronted [ã] after /i-/ and back [ɑ̃] elsewhere. Both /ɛ/ and /e/ series gain new members from /ɵ/ series which is considered a more colloquial rhyme. For checked syllables, there are also significant shuffling around of which character belonging to which rhyme. The semi-productive correspondences between Soutseu dialect and *Zhongzhouyun* in *Bindae* can be summarised as follows (tone omitted for simplicity):

- Soutseu (ST) velar/glottal + /ɛ/ and *Zhongzhouyun* (ZZY) /i/, corresponding to Yuan-dynasty Mandarin (abb. YM) /ian/ (寧繼福 Ning, 1985), same below: 眼 /ŋɛ/ ～/ɦi/ 'eye', 間 /kɛ/ ～/tɕi/ 'gap, middle, room', 限 /ɦɛ/ ～/ɦi/ 'restrict' (exception: in the colloquial Soutseu word 播音間 /puᵝ ʔiᵊɲ kɛ/ 'broadcast room')

- ST /ɵ/ and ZZY /ɛ/, YM /an/: 南 /nɵ/ ～/nɛ/ ‘south’, 寒 /ɦɵ/ ～/ɦɛ/ ‘cold’, 看 /kʰɵ/ ～/kʰɛ/ ‘look, see’ (exceptions: 安 ST and ZZY /ʔɵ/ ‘safe, peace’, 趕 ST and ZZY /kɵ/ ‘drive’, 酸 ST and ZZY /sɵ/ ‘sour’)
- ST /o/ and ZZY /a/-/ua/, YM /a/-/ua/: 把 /po/ ～/pa/ ‘catch, hold by hand’, 茶 /zo/ ～/za/ ‘tea’, 花 /ho/ ～/hua/ ‘flower’
- ST /ɑ/ and ZZY /e/, YM /ai/ or /iɛ/: 買/賣 /mɑ/ ～/me/ ‘buy/sell’, 外 /ŋɑ/ ～/ɦue/ ‘outside’, 惹 /ʒɑ/ ～/ʒe/ ‘offend, provoke’
- ST /iᶻ/ and ZZY /ʮ/, YM /ʮ/: 死 /siᶻ/ ～/sʮ/ ‘die’ (most /iᶻ/ rhyme corresponds to /i/)
- ST /ʒ̩ʷ/ and ZZY /ue/, YM /uei/: 水 /ʃʒ̩ʷ/ ～/ʃue/ ‘water’, 吹 /t͡ʃʰʒ̩ʷ/ ～/t͡ʃʰue/ ‘blow’
- ST /ʒ̩ʷ/ and ZZY /ʏ/, YM /u/: 主 /t͡ʃʒ̩ʷ/ ～/t͡ʃʏ/ ‘master, main, initiate’ (exception: 處 ST and ZZY /t͡ʃʰʒ̩ʷ/ ‘place of’)
- ST /ɑ̃/ and ZZY /uɑ̃/, YM /uaŋ/: 狀 /ʒɑ̃/ ～/ʒuɑ̃/ ‘state of being’ (exception: 窗 ST and ZZY /tʃʰɑ̃/ ‘window’)
- ST /iɑʔ/ and ZZY /ioʔ/, YM /iau/: 約 /ʔiɑʔ/ ～/ʔioʔ/ ‘appointment, arrange’, 鵲 /tsʰiɑʔ/ ～/tsʰioʔ/ ‘magpie’
- ST /ɑʔ/ and ZZY /oʔ/, YM /ɔˀ/: 若 /ʒɑʔ/ ～/ʒoʔ/ ‘if’
- ST /əʔ/ and ZZY /oʔ/, YM /uˀ/: 不 /pəʔ/ ～/poʔ/ ‘not’
- ST /ɑʔ/ and ZZY /əʔ/, YM /əˀ/: 白 /bɑʔ/ ～/bəʔ/ ‘white’

These changes show the influence of Mandarin phonology on *Bindae Zhongzhouyun*, but overall the pronunciations are learnt on a lexical basis, without any overt knowledge of historical linguistics or sound change being passed down through generations.

Nevertheless, the influence of Mandarin in *Bindae Zhongzhouyun* is not as extensive as many other adaptions of *Zhongzhouyun* in different musical traditions: Soutseu has long been the most significant cultural capital of the Wu-speaking region, and Soutseu dialect served as a higher-class language in the area throughout most of feudal China. Therefore, even though *Zhongzhouyun* is a heightened phonological register, in *Bindae* the language stayed mostly within the framework of Wu phonology despite being subject to a certain amount of Mandarinisation: the retention of almost all the initials, the still strong preference of monophthongisation and the omnipresence of short 入聲 checked-tone syllables all indicate that Wu features are still robust, even though certain Mandarin features like /au/ crept in. Chapter 4 will be devoted to the entire historical linguistic trajectory of both Soutseu dialect and *Zhongzhouyun* in *Bindae*, dissecting whether particular sound changes are conservations or innovations, and how the sound changes operated to give our current phonologies in *Bindae*.

3.3 Phonetic variation

The previously described phonological systems in Sections 3.1 and 3.2 are generalisations – ample variation exists upon multiple parameters, including intra-speaker variation, inter-speaker variation, gender and age. In this section I summarise the minute phonetic differences that one may encounter among different performers.

As stated, consonants are in general more stable than vowels. There are very much consensuses on the VOTs of the three-way contrast between /P/, /P^{h}/ and /B/, and a robust difference between /t͡si-/ (尖音 'sharp sounds') and /t͡ɕi-/ (團音 'round sounds'), e.g. 接 [t͡sɪʔ˥] vs. 急 [t͡ɕɪʔ], unlike the surrounding Wu dialects and even very new (post-2000) Soutseu speakers. There are variation in the pronunciation of the following consonants:

There is significant variation with regards to the existence of postalveolar series /t͡ʃ

t͡ʃʰ ʃ ʒ/ – considering how they disappeared from Soutseu city proper at least 100 years ago (汪平 Uaon, 2011), the current inconsistencies are fairly explicable. Nowadays, the postalveolars are not readily enforced, so a certain performer can pronounce a certain postalveolar character as postalveolar but another such character as plain alveolar even in a very short span of time – there are numerous instances of this, one of which is the phrase 桂生夭壽身亡 [kue˥ ʃən ʔiau˥ zʏ˧˩ ʃən˦ vã˨˩]] 'Kuesren died prematurely' uttered by 姜嘯博 Cian Siaupoh in Episode 26 of 弦索春秋 *Springs and Autumns of Strings and Threads*. In the six syllables, three of them are etymologically postalveolar (thus prescribed to be so) but Cian only pronounced two of them as such and one of them as a plain alveolar. Age is also a factor – the younger a performer is, the more likely for them to pronounce everything as alveolar instead, or even mixing it up (later in the episode Cian pronounced 算數 'count' as [ʃɵ˥ səuᵝ˩]] when it should be in fact [sɵ˥ səuᵝ˩]], a genuine mistake). Which characters are postalveolar cannot be deduced by modern Soutseu dialect nor Standard Mandarin, so performers have to be trained to know which is which. Chapter 4 offers a more thorough look into this and the different distributions of postalveolars between *Bindae* Soutseu Wu and Standard Mandarin. Though as mentioned, of the postalveolars pronounced, none of them are Beijing-style retroflexes, therefore I record them as palato-alveolars.

With regard to 清音濁流 'Voiceless sound with voiced flow' – the partial devoicing of utterance-initial fricatives, there is more variation when sung than spoken, partially because syllables are separated more and stretched to greater length when sung. What constitutes a phonological word or sandhi domain may shift, providing more grounds for voiced fricative phonemes to be treated as "initial" as long as there is a pause in the vocal line, which in turn boosts the percentage of devoicing when sung in *Daezy*. However, a lot of performers also just directly transfer the rules outlined in Section 3.1.1 into singing with no difference, regardless of pauses in music itself. An example can be found in

the phrase 藝人全靠有人捧 /ɲi ʐən || zi kʰau jʏ ɲiᵊɲ pʰoŋ/ ‘artists are all reliant on having sponsors’ in the same episode of *Springs and Autumns of Strings and Threads*: there is a musical pause between second and third syllables, so one rendition by 高博文 Kau Pohven (President of Zaonhe *Bindae* Association) devoices the /z/ to partially voiced [ʐ̥] in the third, but another rendition by aforementioned Cian Siaupoh kept it as a full [z]. Therefore, we can see the degree of application for initial fricative devoicing is largely subject to individual preferences.

Idiolectal variation exists in other consonants and some are more marked than others: Cian, a prominent performer and the Vice President of Zaonhe Bindae Association, pronounces /h/ as [x] quite consistently – he is the only *Bindae* performer in the entire collection doing so, yet obviously it is acceptable because no one treated that to be wrong and he is constantly performing with [x]. Given that both [x] and [h] are acceptable variants of the same phoneme in Mandarin and [x] does not exist in Soutseu normally, this does not affect understanding and is not penalised. The pronunciation of /ɦ/ also varies as to how much airflow there is: while there is a conditioned allophonic situation regarding it (see Section 3.1.1), some speakers pronounces it as full [ɦ] always regardless of context because [ɦ] is a unique sound to Northern Wu among Chinese languages, and younger speakers are losing it. Therefore, we can see that what is considered quintessentially *Bindae* phonology is variable – the amount of variation exists in *Bindae* performers also shows that there is certain amount of phonetic tolerance even within a seemingly rigid and prescriptive linguistic community.

Compared to consonants, vowels are almost always variable crosslinguistically, and there is no shortage of vowel quality variation reflected in the rhymes – and consequently some variation on codas as well. The specific phonetic realisations and possible variation of rhymes are as follows:

- /ʒ̍ʷ/ follows postalveolars only – if the character is pronounced as plain alveolar

by the speaker, [ʐ̩ʷ] is used instead by principle of assimilation. 葉祥苓 Yih (1988) mentions [ʒ̩] (Sinological [ʮ]) as well but since /ʐ̩/ and /ʒ̩ʷ/ are in complementary distribution already and no sound changes introduce postalveolars back, [ʒ̩] is unnecessary.

- As mentioned in Section 3.1.2, the amount of frication varies when it comes to fricativised vowels. However, they are never pronounced with zero frication in spoken Soutseu dialect because that neutralises the distinction between /iᶻ̧/ and /i/ specifically – frication carries phonemic information there. Nevertheless, this merger is complete in music under most circumstances and in neighbouring Zaonhe dialect (提 /di/ 'lift' = 甜 /di/ 'sweet'). One explanation of why they are merged in music can be that *Bindae* is full of melismata, and holding frication for such a long time, even though possible, is not quite sustainable; coupled with several other mergers with Mandarin influence, it is acceptable that the two phonemes merge when sung but not spoken. Similarly, /əuᵝ/ and /yᶻ̧ʷ/ are variably fricativised when spoken but often not when sung. /uᵝ/ is in general the most fricativised out of the four in that it can even inch toward [ʋ̩] (汪平 Uaon, 2011), or as similarly fricativised as /iᶻ̧/. /iᶻ̧/ is almost never full-on [ʐ̩], neither is /yᶻ̧ʷ/ full-on [ʐ̩ʷ] – they usually have both consonantal and vocalic properties, and can be alternatively transcribed as [i̯] and [y̯] with the raised IPA diacritic. For clarity, this dissertation uses additional consonant superscripts to show the frication more clearly.

- /ʏ/ is unexceptionally pronounced [ʏ], never its modern counterpart diphthongal [øʏ], which is a signature of *Bindae* phonology.

- When spoken, /o/ and /ɑ/ are fully back [o] and [ɑ]. /ɑ/ is another defining feature of Soutseu given that neighbouring dialects all have /a/ as central [ä] with a rather peripheral /a/ /ɑ/ distinction, while in Soutseu the distinction is fully phonemic.

- /a/ (as in 好/包/老, romanised as <au>) is arguably the phoneme with the most variation. Pronunciations range from [ɐ̟], [æ], [a] (front unrounded cardinal vowel like contemporary London English TRAP), [ä] (central like Mandarin <a>), [ɐ], and diphthongal [äu] and [ɐu]. A fronter, higher and more monophthongal realisation may index the speaker being more feminine, young and vernacular, and vice versa – a backer, lower and more diphthongal variant may index the speaker being more masculine, old and formal. Of the three variables, 葉祥苓 Yih (1988) describes the gender difference only, in more absolute terms. This is not a strict dichotomy by any means and it is asymmetric: a lot of older male performers use [æ], but far fewer younger female performers use [ɐu]. The prescribed *Bindae* pronunciation ranges from front [a] to central [ɐ] when spoken and [ɐ] to [äu∼ɐu] when sung; however, the modern Soutseu [æ] is also extremely common, and as 葉祥苓 Yih (1988) commented, this sound is one of the signature Soutseu sounds distinguishing it from other neighbouring dialects.

- In parallel, /iæ/ is subject to a similar degree of variation, but the nucleus is almost always a bit higher than /a/. That is to say, if [iæ] corresponds to [a], [iɛ] is the usual pronunciation of speakers who pronounces /a/ as [æ]. Therefore, /iæ/ can range from somewhere like [iɐ̟] to [iɐ(u)]. Again the here triphthongal variant is more common when sung in *Daezy*. Speakers may shift between qualities even in a single performance when it comes to /a/ and /iæ/, indicating they are not totally phonetically stable.

- The distinction between /(u)ɛ/ and /(u)e/ is disappearing among *Bindae* performers. This is also a feature of Soutseu dialect more than a century ago but it is not deducible from modern Soutseu, where both merged into [(u)ɐ̟] (Sinological [(u)ᴇ]). A similar sound change happened in Seoul Korean, among multiple other languages. The historical sound changes leading to this can be found in Section 4.2.

- /ɵ/ is central, but pronouncing it front [ø] is unmarked and is a rather rare variant in female performers.

- All the nasalised phonemes are fully nasalised, like those found in French and Portuguese. Historically they came from *-ŋ, but even in the more Mandarinised *Zhongzhouyun* they are never pronounced [ŋ] (except /oŋ/ and /ioŋ/ which are the relics). /ã/ is fully front and /ɑ̃/ is fully back.

- The nasal codas in the /əN/ class can be variably pronounced as [n] to [ɲ] since it does not affect semantic content. Phonetically, if /ə/ were to be shortened or deleted, /N/ assimilates to the palatal articulations of [i] and [y] yielding [iɲ] and [yɲ]. [ə] is always fully pronounced in /ən/ and /uən/, yet it is worth noting that compared to modern *Soutseu* dialect's full /iɲ/ and /yɲ/, Bindae performers pronounce the [ə] in /iᵊɲ/ and /yᵊɲ/ more – most of the times it is still shorter than the counterparts in /ən/ and /uən/, but it can still reach a full vowel sometimes and especially in melismatic passages when not [i] nor [y], but [ə], is repeated, as in an elongated 人 [ɲiəŋəŋən] (curiously with [ŋ] inserted instead of [n] or [n̩]), not [ɲiɲiɲiɲ].

- As stated, the checked tone syllables with glottal stop codas are significantly shorter than non-checked counterparts. In fast speech, a glottal stop can be unreleased and instead trigger the gemination of the following consonant, e.g. 一級 /ʔiəʔ˥ t͡ɕiəʔ/ [ʔiɪ̆tˀ˥ t͡ɕiəʔ˥] 'Grade 1, fantastic, superb' and 十三 /ʒəʔ˦ sɛ˥/ > [ʒ̊əs˦ sɛ˥] 'thirteen'. This is comparable to 促音 *Soku'on* in Japanese.

- /ᵊɭ/ is largely pronounced as [ᵊɭ] or [ᵊɻ], with a short schwa and a retroflex liquid. It is never pronounced as [ɚ] or [ɑɻ] like Standard Mandarin <er>.

In summary, both *Bindae* phonologies are subject to variation, but what varies and what does not can be very specific and shows the effect of prescriptivism: specifically, I

am surprised by /ʏ/ being always enforced to [ʏ] yet /a/ can enjoy an entire corner of the vowel space. There is a newer sound change in Soutseu which completely unrounds the *Bindae* /ʏ/ rhyme to [ei] (汪平 Uaon, 2011), so maybe in the future the gold standard of pronouncing /ʏ/ as [ʏ] will be subject to greater changes as the non-fossilised language progresses further – In many senses, *Bindae* is a fossilised form of an earlier version of Soutseu dialect, and the following Chapter 4 will go in more detail about the conservative and innovative aspects of its phonologies.

CHAPTER 4

HISTORICAL PHONOLOGY: CONSERVATION AND INNOVATION

This chapter focuses on the diachronic changes from older forms of Chinese to *Bindae*. Section 4.1 describes Middle Chinese phonology which is a well-established reference point in Chinese historical phonology; Section 4.2 outlines the regular sound changes stemming from Middle Chinese to *Bindae* phonology; and Section 4.3 delves into specific cases of phonological conservation from Old Chinese, as well as dialect-specific innovations.

4.1 Middle Chinese phonology

Differing from most historical linguistic research where historical phonology is reconstructed largely using synchronic data and the comparative method due to scarcity of historical sources, the study of Middle Chinese phonology relies heavily upon a particular type of written records called 韻書 *rhyme books*. They are a type of dictionary that classifies characters through rimes and tones, describing phonological data for the time it was written (or before). This tradition began with 切韻 *Qieyun* (lit. *Correspondence Rimes*) in year 601, which served as a codification of the upper-class pronunciation throughout China to standardise the language in order to read classical and literary Chinese. It was popularised in Tang dynasty (618-907), with multiple later editions, revisions and expansions, the most famous of which being 廣韻 *Guangyun* (lit. Broad Rimes) in 1004 (Song dynasty), which has long served as the pivotal reference point for Middle Chinese phonology.

Since Chinese writing is logographic and no purely phonetic notation had been developed in China prior to the introduction of Western formal linguistics, these rime books used a unique method of denoting pronunciations called 反切 *Fanqie* (lit. inverse correspondence) instead of using mere homophones as pronunciation guides. The *Fanqie*

method involves two characters called 上字 upper character and 下字 lower character, where the upper character indicates the entry's initial and the lower character is responsible for the final and the tone (Branner, 2010). For example, the character 東 'east' was spelled with 德 'morality' and 紅 'red': the first character 德 */tək/ gives the initial */t/ while the second character 紅 */ɦuŋ/ gives the final */uŋ/ and the level tone. This combination has the output */tuŋ/ with level tone. In this example, however, the two characters 德 and 紅 has their own pronunciations which are yet to be determined, given that */tək/ and */ɦuŋ/ come from later established reconstructions. Qing dynasty Scholar 陳澧 Chen Li, in his 1842 study of *Guangyun*, proposed a method called 系聯法 'connection method', using sets of *Fanqie* collections to group the characters into different initials (rimes were a part of the basic structures of the rime books so they were classified together). For example, 東 was spelled 德 and 紅; 德 was spelled 多 and 特; and 多 was spelled as 德 and 河. This implies that 東, 德 and 多 has the same initial since they form a chain of upper characters. Then using the comparative method, one can easily reconstruct that they share the initial /t/ given the evidence from most modern [t] reflexes of this initial. This is the most widespread method determining the phonological systems from the rime books.

The most important rime book 廣韻 *Guangyun*, chiefly edited by 陳彭年 Chen Pengnian and 邱雍 Qiu Yong, was the most accurate representation of 切韻 *Qieyun* phonology until the discovery of an almost complete 8th century edition of *Qieyun* itself in 1947 (Norman, 1988). It was heavily used in the reconstruction of Middle Chinese and it continues to be a major source. It has a clear structure based on and expanded from *Qieyun*: it is split into four tones in five volumes (平聲 level tone represents two of them), with each tone splitting into a total of 206 rimes increased from the 193 of *Qieyun*. Each rime is then divided into individual entries of the characters' definitions, with an overarching pronunciation guide provided in *Fanqie* formula.

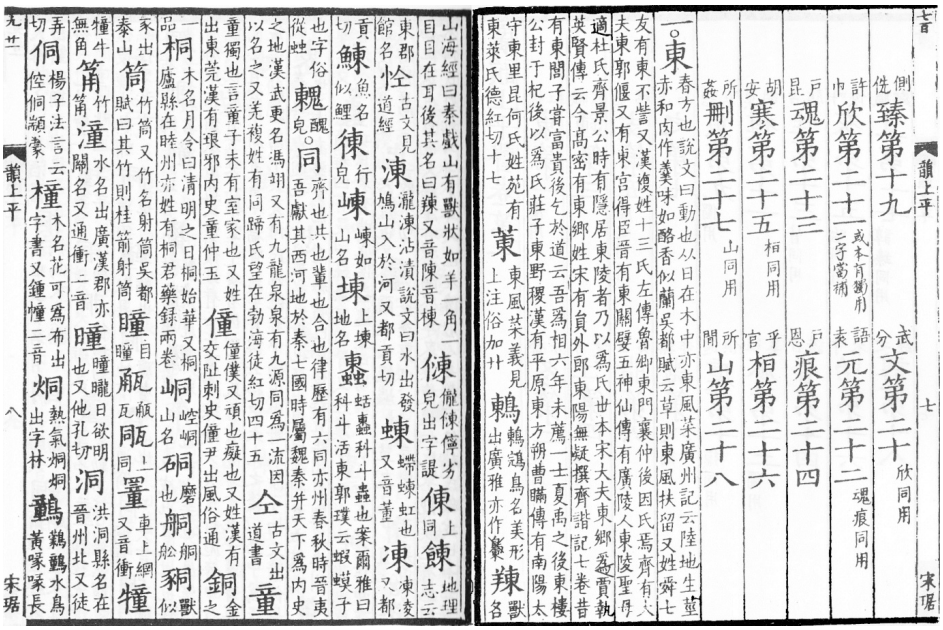

Figure 4.1: 廣韻書影 – the first page of *Guangyun*, starting with the first character 東

Guangyun phonology has multiple reconstructions with different specific phonetic values assigned to each initial and rime (and there is hardly a reconstruction of specific tone values) – This thesis uses the reconstruction by 潘悟雲 Pan (2000), which is comparatively newer and more updated from older reconstructions by Bernhard Karlgren 高本漢 and Wang Li 王力 and more consistent with the rendition of medials. The *Guangyun* system of Middle Chinese contains 36-38 initials (the Pan reconstruction suggest 37), 3-5 medials (/i～j/, /u～w/, /iu～y/, possibly /e/ and /ɻ～ɯ/ [1]), 5-7 vowel nuclei (/a/ /o/ /u/ /ə/ /ɨ/ /e/ /i/, where /ə/ and /ɨ/ being analysed as allophones of other vowel phonemes), 8 codas (vowel/glides /i j/ and /u w/, as well as nasals /m/ /n/ /ŋ/ and plosives /p/ /t/ /k/), and 4 tones (平 level, 上 rising, 去 departing, 入 entering, with only 3 of them phonemic because the entering tone 入聲 only has syllables ending in plosive codas while the other tones have everything apart from plosive codas).

Table 4.1 shows the 37 consonants, divided into groups based on place of articulation

1. Medials are written with vowel symbols per Sinological tradition but their phonetic values may as well be the corresponding approximants.

	Stops and Affricates			Nasals	Fricatives		Approxi-mants
	Tenuis	Aspirated	Voiced		Voiceless	Voiced	
	全清	次清	全濁	次濁	全清	全濁	次濁
Labials	幫 p	滂 p^h	並 b	明 m			
Alveolars	端 t	透 t^h	定 d	泥 n			來 l
Retroflex stops	知 ʈ	徹 $ʈ^h$	澄 ɖ	娘 ɳ			
Dental sibilants	精 t͡s	清 $t͡s^h$	從 d͡z		心 s	邪 z	
Retroflex sibilants	莊 t͡ʂ	初 $t͡ʂ^h$	崇 d͡ʐ		生 ʂ	俟 ʐ	
Palatals	章 t͡ɕ	昌 $t͡ɕ^h$	常 d͡ʑ	日 ȵ	書 ɕ	船 ʑ	
Velars	見 k	溪 k^h	群 g	疑 ŋ			
Glottals	影 ʔ				曉 h	匣 ɦ	云 ɦi 以 j

Table 4.1: 廣韻 *Guangyun* initials

(named by the first initial, e.g. 幫組 Group /p/ = labials [2]), with traditional names, traditional "four-way" voicing contrasts (全清 'fully voiceless', tenuis stops/affricates and voiceless fricatives; 次清 'second voiceless', aspirated stops/affricates; 全濁 'fully voiced', voiced obstruents; and 次濁 'second voiced', sonorants) and their reconstructed values. It is worth noting that the manner of articulation categories were modelled on Sanskrit linguistics but the order is reversed: Chinese linguistics starts from the front of the mouth while Sanskrit starts from the back.

Most reconstructed values above are agreed by all linguists, with several minor differences:

- 娘母 /ɳ/ has a variant reconstruction of alveopalatal nasal /ȵ/ (Sinological IPA /ɲ/), which in turn pushes 日母 /ȵ/ into /ȵʑ/ due to a lot of modern topolects' fricative pronunciations.

2. Unless specified, the word 'group' always refers to series of initials in this chapter.

- 曉母 /h/ and 匣母 /ɦ/ are sometimes reconstructed as velar /x/ and /ɣ/; in those reconstructions, 匣母 and 以母 do not share a single phoneme.
- 知組 Group /ʈ/ 'Retroflex stops' were previously reconstructed as alveopalatal stops by some linguists.
- Some labial-initial characters in 幫組 Group /p/, typically with both -/i/- and -/u/- glides, fricativised to a new labiodental series containing 非母 /p͡f~f/, 敷母/p͡fʰ~fʰ/, 奉母 /b͡v~v/ and 微母 /ʋ/ (Pulleybank, 1991). This will be further explored in the next section.

Some initials can only combine with certain medials and finals, which will be further explained in the rimes section below.

Middle Chinese rimes are classified by 等 'grade/division' (abbreviated Div in tables below), which have the following characteristics (李榮 Li, 1952): 一等韻 1st grade rimes have no medials, 二等韻 2nd grade rimes have -/ɻ/- > -/ɯ/- medial inherited from Old Chinese, 三等韻 3rd grade rimes have -/i/- medial (with optional -/ɻ/- > -/ɯ/- as well) and 四等韻 4th grade rimes have -/e/- medial. The -/u/- medial was considered another perimeter called 開合口 'open/closed mouth', with 合口呼 'closed mouth' having -/u/- and the rest as 開口呼 'open mouth'. All medials can combine with each other in a single syllable. The very nature of 2nd and 4th grade rimes are still debated in the field depending on individual reconstructions of Old Chinese, but it is agreed that in Early Middle Chinese they have a medial different from -/i/-. 韻攝 Rime categories (abbreviated as RC in tables below) are the first-level classifications which contain specific individual 小韻 'small rimes'. Phonetic transcriptions of Middle Chinese medials and vowels in the thesis follow 潘悟雲 Pan (2000) as well, which are presented below in Tables 4.2 and 4.3:

The rime categories can be classified as following: no coda (果假遇攝, Categories A–C, same below), -/i/ (止蟹攝 D–E), -/u/ (效流攝 F–G), -/m/ and -/p/ (咸深攝 H–I), -/n/

韻攝 RC	等 Div	小韻 Rime	等 Div	小韻 Rime
R1 果	1	歌 ɑ 戈一合 uɑ	3	戈三開 iɑ 戈三合 uiɑ
R2 假	2	麻二開 ɯa 麻二合 ɯua	3	麻三 ia
R3 遇	3	魚 iɔ		
	1	模 uo	3	虞 io
R4 止	3	支開 iɛ 支合 uiɛ	3	支開二 ɯiɛ 支合二 ɯuiɛ
	3	脂開 i 脂合 ui	3	脂開二 ɯi 脂合二 ɯui
	3	之 ɨ	3	微開 ɨi 微合 uɨi
R5 蟹	1	泰開 ɑi 泰合 uɑi	3	廢開 iɐi 廢合 uiɐi
	2	夬開 ɯai 夬合 ɯuai		
	2	佳開 ɯæ 佳合 ɯuæ	2	皆開 ɯæi 皆合 ɯuæi
	3	祭開 iɛi 祭合 uiɛi	3	祭開二 ɯiɛi 祭合二 ɯuiɛi
	4	齊開 ei 齊合 uei		
	1	咍 əi 灰 uoi		
R6 效	1	豪 ɑu	2	肴 ɯau
	3	宵 iɛu	3	宵二 ɯiɛu
	4	蕭 eu		
R7 流	3	尤 iu		
	1	侯 əu	3	幽 ɨu
R8 咸	1	談 ɑm 盍 ɑp		
	1	覃 əm 合 əp		
	2	銜 ɯam 狎 ɯap	2	咸 ɯæm 洽 ɯæp
	3	嚴 iɐm 業 iɐp	3	凡 uiɐm 乏 uiɐp
	3	鹽 iɛm 葉 iɛp	3	鹽二 ɯiɛm 葉二 ɯiɛp
	4	添 em 怗 ep		
R9 深	3	侵 im 輯 ip	3	侵二 ɯim 輯 ɯip
R10 山	1	寒 ɑn 曷 ɑt	1	桓 uɑn 末 uɑt
	2	刪開 ɯan 黠開 ɯat	2	刪合 ɯuan 黠合 ɯuat
	2	山開 ɯæn 鎋開 ɯæt	2	山合 ɯuæn 鎋合 ɯuæt
	3	仙開 iɛn 薛開 iɛt	3	仙合 uiɛn 薛合 uiɛt
	3	仙開二 ɯiɛn 薛開二 ɯiɛt	3	仙合二 ɯuiɛn 薛合二 ɯuiɛt
	4	先開 en 屑開 et	4	先合 uen 屑合 uet
R11 臻	1	痕 ən 麧 ət	1	魂 uon 沒 uot
	3	真開 in 質開 it	3	真合 uin 質合 uit
	3	真開二 ɯin 質開二 ɯit	3	真合二 ɯiun 質合二 ɯiut
	3	臻 ɪn 櫛 ɪt	3	諄 uɪn 術 uɪt
	3	欣 ɨn 迄 ɨt	3	文 iun 物 iut
	3	元開 iɐn 月開 iɐt	3	元合 uiɐn 月合 uiɐt

Table 4.2: 廣韻 *Guangyun* rimes

韻攝 RC	等 Div	小韻 Rime	等 Div	小韻 Rime
R12 宕	1	唐開 ɑŋ 鐸開 ɑk	1	唐合 uɑŋ 鐸合 uɑk
	3	陽開 iɐŋ 藥開 iɐk	3	陽合 uiɐŋ 藥合 uiɐk
R13 江	2	江 ɯɔŋ 覺 ɯɔk		
R14 曾	1	登開 əŋ 德開 ək	1	登合 uəŋ 德合 uək
	3	蒸 iŋ 職開 ik	3	職合 uik
R15 梗	2	庚二開 ɯaŋ 陌二開 ɯak	2	庚二合 ɯuaŋ 陌二合 ɯuak
	3	庚三開 ɯiaŋ 陌三開 ɯiak	3	庚三合 ɯuiaŋ 陌三合 ɯuiak
	2	耕開 ɯæŋ 麥開 ɯæk	2	耕合 ɯuæŋ 麥合 ɯuæk
	3	清開 iɛŋ 昔開 iɛk	3	清合 uiɛŋ 昔合 uiɛk
	4	青開 eŋ 錫開 ek	4	青合 ueŋ 昔合 uek
R16 通	1	東一 uŋ 屋一 uk	3	東三 iuŋ 屋三 iuk
	1	冬 uoŋ 沃 uok	3	鍾 ioŋ 燭 iok

Table 4.3: 廣韻 *Guangyun* rimes (cont.)

Initials	Possible Rime Divisions
幫 p 滂 pʰ 並 b 明 m	1 2 3 4
端 t 透 tʰ 定 d 泥 n	1 4
知 ʈ 徹 ʈʰ 澄 ɖ 娘 ɳ	2 3
來 l	1 2 3 4
精 t͡s 清 t͡sʰ 從 d͡z 心 s	1 3 4
莊 t͡ʂ 初 t͡ʂʰ 崇 d͡ʐ 生 ʂ	2 3
邪 z 俟 ʑ 章 t͡ɕ 昌 t͡ɕʰ 常 d͡ʑ 書 ɕ 船 ʑ 日 ȵ	3
見 k 溪 kʰ 疑 ŋ 曉 h 影 ʔ	1 2 3 4
群 g 云 ɦ(i) 以 j	3
匣 ɦ	1 2 4

Table 4.4: Possible combinations of initials with rime division

and -/t/ (山臻攝 J–K) as well as -/ŋ/ and -/k/ (宕江曾梗通攝 L–P). 潘悟雲 Pan (2000)'s reconstruction is phonetic in that it pays attention to vowel allophony after different glides, so that the same vowel phoneme can have different qualities as shown in the tables. Overall, the Middle Chinese phonological system reflected in *Guangyun* is full of gaps like all modern Chinese topolects, in that not all initial – final combinations exist and there are many cases when a certain vowel can only combine with a certain coda. The possible combinations between initials and rime divisions are shown in Table 4.4.

We can clearly see that the 37 *Guangyun* initials are also organised in a way that

phonetics is actually taken into consideration: 端組 Alveolar stops and 知組 retroflex stops are in complementary distribution, and there is a similar relationship between 精組 dental and 莊組 retroflex affricates/fricatives, though both can take Division 3; 章組 The palatoalveolar series can only take Division 3 rimes as well and its origin is actually also 端組 alveolar stops. The absence of Division 3 rimes in 匣母 *ɦ corresponds to 群母 *g (with all of its other Divisions lenited to 匣母 *ɦ) and 云母 *ɦ(i) (later merging with 以母 *j). Therefore, the number of consonant phonemes in Middle Chinese is actually way less than 36-38 that *Guangyun* suggests. The treatment of some consonantal allophones as distinct sounds show the maximalist tendency of rime books in general, but also it is a previous resource for Chinese historical phonology since the different pronunciations lead to various sound changes in different branches of Chinese languages.

Similarly, glides can also affect vowel qualities. The -/ɯ/- medial (earlier -/r/-) tends to front and lower the vowel, much like *h_2 in Proto-Indo-European (Kümmel, 2022); whereas -/i/- medial tends to front and raise the vowel. On the other hand, the -/u/- medial seems to be independent to these allophonic changes, corresponding to the fact that it is seen as a different criterion than -/ɯ/- and -/i/- medials.

Unlike initials and finals, there is not a unified reconstruction of Middle Chinese tonal values phonetically, due to the sheer variety of modern reflexes and their different tonal phonologies, which include extensive sandhi phenomena (Norman, 1988). In Late Middle Chinese, the four tones split into a voiceless and a voiced variant each, yielding eight new tones – subsequent sound changes devoicing obstruent initials in most varieties made the transphonologisation complete and only tonal distinctions remain, while others like Sout-seu dialect still retain distinctions in both initials and tones so there is some redundancy.

4.2 From Middle Chinese to *Bindae*

There is not a general consensus on whether the Wu language is a direct descendant of Old Chinese or Middle Chinese – the sheer diversity of its possibly mutually unintelligible dialects and the various waves of influences both from Mandarin, local and neighbouring languages before Sinitic expansion to the area make it hard to say when exactly it branched off and became its own language cluster. Nonetheless, the majority of Wu dialects and the majority of phonological traits in those dialects can be traced to Middle Chinese phonology. This section gives an overview of the trajectory from Middle Chinese to the two varieties – Soutseu dialect and *Zhongzhouyun* – used in *Bindae*.

4.2.1 Initials

As a Northern Wu variety, *Bindae* Soutseu dialect retained most of the Middle Chinese system of initial consonants, especially the 3-way stop/affricate voice onset time distinction and voiced stops already mentioned in Chapter 3. The initials that remain entirely unchanged include alveolar stops /t t^h d/, lateral /l/ and glottals /ʔ ɦ/, which now forms a three-way contrast with /h/ (see Section 3.1.1).

Soutseu dialect participates in the aforementioned sound change of labiodentalisation in Late Middle Chinese, which can be summarised by the following rule: [labial] > [labiodental] / ___ iu or ui (whether -/i/- glide comes before or after -/u/- glide depends on the particular reconstruction) – as long as both /i/ and /u/ are present in the syllable, the former labial sounds turn into a labiodental. More specifically, */p p^h/ turn into /f/ and */b m/ into /v/ – Soutseu does not make a distinction between 非母/f～pf/ and 敷母 /f^h～pf^h/, as well as 奉母 /bv～v/ and 微母 /ʋ/ anymore, due to the fact that these distinctions require very fine-grained phonetic control to begin with. This sound change spans the entire literary layer, but some colloquial layer pronunciations conserve the

	Middle Chinese	*Bindae* Soutseu dialect	
飛	puɨi	fiᶻ	
風	piuŋ	foŋ	
芳	pʰuiɐŋ	fɑ̃	
峯	pʰioŋ	foŋ	
犯	buiɐm	vɛ	
浮	biu	vʏ	
文	miun	vən	
肥	buɨi	biᶻ (col.)	viᶻ (lit.)
防	bʷiɐŋ	§bɑ̃ (col.)	vɑŋ (lit.)
無	mio	m̩ (col.)	vuᵝ (lit.)
尾	miɨi	miᶻ (col.)	viᶻ (lit.)
晚	muiɐn	mɛ (col.)	§ʔuɛ (lit.)
問	miun	mən (col.)	vən (lit.)
物	miut	məʔ (col.)	vəʔ (lit.)
微	mʷɨi	§miᶻ (col.)	viᶻ (lit.)
目	miuk	mɑʔ (col.)	moʔ (lit.)

Table 4.5: Labiodentalisation in Soutseu dialect

older labial forms. (More detailed explanations can be found in Chapter 5.) Table 4.5 shows the Middle Chinese and Soutseu dialect pronunciations of relevant characters (lit. = literary, col. = colloquial, § = uncommon):

The two layers are very clearly shown in the characters with different pronunciations, the literary one with the sound change and the colloquial layer without; we can also see in many common characters there is only one labiodental pronunciation. 目 is the only exception where both readings retained /m/. Like many other sound changes in Soutseu to be discussed in this section, it operates on lexical grounds and often times 'literary' versus 'colloquial' is nebulous, for example in the phrase 問隻問題 [mənˊ tsɑʔ˥ vən˩ diᶻ] 'ask a question', the two layers coexist despite both 問 [mənˊ] 'ask' and 問題 [vən˩ diᶻˊ] are super common words. This will be further explored in Chapter 5.

As stated in Chapter 3, another defining characteristics of *Bindae* Soutseu dialect is the conservation of a postalveolar affricate/fricative series different from plain dentals (the two has since merged in modern Soutseu), but compared to the four coronal series

in Middle Chinese – 精知莊章組, Groups /t͡s ʈ ʈ͡ʂ t͡ɕ/ – the system shifted to a two-way distinction, and the phonetic value of the postalveolar series is now palato-alveolar /t͡ʃ/ as described, unlike the retroflex in Beijing Mandarin. Below are the sound changes concerning these Middle Chinese groups, synthesised from both 丁邦新 Tin (2003) and my own transcriptions:

- 精組 Dental affricates/fricatives, group /t͡s/ – this group is the least changed from Middle Chinese, apart from the merger of /d͡z/ into /z/ which is shared between Soutseu and Zaonhe. Different from most Wu dialects south of it, Soutseu dialect maintains the distinction between historical Group /t͡s/ + -/i/ (尖音 'sharp sounds') and Group /k/ (plus /h/) + -/i/ (團音 'round sounds'). The former is pronounced as it was in Middle Chinese and the latter shifts to the modern /t͡ɕ/ series.

- 知組 Retroflex stops, group /ʈ/ – Division 2 rimes turn into plain series /t͡s/ series except for characters in 江攝 Rime M (main vowel [ɔ]), which together with all Division 3 rimes turn into the new postalveolar series /t͡ʃ/. 娘母 /ɳ/ Division 2 merges with 泥母 /n/ while Division 3 merges with 日母 /ɲ̟/.

- 莊組 Retroflex affricates/fricatives, group /ʈ͡ʂ/ – 宕江攝 Rime Categories L and M (main vowel [ɑ] and [ɔ]) stay postalveolar yielding /t͡ʃ/, but everything else de-retroflex into /t͡s/.

- 章組 Palatal affricates/fricatives, group /t͡ɕ/ – 假攝 Rime Category B (main vowel [a]) merges with /t͡s/ while all other rimes become postalveolar /t͡ʃ/. 日母 /ɲ̟/ stays intact in colloquial pronunciation but change to /ʒ/ in the literary layer, parallel to other initials in the group, though some characters may only have either reading. There is also an exception with the character 軟 'soft', which changed to /ŋ/ instead.

A list of example characters concerning coronal initials can be found in Table 4.6:

	聲類 Group	等 Div	韻攝 RC	Middle Chinese	*Bindae* Soutseu
精	精組 t͡s	3	R15 梗	t͡siɛŋ	t͡siɲ
清				t͡sʰiɛŋ	t͡sʰiɲ
從			R16 通	d͡zioŋ	zoŋ
心			R9 深	sim	siɲ
邪			R2 假	zia	ziɑ
椿	知組 ʈ	2	R13 江	ʈɯɔŋ	t͡ʂɑ̃
桌				ʈɯɔk	t͡ʃoʔ
澄			R15 梗	ɖɯaŋ/ɖiŋ	zɑ̃/zən
湛			R8 咸	ɖɯæm	zɛ
撓			R6 效	ɳɯau	na
中		3	R16 通	ʈiuŋ	t͡ʃoŋ
知			R4 止	ʈiɛ	t͡ʃʒʷ
超			R6 效	ʈʰiɛu	t͡ʃʰa
長			R12 宕	ɖiɐŋ	ʒɑ̃
女			R3 遇	ɳi̯ɔ	ɲ̟yᶻʷ
齋	莊組 t͡ʂ	2	R5 蟹	t͡ʂɯæi	t͡sɑ
叉			R2 假	t͡ʂʰɯa	t͡sʰo
窗			R13 江	t͡ʂʰɯɔŋ	t͡ʃʰɑ̃
巢			R6 效	d͡ʐɯau	za
生		3	R15 梗	ʂɯaŋ	sɑ̃ (col.) sən (lit.)
阻			R3 遇	t͡ʂi̯ɔ	t͡səuᵝ
創			R12 宕	t͡ʂʰiɐŋ	t͡ʃʰɑ̃
愁			R7 流	d͡ʐi̯u	zʏ
爽			R12 宕	ʂiɐŋ	ʃɑ̃
俟			R4 止	ʐɨ	zz̟
專	章組 t͡ɕ	3	R10 山	t͡ɕuiɛn	t͡ʃɵ
車			R2 假	t͡ɕʰia	t͡sʰo
是			R4 止	d͡ʑiɛ	zz̟
收			R7 流	ɕiu	ʃʏ
順			R11 臻	ʑuin	ʒən
人			R11 臻	ɲ̟in	ɲ̟iəɲ (col.) ʒən (lit.)
入			R9 深	ɲ̟ip	ʒəʔ
肉			R16 通	ɲ̟iuk	ɲ̟ioʔ
軟			R10 山	ɲ̟uiɛn	ŋɵ

Table 4.6: Sound changes regarding Middle Chinese coronal consonants

Keep in mind that the table reflects the pronunciations uttered by oldest *Bindae* artists – as mentioned in previous Chapter 3, there is ample individual variation, which is also reflected in 葉祥苓 Yih (1988)'s account where a lot of characters shifted from postalveolars to plain alveolars, not conforming to 丁邦新 Tin (2003)'s account. Given the end result of a complete merger into plain alveolars for modern Soutseu dialect, it is not surprising that the sound changes concerning these series were lexically diffused. Furthermore, certain lexical exceptions exist to the rules discussed above, such as 是 marked in red. Overall, the coronal series are the most variable among all Chinese languages, and the Soutseu type sound changes are one of the prevalent types.

For the phonetic basis of these sound changes, a general conclusion can be posited that the more back the main vowel is, the higher chance that the original postalveolar pronunciation is preserved. This can be seen from the rimes 宕江攝 R12 and R13 (with main vowels [ɑ] and [ɔ]) in every postalveolar initial which are unanimously still pronounced postalveolar, regardless of how the rest of the rimes behave. On the other hand, 假攝 R2 in 章組 Group /t͡ɕ/ is pronounced with a rather front main vowel [a], thus it is an exception in the otherwise postalveolar group. The most plausible explanation is that 知組二等 Group /ʈ/ Division 2 and 莊組 Group /t͡ʂ/ merged with plain alveolars before most non-high back vowels while the others stayed intact. It is also a chain shift that Group /t͡ɕ/ is now mostly pronounced with /t͡ʃ/ with /ki/ taking /t͡ɕ/'s place.

The velars and 曉母 */h/ in Middle Chinese behave similarly: some of them palatalise in *Bindae* Soutseu dialect. The palatalisation concerns Divisions 3 and 4 rimes (immediately subsequent front vowels), but also the literary layer of Division 2, similar to the change from labials to labiodentals discussed earlier. 疑母 */ŋ/ follows this general trend except its literary layer counterpart is /ɦi/ instead. 匣母 */ɦ/ and 影母 */ʔ/ remain unchanged. 以母 /j/ merges into 云母 /ɦi/ in general, though a few characters shifted to /ʔi/ instead. As always, there are lexical exceptions to these rules. Tables 4.7-4.8 provide

	聲母 Initial	等 Div	Middle Chinese	*Bindae* Soutseu
高	見 k	1	kɑu	ka
監		2	kɯam	kɛ
江		2	kɯɔŋ	kɑ̃ (col.) t͡ɕiɑ̃ (lit.)
京		3	kiɐŋ	t͡ɕiɲ
貴		3	kuɨi	t͡ɕy^{ʑʷ} (col.) kue (lit.)
弓		3	kiuŋ	koŋ
結		4	ket	t͡ɕiəʔ
桂		4	kuei	kue
看	溪 k^{h}	1	k^{h}ɑn	k^{h}ɵ
敲		2	k^{h}ɯau	k^{h}a (col.) t͡ɕ^{h}iæ (lit.)
輕		3	k^{h}iɛŋ	t͡ɕ^{h}iɲ
匡		3	k^{h}uiɐŋ	k^{h}uɑ̃
虧		3	k^{h}ɯuiɛ	t͡ɕ^{h}y^{ʑʷ} (col.) k^{h}ue (lit.)
犬		4	k^{h}uen	t͡ɕ^{h}iɵ
橋	群 g	3	gɯiɛu	d͡ʑiæ
巨			giɔ	d͡ʑy^{ʑʷ}
葵			gui	gue
櫃			gɯui	d͡ʑy^{ʑʷ} (col.) gue (lit.)
我	疑 ŋ	1	ŋɑ	ŋəu^{β}
牙		2	ŋɯa	ŋɑ
岳		2	ŋɯɔk	ŋoʔ
言		3	ŋiɐn	ɲ̟i (col.) ɦi (lit.)
玉		3	ŋiok	ɲ̟ioʔ
危		3	ŋɯuiɛ	ŋue (col.) ɦwe (lit.)
月		3	ŋuiat	ŋəʔ (col.) ɦyəʔ (lit.)
倪		4	ŋei	ɲ̟i^{ʑ}
昏	曉 h	1	huən	huən
孝		2	hɯau	ha (col.) ɕiæ (lit.)
嚇		2	hɯak	hɑʔ
休		3	hiu	ɕʏ
毀		3	h^{w}uiɛ	hue
顯		4	hen	ɕi

Table 4.7: Sound changes regarding Middle Chinese dorsal consonants

	聲母 Initial	等 Div	Middle Chinese	*Bindae* Soutseu
安	影 ʔ	1	ʔɑn	ʔɵ
蛙		2	ʔɯuæ	ʔo (col.) ʔuɑ (lit.)
憂		3	ʔiu	ʔy
煙		4	ʔen	ʔi
紅	匣 ɦ	1	ɦuŋ	ɦoŋ
閑		2	ɦɯæn	ɦɛ (col.) ɦi (lit.)
玄		4	ɦuen	ɦiɵ
雄	云 ɦi	3	ɦiuŋ	ɦioŋ
鹽	以 j		jiɛm	ɦi
惟			jui	viᶻ
演			jiɛn	ʔi

Table 4.8: Sound changes regarding Middle Chinese dorsal consonants (cont.)

examples from all the dorsal initials.

Apart from the aforementioned sound changes, there are two major exceptions:

One is the sound change called 支微入虞 in Chinese linguistics, in that the rimes 支合 */(ɯ)uiɛ/, 脂合 /(ɯ)ui/ and 微合 */uɨi/ shifts to 虞韻 /io/ > /y/. It is well documented in most Chinese topolects but especially dialects of Wu (鄭偉 Dzen, 2012) in its colloquial layer. The metathesis from /ui/ to /iu/ shifts the glide that is in direct contact with the initial from -/u/- to -/i/-, thus triggering palatalisation. The characters marked red in Table 4.7 exhibit this change, in that /ui/ > [ue] in literary pronunciations, but the shift to /y/ in the colloquial layer moves the velar initials to the alveopalatal ones (鄭偉 Dzen, 2012). This will be revisited again in Chapter 5.

The other exception is 惟 (and 維唯 sharing the same phonetic component) which shifted from */jui/ to [viᶻ]. This irregular sound change was explored in my previous thesis (Quain, 2018): 惟 /jui/ 'only' and 微 /muɨi/ 'no, not' are derivationally linked in Old Chinese, with 微 being the negative m- prefixed form of 惟; moreover, the two characters became homophones in a lot of varieties of Chinese. Therefore, it is posited that due to influence of 微 which is /v/ in Soutseu, 惟維唯 independently analogised to /v/ as well, since Soutseu dialect has never had a change of /w/ > /v/ and to this day

the two are kept distinct.

4.2.2 Medials

Middle Chinese has three medials -/i/-, -/u/-, and -/ɯ/-, which can be combined with each other in a subset of rimes. However, one key aspect of Northern Wu phonology is monophthongisation, which includes the loss of most medials. In Soutseu dialect in particular as seen in Tables 3.3 and 3.5, rimes are now organised by zero, -/i/-, -/u/- and -/y/- medials (-/y/- is the combination of /i/ and /u/). As in virtually all varieties of Chinese the -/ɯ/- (earlier -/r/-) medial is lost, but its effect on following vowels and sound changes still linger to this day. The sound changes concerning the medials can be summarised as follows:

- Medial-less Division 1 rimes in Soutseu dialect are still medial-less. On the other hand, -/u/- medial Division 1 rimes lost its -/u/- medial before most initials, except velar and glottal initials. Therefore, everything in the -/u/- column in Tables 3.3 and 3.5 are preceded by velar and glottal initials. This is very different from most Chinese languages which keep -/u/- mostly intact.

- Division 2 rimes generally follow Division 1 in that only characters with velar and glottal initials retain -/u/-, though as previously discussed (see Tables 4.7-4.8), some Group /k/ Division 2 characters have two pronunciations, with the original colloquial pronunciation retains /k/ and no medial but the literary pronunciation (influenced by earlier Mandarin topolects) has undergone palatalisation and gained the -/i/- medial in the process.

- Division 3 rimes mostly inherit the -/i/- and -/ui/- > -/y/- medials except for the following cases where -/i/- medial is lost: labiodentalisation (see Table 4.5 in the

last section; Groups /ʈ/ and /t͡ʂ/ (see Table 4.6); and Group /t͡s/ with -/u/- medial and rime categories R4 止 (-I [3]), R5 蟹 (-Ai) and R16 通 (-Uŋ).

- Division 4 rimes merge into Division 3.

The specific sound changes pertaining to vowels will be explored in the next section.

4.2.3 Rimes

Compared to initials, the correspondence between Middle Chinese and rimes in Soutseu dialect is way more complex. In general, a Middle Chinese rime category corresponds to a single rime in Soutseu, but there are multiple exceptions. As mentioned before, monophthongisation is a big theme in all Northern Wu dialects, causing most -/i/ and -/u/ codas to be merged into the vowel nucleus to form new vowels; -/m/ and -/n/ merging into -/n/, and a significant portion of it getting dropped while others turn into vowel nasalisation; -/ŋ/ mostly become nasalisation as well apart from /oŋ/ and /ioŋ/; and checked tone codas -/p/ -/t/ and -/k/ merge into -/ʔ/. Synthesised from my own transcriptions and 汪平 Uaon (2011), Tables 4.9–4.12 list the Soutseu rimes (the centre of the table) corresponding to the Middle Chinese rimes, with initials [4] and rime divisions on the x axis and the basic generalised structure of each rime category on the y axis. Commas divide possible multiple realisations, while slash divides colloquial pronunciation on the left and literary pronunciation on the right.

Below is a summary of the more fine-grained sound changes illustrated in Tables 4.9–4.12:

- The merger, raising and diphthongisation of Middle Chinese rime categories R1 果

3. The capital letters for rime categories stand for a vowel adjacent to its corresponding lower case IPA symbols.

4. Group /n/ here refers to 泥母/n/ and 孃母/ɳ/ because they behave differently from the rest of their group.

Group→	RC	Division 1			Division 2			
		p	t+t͡s	k+ʔ	p	n	ʈ+ʈ͡ʂ	k+ʔ
-∅-	R1 果 (-ɑ)		ɑ/əuᵝ	əuᵝ				
	R2 假 (-a)				o	o	o	ɑ, o/iɑ, io
	R5 蟹 (-Ai)	e	ɑ/e	e	ɑ/e	ɑ	ɑ/e	ɑ/iɑ
	R6 效 (-Au)	a	a	a	a	a	a	a/iæ
	R7 流 (-Iu)	ʏ	ʏ	ʏ				
	R8 咸 (-Am)		ɛ, ɵ	ɵ			ɛ	ɛ/i
	R10 山 (-An)		ɛ, ɵ	ɵ	ɛ		ɛ	ɛ/i
	R11 臻 (-Ən)	ən	ən					
	R12 宕 (-Aŋ)	ɑ̃	ɑ̃	ɑ̃				
	R13 江 (-Oŋ)			ɑ̃		ɑ̃	ɑ̃/iɑ̃	
	R14 曾 (-Əŋ)	ã/ən	ən					
	R15 梗 (-Eŋ)				ã/ən	ã/ən	ã/ən	ã/ən, (ɦ/ʔ)iɲ
-u-	R1 果 (-ɑ)	uᵝ, (m)o	əuᵝ	əuᵝ				
	R2 假 (-a)							o/əuᵝ
	R3 遇 (-O)	uᵝ, (m)o	əuᵝ	əuᵝ				
	R5 蟹 (-Ai)	e	e	ue				uɑ, o/ue
	R10 山 (-An)	ɵ	ɵ	uɵ			ɵ	uɛ
	R11 臻 (-Ən)	ən	ən	uən				
	R12 宕 (-Aŋ)			uɑ̃				
	R14 曾 (-Əŋ)			oŋ				
	R15 梗 (-Eŋ)						uɑ̃, oŋ	
	R16 通 (-Uŋ)	oŋ	oŋ	oŋ				

Table 4.9: The relationship between Soutseu and Middle Chinese rimes: nonchecked syllables, Divisions 1 and 2

	RC	Divisions 3 and 4							
Group→		p	t	n	t͡s	ʈ͡ʂ	ʈ+t͡ɕ	ɲ̟	k+ʔ
	R1 果 (-ɑ)								ɑ
	R2 假 (-a)				iɑ/iᶻ		iɑ, o/i, ʏ	ɑ	iɑ/i
	R4 止 (-I)	iᶻ/e		iᶻ	ʐ̟	ʐ̟	ʒ̟ʷ	iᶻ/əl̩	iᶻ
	R5 蟹 (-Ai)	iᶻ	iᶻ	iᶻ	iᶻ		ʒ̟ʷ		iᶻ
	R6 效 (-Au)	iæ	iæ	iæ	iæ		a	iæ/a	iæ
	R7 流 (-Iu)	ʏ, uᵝ	ʏ	ʏ	ʏ	ʏ	ʏ	ʏ	ʏ
-∅-	R8 咸 (-Am)	i	i	i	i		ɵ	i/ɵ	i
	R9 深 (-Im)	iɲ		iɲ	iɲ	ən	ən	iɲ/ən	iɲ
	R10 山 (-An)	i	i	i	i		ɵ	ɵ	i
	R11 臻 (-Ən)	iɲ		iɲ	iɲ	ən	ən	iɲ/ən	iɲ
	R12 宕 (-Aŋ)			iã	iã	ɑ̃	ã/ɑ̃	iã/ã	iã
	R14 曾 (-Əŋ)	iɲ		iɲ		ã/ən	ən	iɲ	
	R15 梗 (-Eŋ)	iɲ	iɲ	iɲ	iɲ		ã/ən		iɲ
	R1 果 (-ɑ)								ɑ
	R3 遇 (-O)	m̩, uᵝ		ʏ, iᶻ	iᶻ	ʐ̟/əu	ʒ̟ʷ	ʒ̟ʷ	ŋ̟, e/yᶻʷ
	R4 止 (-I)	iᶻ		e	ʐ̟ʷ/e	e	ʒ̟ʷ/e	yᶻʷ/e	yᶻʷ/ue
	R5 蟹 (-Ai)	iᶻ			e		e	e	yᶻʷ/ue
-u-	R8 咸 (-Am)	ɛ							
	R10 山 (-An)	ɛ		i	i		ɵ	ɵ	iɵ
	R11 臻 (-Ən)	ən		ən	ən		ən	yɲ/ən	yɲ
	R12 宕 (-Aŋ)	ɑ̃							uɑ̃
	R15 梗 (-Eŋ)							ioŋ/iɲ	
	R16 通 (-Uŋ)	oŋ		oŋ, ioŋ	oŋ	oŋ	oŋ	ioŋ/oŋ	ioŋ/oŋ

Table 4.10: The relationship between Soutseu and Middle Chinese rimes: nonchecked syllables, Divisions 3 and 4

Group→	RC	Division 1			Division 2			
		p	t	k + ʔ	p	n	t + t͡ʂ	k + ʔ
-∅-	R8 咸 (-Ap)		aʔ/əʔ	əʔ			aʔ	aʔ/iaʔ
	R10 山 (-At)		aʔ	əʔ	aʔ		aʔ	aʔ/iaʔ
	R12 宕 (-Ak)	oʔ	oʔ	oʔ, əʔ				
	R13 江 (-Ok)				oʔ		oʔ	oʔ/ioʔ
	R14 曾 (-Ək)	oʔ	əʔ	əʔ	əʔ			
	R15 梗 (-Ek)				ɑʔ		ɑʔ/əʔ	ɑʔ/əʔ
-u-	R10 山 (-At)	əʔ	əʔ	uəʔ, uaʔ			əʔ	uaʔ
	R11 臻 (-Ət)	əʔ	əʔ	uəʔ, əʔ				
	R12 宕 (-Ak)			oʔ				
	R14 曾 (-Ək)			uəʔ				
	R15 梗 (-Ek)						uəʔ, uaʔ	
	R16 通 (-Uk)	oʔ	oʔ	oʔ				

Table 4.11: The relationship between Soutseu and Middle Chinese rimes: checked syllables, Divisions 1 and 2

Group→	RC	Divisions 3 and 4							
		p	t	n	t͡s	t͡ʂ	t + t͡ɕ	ɲ	k + ʔ
-∅-	R8 咸 (-Ap)		iəʔ	iəʔ	iəʔ		əʔ		iəʔ
	R9 深 (-Ip)			iəʔ	iəʔ	əʔ	əʔ	iəʔ/əʔ	iəʔ
	R10 山 (-At)	iəʔ	iəʔ	iəʔ	iəʔ		əʔ	iəʔ	iəʔ
	R11 臻 (-Ət)	iəʔ		iəʔ	iəʔ		əʔ	iəʔ/əʔ	iɲ
	R12 宕 (-Ak)			iəʔ	iəʔ		ɑʔ	ɑʔ	iəʔ
	R14 曾 (-Ək)	iəʔ		iəʔ	iəʔ	əʔ	əʔ		iəʔ
	R15 梗 (-Ek) iəʔ	iəʔ	iəʔ	iəʔ		ɑʔ/əʔ		iəʔ	
	R8 咸 (-Am)	aʔ							
	R10 山 (-At)	aʔ		iəʔ	iəʔ		əʔ		əʔ/yəʔ
	R11 臻 (-Ət)	əʔ		iəʔ	iəʔ	əʔ	əʔ		yəʔ
-u-	R12 宕 (-Ak)	oʔ							
	R14 曾 (-Ək)								yəʔ
	R15 梗 (-Ek)							yəʔ	
	R16 通 (-Uk)	oʔ		oʔ	oʔ	oʔ	oʔ	ioʔ/oʔ	ioʔ

Table 4.12: The relationship between Soutseu and Middle Chinese rimes: checked syllables, Divisions 3 and 4

(-ɑ) and R3 遇 (-O) into */u/ > modern /əuᵝ/ and loss of -/u/- medial in those rime categories: 河 *ɦɑ 'river', 和 *ɦuɑ 'peace' and 湖 *ɦuo 'lake' (all have the same tone) are pronounced the exact same as [ɦəuᵝ˩]. Group /p/ preserved earlier /u/ > [uᵝ], with /m/-initial characters shifting to [o] instead.

- The merger of Categories R3 遇 (-O) and R4 止 (-I) when followed by Groups /t/ and /t͡ɕ/ into /ʒ̩ʷ/ – e.g. 詩 *ɕɨ 'poem' and 書 *ɕiɔ 'book' are pronounced the same as [ʃʒ̩ʷ˥].

- The proliferation of mid-front vowels /e/ and /ɛ/: /e/ can be found from Categories R4 止 (-I) Divisions 3 and 4 and Category R5 蟹 (-Ai) Divisions 1 and 2 as well as Divisions 3 and 4 with -/u/- medial; while /ɛ/ can be found in Categories R8 咸 (-Am) and R10 山 (-An) Divisions 1 and 2. These two vowels further merged in modern Soutseu dialect, and only a few *Bindae* artists can reliably distinguish them. The ubiquity of these vowels gave rise to the indexical associations that Soutseu dialect sounds soft, elegant, cutesy and feminine because these are commonly associated with an abundance of front vowels in a language.

- The monophthongisation of Category R6 效 (-Au) into /a～æ/, a unique feature of Soutseu dialect distinct from surrounding varieties with [ɔ], a more straightforward monophthongisation of /au/. This also boosts the frequency of front vowels in the language.

- The entirety of Category R7 流 (-Iu) monophthongises into /ʏ/ regardless of medial – occasional exceptions exist in Group /p/ where it can turn into /uᵝ/ instead.

- The split of medial-less Category R8 咸 (-Am) and R10 山 (-An) Division 1 and 2 characters into two rimes /ɛ/ and /ɵ/: the general trend is for back vowels to become /ɵ/ and front vowels staying front /ɛ/, but the split can be purely lexically based as well. It is worth-noting that in Section 3.2 I discussed how 中州

韻 *Zhongzhouyun* favours /ɛ/ instead of /ɵ/ compared to regular *Bindae* Soutseu dialect, and I provided exception of the correspondences as well because /ɵ/ still exists in *Zhongzhouyun* – this indicates that the basis of the sound change is indeed lexical diffusion, not conditioned by a particular phonetic environment. For example, 單 *tɑn 'single', 難 *nɑn 'difficult' turn into /tɛ/ and /nɛ/ respectively, but 餐 *t͡sʰɑn 'meal' yields /t͡sʰɵ/. This split is only present for Group /t/ and /t͡s/ since Group /k/ words take only /ɵ/ – we can see from the tables that a lot of changes are conditioned by the initial.

- In contrast, the Division 3 and 4 characters of those rime categories lose its main vowel and merge into /i/. Historically the sound change was /iAn/ > /iɛ̃/ > /iɛ/ (parallel to modern /ɛ/ and /uɛ/) > /iɪ/ (there are works like 葉祥苓 Yih (1988) which transcribe it this way) > /i/. This corresponds to the raising of *ɑ to /u/ > /əuᵝ/ previously explained.

- Compared to *Bindae* Soutseu dialect which has both pronunciations where there is a colloquial/literary divide, in *Zhongzhouyun* there is always only the literary pronunciation. This is especially salient for the following characters: 支微入虞 /u/ + /i/ > /y/ in colloquial pronunciation but /ue/ in literary (discussed in 4.2.1); Groups /k/ and /ʔ/ Division 2 (discussed previously in Sections 3.2 and 4.2.1); the majority of 日母 */ɲ̟/ (corresponding to /ʒ/ in the literary layer); and Rime Categories R14 曾 (-Əŋ) and R15 梗 (-Eŋ) (merging into R11 臻 /ən/ in the literary layer). As seen from the tables, the pairs of literary and colloquial rimes are not the results of Neogrammarian sound changes but evidence of language contact – further discussions will follow in Chapter 5.

- The grand collapse of checked tone rimes: compared to their nonchecked counterparts which contain all the vowel phonemes, checked tone syllables get largely

neutralised into fewer rime categories, and a lot of main vowels get reduced to /ə/ – the sheer number of /əʔ/ and /iəʔ/ in Tables 4.11-4.12 evidently proofs this. Compare 裂 *liɛt 'crack', 立 *lip 'stand' and 力 *lɨk 'strength' – all three characters are /liəʔ/ in Soutseu dialect.

Overall, the general trend of monophthongisation and removal of nasal codas stand out as two of the biggest phonological tendencies of Soutseu dialect. Even though a lot of Middle Chinese rimes merged into one, Soutseu dialect is still among one of the Chinese varieties with most number of rimes, thanks to the newly generated unique monophthongs. We can also see that even if the Middle Chinese rime categories have similar vowels, the result might be vastly different – compare Categories R8 咸 (-Am) and R10 山 (-An) to R12 宕 (-Aŋ): in the former two categories the nasal consonant totally disappears and the vowel gets transformed into front /ɛ/ /i/ or central /ɵ/, but the latter keeps the back quality of /ɑ/ and the nasalisation, giving /ɑ̃/ and /iɑ̃/. This indicates the difficulty of writing every sound change out as a distinct rule, which is why this dissertation does not take that approach – rather, everything is a generalisation and there are always exceptions. This shows the complexity of the language and the non-uniformity of some historical sound changes.

4.2.4 Citation tones

As stated in Section 3.1.3, the names of Soutseu dialect's citation tones directly comes from the Middle Chinese derived tonal system as all Chinese languages. In 4.1 I mentioned the fact that there were only four tones – 平 level, 上 rising, 去 departing and 入 entering in Early Middle Chinese, and they each split into two based on whether the initial is voiceless (陰) or voiced (陽), yielding 8 tones. Modern Soutseu has 7 tones, with 陽上 voiced rising and 陽去 voiced departing merging into each other. However, there are some further shifts in tonal categories, which can be summarised in Table 4.13 (§ = rare,

		陰平 T1	陽平 T2	陰上 T3	陰去 T5	陽去 T6	陰入 T7	陽上 T8
平 level	清 voiceless	高天						
	次濁 sonorant	§ 媽鳴	人云					
	全濁 voiced obs.		床徐					
上 rising	清 voiceless			短好				
	次濁 sonorant	§ 柳我		§ 美永		五買		
	全濁 voiced obs.					近厚		
去 departing	清 voiceless				對菜			
	濁 voiced					大用		
入 entering	清 voiceless						一尺	
	濁 voiced							白六

Table 4.13: The relationship between Soutseu and Middle Chinese citation tones

underlined = literary pronunciation):

We can see that in general the tones correspond well to their Middle Chinese values apart from sonorants, which sometimes crosses over to the voiceless tones: level tone sonorants only cross over to T1 under special circumstances and rising tone sonorants can cross over to both T3 (the corresponding voiceless tone) but also T1 (voiceless level) as well, though these characters are minor exceptions in the grand scheme of things. This 'crossing-over' is a parallel to certain tone sandhi patterns that will be explored in Section 6.1. Tone sandhi can also 'recover' merged tones T4 from T6, since 買 'buy' (voiced rising, historical T4) = 賣 'sell' (voiced departing, T6) as T6 [mɑ˩] but 弗買 [fəʔ˥ mɑ˧˨] 'not buy' surfaces differently from 弗賣 [fəʔ˥ mɑ˨]. This will also be explored more in the tone sandhi section.

4.3 Conservation and innovation

In the last section the sound changes and correspondences between Middle Chinese and *Bindae* Soutseu dialect were discussed, but there are several sound changes (or non-changes) outside of that realm which can be either conservative – reflecting characteristics from Old Chinese earlier than *Guangyun* phonology, or innovative – an independent

language-internal sound change. We will explore two of them in this section: sources of the phoneme /g/ and the glottalisation of non-checked syllables.

4.3.1 Sources of the phoneme /g/

As previously stated in Section 4.1, 群母 *g without -/i/- medial changed to 匣母 /ɦ/ – if this sound change is complete, it should have left no /g/ initial in Soutseu dialect, since the sequence /gi/ later palatalised into /d͡ʑ/. However, though comparatively rare, /g/ is still very much a phoneme in the language. In Table 4.7 we have seen one way of retaining /g/: the end result of /ue/ (from -/i/ and -/u/- in Category R4 止 with main vowel /i/) in the literary layer blocks the potential palatalisation from colloquial /y/, therefore retains the velar /g/. This yields the syllable /gue/ as literary pronunciations of several characters like 櫃, 葵 and 跪. A similar sound change happens in rime categories R12 宕 (-Aŋ) and R16 通 (-Uŋ) – in these rimes the -/i/- medial get deleted, leaving the initial in direct contact with a back vowel, thus retaining it. Examples include 共 *giuŋ > /guŋ/ > [goŋˬ] and 狂 *guiɐŋ > /guɑŋ/ > [guɑ̃ˬ].

However, there are two more sources of /g/ in Soutseu dialect. One comprises of the characters 環寰鬟 with the 睘 phonetic component. Their pronunciation is *ɦɯuan in Middle Chinese, like the character 還 in the same series. However, 環寰鬟 is pronounced as [guɛ] in *Bindae* Soutseu dialect as opposed to 還 [ɦuɛ] despite them being homophones in Middle Chinese. This again shows the lexically conditioned nature of some sound changes in Soutseu and Chinese languages in large: per Baxter & Sagart (2014)'s reconstruction of Old Chinese, 環 and 還 are /C.ɢʷˁ<r>en/ and /ɢʷˁ<r>en/ respectively (< > indicates uncertainty, C is an extra sesquisyllabic consonant) – the reconstructed /ɢ/ turned into /g/ (all uvulars disappeared in Middle Chinese), yielding /gʷren/, and then only 還 carried on the change to [ɦ], leaving 環寰鬟 behind. After all the sound changes, the initials are kept separate, and 環寰鬟 being pronounced with [g]

is a relic from Old Chinese that is preserved quite irregularly. Southern Wu dialects like Wenzhounese/Yuciu retains more of Old Chinese *ɢ～g, whereas in Soutseu only a few characters remain.

The final source of /g/ is quite unknown, but it contains the most important and significant portion of characters – these are local and colloquial words frequent in daily use. Some of them have more overt etymologies with irregular sound changes: 搿 [gəʔㇵ] 'unspecified deictic (this or that)' pretty clearly came from 個 [kəʔㇳ] 'generic classifier', which is itself a glottalisation of the literary pronunciation 個 [kəuᵝㇶ] 'self' (this will be discussed shortly). 掼 [guɛㇴ] 'throw' (a rare archaic word in non-Wu Chinese languages but the most commonly used word in Wu) is another example of historical *k to [g], coming from Middle Chinese */kɯuan/. These instances of irregular voicing sheds light on the fact that /g/ is an integral part of the colloquial layer of Soutseu dialect.

Other characters show a rather unknown substrate, which is tentatively linked to Tai-Kadai languages. The most frequently used /g/-initial character is 戇 [gɑ̃ㇴ] which means 'stupid, dumb, foolish, simple-minded': this character has cognates in almost all non-Mandarin Chinese languages – compare Hakka [ŋoŋㇶ], Cantonese [ŋɔ:ŋㇷ], Hokkien [goŋㇷ] – all of which are located in the Southeast and had contact with Tai-speaking people. Bauer (1996) suggests that the Cantonese word can be traced to a Proto-Tai form /ŋV:ŋ/ which gave rise to descendants like Zhuang [ŋueŋㇷ]. 軋 [gaʔㇵ] 'jostle, push, squeeze, crowded' is another possible substrate word (there is a potential Hokkien cognate [kauʔㇷ] which means 'crush') – in Middle Chinese this character is read as */ʔɯæt/ and there is no evidence that */ʔ/ changed to [g] all of a sudden. Such obscure etymologies are hard to pin down because the language contacts happened very long ago and the other language in contact is basically unknown, but the abundance of /g/ in the most native words shows that /g/ has long been established and is stable in the language.

4.3.2 Glottalisation of nonchecked syllables

The dichotomy between checked syllables ending in glottal stop (/-ʔ/) and nonchecked syllables is very strong in Soutseu dialect: not only do the tone values differ which affects both the range of possible rimes (the number of checked rimes are way less than nonchecked, see Section 4.2.3) and tone sandhi, but there is also a significant difference in length, with checked syllables' vowels some half the length of nonchecked syllables (汪平 Uaon, 2011). Moreover, the glottal stop in the checked syllables are often pronounced with a very strong and full glottal closure. Given the above, it seems unlikely for one type of syllable to turn into another, yet glottalisation of Middle Chinese nonchecked syllables is relatively commonplace and can be considered a shared innovation in all Northern Wu languages, while the other direction – checked syllables losing its glottal stop – is rather unheard of. Below are some examples of historical nonchecked syllables gaining glottalisation (left side of slash = Middle Chinese reconstruction, right side = Soutseu dialect):

- 個 'generic classifier' *kɑ / [kəʔㄱ], only colloquial reading
- 鼻 'nose' *bi / [bəʔ] (colloquial, most common way to say 'nose'), [biɪʔ] in a very set expression 豬鼻衝 [t͡ʃʒ̍ʷㄱ biɪʔㄱ t͡ʃʰoŋㅣ] 'nose of a pig'
- 只 'only' *t͡ɕiɛ / [t͡ʃəʔㄱ], probably influenced by 隻 'generic classifier, classifier for animals' *t͡ɕiɛkˀ > [t͡ʃəʔㄱ]
- 葡萄 'grape' *buo dɑu / [bəʔㅓ daㅅ], compare 蒲桃 [buᵝㅓ daㄱ] 'walnut'
- 枇杷 'loquat' *bi bɯa / [biɪʔㅓ boㅅ], compare 琵琶 [biᶻㅓ boㄱ] 'bibo, the instrument used in *Bindae*'
- 荸薺 'water chestnut', from 鳧茈 *bio d͡ziɛ / [biɪʔㅓ ziᶻㅅ]

- 便宜 ‘cheap (literary)’ *biɛn ŋiɛ / [biꜜ ŋ̩iəʔꜛ] (the normal word for cheap is [d͡ʑiãˬ] which is totally etymologically unrelated)

A lot of the characters above have alternative pronunciations and the checked tone variant is only used in the one specific context listed above. Some are influenced by other characters, like how 只 *t͡ɕiɛ and 隻 *t͡ɕiɛk are very similar to begin with; some are clearly examples of homophone avoidance: in the cases of 葡萄 ‘grape’ and 枇杷 ‘loquat’ there is another word with identical or nearly identical pronunciations, so the repairing strategy is to glottalise the first syllable (causing the sandhi pattern to change as well) so that the two words end up sounding different enough. However, some cases are left unexplained, since 荸薺 ‘water chestnut’ and 便宜 ‘cheap’ do not have nearly identical counterparts in the lexicon, and 個 ‘generic classifier’ and 鼻 ‘nose’ gained a glottal stop from nowhere on their own. A somewhat similar phenomenon can be found in Hokkien where a bunch of seemingly random non-nasal syllables gain nasalisation because nasalisation and the lack thereof is a defining feature of Hokkien phonology. This tendency to generate more syllables with a language’s defining phonological trait is rather curious and may be linked to its default articulatory setting (see Huang et al. (2024)), but for now we can conclude that the glottalisation is not purely by chance – like the proliferation of /g/ in the language, it reflects the underlying phonological preferences and tendencies of the language.

4.4 Interim summary

To recapitulate, *Bindae* Soutseu dialect shows plenty of both conservative and innovative traits when it comes to the sound changes – most of its phonology descends from Middle Chinese, with minor changes in initials and citation tones (tone sandhi and its complex nature will again be discussed in Section 6.1), but various major changes to the rimes, including medials, main vowels and codas. There are also layers outside of the realms

of Middle Chinese, including conservation of Old Chinese traits and language-internal innovations. Furthermore, a lot of its sound changes tend to follow lexical diffusion in that they may affect different lexical items differently, and some of them are incomplete. The variety in *Bindae* artists' mouths is all but a snapshot of Soutseu dialect roughly 100 years ago, considering modern Soutseu dialect already had several more sound changes which makes it different and will continue to evolve under the pressure of Standard Mandarin.

CHAPTER 5

LITERARY AND COLLOQUIAL LANGUAGE: PRONUNCIATIONS AND REGISTERS

In Chapter 4 I discussed the historical phonology of *Bindae* – how it stems from Middle Chinese and which phonological traits are conserved versus which are innovated. Nevertheless, there is a big part of the puzzle missing, which is hinted in the previous two chapters but not explored in detail: literary and colloquial language, at both a micro level when it concerns multiple pronunciations of a single character, and a macro level when the whole register of the language shifts and it is reflected in all aspects of the language. This following chapter explores both levels and describes the complex situation of language contact in Soutseu, reflected in the language use of *Bindae*.

5.1 Literary and colloquial pronunciations 文白異讀 in *Bindae* Soutseu dialect

5.1.1 An overview of literary and colloquial pronunciations in Chinese languages

In historical and contact linguistics, a stratum or strate is a historical layer of language that influences or is influenced by another language through contact. The language influencing others is called the superstratum/superstrate, which often enjoy higher socioeconomic status and is more dominant in society, whereas the language influenced by others is called the substratum/substrate which is the opposite – lower status and more confined to casual and intimate settings. Unlike socially stratified language varieties such as basilects/acrolects, substrates and superstrates coexist in a single language variety and are often reflected in different but semantically related lexical items, for example Latin

and Ancient Greek loanwords occupy the majority of the literary superstratum of English and lots of other European languages.

In Chinese languages, 文白異讀 Literary and colloquial pronunciations, also translated as differing literary and colloquial readings, are a common and widespread feature – some characters have multiple pronunciations which are usually called 'literary' and 'colloquial', and they are in fact doublets which means that they are cognates to each other but belong to different strata. 文讀 [ɣən˩ do?˨] 'literary pronunciations' are for reading formal text, especially poetry and literature, and loanwords from older forms of Chinese and other Chinese branches; whereas 白讀 [bɑ?˩ do?˨] 'colloquial pronunciations' are the local vernacular pronunciations inherent to the language. Essentially, in this case, literary pronunciation is a loaned layer which is a reflection of the influence or dominance of a superstratum on a substratum, while colloquial pronunciation is the inherited core of the substratum (王洪君 Waon, 2006b). The source of literary pronunciation is almost always from a 'common language' or lingua franca of some kind between Chinese languages, which is Middle Chinese in its various forms until the formation of Mandarin and its takeover – however, due to limitations of specific local phonologies which are vastly different across China, each language variety developed its own system of adapting lingua francas into its native phonology. As Kang (2011) explored in her chapter, loanword phonology is often tied to constraint-based phonological models like Optimality Theory (Prince & Smolensky, 1993) because 1) loanword phonology is often very language specific and 2) there are some universal constraints outside of native phonology in play which can give rise to processes with no native precedents, such as new phonemes or new allophonic alternations. Given the tremendous diversity of native phonologies amongst Chinese languages, the resulting literary layers end up somewhere in between the superstrate lingua franca and native phonology. This theme will return in Section 5.1.2 where I analyse specific adaptations of native phonologies in *Bindae* Soutseu

dialect.

Throughout the evolution of Chinese languages, both literary and colloquial strata came to be seen as an integral part of the language despite the clear 'foreign' origins of literary pronunciations: this was aided by the fact that the gradual completion of Sinicisation and the centralised rule of most Chinese historical dynasties moulded and solidified a single unified Chinese identity, so that even though the standard languages were often times unintelligible especially with non-Mandarin languages, the relatedness and the notion that all varieties are under the 'Chinese' umbrella fostered the continuous linguistic infiltration of the standard language into the topolects. This process has been a very dynamic and variegated one throughout Chinese history due to multiple factors: 1) the lack of complete standardisation – there had not been an institution like l'Academie Française which regulates pronunciation and grammar; 2) the inaccessibility of such a standard language – only the most upper class people and the highly literate can even get in touch with such a lingua franca or find it useful; and 3) the low literacy rates itself because China had always been a largely agricultural society. The Chinese word for Mandarin, 官話, literally means 'official speech' (as in 'bureaucratic', in opposition to vernacular) – it was not that long ago when the semantic widening from the meaning 'a very particular sociolect that was an upper class literate lingua franca' to 'the group of language varieties comprising of 75% of Northern and Southwestern Chinese languages' happened. Furthermore, 'standard Mandarin' was never one single codified variety until the emergence of modern Standard Mandarin from 1949 onwards where both sides (People's Republic of China [PRC] and Republic of China [ROC]) started their language policies of exclusively promoting the codified standard language. All of the above created an environment where the historical lingua francas from different time periods got borrowed in again and again separately, leaving behind a number of phonological strata which coexist in one single variety. The Hokkien language is a well-known example of rather extreme stratification

in that certain characters can have up to four or five pronunciations used in different contexts. Nonetheless, not all pronunciations from every stratum survives: in Hokkien, most characters still have only one or two pronunciations reflecting a certain layer, and the preservation of a certain layer is totally lexically dependent. Some pronunciations may only be fossilised in one specific word, others may concern a couple words or half of the words. One example would be 成 in Hokkien with its four pronunciations, colloquial [t͡ɕʰiã] [t͡ɕiã] [ɕiã] and literary [ɕiŋ] (all rising tones): [t͡ɕʰiã] is used only in 成格 [t͡ɕʰiã˩˧ kiɪk˥˦] 'decorate'; [t͡ɕiã] is the most common colloquial reading, meaning 'become' or 'almost' on its own; [ɕiã] means one tenth; and [ɕiŋ] is the sole literary reading in words like 成功 [ɕiŋ˩˧ koŋ˥] 'success'. The different frequencies and usages of different pronunciations are evident from this example, in that each pronunciation (often, but not always) occupies a different semantic domain, and there is usually some defining phonological difference separating the colloquial layer from the literary. In the example above, [iã] is the colloquial rime which is ubiquitous in native Hokkien phonology, whereas [iŋ] is the corresponding literary layer rime that is also common but restricted to said layer.

Another of the defining characteristics of this phenomenon at large is its synchronic unpredictability, as to what contexts/words require the literary pronunciation and vice versa. In the current linguistic landscape, there is often times not a register difference any more between literary and colloquial pronunciations since both coexist in rather common and everyday words: as showcased in Section 4.2.1, in the phrase 問隻問題 [mən˧˩ tsɑʔ˥ vən˩˧ diᶻ˧˩] 'ask a question', 問 [mən˧˩] 'ask' is the colloquial pronunciation while in 問題 [vən˩˧ diᶻ˧˩] 'question' 問 takes on the literary pronunciation [vən˧˩] – there really is not a semantic distinction anymore and the pronunciations are just fossilised lexically. Therefore, the terms literary versus colloquial is also partially a misnomer at this point – they are historical relics themselves, which illustrates the multilayered nature of this phenomenon.

If we look at the definitions again, it is not hard to conclude that colloquial readings are earlier and thus conservative language-internally, while literary readings are later, reflecting more of the recent sound changes. However, as previously discussed, the language shift towards Standard Mandarin broke this cycle, in that instead of absorbing Mandarin layers to the local variety most young people now totally shift to Standard Mandarin and ditch the local language altogether. Interestingly, Standard Mandarin itself incorporates literary and colloquial pronunciations because Beijing was not the capital until Yuan dynasty (13th century) so the local dialect also had traces of earlier lingua francas. For example, 白 'white' had two pronunciations at the beginning – colloquial [paiˊ] and literary [puɔˊ] – but the language bureau responsible for the 'correct' pronunciation of 普通話 Putonghua (lit. ordinary language), the Mainland Chinese rendition of Standard Mandarin, designated literary [puɔˊ] obsolete in favour of colloquial [paiˊ] – [puɔˊ] is still reflected in some old transliterations such as Li Bo for 李白 and Bo Juyi for 白居易, two famous Tang-dynasty poets. Conversely, 學 'study' is left with only literary reading [ɕyɛˊ] in Standard Mandarin, though in colloquial Beijing and especially Northeastern Mandarin dialects, the colloquial [ɕiauˊ] remains. The fact that this phenomenon even exists in Standard Mandarin shows its historical depth, but also the arbitrariness of what particular pronunciations from what layers got passed down and remain in the language: both 'white' and 'study' are very common everyday words but 'white' is left with only the colloquial and 'study' with only the literary pronunciation.

I argue that physical geography, strength of regional identity and degree of connection to the central regime all play an important role in this phenomenon: Standard Cantonese has very little separation between literary and colloquial strata because of its regional lingua franca status, and the commonality of the inherited basic daily words of non-Chinese origin yields a quasi-diglossia situation akin to Japanese kunyomi, where a certain concept can be expressed using two completely unrelated words. Examples include collo-

quial 睇 [tʰɐiˊ] (an archaic form in other Chinese languages) versus literary 看 [hɔːnˎ] for ‘look’, and colloquial 諗 [nɐmˊ] (most probably a Kra-Dai substrate word, compare Zhuang [namˇ] (Bauer, 1996)) versus literary 想 [sœːŋˊ] for ‘think’. In Cantonese opera and most Cantonese songs even up to this day, the usage of the former colloquial words in the pair is forbidden because literary written Cantonese has been dominated by Mandarin vocabulary and grammar. Since the two strata are not cognates to begin with, this phenomenon does not involve phonological changes and thus falls outside the realm of discussion of this chapter, though diglossia itself is frequently discussed in other linguistic literatures. On the other hand, Hainamese, a Southern Min language spoken on Hainan/Hainam Island, the southernmost part of China, took a different approach due to its sheer distance to any kind of central lingua franca: being related to Hokkien with most of its speakers with origins from Hokkien-speaking regions, it used to have an elaborate system of division between literary and colloquial pronunciations; however, when the immigrants settled on Hainam gradually became localised and communication with central regimes diminished, Hainamese lost almost all of its literary superstrate during the years – now it is one of the most unintelligible varieties of Chinese even to its close relatives Hokkien and Teochew, because geographic isolation severed most ties to the other languages and developed lots of phonological innovations on its own through language contact with non-Chinese local languages, notably implosives which is really rare in Chinese varieties. Through explaining the lack of literary versus colloquial pronunciations in the two languages above, we can see that its proliferation requires a consistent stream of inputs from lingua franca and a not too strong socioeconomic status of the local variety.

On the contrary, 科舉制度 Chinese Imperial Examination System, the nationally regulated examinations for scholars to become imperial officials, largely strengthened the radiation of lingua franca towards farther locales, and this is directly reflected in Wu

varieties and epecially Soutseu as a city. The Wu-speaking region had been the most educated area in China for a long time in Chinese history, especially Ming and Qing dynasties. Qing dynasty literalist and official 陳夔龍 Chen Kuilong recorded in one of his essays 《夢蕉亭雜記》*A recount from Dreaming Banana Pavilion* that in the examinations from 1646 to 1904 under Qing dynasty, out of the 113 狀元 Zhuangyuan (first places), 50 are from 江蘇 Jiangsu/Kaonsou Province, 20 are from 浙江 Zhejiang/Tsrehkaon Province and none other province had more than 10; out of the 50 in Kaonsou, Soutseu city had 23 – which means that more than half of first places are from the Wu-speaking region and Soutseu itself occupied a quarter of all national first places, having even more than the entire neighbouring Tsrehkaon province. This culture of valuing education above all else was accompanied by the large-scale absorption of literary pronunciations in Wu and altered the language forever – in all modern varieties you can clearly see examples of literary pronunciations, and it is exceptionally salient in Soutseu since it was pedestalled as the centre of Wu culture and Soutseu dialect had long been the lingua franca with high status in Northern Wu around Lake Tha. Despite this, the regional identity of Wu-speaking region was never as strong as say the core Cantonese-speaking region because 1) Soutseu is geographically not far from Mandarin-speaking areas and 2) the high status of education got expanded to its medium, the upper lingua franca based on non-local languages, especially Mandarin in the past millennium. Consequently, Soutseu dialect never really expanded its speaker base and is limited to the city centre of Soutseu – all satellite cities have their own dialects which can be very different both phonologically and grammatically, but Cantonese spread from Guangzhou/Gwongzau in all directions, eventually to Hong Kong and Macau which further increased its influence.

Within Wu varieties, there is a range when it comes to the spread of Mandarin and literary pronunciations. Although still classified as a Wu dialect, the relatively newly formed 杭州話 Hangzhou/Ghangtsei dialect spoken in the capital city of Zhejiang/Tsrehkaon

Province is really special in that it lost almost all of its colloquial layer, including some very basic words: its pronouns 我 [ŋoˊ], 你 [niˊ], 他 [tʰaㅓ] and plural marker 們 [mən] are all distinctively Mandarin, and the diminutive 兒 uses the literary pronunciation [əɭㄦ] as well (homophonous with Soutseu) with no corresponding colloquial one. This is due to its status as the capital of Southern Song dynasty (1127-1279 AD) when the imperial family's immigration into the city attracted people from all parts of China but especially Northern Chinese people from the old capital Luoyang, which in turn brought their languages into Ghangtsei and mixed with local Wu varieties to form the new dialect. The situation in the current biggest city, Zaonhe, is way more complicated: since the emergence of its city status was within the last 200 years and its dialect was formed as a koiné from neighbouring rural dialects, somewhat paradoxically it has comparatively less literary layer and more colloquial layer, though the phenomenon is very much present in the language and it behaves similarly to Soutseu dialect. The various sources of Zaonhe dialect facilitated the proliferation of multiple layers and pronunciation variants: for example the character 確 'exact, correct' has three pronunciations – [t͡ɕʰio?˥], [t͡ɕʰia?˥] and [t͡ɕʰyə?˥] in Zaonhe city alone, coming from Nanjing Mandarin, Yangzhou Mandarin (both of which are Jianghuai Mandarin dialects with Wu substrates) and Beijing Mandarin respectively (許寶華 Shiu, 1997); Soutseu dialect only has the first pronunciation. However, the true colloquial layer pronunciation should be something like [kʰo?˥] in Shaoxing/Zoshing dialect (吳語學堂 Wu language online school), and all pronunciations starting with palatalised [t͡ɕʰ] can be grouped into the broad category of 'literary' layer. However in Zaonhe dialect, [t͡ɕʰio?˥] can be considered a colloquial counterpart of the other two layers because it was borrowed earlier, which adds to the nebulous dichotomy between 'literary' and 'colloquial': though the nomenclature itself is sometimes inconsistent, this dissertation still uses it per tradition of Chinese historical phonology and also because in most cases it is quite obvious which phonological layer a word belongs to – in the fringe cases that it

does not, layers will be labelled with different letters for clarity.

In summary, the presence and complexity of literary and colloquial pronunciations is highly language dependent. As a neighbouring language to Mandarin, Wu language varieties possess a large amount of phonological layers which can be grouped into local colloquial layer(s) and assimilated literary layer(s) mostly from Mandarin. The following section will examine the situation in *Bindae* Soutseu dialect specifically.

5.1.2 Literary and colloquial pronunciations in *Bindae* Soutseu dialect

In Section 3.2, the 中州韻 *Zhongzhouyun* system of *Bindae*'s musical pronunciation was described as a Mandarinisation of Wu phonology, when in fact it is still seen as fully contained within Wu phonology – this is very much like the centrepiece of the previous Section 5.1.1 in that we can basically conclude that *Zhongzhouyun* phonology is a literary-only layer of Soutseu dialect. Given that literary pronunciation is by definition foreign-derived, it is not wrong to say it is situated at the crossroads between the phonologies of both languages, and as stated in the previous section it manifests the strong tendency to look up to various Mandarin lingua francas and learnedly borrow from them. *Zhongzhouyun* differs from regular Soutseu dialect in that it both retains and innovates more literary pronunciations than normal everyday speech, indicating its 'affected' nature and its special usage for music in *Bindae*, which is seen as part of the literary realm. Therefore, *Zhongzhouyun* can be seen as an 'artificially over-complete' literary layer of Soutseu dialect when the spoken dialect happens to lack a lot of that layer – Zhongzhouyun has expanded the Soutseu literary layer to almost every character, yet there are sometimes minor differences explained in Section 3.2. With that in mind, I will delve into examples of literary and colloquial pronunciations within *Bindae* Soutseu dialect, pointing out the instances of the missing literary layer when it belongs to the overarching system of *Zhongzhouyun* when appropriate.

In general, even compared to other Wu dialects, Soutseu dialect enjoys a rich collection of literary pronunciations spanning all vocabulary items/characters, but of course as previously mentioned the distribution is asymmetric and full of gaps in that most characters only have one pronunciation which is considered neither literary nor colloquial (though the vast majority of times it would be of the colloquial layer because it is the inherent layer). The divide is almost always reflected only on segmental phonology – tones rarely participate unless the segmental phonology requires a shift between voiced and voiceless initials which necessitates a tonal change. Examples of this can be seen from Table 4.13 in that the underlined character 我 [ŋəuᵝ] 'I, 1SG' is pronounced T6 [ㄟ] in the colloquial layer but an irregular T1 [ㄏ] in the literary layer; 五 exhibits a more drastic change in segmental content from T6 [n̩ㄟ] in colloquial to T1 [ʔəuᵝㄏ], but the correspondence between colloquial T6 and literary T1 is still there. A very limited selection of characters with nasal initials is the only instance of tonal difference, which indicates that tone is surprisingly the most stable element across literary and colloquial pronunciations (吳舒韻 Wu, 2024). Chapter 4 touched upon several cases of literary and colloquial pronunciations, but a more systematic description will be presented in this section below, with cases from my own research, 丁邦新 Tin (2002), 丁邦新 Tin (2011) and 王洪君 Waon (2006a).

With regard to initial consonants, there are several different pairs between colloquial and literal pronunciations (in that order): labials vs. labiodentals, velars + /h/ vs. palatals, ȵ vs. ʒ and ŋ vs. ɦ. Table 5.1 shows examples illustrating these differences, mostly collected from the previous tables (MC = Middle Chinese, citation tones are not indicated, § = rare, (Z) = *Zhongzhouyun* only, the examples without characters are the monosyllabic characters themselves as a distinct lexical item):

From the table we can see that the correspondences are quite solid between labial and labiodental, /ȵ/ and /ʒ/, as well as /n̩/ and /ɦ/, in that the former of the pair is

	Col.	Example	Lit.	Example
肥	biᶻ	肥皂 [biᶻ˩ zaˊ] ‘soap’	viᶻ	肥料 [ɣ̊iᶻ˩ liæˊ] ‘fertiliser’
防	§bɑ̃	‘prevent, defend’	vɑ̃	防止 [ɣ̊ɑ̃˩ t͡ʃʒʷ˥] ‘prevent’
無	m̩	無不 [m̩˩ pəʔ˥] ‘not have’	ɣ̩ vəu (Z)	無聊 [ɣ̊ɣ̩˩ liæˊ] ‘boring’ 無數 [ɣ̊əu˩ səuˊ] ‘countless’
尾	miᶻ ȵiᶻ	三尾子 [sɛ˥ miᶻ˥ t͡sz̩˩] ‘cricket’ 尾巴 [ȵiᶻ˩ po˥] ‘tail’	vi	尾聲 [ɣ̊i˩ ʃən˥]] ‘coda’
晚	mɛ T6	晚娘 [mɛ˩ ȵiɑ̃ˊ] ‘stepmum’	§ʔuɛ T5	§ 晚上 [ʔuɛ˩ ʒɑ̃ˊ] ‘night’
問	mən	‘ask’	vən	問題 [ɣ̊ən˩ diᶻˊ] ‘question’
物	məʔ	物事 [məʔˊ z̩˩] ‘thing’	vəʔ	動物 [doŋʔˊ vəʔ˩] ‘animal’
江	kɑ̃	江蘇 [kɑ̃˥ səuᵝ˩] ‘Jiangsu’	t͡ɕiɑ̃	江河 [t͡ɕiɑ̃˥ ə̤uᵝ˩] ‘rivers’
敲	kʰa	‘hit, strike’	t͡ɕʰiæ	敲擊 [t͡ɕʰiæ˥ t͡ɕiəʔ˩] ‘hit, strike’
許	he	在許 [ləʔˊ he˩] ‘be at, -ing’	ɕyᶻ	弗許 [fəʔ˥ ɕyᶻʷ˩] ‘do not’
貴	t͡ɕyᶻʷ	‘expensive’	kue	貴重 [kue˩ ʒoŋˊ] ‘valuable’
虧	t͡ɕʰyᶻʷ	虧得 [t͡ɕʰyᶻʷ˥ təʔ˩] ‘thankfully’	kʰue	虧損 [kʰue˥ sən˩] ‘loss of money’
櫃	d͡ʑyᶻʷ	櫃檯 [d͡ʑyᶻʷ˩ dɛˊ] ‘counter (n.)’	gue	衣櫃 [ʔiᶻ˥ gue˩] ‘wardrobe’
人	ȵiɲ	男人 [nə˩ ȵiɲˊ] ‘man’	ʒən	人民 [ʒ̊ən˩ miɲˊ] ‘the people’
讓	ȵiɑ̃	‘allow, yield’	ʒɑ̃	忍讓 [ʒ̊ən˩ ʒɑ̃ˊ] ‘forbearance’
眼	ŋɛ	‘eye’	ɦi (Z)	眼光 [ɦi˩ kuɑ̃˥] ‘insight, view’
吳	ŋ	‘surname’	ɦəuᵝ	吳語 [ɦəu˩ ȵyᶻʷˊ] ‘Wu language’
五	ŋ̩ T6	‘five’	ʔəuᵝ T1	五卅路 [ʔəuᵝ˥ saʔ˥ ləuᵝ˩] ‘30th of May Street’

Table 5.1: Literary and colloquial pronunciation in Soutseu: initials

colloquial and the latter of the pair is literal.

As previously stated in Section 4.1, the labial-labiodental group consists of Middle Chinese Group /p/ + -/i/- glide and back vowel – the labial colloquial readings are inherited from Old Chinese > Early Middle Chinese, whereas the labiodental literary readings are a product of Late Middle Chinese. Both readings are 'native' in a sense because the literary layer dominates between the two: it is in fact the default pronunciation of vast majority of these characters, e.g. 飯 [vɛㇻ] 'cooked rice, meal', 弗 [fəʔㄱ] 'not', 飛 [fiᶻ] 'fly' – these common words show that /f/ and /v/ are phonemes long established in the language and the literary layer in this case is more like a language-internal sound change that was not fully complete, leaving some earlier colloquial layer from Early Middle Chinese as traces. Nevertheless, several irregularities occur in this group, including the different Zhongzhouyun pronunciation of 無 compared to the Soutseu dialect literary layer (discussed in Section 3.2 and will be revisited later in this section), and two unexpected readings in 尾巴 [n̡iᶻㅣ poㄱ] 'tail' and 晚上 [ʔuɛㇶ ʒɑ̃ㇻ] 'night'. The word for tail is a super common one in the language and this pronunciation with [n̡] is due to confusion between Late Middle Chinese */mi/ and */ni/ syllables which is common all across Chinese varieties, for example in my hometown dialect of Dalien, 泥 'mud' *ni > [mi] and 彌補 'compensate' *mi pu > [n̡i pu]. In Soutseu dialect, 尾巴 'tail' is one of the only words that reflects this lexically based sound change. On the other hand, the literary reading of 晚 [ʔuɛㇶ] is really rare and almost warrants a *Zhongzhouyun* label, but still it is considered a part of the dialect by sources like 吳語學堂 Wu language online school. The character is generally rare in Soutseu dialect because its two most common usages – 'late' and 'evening' – are expressed by the unrelated words 晏 [ɛㇶ] and 夜裡 [ɦiɑㅣ liᶻㇻ] respectively, so 晚 is not regularly used apart from fixed expressions.

On the other hand, phonemic palatal and velar nasal initials are confined to the colloquial layer solely because they have not been present in lingua francas based on Mandarin

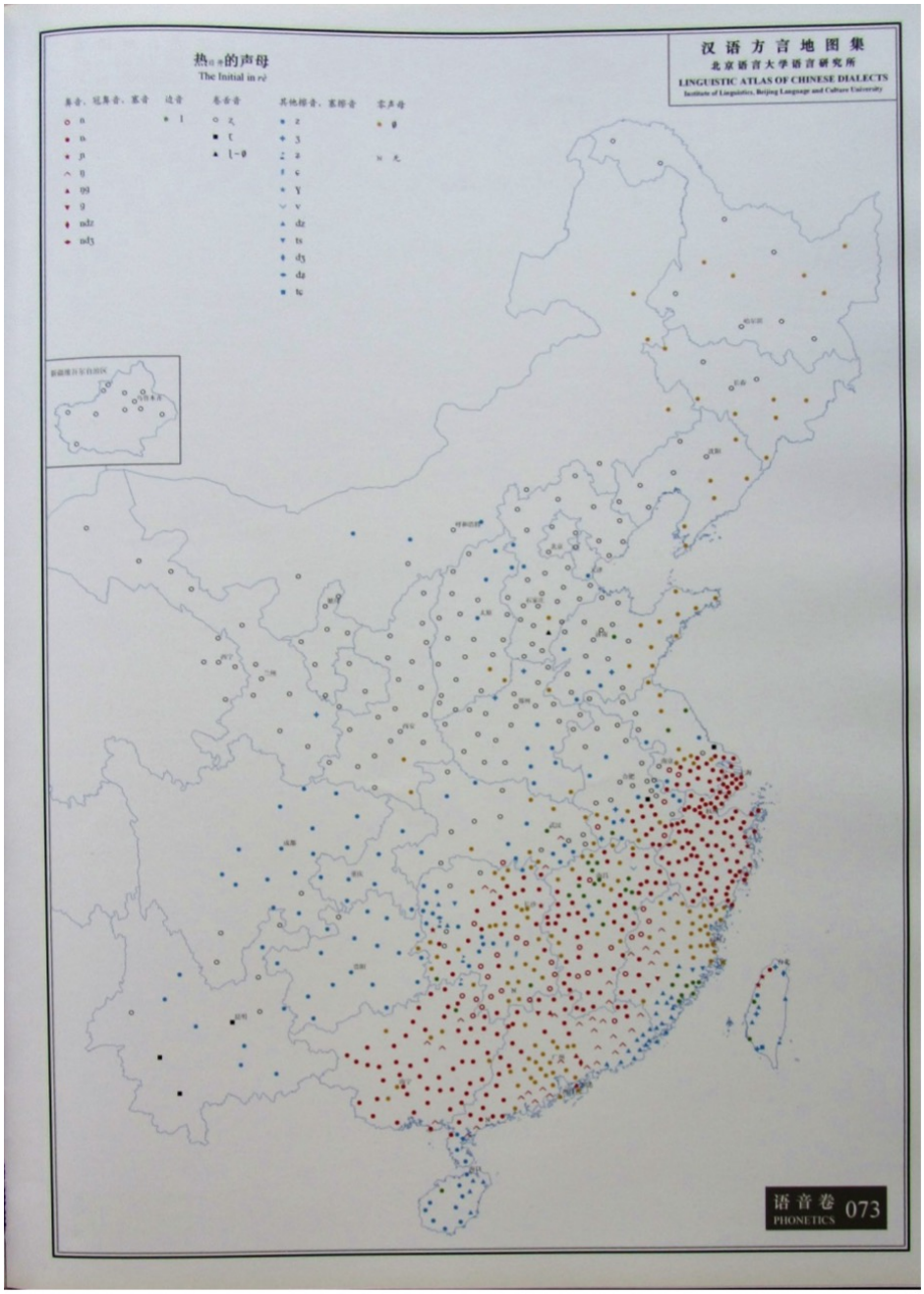

Figure 5.1: The modern pronunciations of Middle Chinese 日母 *ɲ̥: the grey dots are /ʐ̩~ɻ/ encompassing a lot of dialects, the red dots including Wu retains /ɲ̥/ in the colloquial layer

for the past thousand years – it has nothing to do with internal Wu phonology because their conservation keeps the symmetrical system between nasals and stops. In these cases, the literary pronunciations are clearly Mandarin derived, so the issue is finding the exact source of these pronunciations. Figure 5.1 shows the modern reflexes of Middle Chinese 日母 *ɲ̣ in contemporary Chinese languages (曹志耘 Cao, 2008). The *Bindae* Soutseu literary value of /ʒ/ (modern /z/) is best explained by adapting a dialect with /ʐ~ɻ/ (the grey dots on the map), since most neighbouring Jianghuai Mandarin dialects have /ʔ(i)/ which does not correspond. Given the above, Nanjing Mandarin, the lingua franca of Ming dynasty, is likely the source leading to the literary /ʒ/ layer of Soutseu due to its high prominence and relative geographic proximity. Later lingua franca Beijing Mandarin also shares the same value, which strengthened the literary superstrate. Similarly, the velar nasal initial is lost in many Mandarin varieties, two of which being Nanjing and Beijing, so throughout different time periods they were the sources of the literary pronunciation of colloquial /ŋ/ as /ɦ/ (because Soutseu does not allow /ʔ/ in 陽聲調 dark/voiced tones, see 3.1.1 and 3.3). We can also see some parallels between colloquial /m/ and /ŋ/ – both have a null rime that is the syllabic nasal itself (無 [m̩], 吳五 [ŋ̩]) stemming from earlier *mu and *ŋu, and both can be subject to devoicing and tone change as exemplified by 晚 and 五. The only example of the literary [ʔəu$^{\beta}$] pronunciation of 五 'five' is found in a set literary-style abbreviated date within a place name – there are a lot of factors in play here but the most important is the very peculiar use of this numeral alone as 'May', the fifth month of the year (usually 五月), which in turn asked for a literary pronunciation.

In Middle Chinese velar stops + /h/, the relationship between literary and colloquial exhibits a 180-degree turn when it comes to different groups of characters, which is the most curious in all initials. As stated in Section 4.2.1, characters with Group /k/ initial and Division 2 rimes are the main source for the retention of both pronunciations since Divisions 3/4 rimes all palatalised and Division 1 rimes did not. This group has /k, k^{h},

h/ for their colloquial pronunciation which is the inherited initial, and corresponding palatalised /t͡ɕ, t͡ɕʰ, ɕ/ for their literary pronunciation. (See Section 4.3.1 for a discussion surrounding /g/.) This corresponds to complete palatalisation of Division 2 rimes (barring a few occasional exceptions) in Mandarin, enabling subsequent borrowings into Soutseu's literary layer. Contrastively, in the cases of 支微入虞 */ui/ > /y/ (see Sections 4.2.1 and 4.2.3), the palatalised initials triggered by /y/ occupies the colloquial layer since it is a language internal sound change, while Mandarin, not having undergone this sound change, provided conservative velar/glottal initials which got borrowed into Wu as part of the literary layer. Therefore, there is not a fixed relationship between /k, kʰ, g, h/ and /t͡ɕ, t͡ɕʰ, d͡ʑ, ɕ/ as one or the other in that both can be either literary or colloquial depending on the specific phonological context, and which one happens to be the dominant literary variant is totally at the mercy of the phonological system of the source Mandarin lingua franca. This kind of flexibility will be further explored in the following section about finals.

Semantically speaking, for some words there is a palpable difference between a more colloquial word and a more literary word (e.g. 'expensive' versus 'valuable', 'not have' versus 'countless'), yet for other words the meanings can be exactly the same (e.g. 'hit, strike' for 敲, 'prevent' for 防), or at a very similar level of formality (e.g. 'counter (n.)' and 'wardrobe', 'ask' and 'question') – this echoes the conclusion that 'literary' and 'colloquial' pronunciations are nothing more than relative terms and they are in fact just lexicalised doublets that belong to different phonological strata.

Before diving into rimes, I will classify the different strata involved into five to disambiguate between them and illustrate how flexible the terms 'literary' and 'colloquial' pronunciations are used referring to all of them under different circumstances. The sources of each strata and their genealogical relationships can be summarised in Figure 5.2.

- Layer A: pre-'colloquial' layer – this layer is relatively rare because it retains char-

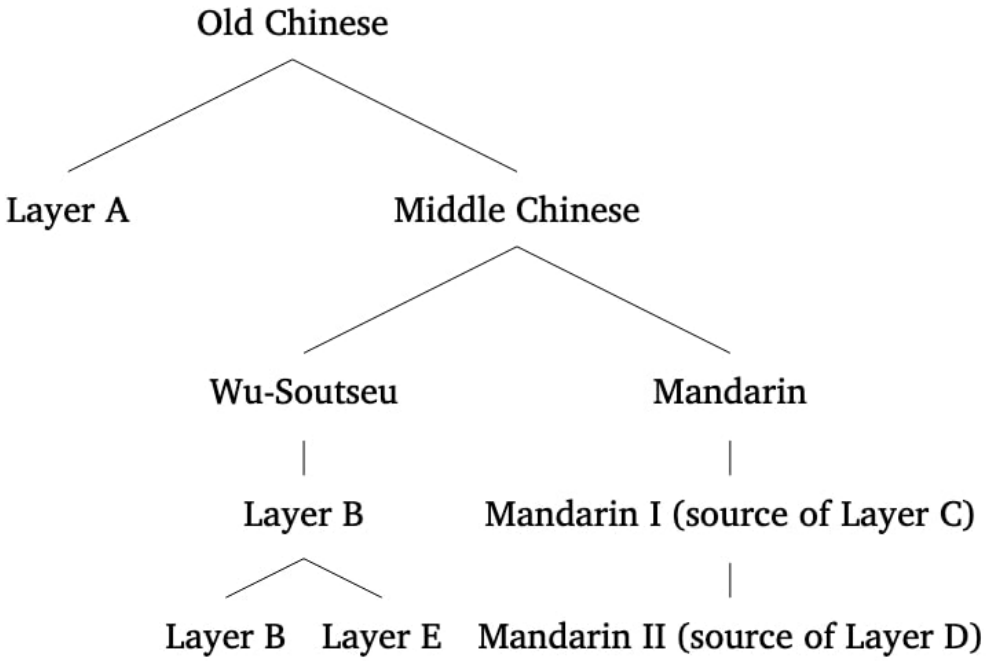

Figure 5.2: Sources of different strata in *Bindae* phonology and their genealogical relationships

acteristics prior to the modern reflexes of Middle Chinese resulting from regular sound changes. Examples include 環 /guɛ/ and all other characters with /g/ initial (see Section 4.3.1) and 許 /he/ 居 /ke/ discussed in this section below;

- Layer B: regular 'colloquial' layer – majority of the language falls into this layer, descending from Middle Chinese through language-internal sound changes. Examples include 蘇州 [səuᵝ˥ t͡ʃʏ˩] 'Soutseu' and 評彈 [biŋ˩ dɛ˧] 'Bindae';

- Layer C: regular 'literary' layer in Soutseu dialect – localised layer borrowed from historic lingua francas, mostly earlier forms of Mandarin. Despite its foreign origin, this layer is considered an integral part of Soutseu dialect and the boundary between it and Layer B can be sometimes unclear. Examples include most the consonantal examples above, such as 問 /vən/, 人 /ʒən/, 無 /vɥ/;

- Layer D: *Zhongzhouyun* layer which is different from regular 'literary' layer – this layer is the most Mandarinised and considered the most literary. Examples include 南 /nɛ/ (Layer B or C /nɵ/), 床 /ʒuɑ̃/ (Layer B or C /ʒɑ̃/), 水 /ʃue/ (Layer B /ʃʒ̩ʷ/, Layer C /ʃe/);

- Layer E: language-internal innovation away from Mandarin – this layer comprises of language-internal sound changes which are often lexically based and irregular from a Middle Chinese standpoint. Examples include the glottalised variants of nonchecked syllables (see Section 4.3.2) and 唯維 /vi/ (see Section 4.2.1).

With regards to vowels, the situation of literary and colloquial readings is more complicated and even more lexically based – a lot of changes concern very specific lexical items. However, there are a lot of semi-regular correspondences between the layers, some of which were described when discussing *Zhongzhouyun*'s phonology in Section 3.2 and will be explored again for completeness.

First, the presence or absence of -/i/- medial shifts the rimes as shown in Table 5.1: for characters with Middle Chinese velar initials, the difference lies in that the colloquial rimes lack -/i/- and the literary ones have it or effects of it. Out of the three examples in the table, 江 has /ɑ̃/ vs. /iɑ̃/ (colloquial rime first, same below) which is regular; 敲 has /a/ vs. /iæ/ which is regular but with a language-internal vowel change after the -/i/- medial; whereas 許 has /e/ and /y(ʑʷ)/ (frication disappears in singing), a seemingly unrelated pair until we look at the Middle Chinese *hiɔ and realise it is actually not Division 2 but Division 3 with -/i/- medial, and the preserved /h/ initial is an outlier – according to regular sound changes it should have been palatalised in the colloquial layer as well giving /yʑʷ)/. 許 is in the same rime category R3 遇 and Division 3 (/-iO/) as characters like 居 /ke/ vs. /t͡ɕyʑʷ/ 'dwell, stay, live' and 去 /t͡ɕʰiʑ/ vs. /t͡ɕʰyʑʷ/ 'go' – the colloquial pronunciations are unrounded whereas the literary ones are rounded. This is an example of colloquial pronunciation retaining characteristics from Old Chinese

because per Baxter & Sagart (2014) the main vowels of these characters were /a/ with no medials, which later raised to front /e/ in the cases of 許/居 and further to /i/ in the case of 去 (along with palatalisation), a completely different trajectory from the Old Chinese to Middle Chinese backing of /a/ > /ɔ/ and the emergence of -/i/- medial from earlier *r, with *iɔ > iu > /y/ in modern varieties. There is a famous anecdote recorded in《呂氏春秋》*Master Lü's Spring and Autumn Annals* that 齊桓公 Emperor Huan of Qi opened his mouth without closing – saying an open vowel – when hinting at the country name 莒 (Old Chinese *k.raʔ, Middle Chinese *kiɔ) which proved the theory that an older form of this rime was unrounded and open with all Old Chinese reconstructions settling on /a/. This case is a curious one because of the fact that the 'colloquial layer' here is actually earlier than the regular colloquial layer, which is now deemed the 'literary layer', proving my main point in Section 5.1.1 that these names are nothing but a historical relic. To clarify, chronologically 'colloquial layer' with /e~i$^{\text{ɻ}}$/ here is Layer A, 'literary layer' with /y$^{\text{ɻ}^{\text{w}}}$/ here is Layer B corresponding to most of colloquial layer elsewhere. The absence of a new literary layer C is due to the fact that /y/ is basically the value of every dominant Mandarin dialect for this rime, so it has no need to be supplanted by something new again. This theme will come back in the discussion of other vowels below as well.

In Section 3.2 there was a correspondence between colloquial /i$^{\text{ɻ}}$/ and literary /ʐ̩/ regarding the character 死 'die' – e.g. 死脫 [s̪i$^{\text{ɻ}}$˥ tʰəʔ˩] 'die off (negative connotation)' vs. 死亡 [sʐ̩˥ vɑ̃˦] 'death' – [ʐ̩] is the expected reflex of Layer B (most of the 'colloquial' layer), but if we compare it with some other Chinese languages (e.g. Hakka /si/, Hokkien /si/, Cantonese /sei/) we would find that /ʐ̩/ is a shared innovation in both Wu and Mandarin. Compared to characters 四 'four' and 私 'self, private' which share the *si reconstruction in Middle Chinese (only differing tonally), 死 retained the vowel without going through centralisation/fricativisation to /i̬/ > /ʐ̩/, thus it also belongs to Layer A instead of Layer B with regular sound changes stemming from Middle Chinese. Individual cases like this

show that conservation of a certain more ancient feature can be very much random as to which characters end up keeping Layer A to the present and which do not.

For rime Category B 歌 (-ɑ), a quite intriguing reversal happens vis-à-vis what is considered literary and what is considered colloquial, all due to what is happening in Mandarin: the characters 多 'many/much' and 大 'big' are reconstructed to be *tɑ and *dɑ in Middle Chinese with different tones, and both have the two modern rimes /ɑ/ and /əuᵝ/ (from earlier /u/). 多 has colloquial /tɑ/ 'several (countable things)' and literary /təuᵝ/ 'many, much, a lot (generic)', yet 大 has colloquial /dəuᵝ/ 'big' and literary /dɑ/ (as in 大學 [dɑㅣ o̤ʔㅓ] 'university'). Determining which of the two rimes belongs to either Layer B or C is tricky because both are well established in the language, evidenced by the fact that they switch places between literary and colloquial between the two characters above. To discern that, we have to look at some other characters: both 汰 [dɑㅅ] 'wash' without a literary counterpart (supplanted by 洗 [siㅅ]) and 拖, colloquial [tʰɑㄱ] 'flow' vs. literary [tʰəuᵝㄱ] 'drag', add to the pool of evidence that [ɑ] is considered more colloquial than [əuᵝ], not the other way around. On the other hand, literary words with [ɑ] are very much Mandarin borrowings without local equivalents, such as 他 [tʰɑㄱ] '3SG pronoun, other', which is 俚 [liᶻㄱ] in Soutseu dialect. If we compare the Mandarin pronunciation, we can see the literary layer fully corresponds to how it is in Mandarin: 拖多 with main vowel [ɔ] matched onto Soutseu [əuᵝ], while 大他 with main vowel [a] matched onto Soutseu [ɑ]. /əuᵝ/ further serves as the literary counterpart for syllabic consonants, spanning both Layer C and Layer D – 無 colloquial (Layer B) /m̩/, literary 1 (Layer C) /vuᵝ/, literary 2 (Layer D, *Zhongzhouyun*) /vəuᵝ/, 吳 colloquial (B) /ŋ̩/, literary (C-D) /ɦəu(ᵝ)/. Therefore, both /ɑ/ and /əuᵝ/ technically belong to both Layers B and C, but with /ɑ/ more frequent than /əuᵝ/ in Layer B giving /ɑ/ a more 'colloquial' flavour and /əuᵝ/ a more 'literary' flavour.

/ɑ/ in Layer B also comes from another source, the Divisions 1 and 2 of rime category

R5 蟹 (-Ai), but within that there is a complex situation between /ɑ/ (Layer B) and /e/ (Layers B and C). /ɑ/ came from the loss of final glide -/i/, and /e/ came from the monophthongisation of /Ai/. 王洪君 Waon (2006a) did an excellent breakdown of this, refuting 丁邦新 Tin (2002)'s claim that /ɑ/ belongs to a later stratum from neighbouring Wu dialects. I agree with 王洪君 Waon (2006a) that /ɑ/ is the earlier layer B not only due to the evidence presented in the previous paragraph, but also that in this rime category all the local colloquial words take /ɑ/, and Layer D (*Zhongzhouyun*) does not have /ɑ/ at all – every character with colloquial /ɑ/ gets allocated to either /a/ or /e/ there (see Section 3.2). For colloquial layer /ɑ/ in this rime category, there are various sources, including 泰開一 *ɑi with 端組 Group /t/ (not other initials) and 佳皆 *ɯ(u)æ(i), though not every character from these specific rimes has /ɑ/. Other characters in the overarching category have /e/. The colloquial /ɑ/ words include 戴 [tɑ˨˦] 'wear (a hat)', 埭 [dɑ˩] 'classifier for journey, row', 賴 [lɑ˩] 'escape school', 齋 [t͡sɑ] 'vegetarian', 買賣 [mɑ˩] 'buy' and 'sell', 柴 [zɑ˩˧] 'timber' to name a few, and most of them lack a Layer C (exceptions are 戴 [te˨˦], 賴 [le˩] 'surnames' and 埭 [de˩] 'place name'); however, all of them are pronounced [e] in Layer D in *Zhongzhouyun*. The word 'flavour', mentioned above and also used in 王洪君 Waon (2006a), captures the notion that 'colloquial' to 'literary' is a spectrum with many possible points in between, and a single modern rime (like /e/) can well span multiple layers (B, C and D). Given that /e/ (a localisation of Mandarin /ai/) is the designated literary form, the originally local /e/ does not need to change so they stay in Layer B, but distinctively local /ɑ/ must be superceded by it in Layer C or D.

Colloquial /iɑ/ rime behaves similarly: most do not have a corresponding literary variant in Layer C, but those who do takes the form /iᶻ/, which defricativises in *Zhongzhouyun* as /i/, merging with original /i/. This correspondence is actually parallel to /ɑ/ and /e/, but -/i/- glide changes the vowel quality so that earlier */ie/ > /i/ > [iᶻ]. (/ien/ > /ie/ > /i/ happened later since the first change counterfeeds the second.) Examples include

姐 ‘older sister’ – colloquial /t͡siɑ/ vs. literary /t͡sʮʑ/ (Layer C), 夜 – colloquial /ʔiɑ/ vs. literary /ʔi/ (Layer D), and 些 – literary /si(ʑ)/ with no colloquial equivalent since it is a solely literary word.

For 止攝合口 Rime Category D with -/u/- medial, the sound change 支微入虞 *ui > /y/ after velars happens in colloquial Layer B, and later /ue/ was borrowed from Mandarin (see 4.2.1, 4.2.3 and earlier in this section) forming Layers C and D. Other characters are pronounced with colloquial /iʑ/ after Group /p/ (labiodentalised, e.g. 飛 [fiʑㄱ] ‘fly’) and /l/ (e.g. 淚 [liʑㄴ] ‘tear’), /ʐʷ/ after Group /t͡s/ (e.g. 嘴 [t͡sʐʷㄟ] ‘mouth’), and /ʒʷ/ after Groups /ʈ/ and /t͡ɕ/ (e.g. 水 [ʃʒʷㄟ] ‘water’): these rimes are allophones of each other in complementary distribution in Layer B and can be classified under the same archiphoneme /Y/. In Layer C, they all collapse into /e/ except for labiodentals: /le/, /t͡se/, /ʃe/ respectively, with Layer D (*Zhongzhouyun*) retaining the -/u/- glide yielding /ue/ (as /lue/, /t͡sue/, /ʃue/) – very much comparable to Yuan-dynasty Mandarin /ui/ and Nanjing Mandarin /uəi/ rimes. The colloquial and literary layers here have little to do with each other, stemming from completely different trajectories, but they coexist in Soutseu dialect, and the *Zhongzhouyun* pronunciations are extremely frequently encountered in *Bindae* singing but not anywhere else.

Finally, a pair of literary versus colloquial rimes not touched upon previously spans the rime Categories R14 曾 (-Əŋ) and R15 梗 (-Eŋ): for Category R14 曾 (-Əŋ) Group /p/ Division 1 and Group /t͡ʂ/ Division 3 rimes as well as Category R15 梗 (-Eŋ) Division 2 rimes, colloquial /ã/ in Layer B corresponds to literary /ən/ in Layers C and D – compare Nanjing Mandarin /ən/ for all of Categories R11 臻 (-Ən), R14 曾 (-Əŋ) and R15 梗 (-Eŋ). Examples include 生 /sã/ ‘job, live’ vs. /sən/ ’life’, 聲 /ʃã/ ’a particular sound’ vs. /ʃən/ ‘sound in general’, 耕 /kã/ ‘plough (v.)’ vs. /kən/ ‘action of ploughing’, 朋 /bã/ vs. /bən/ ‘friend’ and 剩 /ʒã/ vs. /ʒən/ ‘be left, remain’. (The characters with one gloss do not have a noticeable difference in meaning for the two readings.) The

literary layer could not have been borrowed from a more Northern variant such as Beijing Mandarin because there /ən/ and /əŋ/ are strictly distinguished, so it is safe to conclude that Soutseu dialect got the literary pronunciation for this rime from nearby Nanjing Mandarin. In the colloquial layer for these rimes, /ã/ for -/ŋ/ never mixes with /ən/ for -/n/. Additionally, neighbouring rime categories R12 宕 /-Aŋ/ and R13 江 /-Oŋ/ keep /ã/ or /iã/ in both colloquial and literary strata because Nanjing Mandarin also has nasalised vowels for those rimes. These patterns show the arbitrary and foreign nature of this literary layer: the borrowings are completely products of Mandarin phonology, specifically Nanjing Mandarin while it served as the Chinese capital.

For the corresponding checked syllables, colloquial /ɑʔ/ corresponds to literary /əʔ/ and this is the only major example of differing readings in checked syllables. This corresponds to the collapse of multiple rimes into /əʔ/. Examples include 革 /kəʔ/ ‘leather, reform, revolutionise’ with no colloquial counterpart, 澤 /zɑʔ/ ‘place name’ vs. /zəʔ/ ‘nurture, personal name’ and 隔 /kaʔ/ (in 隔壁 /kaʔ piəʔ/ ‘next door’, Layer A) vs. /kɑʔ/ ‘separate, divide’ (Layer B) vs. /kəʔ/ (Layer D). There are some further examples of irregular changes in Layer D to be closer to Mandarin pronunciations, such as 八 /poʔ/ vs. /paʔ/ ‘eight’ (Mandarin /a/), 若 /ʒɑʔ/ vs. /ʒoʔ/ ‘if’, 不 /pəʔ/ ～/poʔ/ ‘not’ (not used in colloquial Soutseu) and 白 /bɑʔ/ ～/bəʔ/ ‘white’. These non-systematic changes again manifest the exo-linguistic origins of literary pronunciations and the fact that they are the product of language contact and Mandarin’s dominance over Wu and Soutseu dialect.

Sometimes the same (orthographic) word can have differing pronunciations, which are akin to true doublets in traditional Western linguistics. Two examples jump out: when using the literary pronunciation of [pɑ˥ t͡ɕiəʔ˩], 巴結 means ‘suck up to someone’, but the colloquial pronunciation [po˥ t͡ɕiəʔ˩] means ‘try hard, put effort’; similarly, 生活 ‘life’ is pronounced using literary [sən˥ wəʔ˨], and the colloquial [sã˥ wəʔ˩] means ‘task, job, means of living’, with 做生活 [t͡səuᵝ˥ sã˥ wəʔ˩] ‘do work, do the job’ and idiomatic 吃生

活 [t͡ɕʰiəʔ˥ sɑ̃˩ wəʔ˩] (lit. eat job) ‘get beaten up’. Examples like these are comparatively rare in the language given the fact that most words only retain one or the other, but their existence shows that the division between literary and colloquial pronunciations carries function load in those cases so that the same word with differing pronunciations never merged because of the need to semantically distinguish them from each other.

Overall, the various layers of literary and colloquial pronunciations in Soutseu dialect are deeply intertwined with each other – through exploring the different correspondences above, we can have a deeper understanding of the sheer complexity of the phonological system. Moreover, the ubiquitous gaps in Layers B and C (the vast majority of characters preserved only one of them) compared to the ‘artificially complete’ *Zhongzhouyun* Layer D show the effect of prescriptivism in language – on the one hand, *Zhongzhouyun* and *Bindae* which uses it in its music has everything in Layer C and filled in the gaps, but on the other hand this layer is heavily influenced by Mandarin and upkept only in performance art. This, along with the register differences to be discussed in the following section, begs the question of whether *Bindae* is inherently code-switching or even multilingual to begin with, since the choice of using mostly Soutseu dialect for the spoken part and *Zhongzhouyun* for the musical part seems quite rigid – some exceptions of this rule will also be discussed in the next section.

5.2 Literary and colloquial registers

Linguistically, *Bindae* is a very interesting case because it has distinct registers for its two parts: for non-musical storytelling parts, the ‘colloquial register’, an older form of Soutseu dialect, is used; whereas for the songs/arias using the ‘literary register’, there are an amalgamation of Wu and Mandarin features in the pronunciations, and it is almost a continuum between the two based on the specific content and context of the song. For example, an aria from the character 林黛玉 Lin Daiyu, the heroine of 紅樓夢 *Dream of the*

Red Chambers, would contain far more Mandarin features than a local Soutseu character who is a *Bindae* performer in 弦索春秋 *Springs and Autumns of Strings and Threads*, even though both are sung. The differences do not only concern pronunciation as examined in the previous Section 5.1, but also include vocabulary and syntax. Keep in mind that as in the previous section, the dichotomy between 'literary' and 'colloquial' is not a solid one, and technically there are more sociolects/registers involved. Since the 'colloquial register' is more or less the Soutseu dialect on its own, I will focus on describing the 'literary register' in this section by identifying its two main sources – Mandarin and Classical Chinese – while comparing it with the colloquial counterparts (spoken Soutseu dialect and Standard Mandarin) side by side when necessary. These linguistic registers can be seen as reflections of different coexisting sociolects, but it is not a hundred percent faithful to the actual linguistic landscape because some degree of exaggeration is needed to distinguish characters of different types.

The terms 'acrolect', 'mesolect' and 'basilect' first emerged in Stewart (1965) when he described African Amercian Vernacular English (AAVE), and later got applied mostly to post-creole continua, such as Mufwene (2002)'s descriptions of 'basilectalisation' in creole languages due to substrate influences. Baskaran (1987) outlined the three layers with regard to Malaysian English, from acrolect – the official Standard, to mesolect – informal register with substrate influences, to basilect – the most non-Standard and mixed register. Figure 5.3 from Thirusanku & Yunus (2012) illustrates the sociolect continuum in the Malaysian English context. In the case of *Bindae* performances, it corresponds to most creoles and non-native English varieties that the most acrolectal variety is the most foreign – in this case the closest to either Standard Mandarin or Classical Chinese, but it is different from those cases that the 'basilect', 'pure' [1] Soutseu dialect, has also been a

1. The words 'pure' above and 'unadorned' below imply no value judgments, and there is no such thing as a pure language – it is hard to find a way to distinguish the different registers without using descriptive adjectives which generate indexical meanings. Keep in mind that even 'pure, unadorned' Soutseu dialect also contains a literary layer influenced by Mandarin.

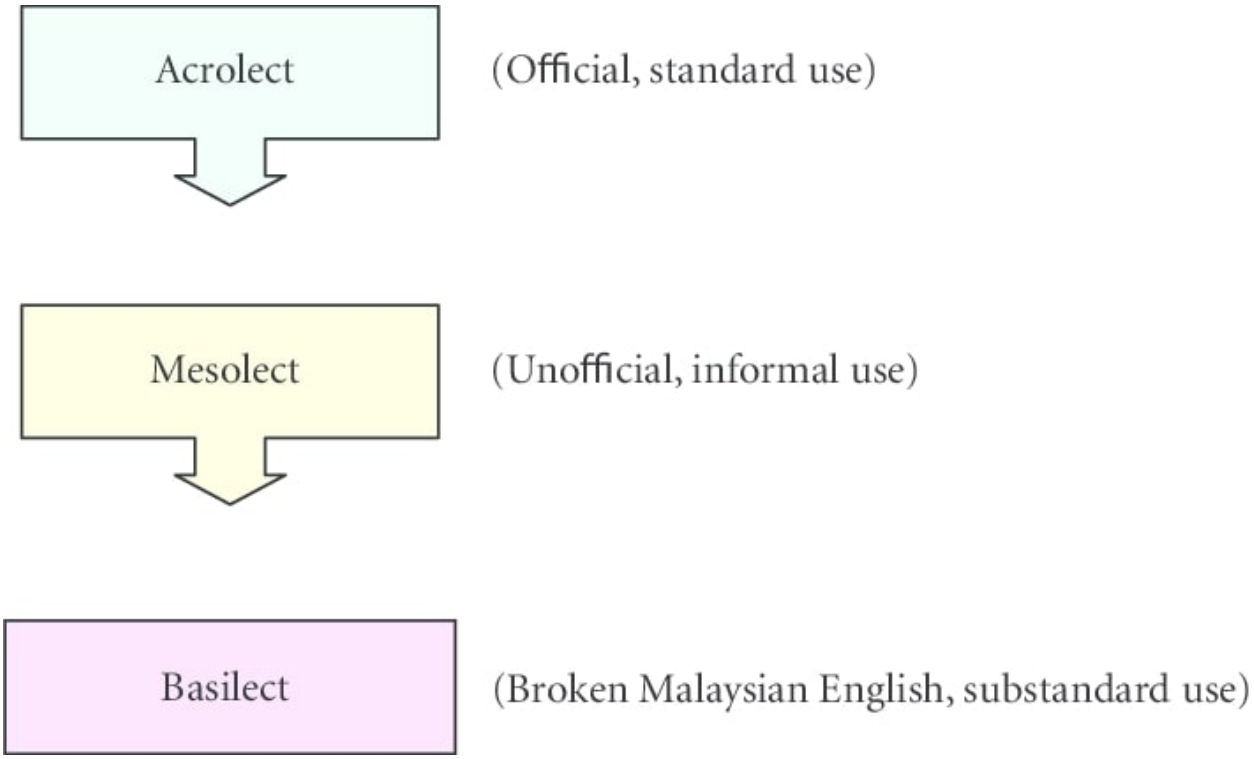

Figure 5.3: Acrolect, mesolect and basilect in the context of Malaysian English (Thirusanku & Yunus, 2012)

dialect which regional prestige (though its prestige is plummeting as Standard Mandarin began to aggressively take over starting from the 1970s, see Section 5.1.1). Moreover, the process of Mandarinisation in Wu is better described as 'acrolectalisation', the exact opposite of most creoles: as Mandarin phonological layers seep in again and again, the other grammatical and lexical content also permeate into the language, creating more and more acrolectal variants. Again, this process is now coming to a halt with the complete language shift towards Standard Mandarin, but at least in *Bindae* performance which is the scope of this dissertation, Standard Mandarin pronunciation is never used in any *Bindae* performance unless there is a lower class native Mandarin speaker, which is an extremely rare occurrence.

Within the bounds of *Bindae* performance, there are roughly four linguistic registers in use, ranging from most basilectal to most acrolectal, with Register 1 classified as 'col-

loquial register' and Registers 2 through 4 as 'literary registers':

- Register 1: 'Unadorned' Soutseu dialect (or other equivalent Wu dialects, including Shanghai/Zaonhe and Shaoxing/Zoshing which are the two most frequent ones) as it is spoken by the lower class people roughly a hundred years ago (often times regardless of actual time period in the story), including all kinds of ordinary people living in Soutseu and its vicinity, but mostly farmers and merchants who make up the bulk of Chinese rural and urban societies. It contains lots of very local Soutseu expressions and idioms not found elsewhere, and a lot of these are only fossilised in *Bindae* and not often heard in normal Soutseu speech any more. For this reason, *Bindae* storytelling serves as an excellent record of past Soutseu speech.

- Register 2: 'Literary' Soutseu dialect, spoken by cultured and educated Soutseu elites – this register is marked by a discernible increase of usage of both Mandarin vocabulary and Classical Chinese derived lemmas, signified by its hallmark 成語 four character idioms. This is also the most common register of *Bindae* storytelling when performers just narrate without taking on any roles. Although it is still considered a register of Soutseu dialect, its frequent incorporation of non-everyday language builds an entry barrier, heightening the difficulty of understanding – regular *Bindae* listeners have to get trained to listen to this register by ear (along with Registers 3 and 4 below which are more difficult and farther from everyday speech) in order to understand the content fully and appreciate its storytelling and literary beauty.

- Register 3: '*Zhongzhouyun* register', with partial to full adoption of Mandarin vocabulary and grammar and *Zhongzhouyun* pronunciation from Layer D. This register is sung in musical numbers in the vast majority of cases, but it may also appear infrequently in the speech of historical epics with main characters not from the Wu-speaking area. Although this is the register closest to Standard Mandarin both

in terms of vocabulary and syntax, it is not considered the highest, surpassed by Register 4.

- Register 4: the Classical Chinese register – this register is solely sung, with Classical Chinese elements of poetry and prose which have distinct forms, limiting syllable count, rhyming scheme and antithesis (the former and latter parts of a pair must match in some ways). It is equivalent to reading out a piece of Classical Chinese literature directly with *Zhongzhouyun* phonology. Musically, this register is often accompanied by operatic singing (usually Khun-opera style, see Section 1.4), enunciation of vowels and ample melismatic passages.

Figure 5.4 below shows the complex relationships between linguistic registers and phonological layers. The thicker the line is between a register and a phonological layer, the more of that phonological layer is present in the particular register. We can see that there is a general distinction of 'colloquial' vs. 'literary' in that Layer B, the majority of the 'colloquial' layer, is used in relatively colloquial Registers 1 and 2, whereas *Zhongzhouyun*/Layer D pronunciations are only used in literary Registers 3 and 4. (There are fringe pronunciations outside the realm of broader Soutseu not included in the figure, like other Wu varieties and full-on unmixed Mandarin pronunciations.) Colloquial registers are used in the spoken storytelling portions though they may incorporate elements of literary layers, but the opposite is not true that literary registers appearing in music can almost never have colloquial pronunciations, indicating the elevated status of literary layers in tandem with music – music is viewed as a higher register than words in and of itself, so anything used in music must be literary as well.

Notice that the two acrolectal registers have completely different standards: although Standard Mandarin's dominance throughout recent history gave rise to Register 3 and it is widely used, as a form of 'high art' Bindae inherits a lot of literary vocabulary and rhetoric devices from Classical Chinese. Until the abolishment of 文言文 Classical Chinese

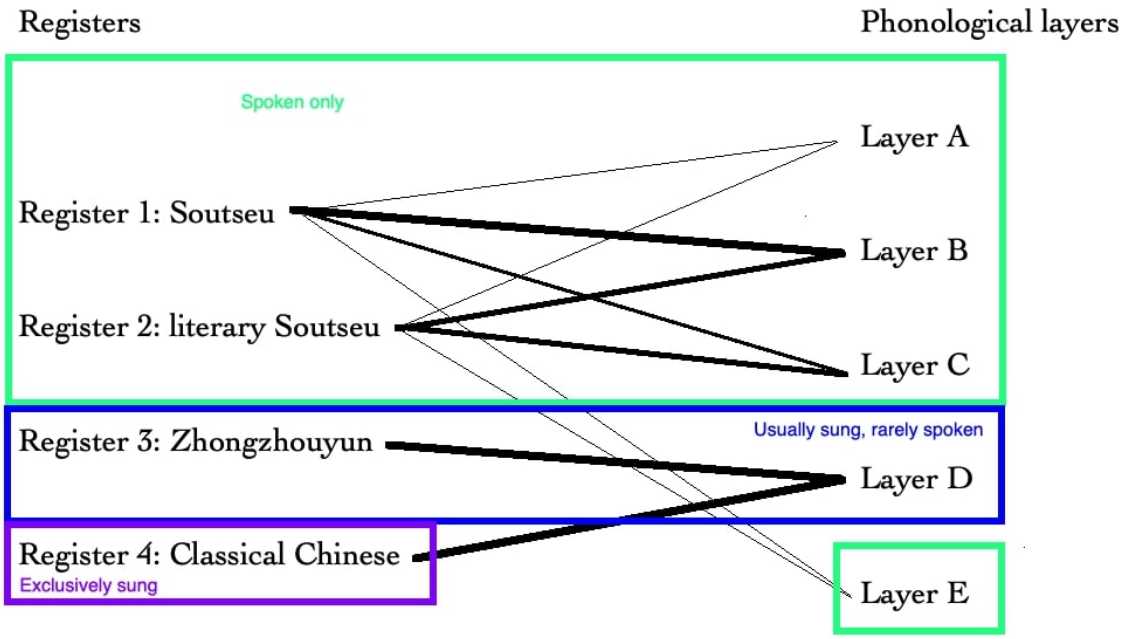

Figure 5.4: The relationship between linguistic registers, phonological layers and whether they are spoken or sung in *Bindae* performance

writing in early 20th century, Chinese scholars had been living in diglossia – the writing language was largely a fossilised (and to a great extent imitative) variant of Old Chinese, while the spoken language varied greatly across space and time but none stayed close to it. As Soutseu is one of the primary centres of literature and art mentioned in Section 5.1.1, scholars from Soutseu all learnt to write in Classical Chinese, and given the fact that most of *Bindae* repertoire stems from pre-20th century Chinese literature, it is not surprising that *Bindae* contains a register that is pretty much unaltered Classical Chinese read in the most literary pronunciation.

Nevertheless, in a given *Bindae* performance, language use is super flexible, which include frequent register changes: sometimes multiple registers can even coexist in a single conversation. In the following section I will draw from a variety of *Bindae* performances to illustrate the diversity of registers used in *Bindae* and how they interact with each other – I will compare what is actually said in the performance excerpts with three established

points of reference – 'pure' Soutseu dialect, Standard Mandarin and Classical Chinese – to describe the range of possibilities of incorporating different registers.

5.2.1 Mandarin as source of literary register

Conforming to the trend we saw in the phonological strata used in *Bindae* that the more Mandarin-influenced ones are considered more literary, one of the main sources of the literary register in *Bindae* is Mandarin, especially Standard Mandarin, since *Bindae* as an artistic institution started in Ming dynasty and thrived from Qing dynasty to now, and Standard Mandarin itself, being the only nation-wide lingua franca since then, has gone through minimal grammatical changes. On the other hand, colloquial Soutseu dialect developed independently, both preserving and innovating many lexical items and grammatical constructions different from Standard Mandarin, which made it even less intelligible with Mandarin on top of the rather distant phonologies. This difference produced the literary layers C and D explained previously in Section 5.1, and along with it created multiple variants of Wu and Mandarin hybrids.

As previously stated, Register 2, 'literary' Soutseu dialect, is the default register for storytelling in *Bindae*. It can be seen as code-switching between Mandarin and Soutseu dialect, most commonly with Soutseu dialect as the matrix language (see Myers-Scotton (1993) for a further discussion) and Mandarin words embedded in it, as seen in (1) below from 《描金風》第一回 *Sketching the Golden Phoenix*, Episode 1, performed by 楊振言 Yan Tsenyii (a = transcription of performance, b = Soutseu dialect in Register 1 for comparison, same below):

(1) a. li$^{\text{ʑ}}$˦ ts$^{\text{h}}$iŋ˦ kɑ˩ ʔiəʔ˥ kəʔ˦ **ɣ̩əʔ**˧ ta˦ ɦɑ̃˩t͡ʃʏ˥ t͡ɕ$^{\text{h}}$i˦ ʃa˥ ɕiã˩
3SG plead time.off one CLF moon arrive Ghangtsei go burn incense
俚請假一個月到杭州去燒香

b.	li^{ʑ}˧	ts^{h}iɲ˥˩	tsz̩˩	ʔiəʔ˥	kə̆˧	**a̤˩dɤ˧˦**	kɑ˥˩	ta˧	ɦɑ̃˩t͡ʃɤ˥	t͡ɕ^{h}i˧	ʃa˥	ɕiɑ̃˩
	3SG	plead	PFV	one	CLF	number-head	time.off	arrive	Ghangtsei	go	burn	incense

佢請仔一個號頭假到杭州去燒香

He took a month off to go to Ghangtsei to burn incense (to commemorate his ancestors).

In this example, we can see that (1a), the actually performed version, and (1b), colloquial Soutseu dialect, are not drastically different: One of the main differences lies in the vocabulary choice for ‘month’, with (1a) using 月 [ɦyəʔ˧˦] (lit. moon) instead of the native 號頭 [ɦa˩ dɤ˧˦] (lit. number-head) in (1b). 號頭 is a word that is unique to Wu not found in any other Chinese branches, so the replacement 月 here is not common everyday speech but very understandable to a Soutseu speaker. It is worth-noting that although the other elements are mostly in Layer B, including 佢 [li^{ʑ}˧] ‘3SG’ (suppleted with Mandarin 他 [t^{h}a] in Layer D) and 假 [kɑ˥˩] ‘time off’ ([t͡ɕiɑ˥˩] in Layers C-D), 月 ‘month’ uses the literary pronunciation [ɦyəʔ˧˦] (layers C-D) instead of colloquial [ŋəʔ˧˦] (Layer B). This is due to the fact that the colloquial pronunciation means ‘moon’ only after the word for ‘month’ shifted to 號頭 [ɦa˩ dɤ˧˦] instead. Thus, reading 月 using the literary pronunciation indicates that it is not a local word but a Mandarin borrowing.

Another minor difference is with the syntax: in (1a) the verb phrase 請假 ‘ask for time off’ preceds the duration 一個月 ‘one month’, but in (1b) which is more natural Soutseu dialect, there is a perfective marker 仔 /tsz̩/ separating 請 ‘plead’ and 假 ‘time off’, and 一個號頭 ‘one month’ is inserted in between the two as a modifier of ‘time off’ as in ‘he took a month of time off’ since in normal syntax the modifier precedes the noun phrase. Both orders are grammatical in Soutseu dialect and Mandarin – some scrambling is permitted in both, but (1a) is uncommon and (1b) is the default order in both. Overall, we can

clearly see that this example belongs to registers 1-2: it is majority Soutseu dialect with a Mandarin lexical item sprinkled in.

Certain fixed expressions in Mandarin also enters Register 2, for example in the following example (2) from 《弦索春秋》第二十七回 *Springs and Autumns of String and Threads*, Episode 27, performed by 陳國君 Zren Kuehciun:

(2) səuᵝ˥˩jiᶽ˧˩ ɦi˩ze˧˩ t͡ɕiæ˥ siɲ˥ jɤ˥˩ jyᶽʷ˧˩ ᵊɭ˩ liəʔ˧˩ pəʔ˧ t͡soʔ˥
so now call heart have extra but power NEG enough
所以現在叫心有餘而力不足

So now it is called ‘the flesh is willing but the heart is weak’.

The phrase 心有餘而力不足 is a very well-known Mandarin saying for ‘the flesh is willing but the heart is weak’, here directly read in the Soutseu dialect. The character 不 [pəʔ˥] ‘not’ is the one to pay attention to here: it is the typical negative particle for Mandarin – the local Soutseu Wu equivalent is the labiodentalised cognate 弗 [fəʔ˥]. That puts this pronunciation in Layer C because it is a Mandarin borrowing, but not as further Mandarinised as Layer D [puʔ˥] (compare Standard Mandarin [pu], discussed with regard to Example (3) below). Such set phrases of Mandarin origins are commonly kept intact without substitution with more local words in *Bindae* storytelling. Another example is the use of plural marker 們 [mən], a distinctively Mandarin suffix touched upon in 5.1.1 when discussing Ghangtsei dialect – in Bindae it can be attached to the same range of pronouns and nouns referring to humans just as how it is in Mandarin, for example 老師們 [la˥ sz̩˧ mən˩] ‘teachers’ and 說書先生們 [ʃəʔ˥ ʃʒʷ˧˩ si˧ sã˧ mən˩] ‘Bindae artists’. The usage of 們 [mən] in this way is ubiquitous in *Bindae* despite its clear Mandarin origins, illustrating the fact that Register 2, with a fair degree of Mandarin mixing, is the norm in the storytelling part of *Bindae* when there is no acting involved.

For the sung parts, the incorporation of Mandarin vocabulary and syntax is definitely more thorough. Only Registers 3 and 4 are allowed in music, together with *Zhongzhouyun*

pronunciations. Here is an example of sung text, from a 開篇 *Khephi* (overture, prelude) called 寶玉夜探 'Pauyoh's night visit' in 紅樓夢 *Dream of the Red Chamber* (a = performance, b = Soutseu dialect, c = Standard Mandarin):

(3) a. t͡siᶽt͡siᶽ a, ŋəu z̩ fɑ̃ sin puˀ ɕia lin kəuɲiã
elder.sister ah, 1SG be put heart NEG down Lin girl
姐姐啊，我是放心不下林姑娘

b. aʔ˥ t͡siɑ˥˩ ɑ˩, ŋəuᵝ˧˥ z̩˧ ʔe˥ ləʔ˧˥he˥˩ t͡ɕʰi˥t͡ɕiᶽ˩ liɲ˩ kəuᵝ˥ɲiã˩
DIM elder.sister ah, 1SG be still PROG worry Lin girl
阿姐啊，我是還在許牽記林姑娘

c. t͡ɕiɛ˨˩˦t͡ɕiɛ˥ a˧, wɔ˨˩ ʂʐ̩˥˩ fɑŋ˥˩ ɕin˥ pu˧˥ ɕia˥˩ lin˧˥ ku˥ niaŋ˩
elder.sister ah, 1SG be put heart NEG down Lin girl
姐姐啊，我是放心不下林姑娘

Ah sister, I am perturbed/I am worrying about Miss Lin.

If we compare the three versions, we can see that the syntax and vocabulary of (3a) is exactly equivalent to (3c), showing the predominant influence of Mandarin in Register 3. As the colloquial register, (3b) uses a lot of different vocabulary to (3a), some of them cognates and others not, and the grammatical particles are completely different as well. However, if we look at the pronunciations of these sentences, we can see (3a) actually sits pretty much in the middle of (3b) and (3c), which is the defining characteristics of phonological layer D or *Zhongzhouyun* pronunciation: in (3a), [t͡siᶽ˥˩ t͡siᶽ˧˥] 'elder sister' is the Layer D pronunciation and approximation of earlier Mandarin /t͡siɛ t͡siɛ/ – curiously the frication of /iᶽ/ is retained here and that is a rare occurrence; [ŋəu˧˥ z̩˧] 'I am' and /lin kəuɲiã/ 'Miss Lin' are identical to Soutseu dialect; and /puˀ ɕia/ 'not down' is a very close approximation of Mandarin, not of Wu origin at all – the Wu equivalent would

be 弗下 [fə̆˧ o̤˧˥] or 弗落 [fəʔ˥ loʔ˥]. This example shows the range of pronunciations of *Zhongzhouyun* compared to Soutseu dialect and Mandarin, but also comparatively the complete adoption of Mandarin vocabulary and grammar – *Bindae* does not shy away from this at all, especially in its musical numbers where almost everything is a *Zhongzhouyun* phonological overlay of Mandarin.

This kind of total Mandarinisation of vocabulary and syntax (but never total in phonology, see 5.1.2) is the norm in Registers 3 and 4, despite that traces of Wu pronunciation remain in *Zhongzhouyun* pronunciation. Examples (4) and (5) from the *Khephii*《玉蜻蜓·庵堂認母》"Reuniting with mother in the Temple" in *Jade Dragonfly* further demonstrates Mandarin vocabulary and syntax (a = actual performance, b and c = Soutseu dialect and Standard Mandarin for comparison):

(4) a. ʃʒ̩ʷ.t͡ɕi na kəu məʔ ɲiãŋ.t͡sʰiɲ | kʰəu.(ə).li ŋəu t͡ɕʰioʔ ʐ̩ kəu
world(lit.) which CLF not.have mother(lit.) | pitiful 1SG but be CLF
liən.tiən(ən) kəu kʰəu(əuəuəu) ʒən
solitary orphaned bitter person
世間哪個沒娘親 | 可憐我卻是個伶仃孤苦人

b. ʃʒ̩ʷ˥.kɑ˥ lã˩ ʃɑ˥˩ ɲiᵊɲ˧˥ m̩˩.pəʔ˧ ɲiã˨˧ | dɛ˩.ʐ̩˧˥ ŋəuᵝ˧˥ məʔ˨˩ t͡soʔ˥.ɲiəʔ˥, ʐ̩˧˥
world up what person not.have mum | but 1SG TOP pathetic, be
kəʔ˨˩ kəuᵝ˥.kʰəuᵝ˧.liɲ˩.tiɲ˥ kəʔ˥ ɲiᵊɲ˧˥
CLF orphaned.bitter.lonely GEN person
世界上啥人無不娘｜但是我麼作孽，是個孤苦伶仃個人

c. ʂʐ̩˥˩t͡ɕiɛ˥˩ ʂɑŋ˩ na˨˩ kɤ˥˩ ɻən˧˥ mei˧˥ jou˨˩ ma˥.ma˩ | kʰɤ˨˩liɛn˧˥ wɔ˨˩ t͡ɕʰyɛ˥˩ ʂʐ̩˥˩
world up which CLF person not have mother | pitiful 1SG but be
kɤ˥˩ ku˥.kʰu˨˩.liŋ˧˥.tiŋ˥ tə˩ ɻən˧˥
GEN orphaned.bitter.lonely person
世界上哪個人沒有媽媽｜可憐我卻是個孤苦伶仃的人

Who doesn't have a mother in this world? Poor me, I am a miserable orphaned

loner.

In Example (4), (4a) spans Registers 3 (*Zhongzhouyun*) and 4 (Classical Chinese), in that a lot of word choices differ from both (4b) and (4c), with the latter two converging. Compare 世間 (lit. world-space) in (4a) with 世界上 (lit. world up, here 'up' doubles as 'in') in (4b) and (4c), as well as the different ordering between 伶仃孤苦 in (4a) and 孤苦伶仃 'miserable, bitter and lonely' in (4b)-(4c). These two words in (4a) are very much a part of the 'literary language' not used in any colloquial registers, which shows the influence of Classical Chinese upon *Bindae* (see the following Section 5.2.2 for more examples), as well as how 'literary register' is a complex that incorporates vocabulary from different sources. The word choice for 'mother' in (4a) is 娘親, which is now preserved as a dialectal Mandarin variant, and we can see the same element in (4b) 娘 'mother (indirect [2])' whereas most colloquial terms for 'mum' in Chinese have the syllable /ma/.

However, apart from those cases, vocabulary items follow Mandarin way more than Soutseu dialect: 哪個 [na.kəu] (*Zhongzhouyun* pronunciation, layer D) (4a) / [na.kɤ] (4c) 'which one' instead of Soutseu 啥人 [ʃɑ˥ ɲiᵊɲ˨] (4b) 'what person' for 'who'; 可憐 [kʰəu˥ li˨] (4a) instead of local 作孽 [t͡so?˧ ɲiə?˧] (4b) for 'poor, pitiful, pathetic'; and 卻 [t͡ɕʰio?] instead of 但是 [dɛ˩ z̩˨] for 'but' – note that it is between subject and verb in (4a) and (4c) instead of leading the clause in (4b). This again shows that the main language that provides grammar and vocabulary for (4a) is Mandarin instead of Soutseu Wu.

Pronunciation-wise, *Zhongzhouyun*/Layer D prevails – 個 is pronounced [kə?˧] when used as a classifier and the genitive particle in Soutseu dialect (see 4.3.2 for a discussion on the glottal stop coda), but in Layer D and hence in (4a) it has only one pronunciation, the

2. In Soutseu Wu, there are two systems of kinship terms: the direct term of address is roughly a 'vocative', used when you talk to someone face to face, while the indirect term of address is used when the person addressed is not one of the interlocutors. Here 娘 [ɲiã˩] is the indirect term for 'mother'; the direct term is 姆媽 [m̩˧ mɑ˩].

literary layer [kəu˨˩]. Some additional subtle Mandarinisation also appears in the word 娘親 /ɲiã.t͡sʰiɲ/ where the actual pronunciation contains a discernible coda [ŋ] instead of the usual fully nasalised vowel, corresponding to the Standard Mandarin pronunciation for the character, [niaŋ˧].

(5) a. ʑəʔ loʔ ɲi t͡səu lia moŋ t͡soŋ(oŋoŋ) ʒən
ten six year be PFV dream inside person
十六年做了夢中人

b. t͡səuᵝ˥ t͡sz̩˧ moŋ˩ liᶻ˧.ɕiã˧ kəʔ˧ ɲiᵊɲ˩ ʑəʔ˩ loʔ˩ ɲi˧ t͡se˩
be PFV dream in GEN person ten six year PRES
做仔夢裡向個人十六年哉

c. t͡suɔ˨ lə˩ məŋ˨ t͡ʂoŋ˥ ɻən˧ ʂz̩˧ liou˨ niɛn˧
be PFV dream inside person ten six year
做了夢中人十六年

We could only see each other in dreams for sixteen years.

Example (5) from the same excerpt is interesting in several ways. Firstly, the construction for perfective aspect in (5a) totally mirrors Standard Mandarin (5c) and it is not grammatical in (5b) – local Soutseu (5b) uses two particles starting with /t͡s/: /t͡sz̩/ for perfective aspect and /t͡se/ for 'present tense' at the end of a sentence, showing a relationship of the action 'being people in dreams' (which has lasted sixteen years) to the present. (5a) completely conforms to (5c) in both vocabulary – using 了 'finish (literary)' although it is read as /lia/ corresponding to the Mandarin literary reading /liau/ instead of reduced and grammaticalised /lə/ in colloquial Mandarin – and its usage as a perfective marker. (There can be a second optional /lə/ in (5c) parallel to the sentence-final particle in Wu

– see 吳福祥 Wu (1998) for a discussion of the two different *le*s in Mandarin.) Secondly, the biggest syntactic difference is the placement of 'sixteen years': (5a) puts it as the beginning, but (5b)-(5c) puts it at the end. This type of scrambling can be attributed to topicalisation – Chinese languages use it a lot and the topicalised argument, in this example 'sixteen years', is always at the beginning of the sentence, or an artistic choice for 人 /ʒən/ to rhyme with itself – Example (4), 2 lines before (5) in the performance, ends with the same character. I prefer the latter explanation because word order changes are ubiquitous in poetry cross-linguistically, and rhyming is especially important in *Bindae* songs. This example shows that although Mandarin is the main influence in literary Register 3, the music itself and the rhyming scheme for Chinese poetry – an integral part of Classical Chinese literature – can override typical Mandarin syntax. Nevertheless, the bulk of the vocabulary and syntax still comes from Mandarin in Examples (3) through (5).

As mentioned in Section 2.3 in Chapter 2, historical epic is a popular subgenre of *Bindae* – they are inspired by famous tales in Chinese history, often absorbing elements from previous works of historical fiction, so they are not all faithful to what has actually happened. One example of this subgenre can be found in (6) below, from a *Khephii* called 戰長沙 *Battle in Changsha/Zhansha* depicting tales from the 三國 Three Kingdoms period (3rd century CE) which is romanticised and fictionalised in numerous literary works, most famous of which being 三國演義 *Romance of the Three Kingdoms* by Ming-dynasty novelist 羅貫中 Luo Guanzhong, which in turn inspired many *Bindae* works. This example provides a glimpse of the differences between historical epics and more modern *Bindae* works concerning daily life:

(6) kuɛ yən.ʒã tʰa:u liŋ t͡ɕʰy koŋ ta ʒã.ʃa ʒən | na kʰoŋ.miŋ ʐ̩
Kuae Yunzhan ask.for command go attack hit Changsha city | that Khonmin be
diau pəʔ t͡siŋ pin(ən) jʏ sɛ t͡sʰi miŋ
transfer move excellent troop have three thousand CLF
關雲長討令去攻打長沙城 | 那孔明是調撥精兵有三千名

> Guan Yu (Kuae Yunzhan) asked for command to attack Changsha city, (in response) Zhuge Liang (Khonmin) transferred three thousand elite troops (to the city).

The pronunciation of /a/ as [au] (in /t^ha/ [t^hau] 'ask for' and /dia/ [diau] 'transfer') stands out first – in Section 3.2 I briefly discussed how [au] is in fact a variant of /a/ in *Zhongzhouyun*, but this pronunciation is directly tied into the literary register, even though it is not compulsory. There is a tendency for older male performers to pronounce it as [au], but here in the context of a historical epic, the [au] pronunciation can be seen as an even more 'literary' version of /a/ because this rime is pronounced [ɑu] in Standard Mandarin. This is one of the few cases of overt Mandarinisation of phonology further deviating from the *Zhongzhouyun* norm. Other pronunciations very much belong to Layer D which is the norm for musical *Bindae* – in the performance, 打 'hit, beat' (colloquial [tã˥], Layer B) loses its nasalisation inherited directly from Middle Chinese because it happened in Mandarin (and most other Chinese varieties) as an irregular sound change, and 去 'go' is pronounced with [y] instead of colloquial [i] (see Section 5.1.2 for the discussion).

Syntactically, the first clause is ambiguous between Wu and Mandarin since it contains mainly proper names and literary Chinese words, but the second clause uses the '那... 是' (that...is) clefting construction to topicalise and emphasise the subject Khonmin, which is not at all frequently used in Standard Mandarin but instead often used in corresponding storytelling art forms such as 評書 *Pingshu* in the Mandarin-speaking north. 那 /na/ as 'that' is a common Mandarin word found in neither Wu (which Soutseu has a completely different deictic system) nor Classical Chinese (with yet another different system) – so lexically it is a Mandarin sentence, but this construction stems directly from Ming and Qing dynasty episodic novels which are written in a hybrid of Mandarin and Classical Chinese, thus historical epics in *Bindae* absorbed it directly from its literary source. This exam-

ple shows how much *Bindae* inherits from literature, in this case Ming and Qing episodic novels, that certain linguistic constructions are directly transferred into it without change.

The examples above illustrate most common uses of Mandarin-influenced speech in *Bindae*, from examples (1) and (2) being in Register 2 'literary Soutseu dialect' spoken with vocabulary insertion from Mandarin, to examples (3)-(6) being sung in Register 3 (*Zhongzhouyun* register) which partially or fully conform to Mandarin vocabulary and grammar. The next two examples are rare in the grand scheme of things, but they are nonetheless interesting showcases of different uses of Mandarin from (1)-(6).

Example (7) below is from the long-form *Bindae* 白蛇傳 *Legend of the White Snake*, adapted from the homonymous household Chinese folktale of romance between a snake shape-shifting to a woman and an ordinary human man. The *Bindae* adaptation includes various plotlines and a collection of different characters, some of which not present in the original folktale. The scene in the example from Episode 13 depicts the male protagonist 許仙 Xu Xian/Shiu Sii finding himself brought to Soutseu (he lives in Ghangtsei which is 125km away) by two human traffickers who force him to beg on the street, and the conversation is between him and one of the 'bosses' after he used his own money for the begging 'income':

(7) 許：兩位老大，我竟回來的了！

liã˧ we˧ **læ**˥ da˩, ŋəu˥ **t͡ɕiɲ**˩ we˧ le˥ **ti**˩ **liæ**˩

Shiu: Two bosses, I am back!

老大：小許回轉來仔啊

ɕiɔ˥ ɕy˧ we˩ t͡sɵ˧ le˧ t͡sa˧

Boss: Ah Little Shiu you are back.

許：是。

ʃʒ˥

Shiu: Yes.

老大：第一次出去生意阿轟隆轟隆啊？

di˩ ʔiəʔ˥ t͡sʰʐ̩˦ t͡sʰəʔ˦ t͡ɕʰi˦ sã˥ i˩ aʔ˦ **hoŋ˥˧loŋ˥˧hoŋ˦loŋ˩** a˩

Boss: First time being out there, was the business cracking?

許：都在此間，倷自己看吧。

təu˥ ze˦ **t͡sʰʐ̩˦ t͡ɕi˦**, ne˨ ʐ̩˩ t͡ɕiᶻ˦ **kʰɛ˥** bɑ˦

Shiu: It is all inside here, have a look yourself.

兩位老大，如今我要去安睡的了。

liã˥ we˥ læ˥ da˩, **ʒ̩ʏ˩** t͡ɕiɲ˥ məʔ˥ ŋəu˥ iæ˦ t͡ɕʰy˦ **ɛ˥ ʒue˥** ti˩ liæ˩

Bosses, now I am going to sleep.

This dialogue requires quite a lot of explanation – the reason why I chose not to provide comparisons with Soutseu dialect and Standard Mandarin as the previous examples is its rather purposeful linguistic choices for both characters. For the speech of protagonist Shiu, we can see a combination of Wu and Mandarin features, but several pronunciations fall outside of the *Zhongzhouyun* realm, being even closer to Mandarin: for example, [ʃʒ̩˥] for 是 'yes' is basically the Standard Mandarin pronunciation (prescriptively [ʂʐ̩˥]) instead of *Zhongzhouyun* [zʐ̩˨] which retains the voiced initial and irregular fronting of /ʒ̩/ in Soutseu for this particular character; 如 /ʒʏ/ in the last line has /ʒʒ̩ʷ/ in Layers C (literary Soutseu) and D (regular *Zhongzhouyun*), but here the vowel is shifted to /ʏ/ to be closer to /u/ in Mandarin. In contrast, 看 [kʰɛ˥] 'look' and 安 [ɛ˥] 'safe' are the 'regular' pronunciations of Layer D, compared to Layer B [kʰɵ˥] and [ɵ˥].

With regard to Shiu Sii's vocabulary, there are several ultra-literary words that would be odd in colloquial Mandarin: 竟 /t͡ɕiɲ/ in the first line means 'surprisingly, unexpectedly', which is surprising and unexpected in this context because it does not add to the meaning of 'I am back'; moreover, 的 /ti/ in 的了 /ti liæ/ at the end of the line does not have any meaning either – its main function in Mandarin is the genitive marker akin to

English <-'s>, but this sentence is actually ungrammatical in Mandarin with 的 added – here it is merely a marker of the literary register; the literary word 此間 /t͡sʰʐ̩ t͡ɕi/ here means 'inside here', with 此 being the Classical Chinese word for 'this' and 間 meaning 'inside'; finally, 安睡 'sleep safe and sound' (pronounced /ɛ ʒue/) is used here instead of Mandarin 睡覺 /ʃuei t͡ɕiau/ or Soutseu 睏覺 [kʰun˥ ka˩]. These usages, either archaic or ungrammatical in spoken Mandarin, all serve to portray Shiu Sii as this very scholarly and well educated man, so his speech is exaggerated to be in the ultra-literary register which uses expressions and words only found in other Chinese operas.

The lexical tones in Shiu's speech are basically neutralised and an 'operatic' singing register takes its place – this voice register (not linguistic register) is frequently used in Chinese operatic singing and it is very distinct for its frequent use of falsetto and its dramatic falling contours. Section 6.2 will further explore this singing register, including its prevalence in certain characters and how it can override lexical tones and tone sandhi.

In direct contrast with the ultra-literariness of Shiu, the speech of the 'boss' is an amalgamation of features from Soutseu dialect and 揚州 Yangzhou dialect (of Jianghuai Mandarin), since in the story he comes from Yangzhou so he speaks with that accent. The character 小 'small' is pronounced [ɕiɔꟓ] in the performance – the regular Soutseu pronunciation is [siæꟓ]. This pronunciation captures the Mandarin dialect's merger of /si-/ and /ɕi-/ into [ɕi], and the vowel [ɔ] corresponds to the value in Yangzhou dialect. Additionally, he lacks all the fricativised vowels in colloquial Soutseu, which Shiu Sii curiously has some. Nonetheless, the vocabulary and grammar he uses are all based on Soutseu dialect, with very expressive local expressions like the ideophone/onomatopoeia [hoŋ˥˩loŋ˥˩hoŋ˧˩loŋ˩], usually the sound of thunder, here used figuratively for 'business doing good'.

The juxtaposition of the two speakers in this conversation, with their distinct accents and distinct registers, is what makes example (7) intriguing – it illustrates the fact that

Bindae artists have to have a huge linguistic repertoire at hand, and flexibly apply different phonologies, vocabulary and syntax to better serve the characters and the contexts.

The final example in this section is also an uncommon occurrence where full-on Mandarin phonology instead of the usual in-between *Zhongzhouyun* is used, albeit sparingly. This is to indicate that the speaker is decidedly from outside of the Wu-speaking area with a native Mandarin background. In the following case in Episode 20 of 楊乃武 *Yan Nevu* (again see 2.3 for a brief introduction), the heroine 小白菜 Little Cabbage (called Mrs. Keh-Pih in the story from her two surnames) brought to and interrogated in the court as a suspect after she was framed to have killed her husband. In (8), a non-local bailiff (court official) utters everything in Mandarin and Little Cabbage answers in *Zhongzhouyun* with the affected 'operatic' style. Later in (9), the main judge interrogated Little Cabbage and the conversation returned to *Zhongzhouyun* entirely.

(8) 衙役：葛畢氏，走！

kɤˊ pi˥ ʃʒ˥, t͡so:u˨˩ (Mandarin)

Bailiff: Mrs. Keh-Pih, move!

小白菜: 請問大叔，帶奴奴到哪裡去啊 –

t͡sʰiɲ vən da soʔ, te **nəu nəu** ta na li t͡ɕʰy a – (*Zhongzhouyun*)

Little Cabbage: May I ask you please Uncle, where are you taking me to ah –

衙役：上堂！走！

ʃɑŋ˥ tʰɑŋˊ! t͡so:u˨˩ ! (Mandarin)

Bailiff: To the court! Go!

(說書人：拖到堂面上向麼，吆喝連連)

tʰəu˥ taˊ dɑ̃˩ mi˥ lɑ̃ˊ ɕiɑ̃ˊ məʔ, ʔiau˥ həʔˊ li˩ li˩ (Soutseu)

(Narrator: he dragged her to the courtroom and shouted nonstop)

衙役：葛畢氏當堂 –

kɤ pi ʃʒ tɑŋ tʰɑŋ – (Mandarin)

Bailiff: Mrs. Keh-Pih is in the court –

衙役：跪下！

kueiꓥ ɕiaꓥ (Mandarin)

Bailiff: Kneel down!

(9) 判官：葛畢氏哪裡人氏？

kəʔ˥ piɪʔ˧ ʒ˩ na˥ li˧ ʒənˇ ʒ˩ ?

Judge: Mrs. Keh-Pih, where is your place of origin?

小白菜：母家南京。

məu˥ t͡ɕia˧ nɛ˩ t͡ɕiŋ˥

Little Cabbage: My mother's home is Nanjing.

說書人：清爽個，娘家南京。

t͡sʰiŋ˥ sɑ̃˥ kəʔ˩, ɲiã˩ kɑ˥ nə˩ t͡ɕiŋ˥

Narrator: (She's) clear-headed. Her mother's home is in Nanjing.

Three language varieties are used in (8): the bailiff only speaks Mandarin, Little Cabbage is speaking in *Zhongzhouyun* (Register 3) but there are hints that she is an uneducated commoner, and storyteller speaks in Soutseu dialect (Registers 1 + 2) as usual. Although the use of entire Mandarin sentences is uncommon, in this case it is indicating that the bailiff is not of Wu-speaking background.

The Mandarin pronunciations can be easily compared to *Zhongzhouyun* in the words 堂 'court' (marked green) and 葛畢氏 'Mrs. Keh-Pih' (marked purple), in which *Zhongzhouyun* still preserves the Wu voiced initials and glottal stop codas, but Mandarin lost them. On the other hand, the difference between Zhongzhouyun and Soutseu dialect is directly manifested in neighbouring lines in (9), where the storyteller repeated what Little Cabbage

said in court but with direct calquing and shifting pronunciations into Soutseu dialect. We can see the /ɵ/ ~/ɛ/ correspondence, the /k/ ~/t͡ɕ/ correspondence, and the difference in vocabulary choices – 母 [məu˥] with irregular T1 is a more literary version of 娘 [ɲiã˨˩] for 'mother'.

Another interesting touch is the word 奴奴 [nəu˥ nəu˩] for 'I' uttered by Little Cabbage – the Standard pronunciation for 我 is [ŋəuᵝ˨˩], but [nəuᵝ˨˩] is a common variant in suburban Soutseu and in lower-class older women's speech. Here the story actually happens in a county near Ghangtsei and Little Cabbage is a local there, but the choice is to use a lower class, often female, Soutseu variant of the first-person singular pronoun to indicate that Little Cabbage is a lower class woman. This kind of stylistic and indexical choice of a particular accent not necessarily indicating place but a stereotype can be seen in a lot of Anglosphere media as well, from the favouring of Southern American accents in modern pop music (Sackett, 1979) to the 'British accent' (often times Received Pronunciation) in villains of American television (Dobrow & Gidney, 1998). *Bindae* is no exception: the association of the pronunciation [nəuᵝ˨˩] for an audience who are speakers of or familiar with Soutseu dialect is that the character must be lower class or not from the city, which is who Little Cabbage is – an uneducated woman in the feudal Chinese society. The reduplication of the syllable further indicates that she is young and unsophisticated because reduplication of proper names is often applied to children only. Even though the bulk of Little Cabbage's speech here is in the more literary *Zhongzhouyun* Register 3, the word [nəu˥ nəu˩] alone warrants the conclusion that she is actually not of the literary elite, but rather an ordinary woman.

As we have seen from all the examples above, there is a wide range when it comes to incorporation of Mandarin elements into *Bindae* performance, ranging from intermittent lexical borrowings to wholesale adaptation of Mandarin vocabulary and syntax. Phonological adaptation, discussed extensively as *Zhongzhouyun* phonology until now, does

not necessarily follow syntactic adaptation, forming its own largely independent system; whereas syntactic and vocabulary adaptations are often more complete and extensive than phonological ones. Different contexts, characters and subgenres often require different degrees and strategies of mixing – what and how much Mandarin elements to put in are guided by artistic choices above all else.

5.2.2 Classical Chinese literature as source of literary register

Since the influences of Standard Mandarin and Classical Chinese are often times interwoven, the previous section had several examples of how Classical Chinese can be incorporated into *Bindae*. This section provides some more concrete and identifiable Classical Chinese examples to complement the previous section.

Example (10) below is from a spoken storytelling part in Episode 3 of 雙玉緣 *Serendipity of the Two Jades* which uses Register 2, literary Soutseu dialect. However, the four 4-syllable phrases are a prime example of 對偶 antithesis in Classical Chinese literature:

(10) bəʔ˩.dʏ˥ ʔiəʔ˥ kʰɑ˩, zʏ˩.t͡sẓ˥ ʔiəʔ˥ hue˩, fəʔ˥ zʏ˥ əl̩˩ t͡ɕʰy˩, pəʔ˥
nose one swipe, sleeve one shake, shake sleeve and(lit.) go, NEG
ẓ˩ ɦəl̩˩ biɪʔ˩
farewell and(lit.) leave
鼻頭一揩，袖子一甩，拂袖而去，不辭而別

He had a swipe of his nose, had a shake of his sleeves, left without farewell in anger and dissatisfaction [3].

We can see that the first two phrases have the format 'N + one + V' which is a typical way to say 'V a little bit' in Chinese languages, but here it is also used as a literary device akin to a serial verb construction to list the events – this usage of 一 'one' as 'upon, as soon as' is most common in Classical Chinese and learned borrowings of it into Chinese languages.

3. Classical Chinese is a notoriously difficult language to translate into English, so take the translations in this section only as points of reference – the glosses are way more useful to look at.

However, the lexical items and their pronunciations here are entirely Soutseu: 鼻頭 [bəʔꜜ dʏ꜖] for ‘nose’ instead of just 鼻 or Mandarin 鼻子, and the two verbs 揩 [kʰɑㄱ] ‘swipe’ and 甩 [hue꜖] ‘shake (off)’ are only found in Wu. Therefore it is an interesting juxtaposition of Soutseu vocabulary with Classical Chinese inspired constructions. The latter half of the phrase is even more Classical Chinese flavoured, with the template being ‘VP 而 V’ and the two 成語 four-character idioms are well-established in Chinese literature: here ‘shaking the sleeves’ is literal as indicated by the previous action, but in this idiom it implies that the leaving is very unpleasant, driven by anger or discontent, hence there is not a farewell before leaving. The vocabulary here is literary Classical Chinese, which shows that even in normal storytelling as the narrator, Classical Chinese is still sometimes present to show that it is a literary register, and antithesis as a rhetoric device is commonly used to showcase the beauty of language itself, since the Classical Chinese aesthetic is all about being succinct – saying the most with the least words.

In musical numbers such as *Khephii* and arias within a storytelling episode, Classical Chinese is more widely incorporated, with certain formatting rules strictly abided. A defining characteristics of 唐詩 Tang-dynasty poems, the golden era of Chinese poetry which continues to exert great influence to all other literature after it, is that the poem should be in blocks of 4 lines, with each line having 5 or 7 syllables. Example (11) from the *Khephii* 笑中緣 ‘Serendipity in Laughters’ in 三笑 *Three Laughters* is a good example of this format, found from Tang poems to *Bindae*:

(11) a. həu t͡ɕʰʏ sɛ ləu ɲ̩y ʒɵ.t͡ɕiɵ
tiger hill mountain foothill encounter beautiful.woman(lit.)
虎丘山麓遇嬋娟

b. ɲ̩i ʐ̩ ɦən.ŋəuᵝ t͡ʃʰəʔ kuã.ɦɵ
doubt be Chang’e go.out Guanghan.Palace
疑是姮娥出廣寒

c. t͡sɵ t͡ʂʰʐ̩ʷ ʔiəʔ siæ ɦiɛ pɵ sɤ
extend teeth one laugh contain half shy
展齒一笑含半羞

d. zoʔ ɲ̩y ʔiæ.diæ t͡ɕyən.t͡sʐ̩ d͡ʑɤ
elegant woman graceful virtuous.man spouse(lit.)
淑女窈窕君子逑

On the foothill of Houchieu I encountered a beauty / I wondered if she is Chang'e coming out from Guanghan Palace / She shyly grinned, half showing her teeth / This elegant woman would be the ideal mate of a virtuous man.

This example fully falls into Register 4 – it is completely literary, stemming from Classical Chinese literature. Apart from the 七言絕句 4×7 form exactly like a Tang poem, this excerpt is full of references from Chinese mythology and Classical Chinese literature. 姮娥 (/ɦiən.ŋəuᵝ/ in performance), later due to a naming taboo changed to the now common name 嫦娥 Chang'e, is the moon goddess in Chinese mythology – originally the beautiful wife of another god 后羿 Houyi who shot down nine suns out of ten leaving only one, she was tempted by the immortal pill given by 西王母 Mother Goddess from the West and ate it, causing her to fly to the moon, also poetically dubbed 廣寒宮 Guanghan Place (lit. vast and cold palace). This household Chinese myth is referenced here to describe the intangible beauty of this lady that our protagonist encountered. The last line 淑女窈窕君子逑 is a direct reference of a song-poem in 詩經 *Shijing/Book of Poems* (see 1.4 for a brief overview) called 關雎 *Guanju*, and the original text was 窈窕淑女君子好逑 – here 好 'good' is deleted, and the first pair and the second pair switched, but it is very much identifiable as a *Shijing* reference. These references presume knowledge on Chinese folktales and literature, and the use of non-everyday literary words is a direct

result of Classical Chinese. One caveat is the rhyming scheme: while the vast majority of Tang poems with 4×7 format has an AABA rhyming scheme (only the third line does not necessarily rhyme), here it is AABB – the first two and the last two lines rhyme with each other. Furthermore, the correspondence between lines is rather weak compared to (10), with several mismatches of parts of speech and the character in the same position of the line belonging to different words instead of each line being carved up in the exact same places. These 'caveats' show that writers do not have to follow every single rule of Classical Chinese literature when composing Bindae musical numbers – they can pick and choose about different parameters for artistic effect. Nonetheless, at least some elements of Classical Chinese is required in the lyrics when the backdrop is ancient China, which applies to most *Bindae* works.

Example (12) below, from the *Khephii* 鶯鶯拜月 'In'in worshipping the moon' in 西廂記 *Romance of the West Chamber*, is a similar example to (11), yet it shows some flexibility with regard to syllable count:

(12) a. ɲi̯oʔ y vəu ʒən ɥəʔ ʔiəʔ lə(ŋəŋə)n
jade sky(lit.) no dust moon one CLF.ROUND
玉宇無塵月一輪

b. t͡sʰiæ ɦioŋ ɲiã siã t͡sʰiɲ ɲi̯y toŋ.t͡ɕyən
pretty red girl towards invite female owner
俏紅娘相請女東君

c. t͡ɕʰiə(ŋə)n i li pəu kæ lʏ ɕia
soft move lotus step tall building down
輕移蓮步高樓下

d. t͡ɕi hua kuã jyəʔ səʔ liã biɲ fə(ŋə)n
see flower light moon colour two equal divide
見花光月色兩平分

> Under a single round of moon in the dustless jade expanse / the pretty matchmaker servant girl invites out the female owner / she moved her lotus-like steps softly down the tall building / and saw the equal division between the colours and lights of flowers and the moon.

This example is a beautiful depiction of both sceneries and human activities and is one of the absolute classics of *Bindae* performed by many artists. The work itself is an adaptation of the homonymous Yuan-dynasty Chinese opera 雜劇 *Zaju* set in Tang dynasty, depicting a pair of lovers ending up consummating their marriage despite initial parental disapproval. Like the last example, this example uses exclusively Layer D *Zhongzhouyun* pronunciations in the Classical Chinese Register 4 – e.g. 下 /ɕia/ 'down' (compare Mandarin /ɕia/ and Soutseu colloquial Layer B /ɦo/ and literary Layer C /ɦio/) as well as 花 /hua/ 'flower' (instead of Soutseu /ho/), with the common rhetoric device of 借景抒情 using nature to set the scene and lead out the main story. This excerpt roughly inherits the format of the 4×7 form of Tang poetry but with one extra syllable added at the beginnings of lines 2 and 4 just for additional narrative information. Unlike (11), the four lines in (12) follow the AABA rhyming scheme as expected. Note the frequent melismata on syllables with /-ən/ rime with sequences of [ŋə] inserted, which is a common characteristics of *Bindae* songs. Again, the vocabulary and writing here are completely literary, from 玉宇 'jade expanse' for 'sky', to the last line 花光月色兩平分 where the colours and lights of flowers and moon are 'divided equally' – I did not discuss syntax much for the last two examples because in Classical Chinese poems there is minimal 'syntax' to begin with: different noun phrases, verb phrases and imageries can be simply put side by side together without any connectors, so that when translated to English the length suddenly inflates to three times the original because unlike Classical Chinese, English needs all sorts of additional grammar to make a good sentence.

A final example (13) from the *Khephii* 杜十娘 *Miss Dou No.10* [4] showcases that a majority Classical Chinese poem-like aria can also incorporate Mandarin elements:

(13) a. ʔia.dia foŋ.lʏ dəu ʒəʔ ɲiã
seductive promiscuous Dou ten girl
窈窕風流杜十娘

b. ʐ̩ʐ̩ li ʃə(ŋə)n loʔ ze biən.kʰã
self pity body fall be.located brothel(lit.)
自憐身落在平康

c. tʰa ʒ̩ loʔ hua vəu t͡ʃʏ ʒ̩e foŋ vəu
3SG be fall flower not.have owner follow wind dance
他是落花無主隨風舞

d. fi zʏ pʰia liŋ lue səu(əu) ɦã
fly catkin fall wither tear several row
飛絮飄零淚數行

The seductive and promiscuous Miss Dou the Tenth / (she) pities herself with her body falling into the abyss of ill repute / Now she is an owner-less fallen flower flowing with the wind / like a catkin, falling and withering with many streams of tears

Here the pronunciations are entirely *Zhongzhouyun*/Layer D, exemplified by 是 'be' /ʒ̩/ instead of Layer B /ʐ̩/ and 淚 'tear' /lue/ instead of Layer B /liᶻ/ and Layer C /le/. Although its form is close to the previous two examples, a clefting construction from Mandarin 他是 'she is' is inserted at the beginning of line three – as explored in Example (6), it is one of the literary devices commonly used in Ming and Qing dynasty novels. Here it is

4. Her surname is Dou and she is the tenth sibling.

not emphasising anything but stating the subject again which is often omitted in poems like this. This again shows that Mandarin and Classical Chinese elements often coexist, reflecting the fact that the majority of *Bindae*'s literary inspirations are novels that were written in half-Mandarin and half-Classical Chinese.

To summarise, Classical Chinese is neither a compulsory nor ubiquitous aspect of *Bindae*, but since many works are the direct derivatives from Classical Chinese literature, the linguistic habits and forms of such literature naturally get passed down into *Bindae*. Two notably influential forms are Tang-dynasty poems and Ming-Qing novels – their linguistic characteristics can be found in many musical numbers in *Bindae*.

5.3 Interim summary

This chapter explored the complex phenomena in *Bindae* that can be grouped under 'literary and colloquial language' in Chinese linguistics – through examining various examples, we can see that *Bindae* employs multiple phonological layers and linguistic registers to depict characters and convey social meanings. Every linguistic choice, though at times exaggerated and not necessarily faithful to the place and time of the characters, serves some particular artistic purpose. The influence of Mandarin spans every aspect of the language to different degrees in different contexts, and there is also incorporation of Classical Chinese vocabulary, syntax and literary forms into *Bindae*. This web of diverse language use creates a rich and variegated toolkit for effective and expressive storytelling, and artists' linguistic prowess adds to the overall enjoyment of the audience.

CHAPTER 6

TONAL PHONOLOGY: TONE SANDHI AND TONE-MELODY MAPPING

The following chapter concerns the tonal phonology of Soutseu dialect used in *Bindae*, and how it is reflected in both spoken and musical contexts. Figure Section 6.1 explores the very complex picture of tone sandhi in the language and Section 6.2 discusses tone-melody mapping in *Bindae* – how tones are incorporated in its music in different ways.

To revisit Section 3.1.3, the seven citation tones of Soutseu dialect can be seen in Table 6.1 and Figure 6.1. Generally speaking, light tones with voiceless initials and odd tone numbers are higher in pitch than dark tones with voiced initials and even tone numbers: light tones always start with pitch above average (>3), while dark tones never reach that level. This corresponds to the Middle Chinese tonal split that voiceless initial gave higher tones and voiced initials gave lower ones, unlike some other Chinese languages where this is further obscured. The lack of Tone 4 is due to historical reasons as previously explained – T4 basically merged with T6 in the language. Of the seven tones, only two of them (T1 and corresponding T7) are completely level, with T3 (52) and T8 (23ˀ) having two targets and T2 (213), T5 (513) and T6 (231) having three targets. The three-target tones – peaking or dipping tones – are cross-linguistically quite rare, but quite a number of Chinese varieties have them. The number of targets for each tone is crucial to the patterns of tone sandhi to be discussed in this section.

Name	Number	Five-degree	IPA	Examples
陰平 Light Level	T1	44	˥	天低虛書千關
陽平 Dark Level	T2	213	˧˩	頭橋爬齊王樓
陰上 Light Rising	T3	52	˥˧	死好館永水景
陰去 Light Departing	T5	513	˥˩	去閉店盼四愛
陽去 Dark Departing	T6	231	˨˧	老語慢我爛大
陰入 Light Entering	T7	4ˀ	˥ˀ	忽吃筆得一急
陽入 Dark Entering	T8	23ˀ	˧ˀ	級絕綠白襪月

Table 6.1: Citation tones in *Bindae* Soutseu dialect

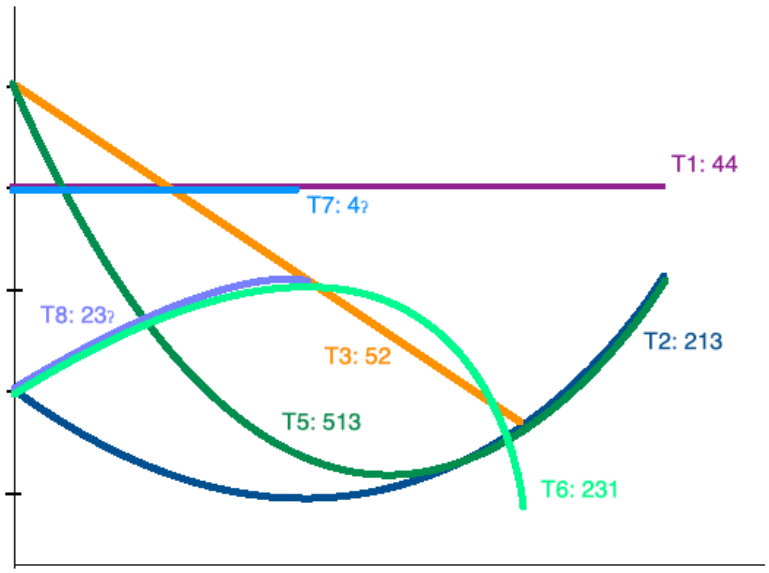

Figure 6.1: Citation tones in *Bindae* Soutseu dialect

6.1 Tone sandhi in Soutseu dialect

Tone sandhi is a process where change of at least one tone's value when two or more tones are adjacent to each other. The word sandhi comes from Sanskrit for 'joining', which got borrowed into linguistics as a term for various phonological and morphophonological phenomena happening at morpheme or word boundaries, and tone sandhi is no exception. Chinese languages are famous for distinct and language-specific tone sandhi processes, such as Standard Mandarin's third-tone sandhi (T3 + T3 > T2 + T3) and Hokkien's tone sandhi circle (shown in Figure 6.2). Tone sandhi in Chinese languages can be generally grouped into two types – left-dominant and right-dominant – based on direction: left-dominant sandhi leaves the leftmost/beginning syllable unchanged while changing all other syllables' tones, and right-dominant sandhi is the complete opposite in that the rightmost syllable is inert to sandhi and all other syllable left of it / before it change in value. Among Chinese languages, there is a bias towards right-dominant sandhi over left-

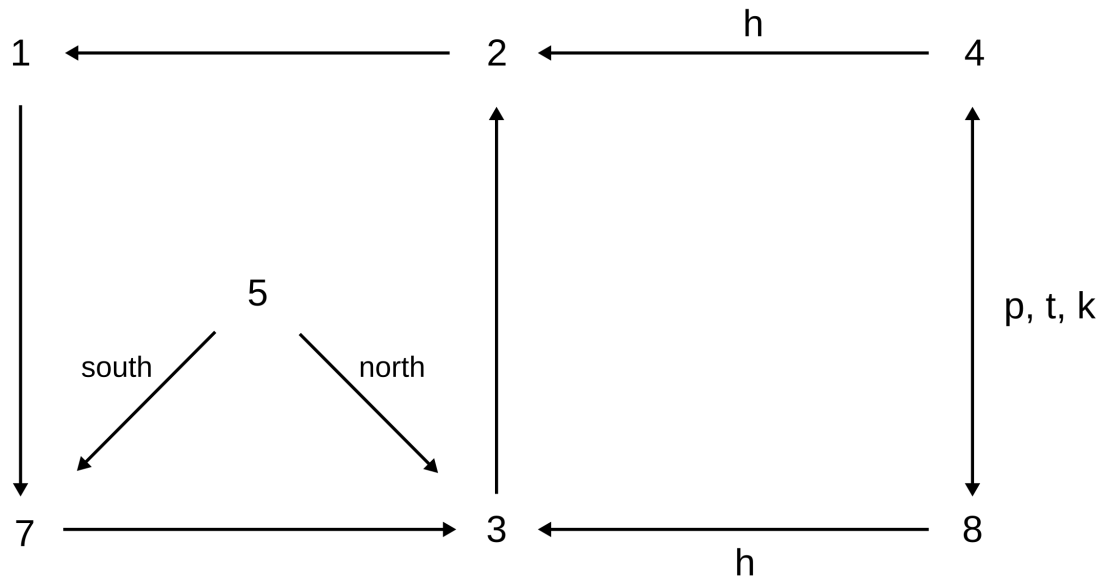

Figure 6.2: Tone Sandhi in Taiwanese Hokkien

dominant due to a preference for final stress and progressive tonal co-articulation (Zhang, 2007). Exceptions to the two broad categories can occur, for example I myself argued in Quain (2021) that Dalien dialect of Jiaoliao Mandarin includes element of bidirectional tone sandhi. We will see more examples in Soutseu dialect to follow in this section, but in general Soutseu dialect is more biased towards left-dominant sandhi.

Tone sandhi is intrinsically linked to morphosyntax: a sandhi domain is always a constituent, no matter its size or exact components. Due to the fact that Chinese languages are largely SVO, the subject and verb of a sentence never belong to the same sandhi domain. One thing to note is that sometimes a sentence can have multiple grammatical sandhied forms: for example the sentence 我愛著你 'I am in love with you' in Hokkien can be pronounced [gua˥ ai˧˥ tiɤ˨˩ li˧˥] or [gua˧˥ ai˧˥ tiɤ˨˩ li˧˥] – with [gua˥] being the sandhied form thus included in the sandhi domain, and [gua˧˥] being the unsandhied form – and both are correct. This phenomena will also be discussed with regards to Wu and Soutseu dialect in particular in the following section.

6.1.1 Tone sandhi in Wu

Varieties of Wu language are treasure troves when it comes to tone sandhi: it has a complex web of sandhi phenomena, with each variety having often completely different tonal contours and sandhi patterns – for example, Soutseu and its neighbour Wuxi/Vusih and Shanghai/Zaonhe have three very different citation tone inventories and sets of tone sandhi patterns: Zaonhe dialect almost exclusively uses left-dominant sandhi patterns, Soutseu is majority left-dominant but with lots of exceptions and spreading of tone values, and Vusih exhibits full-on bidirectional sandhi.

丁邦新 Tin (1998) gives an overview of Wu tone sandhi based on Ballard (1980), outlining the variegated tone sandhi patterns within the broad umbrella of Wu – there are way too many dialects or patterns to be listed fully, but there are some general trends I can summarise:

- Citation tones are sometimes inadequate as the representation for the entire tonal picture – a lot of more fine-grained distinctions surface in sandhied tones. 丁邦新 Tin (1998) argued that some sandhied forms can actually be more faithful to the underlying representation. An example of this was mentioned in Section 4.2.4, T7 + underlying T4 弗買 [fəʔ˧ mɑ˦˨] 'not buy' surfaces differently from T7 + T6 弗賣 [fəʔ˧ mɑ˥˨˧] – they belong to Types 8.3 and 8.5 respectively. The next section 6.1.2 will go into more detail about this.

- There is a trend that geographically the more south we go the more right-dominant sandhi we get: for example, in Wenzhou/Yuciu which is a very Southern Wu variety, right-dominant sandhi is the norm; whereas in Northern Wu varieties, left-dominant sandhi is more prominent, though it does not dominate every dialect and there are a range of Northern Wu dialects with both left-dominant and right-dominant features.

- A lot of Wu varieties have tone spreading in whichever direction the sandhi is in

– that is, if a tone has two or three targets, the sandhied phrase can realise those two or three targets in a multisyllabic context instead of the monosyllabic context of citation tone. We see this in a lot of sandhi environments involving 陽平 T2 in various Wu varieties with citation T2 as a rising tone, which expands into two register tones of low and high respectively, if the sandhi is left-dominant and spans a two-syllable domain. This will be further discussed in Section 6.1.3 when it comes to three-or-more syllable sandhi domains in Soutseu dialect.

In different dialects, we can see various examples of tone spreading and neutralisation: In dialects with majority left-dominant sandhi, there tends to be complete neutralisation of the non-initial syllables in the domain, with the tonal contour of the first tone spreading to the following tones, rendering them essentially toneless; whereas in dialects with majority right-dominant sandhi, there tends to be incomplete neutralisation with some tones merging with each other before the rightmost syllable while others stay distinct.

6.1.2 Tone sandhi in two syllable domains

The following two subsections will give a thorough rundown of tone sandhi patterns in Soutseu dialect. This section will start with two-syllable sandhi domains.

In two-syllable sandhi domains, there are a total of five patterns when the first syllable is non-checked and another eight patterns when the first syllable is checked. The complexity stems from the fact that these patterns are merely generalisations: as briefly mentioned in Section 4.2.4, there is an ample amount of 'crossing over' where a certain first syllable has a pattern that is different from its 'designated' pattern. Here in the dissertation I inherit descriptors from 葉祥苓 Yih (1988) and 汪平 Uaon (2011) that use the tone of the first syllables as the prototypes of each pattern (e.g. 1X = first syllable T1), but keep in mind that the so-called prototypes are not necessarily the most common pattern for a given combination of tones since 'crossovers' to other patterns are very common

for certain tones.

In Tables 6.2 – 6.6 I give examples of each pattern with nonchecked first syllables (σ_1) and corresponding citation tones, starting with Type 1X. The tonal combinations with four examples are common, and ones with less than four examples are uncommon.

Type 1X (Table 6.2) is the most common type of all two-syllable domains with a voiceless tone on the first syllable: it encompasses every combination of tones with first-syllable T1 (T1 + X), a small amount of words with first-syllable T3 (T3 + X) (except it never happens with T3 + T3/7/8), and the majority of words with first-syllable T5 (T5 + X). The ubiquity of this pattern, especially the frequent crossovers from T5 + X words, is very worth noting – since the surface representation of the pattern is essentially a T1 plus a toneless syllable, or a H followed by a L, it is one of the phonetically simpler patterns, which may have contributed to its frequency. Compared to T1 + X which is completely regular and T5 + X which is semi-regular, T3 + X in this category are the exceptions; however, the fact that there are frequent crossovers from T5 + X show that the 1X naming scheme is just a suggestion: the reason why I keep using them instead of just simply assigning them letters/numbers is because the surface form of 1X is still based on citation T1, and we will see from the following types that each type is an expansion of the first citation tone – it is essentially still T1 but spanning two syllables. In the three-or-more syllable cases to be discussed in the next subsection, we can see the spreading of T1 itself through to more syllables, indicating that this pattern is essentially an extension of T1.

Type 3X (Table 6.3) is the least common type of the three patterns for two-syllable domains with a voiceless initial σ_1: most of T3 + X combinations do not even have this pattern. Type 3X is similar to Type 1X in that it is T3 in its citation tone value 52 [˧˥] plus a low, almost toneless syllable 21 [˩]. The whole contour forms the shape of T3, a simple falling tone. Some intriguing generalisations arise with regard to this type – firstly, numeral phrases containing T3 as σ_1 (幾 [t͡ɕi˨˩˧˥] 'how (many)', 九 [t͡ɕʏ˧˥] 'nine') is

Type 1X: 55 21 [˥ ˩] (55 1 [˥ ˩] for checked σ_2)

	Word	IPA	Meaning	Word	IPA	Meaning
T1 + T1	天窗	tʰi˥ t͡sʰɑ̃˩	skylight	今朝	t͡ɕiɲ˥ t͡ʃa˩	today
	新鮮	siɲ˥ si˩	fresh	西瓜	siᶻ˥ ko˩	watermelon
T1 + T2	今年	t͡ɕiɲ˥ ɲi˩	this year	椒鹽	t͡siæ˥ ji˩	spiced salt
	阿姨	a˥ ʝiᶻ˩	auntie	新娘	siɲ˥ ɲiã˩	bride
T1 + T3	開水	kʰe˥ ʃʒʷ˩	boiling water	相打	siã˥ tã˩	fight with fist
	松鼠	soŋ˥ t͡ʃʰʒʷ˩	squirrel	淒慘	t͡sʰiᶻ˥ t͡sʰɵ˩	miserable
T1 + T5	牽記	t͡ɕʰi˥ t͡ɕiᶻ˩	worry	菠菜	puᵝ˥ t͡sʰe˩	spinach
	功課	koŋ˥ kʰəuᵝ˩	homework	倉庫	t͡sʰɑ̃˥ kʰəuᵝ˩	warehouse
T1 + T6	公路	koŋ˥ ləuᵝ˩	highway	師父	sz̩˥ vɣ˩	master
	招待	t͡ʃa˥ de˩	attend	方便	fɑ̃˥ bi˩	convenient
T1 + T7	心得	siɲ˥ tə?˩	experience	歌曲	kəuᵝ˥ t͡ɕʰio?˩	song
	收作	ʃʏ˥ t͡so?˩	tidy up	書桌	ʃʒʷ˥ t͡ʃo?˩	desk
T1 + T8	中學	t͡ʃoŋ˥ o̞?˩	middle school	音樂	ʔiɲ˥ jo?˩	music
	生活	sɑ̃˥ wə?˩	job	侵略	t͡sʰiɲ˥ liɑ?˩	invade
T3 + T1	始終	ʃʒʷ˥ t͡ʃoŋ˩	throughout	果真	kəuᵝ˥ t͡ʃən˩	expectedly
T3 + T2	頂頭	tiɲ˥ dʏ˩	upwards	起來	t͡ɕʰiᶻ˥ le˩	get up
	可能	kʰəuᵝ˥ nən˩	possible			
T3 + T5	可靠	kʰəuᵝ˥ kʰa˩	reliable			
T3 + T6	款待	kʰuɵ˥ de˩	treat cordially	討論	tʰa˥ lən˩	discuss
	果然	kəuᵝ˥ ʒɵ˩	as expected			
T5 + T1	信封	siɲ˥ foŋ˩	envelope	背心	pe˥ siɲ˩	vest
	糞坑	fən˥ kʰɑ̃˩	cesspool	醬瓜	t͡siã˥ ko˩	pickle
T5 + T2	太陽	tʰɑ˥ jɑ̃˩	sun	絹頭	t͡ɕiɵ˥ dʏ˩	handkerchief
	漢朝	hɵ˥ ʒa˩	Han dynasty	算盤	sɵ˥ bɵ˩	abacus
T5 + T3	要好	ʔiæ˥ ha˩	intimate	汽水	t͡ɕʰiᶻ˥ ʃʒʷ˩	soda
	報紙	pa˥ t͡sz̩˩	newspaper	中暑	t͡ʃoŋ˥ ʃʒʷ˩	heatstroke
T5 + T5	靠背	kʰa˥ pe˩	backrest	對過	te˥ kəuᵝ˩	opposite
	看戲	kʰɵ˥ ɕiᶻ˩	watch a play	睏覺	kʰun˥ ka˩	sleep
T5 + T6	夜飯	ʔiɑ˥ vɛ˩	dinner	笑話	siæ˥ o̞˩	joke
	半路	pɵ˥ ləuᵝ˩	halfway	跳遠	tʰiæ˥ jɵ˩	longjump
T5 + T7	戲曲	ɕiᶻ˥ t͡ɕʰio?˩	Chinese opera	凍疥	toŋ˥ t͡ʃo?˩	chillblain
	配角	pʰe˥ ko?˩	side character	計策	t͡ɕiᶻ˥ t͡sʰɑ?˩	strategy
T5 + T8	醬肉	tsiã˥ ɲio?˩	cured meat	炸藥	t͡so˥ jɑ?˩	explosive
	快活	kʰɑ˥ wə?˩	cheerful	泡沫	pʰa˥ mə?˩	bubble

Table 6.2: Two-syllable tone sandhi, Type 1X

Type 3X: 52 21 [˥˩] (52 1 [˥ ˩] for checked σ_2)

	Word	IPA	Meaning	Word	IPA	Meaning
T3 + T1	幾分	t͡ɕiᶻ˥ fən˩	what degree			
T3 + T2	幾時	t͡ɕiᶻ˥ ʒ̩ʷ˩	what time (lit.)			
T3 + T3	表演	piæ˥ i˩	performance	等等	tən˥ tən˩	wait a bit
	捻捻	ɲ̩i˥ ɲ̩i˩	twirl a bit	寫寫	siɑ˥ siɑ˩	write a bit
T3 + T5	幾歲	t͡ɕiᶻ˥ se˩	how old	比較	piᶻ˥ t͡ɕiæ˩	compare
	改變	ke˥ pi˩	change	火化	həuᵝ˥ ho˩	cremate
T3 + T6	表妹	piæ˥ me˩	younger cousin (f.)	手藝	ʃʏ˥ ɲ̩iᶻ˩	skill/craft
	炒麵	t͡sʰa˥ mi˩	fried noodles	土地	tʰəuᵝ˥ diᶻ˩	soil
T3 + T7	九十	t͡ɕʏ˥ sə?˩	ninety			
T3 + T8	九月	t͡ɕʏ˥ ŋə?˩	September			
T5 + T3	佈景	puᵝ˥ t͡ɕiɲ˩	setting			
T5 + T5	佈置	puᵝ˥ t͡ʃʒ̩ʷ˩	arrange	報告	pa˥ ka˩	report
T5 + T6	漂亮	pʰiæ˥ liã˩	pretty	幹部	kɵ˥ buᵝ˩	leader
	斷定	tɵ˥ diɲ˩	conclude			
T5 + T7	據說	t͡ɕyᶻʷ˥ ʃə?˩	it is said that			

Table 6.3: Two-syllable tone sandhi, Type 3X

one of the key contributors and dominates the category: no matter what tone comes after them they have the Type 3X pattern; secondly, the reduplication of verbs in T3, which is a common and productive process in Chinese syntax serving as a diminutive of the verb meaning 'to V a little bit, to V a few times', exclusively takes this sandhi pattern as well as listed in the T3 + T3 row. Compared to other combinations, T3 + T5 and T3 + T6 have a significantly higher proportion of Type 3X words which conforms to the findings of 汪平 Uaon (2011) and 葉祥苓 Yih (1988). Other words with Type 3X are occasional T3 + X and crossover T5 + X words that are relatively uncommon – as mentioned, T5 + X words most frequently cross over to Type 1X. Overall, the rarity of Type 3X is remarkable and it shows that T3 + X words are also subject to a high amount of crossovers to both Types 1X and 5X, especially 5X because they share the same contour on the first syllable.

Type 5X (Table 6.4) is less common than Type 1X and more common than Type 3X. Slightly different from Type 3X which is overall a falling tone, Type 5X is overall a falling rising tone sequence 51 23 [˥˧], which is exactly an expansion of T5 itself onto two syllables. Noticeably, most T3 + X words actually cross over to Type 5X, whereas a great portion of T5 + X words go to Type 1X. This just shows the complicated correspondences between sandhi types and first character – though voicelessness of the σ_1 initial confines T1/3/5 within Types 1X/3X/5X, the distribution is far from regular. T1 σ_1 words, being the most stable combination, still have exceptions like the first few rows of Table 6.4 that cross over to Type 5X. Proportionally, T3 + X words dominate Type 5X, which is very interesting considering the leftover Type 5X T5 + X words consist of both a minority of Type 5X and a minority of all T5 + X words – again, most of them cross over to Type 1X. The abundance of T3 + X words in Type 5X can be attributed to the fact that T3 and T5, and thus Types 3X and 5X, are identical besides the final subtle rising of T5/Type 5X: the first syllables of Types 3X and 5X are identical to T3, so it is not surprising how many T3 + X words cross into Type 5X, as Type 3X is uncommon and often preserved to some

Type 5X: 51 23 [˥˩]

	Word	IPA	Meaning	Word	IPA	Meaning
T1 + T2	攤牌	tʰɛ˥ bɑ˩	show one's cards			
T1 + T3	欣賞	ɕiɲ˥ sɑ̃˩	appreciate			
T1 + T7	佳作	t͡ɕiɑ˥ t͡so?˩	masterpiece			
T3 + T1	改編	ke˥ pi˩	adapt	火車	həuᵝ˥ t͡sʰo˩	train
	點心	ti˥ siɲ˩	snack, pastry	手錶	ʃʏ˥ piæ˩	wristwatch
T3 + T2	好婆	ha˥ buᵝ˩	grandma	感情	kɵ˥ ziɲ˩	emotion
	本來	pən˥ le˩	originally	死人	siᶻ˥ n̥iɲ˩	dead person
T3 + T3	寫好	siɑ˥ ha˩	write up	小姐	siæ˥ t͡siɑ˩	Miss/Ms.
	滾水	kuən˥ ʃʒ̥ʷ˩	boiling water	水果	ʃʒ̥ʷ˥ kəuᵝ˩	fruit
T3 + T5	走過	t͡sʏ˥ kəuᵝ˩	go through	鈔票	t͡sʰa˥ pʰiæ˩	money
	幾化	t͡ɕiᶻ˥ ho˩	how many	轉去	t͡sɵ˥ t͡ɕʰiᶻ˩	return
T3 + T6	本地	pən˥ diᶻ˩	local	底下	tiᶻ˥ o̤˩	below
	巧妙	t͡ɕʰiæ˥ miæ˩	ingenious	橄欖	kɛ˥ lɛ˩	olive
T3 + T7	曉得	ɕiæ˥ tə?˩	know	小吃	siæ˥ t͡ɕʰiə?˩	snack
	美國	me˥ kuə?˩	United States	紡織	fɑ̃˥ t͡ʃə?˩	knitting
T3 + T8	火著	həuᵝ˥ ʒɑ?˩	catch fire	海蜇	he˥ ʒə?˩	jellyfish
	好日	ha˥ n̥iə?˩	good day	手續	ʃʏ˥ zo?˩	procedure
T5 + T1	退休	tʰe˥ ɕʏ˩	retire	信心	siɲ˥ siɲ˩	confidence
	戰爭	t͡ʃɵ˥ t͡sən˩	war			
T5 + T2	透明	tʰʏ˥ miɲ˩	transparent	賽跑	se˥ ba˩	running race
	鯽魚	t͡ʂiᶻ˥ ŋ̍˩	crucian carp			
T5 + T3	廁所	t͡sʰz̩˥ səuᵝ˩	bathroom			
T5 + T5	會計	kue˥ t͡ɕiᶻ˩	accountant	興趣	ɕiɲ˥ t͡ʂʰiᶻ˨˩	interest
T5 + T6	教授	t͡ɕiæ˥ ʒʏ˩	professor	最近	t͡se˥ d͡ʑiɲ˩	recently
	過分	[kəuᵝ˥ vən˩]	too much			
T5 + T7	慶祝	t͡ɕʰiɲ˥ t͡ʃo?˩	celebrate	報答	pa˥ ta?˩	repay
	建設	t͡ɕi˥ ʃə?˩	construct			
T5 + T8	秘密	piᶻ˥ miə?˩	secret	半日	pɵ˥ n̥iə?˩	half a day
	繼續	t͡ɕiᶻ˥ zo?˩	continue	制服	t͡ʃʒ̥ʷ˥ vo?˩	uniform

Table 6.4: Two-syllable tone sandhi, Type 5X

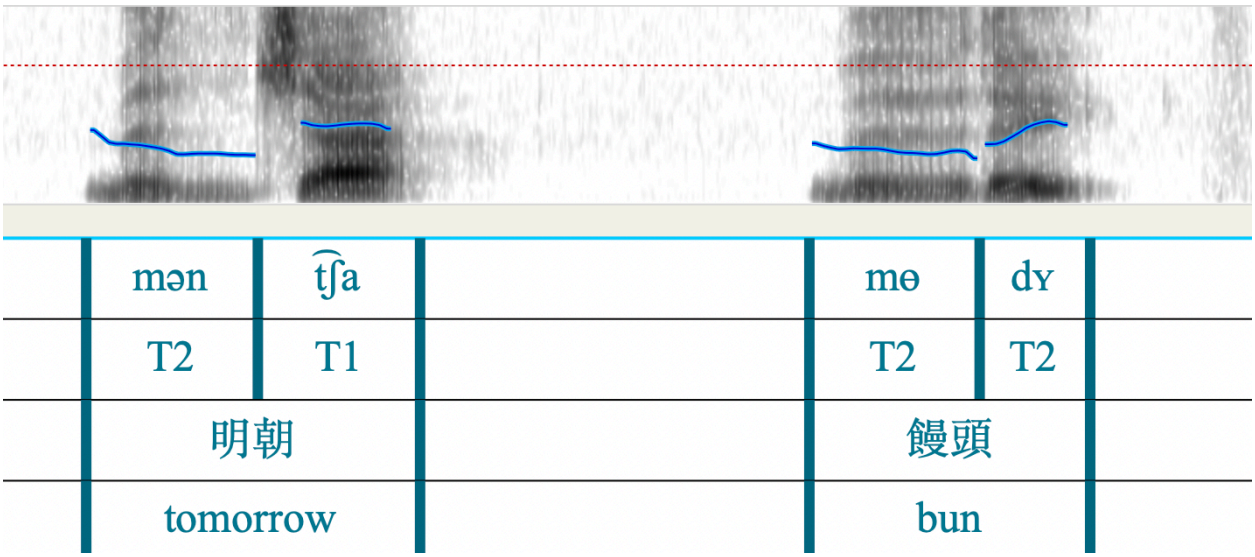

Figure 6.3: Allophonic distinction within Type 2X

particular grammatical categories. There is not a defined pattern when it comes to T5+X words as to whether they would be pronounced as Type 1X or 5X: although Type 1X is marginally more common, both types include an array of both common colloquial words and more literary sounding words. Therefore, this split of sandhi patterns concerning T5+X words echoes the lexical basis of sound changes explored in Chapters 4 and 5 – in this case, a given pattern does not neatly correspond to all words in one tonal category.

Now that we have seen voiceless-initial σ_1 words have internal crossovers between Types 1X/3X/5X, voiced-initial σ_1 words behave similarly, with two patterns – Type 2X and 6X – and ample amount of crossing over between the two:

Type 2X comprises of the majority of both T2+X and T6+X combinations: it has a slight phonetic variation between light tone (voiceless initial) and dark tone (voiced initial) σ_2 – for light tone σ_2 words it is 21 44 [˩˦] and for dark tone σ_2 words there is a noticeable rise for the second syllable, yielding 21 34 [˩˧]. This was recorded neither in 汪平 Uaon (2011), who transcribes it as 22 33, and 葉祥苓 Yih (1988), who states that T2 preserves its original value in this pattern. My transcription distinguishes the minute allophonic distinction which is quite palpable as shown by Figure 6.3 when a Bindae

Type 2X: 21 4 [˩ ˥] for voiceless initial σ_2, 21 34 [˩ ˦] for voiced initial σ_2

	Word	IPA	Meaning	Word	IPA	Meaning
T2 + T1	明朝	mən˩ t͡ʃa˥	tomorrow	辰光	ʒ̊ən˩ kuã˥	time
	龍蝦	loŋ˩ ho˥	lobster	胡梯	ɦə̥uᵝ˩ tʰiᶻ˥	stairs
T2 + T2	饅頭	mɵ˩ dʏ˦	steamed bun	男人	nɵ˩ n̥ɪn˦	man (male)
	淘籮	da˩ ləuᵝ˦	washing basket	裁縫	ʑ̊e˩ voŋ˦	tailor
T2 + T3	泉水	ʑ̊i˩ ʃʒ̬ʷ˥	spring water	牙齒	ŋɑ˩ t͡ʃʰʒ̬ʷ˥	tooth
	頭頸	dʏ˩ t͡ɕiɲ˥	neck	銅板	doŋ˩ pɛ˥	coin
T2 + T5	前世	ʑ̊i˩ ʃʒ̬ʷ˥	previous life	遲到	ʒ̊ʒ̬˩ ta˥	be late
	奇怪	d͡ʑiᶻ˩ kuɑ˥	strange	陽傘	ɦiã˩ sɛ˥	umbrella
T2 + T6	黃鱔	ɦuã˩ ʒɵ˦	swamp eel	肥皂	biᶻ˩ za˦	soap
	娘舅	n̥iã˩ d͡ʑʏ˦	maternal uncle	閒話	ɦɛ˩ o̤˦	language
T2 + T7	頭髮	dʏ˩ fa?˥	hair	人客	n̥ɪn˩ kʰɑ?˥	guest
	糖粥	dã˩ t͡ʃo?˥	sweet porridge	毛筆	ma˩ pɪr?˥	inkbrush
T2 + T8	牛肉	n̥ʏ˩ n̥io?˦	beef	丸藥	ɦiɵ˩ jɑ?˦	pill
	寒熱	ɦɵ˩ n̥iə?˦	a cold (n.)	麻木	mo˩ mo?˦	numb
T6 + T1	自家	ʑ̊ʐ̬˩ kɑ˥	self	肚兜	dəuᵝ˩ tʏ˥	bodice
	汗衫	ɦɵ˩ sɛ˥	sweatshirt	電燈	di˩ tən˥	lamp, light
T6 + T2	肚皮	dəuᵝ˩ biᶻ˦	stomach, belly	女人	n̥ʲʏᶻʷ˩ n̥ɪn˦	woman
	硬柴	ŋã˩ zɑ˦	firewood	老蟲	la˩ ʒoŋ˦	mouse
T6 + T3	老虎	la˩ həuᵝ˥	tiger	共總	goŋ˩ t͡soŋ˥	altogether
	順手	ʒ̊ən˩ ʃʏ˥	right hand	老闆	la˩ pɛ˥	boss
T6 + T5	裡向	l̥iᶻ˩ ɕiã˥	inside	順帶	ʒ̊ən˩ tɑ˥	conveniently
	大菜	dɑ˩ t͡sʰe˥	Western food	忘記	mã˩ t͡ɕiᶻ˥	forget
T6 + T6	味道	miᶻ˩ da˦	taste	社會	ʒ̊o˩ we˦	society
	妹妹	me˩ me˦	younger sister	馬桶	mo˩ doŋ˦	toilet
T6 + T7	料作	liæ˩ t͡so?˥	material	辦法	bɛ˩ fa?˥	solution
	外國	ŋɑ˩ kuə?˥	foreign	廿一	n̥i˩ iə?˥	twenty-one
T6 + T8	眼熱	ŋɛ˩ n̥iə?˦	jealous	老實	la˩ ʒə?˦	genuine
	鬧熱	na˩ n̥iə?˦	bustling	病毒	bin˩ do?˦	virus

Table 6.5: Two-syllable tone sandhi, Type 2X

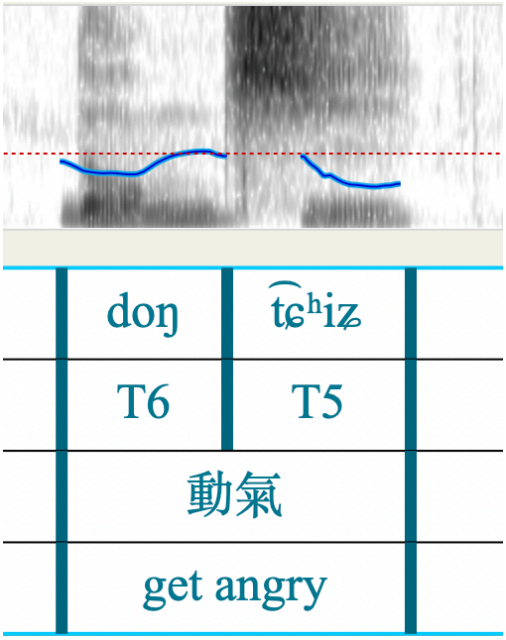

Figure 6.4: An example of Type 6X

performer uttered 明朝 [mən˨ t͡ʃa˥] 'tomorrow' and 饅頭 [mə˨ dɤ˧] in the same episode. Type 2X expands citation T2: 213 [˩˧] into two syllables, first syllable a low (falling) tone (the falling is negligible) and second syllable a high (rising) tone, corresponding to the rising end of T2. More than half of T6+X words cross over to Type 2X, making it the more common pattern out of the two. This pattern can also be seen as low high (LH), the opposite of Type 1X (HL) – these two patterns are ubiquitous cross-linguistically, which facilitates their proliferation in the language and attracts more crossovers from other tonal combinations. Furthermore, it can be considered as a slight favouring of faithfulness to pitch instead of contour: T1 and T5 share a high starting point while T2 and T6 share a low starting point, so in a way this is neutralisation in that the crossovers from T5/6 into 1X/2X keep their respective starting points but not the rest, which conforms to the left-dominant tendency of tone sandhi in Soutseu as a whole: the closer to the leftmost edge a tone target is, the higher chance that it gets preserved.

Type 6X is the less common counterpart of Type 2X: it stems from an expansion of T6: 231 [˨˩] quite literally into 23 31 [˧˨˩] – my transcription differs from 汪平 Uaon (2011)'s

Type 6X: 23 31 [˧˩]

	Word	IPA	Meaning	Word	IPA	Meaning
T2＋T1	仁兄	ʒ̬ən˧ ɕioŋ˩	elder brother (lit.)	存心	ʐ̬ən˧ siɲ˩	intentionally
T2＋T2	從前	ʐ̬oŋ˧ zi˩	the past	同情	doŋ˧ ziɲ˩	sympathise
T2＋T3	無恥	ɣ̬ɣ̥˧ t͡ʃʰʒ̬ʷ˩	shameless			
T2＋T5	無數	ɣ̬ɣ̥˧ səuᵝ˩	countless			
T2＋T6	嚴重	ɲ̥i˧ ʒoŋ˩	severe	然後	ʒ̬ə˧ ɣ̈˩	and then
	長遠	ʒ̬ã˧ jə˩	long time			
T2＋T7	成績	ʒ̬ən˧ t͡sɪɪʔ˩	grades			
T2＋T8	豪傑	ɦa˧ t͡ɕiəʔ˩	hero (lit.)	其實	d͡ʑiᶻ˧ ʒəʔ˩	actually
T6＋T1	米湯	miᶻ˧ tʰɑ̃˩	rice water	兩千	liã˧ t͡sʰi˩	two thousand
T6＋T2	後年	ɦɤ˧ ɲ̥i˩	year after next	領頭	liɲ˧ dɤ˩	take lead
T6＋T3	兩點	liã˧ ti˩	two o’clock	具體	d͡ʑyᶻʷ˧ tʰiᶻ˩	specific
T6＋T5	動氣	doŋ˧ t͡ɕʰiᶻ˩	get angry	女婿	ɲ̥yᶻʷ˧ siᶻ˩	son-in-law
T6＋T6	乳腐	ʒ̬ʒʷ˧ ɣ̥˩	fermented tofu	兩樣	liã˧ jã˩	different
	汰汰	dɑ˧ dɑ˩	wash a little	道地	da˧ diᶻ˩	authentic
T6＋T7	兩角	liã˧ koʔ˩	20 cents	五十	ŋ̥˧ səʔ˩	fifty
T6＋T8	後日	ɦɤ˧ ɲ̥iəʔ˩	day after tomorrow	兩日	liã˧ ɲ̥iəʔ˩	two days

Table 6.6: Two-syllable tone sandhi, Type 6X

23 51 because the second syllable starts exactly where the first syllable leaves off, and overall the pitch is below average, as shown in Figure 6.4. There are some interesting parallels between Types 6X and 3X: firstly, they are both preserved by a phrase contain numerals or time – here 兩 [liãˬ] 'two', 五 [ŋ̩ˬ] 'five', 無 [ṿˬ] 'no, -less' and 後 [ɦɤˬ] 'two after __' all dictate Type 6X instead of Type 2X, just like the numerals with T3 dictating Type 3X; 無 [ṿˬ] is a further exception here because it is itself T2. In Type 6X, the crossovers from T2+X come from exclusively literary words mostly not present in Register 1 (except 長遠 [ʒ̻ãˊ jɵˬ] used in the expression 長遠勿見 [ʒ̻ãˊ jɵˬ fən˥ t͡ɕiˏˊ] 'long time no see'), which indicates that Type 6X has a 'literary flavour' (see Section 5.2 for a more thorough discussion on what exactly that entails). Moreover, the verb reduplication construction also behaves similarly (e.g. T6+T6 汰汰 [dɑˊ dɑˬ] 'wash a little' in the table keeps its 6X pattern), showing that tone sandhi is directly tied to grammar and syntax.

A single character on the first syllable may well have different sandhi patterns, as shown in 女人 [n̩yᶻʷˬ n̩iɲˊ] 'woman' T6+T2 > Type 2X versus 女婿 n̩yᶻʷˊ siᶻˬ] 'son-in-law' T6+T5 > Type 6X. Similar examples happened in the light tone patterns as well, which shows the lexical and somewhat unpredictable nature of tone sandhi in Soutseu dialect.

Recently, as with Type 3X, Type 6X stops being productive in the language, so that in younger speech Type 2X 'steals' more and more words from Type 6X. Nevertheless, as a fossilised variety, *Bindae* Soutseu dialect uses considerably Types 3X and 6X considerably more than modern Soutseu dialect, especially Type 6X: it appears in many historical names with either T2+X or T6+X combinations, such as T2+T1 林沖 [liɲˊ t͡ʃʰoŋˬ] and 黃忠 [ɦuãˊ t͡ʃoŋˬ] – whereas the pronunciation for modern names shifted to Type 2X, such as people with the same surnames T2+T1 林峰 [liɲˬ foŋ˥] and T2+T6 黃磊 [ɦuãˬ leˊ] (both contemporary actors). 葉祥苓 Yih (1988) specifically remarked on *Bindae* artists applying Type 6X to T2+X combinations because it is relatively rare elsewhere and he

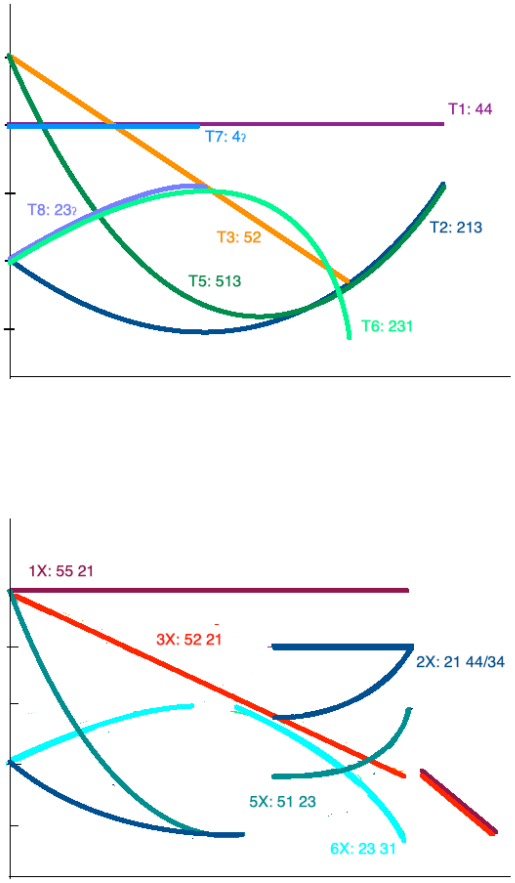

Figure 6.5: A comparison of citation tones and sandhi patterns in non-checked σ_1 two-syllable domains

argues that it is for emphasis – instead I would argue that Type 6X 'preserves' more of T2's contour in the first syllable because of the rise, so in that sense it is a less sandhied variant compared to Type 2X where it is basically a low-high pattern. This tendency for 'less sandhi' will also be explored in 6.1.4 when discussing non-sandhi reductions.

Figure 6.5 gives a comparison between citation non-checked tone values and the first five tone sandhi patterns with non-checked values. We can see that T1–Type 1X and T3–Type 3X pattern with each other, and T2–Type 2X, T5–Type 5X and T6–Type 6X form their group: for T1 and T3, the second syllable is toneless, whereas for the other three tones the two syllables are an expansion of the citation tone. This can be explained that

T2/5/6 have 3 tonal targets whereas T1/3 have no more than two. We can see this pattern of no more than 3 tonal targets in a single syllable in 2+ syllable sandhi domains as well, but also a preference of keeping two targets instead of one in the first syllable – more to come in Section 6.1.3. This shows the effect of faithfulness constraint regarding contour: in Types 2X, 3X, 5X and 6X, contour is fully or partially preserved in the first syllable.

Compared to the combination with first syllables having five non-checked tones who share the respective patterns derived from the expansion of citation tones, there is much more variety in checked tone initial domains. 葉祥苓 Yih (1988) claimed that the tones of σ_2 in 7X types stay largely unchanged apart from T8 and tones of σ_2 in 8X neutralises to a low falling; instead, 汪平 Uaon (2011) gave a much more compelling analysis of checked syllable σ_1 two syllable domains, dividing each starting tone into four patterns based on the four tones of Middle Chinese – 平上去入 level, rising, departing and entering. Since our numbering system for tones already default them to T1/2, 3/4, 5/6 and 7/8, instead of assigning them letters I will call them Types 7.2, 7.3, 7.5 and 7.7, as well as Types 8.2, 8.3, 8.5 and 8.7, for similar reasons to the nomenclature of the previous types that presumes the sandhied contour to be the same as the named tones themselves. Tables 6.7 – 6.8 lists the eight types of sandhi patterns in domains with a checked σ_1.

As previously stated, the four types starting with T7 are characterised by the σ_2 patterns akin to T2 (rising), T3 (falling), T5 (dipping/falling-rising), and T7 (short high level) respectively – if there were no crossovers, we would have got four distinct categories of T7+T1/2, T7+T3/4, T7+T5/6 and T7+T7/8 – same applies to Types beginning with T8 below. Nevertheless, some crossovers still happen, just as with words with nonchecked σ_1, and again these crossovers are asymmetrical in nature: T7+T1/2 never crosses over to other types, staying in Type 7.2; a small amount of T7+T3/4 [1] words cross over to Type 7.2 and not vice versa; and a large number of T7+T5/6 words cross over mainly

1. Words with historical T4 are marked blue. See 4.2.4 and the beginning of 6.1 for more discussion.

	Word	IPA	Meaning	Word	IPA	Meaning
Type 7.2: 5˞ 23 [˥˞ ˧]						
T7 + T1	阿爹	aʔ˥ tiɑ˧	dad	發鬆	faʔ˥ soŋ˧	amusing
	作興	t͡soʔ˥ ɕiɲ˧	possible	豁邊	huaʔ˥ pi˧	out of limit
T7 + T2	足球	t͡soʔ˥ d͡ʑʏ˧	football	節頭	t͡sɪʔ˥ dʏ˧	finger
	竹籃	t͡ʃoʔ˥ lɛ˧	bamboo basket	一淘	ʔiəʔ˥ da˧	together
T7 + T3	發展	faʔ˥ t͡ʃɵ˧	develop			
T7 + T5	發布	faʔ˥ puᵝ˧	announce	不過	pəʔ˥ kəuᵝ˧	however
	出去	t͡ʃʰəʔ˥ t͡ɕʰiᶻ˧	go out	一徑	ʔiəʔ˥ t͡ɕiɲ˧	always
T7 + T6	筆筒	piəʔ˥ doŋ˧	pen container	發射	faʔ˥ ʒo˧	launch
	弗但	fəʔ˥ dɛ˧	not only	屋裡	ʔoʔ˥ liᶻ˧	home, family
Type 7.3: 5˞ 52 [˥˞ ˥˩]						
T7 + T3	發火	faʔ˥ həuᵝ˥˩	throw a tantrum	嘓嘴	kuəʔ˥ t͡sʐʷ˥˩	gargle
	阿姐	ʔaʔ˥ t͡siɑ˥˩	sister (direct)	吃飽	t͡ɕʰiəʔ˥ pa˥˩	eat till full
T7 + T5	發憤	faʔ˥ fən˥˩	passionate			
T7 + T6	阿舅	ʔaʔ˥ d͡ʑʏ˥˩	maternal uncle	發動	faʔ˥ doŋ˥˩	start engine
	國畫	kuəʔ˥ o̞˥˩	Chinese painting	弗買	fəʔ˥ mɑ˥˩	not buy
Type 7.5: 5˞ 513 [˥˞ ˥˧˩]						
T7 + T5	結棍	t͡ɕiəʔ˥ kuən˥˧˩	strong, powerful	弗對	fəʔ˥ te˥˧˩	not correct
	搭檔	taʔ˥ tɑ̃˥˧˩	partner			
T7 + T6	弗賣	fəʔ˥ mɑ˥˧˩	not sell			
Type 7.7: 4˞ 4˞ [˨˞ ˨˞]						
T7 + T7	赤膊	t͡ʃʰɑʔ˨ poʔ˨	shirtless	齷齪	ʔoʔ˨ t͡sʰoʔ˨	filthy
	阿叔	ʔaʔ˨ ʃoʔ˨	paternal uncle	百腳	pɑʔ˨ t͡ɕiɑʔ˨	centipede
T7 + T8	吃力	t͡ɕʰiəʔ˨ liəʔ˨	exhausting	碧綠	pɪʔ˨ loʔ˨	dark green
	發育	faʔ˨ joʔ˨	grow/develop	洗浴	hoʔ˨ joʔ˨	bathe

Table 6.7: Two-syllable tone sandhi, first syllable T7

to Type 7.2, with a small number also to Type 7.3. This mirrors the crossovers between Types 1X/3X/5X and Types 2X/6X that T5/6 is treated as T1/2 most often in tone sandhi, whereas original T1/2 are the most stable tones with the least crossovers. Previously I discussed the potential reason that T1/2 are underlyingly high/low, whereas T5/6 have multiple tonal targets and are thus more complex. In the T7-led words, non-checked and checked σ_2 never mingle with each other, so that there is zero crossover between Type 7.7 and other types. Overall, Types 7.3, 7.5 and 7.7 can be seen as a direct copy of T7+T3/5/7 (and one could argue they are an example of non-sandhi like 葉祥苓 Yih (1988) did), but the participation of dark (even-numbered) tones with voiced initials show that T7-initial words do not behave like the non-checked types: in T7 types, the value of σ_2 is very much taken into account, unlike the previous types where σ_2 is basically rendered toneless and neutralised within the scope of each sandhi type.

Compared to T7+X words, the patterns for T8+X words are quite different: instead of the fairly frequent crossovers in T7+X, T8+X words are somewhat surprisingly dominated by Type 8.3 in words with non-checked σ_2 and (unsurprisingly) by Type 8.7 in words with checked σ_2. However, there are very specific scenarios/exceptions where crossovers can happen. The major exception to all rules is 掰 [gəʔ˩], the unspecified determiner discussed in 4.3.1 – this word itself combines with all classifiers to form a sandhi domain, and it always takes Type 8.2 regardless of the tone of the following syllable, which generates the only crossover of checked σ_2 to a non-checked σ_2 sandhi type. Similarly, numerals behave differently to the majority of words as we have seen in Types 3X and 6X, preserving the sandhi pattern corresponding to the original tone – 十三 [ʒ̬əʔ˩ sɛ˧˥] 'thirteen' (T8+T1) uses Type 8.2, and 十四 [ʒ̬əʔ˧ sz̩˥˧] 'fourteen' (T8+T5) and 十二 [ʒ̬əʔ˧ ȵiᶻ˥˧] 'twelve' (T8+T6) have Type 8.5. These two cases are what I call pockets of 'regular irregularities' – there are clearly lexical or grammatical motivations to keep a certain sandhi pattern not merged into the common type that is Type 8.3, and they

	Word	IPA	Meaning	Word	IPA	Meaning
Type 8.2: 1ˀ 34 [˩ˀ ˧]						
T8＋T1	掰張	gəʔ˩ t͡ʃãˀ˧	this piece(CLF)	十三	ʒ̊əʔ˩ sɛˀ˧	thirteen
T8＋T2	掰條	gəʔ˩ diæˀ˧	this slice(CLF)			
T8＋T3	實梗	ʒ̊əʔ˩ kãˀ˧	as such, like this	掰點	gəʔ˩ tiˀ˧	these
T8＋T5	掰趟	gəʔ˩ tʰɑ̃ˀ˧	this time			
T8＋T6	掰場	gəʔ˩ ʒãˀ˧	this scene(CLF)			
T8＋T7	掰搭	gəʔ˩ taʔˀ˧	here/there			
T8＋T8	掰日	gəʔ˩ ɲ̟iəʔˀ˧	that day	掰麼	gəʔ˩ məʔˀ˧	well, so
Type 8.3: 23ˀ 52 [˧ˀ ˥˩]						
T8＋T1	日朝	ɲ̟iəʔ˧ t͡ʃa˥˩	daily	猢猻	ɦuə˧ sən˥˩	monkey
	熱昏	ɲ̟iəʔ˧ huən˥˩	fever	律師	liəʔ˧ sɻ̟˥˩	lawyer
T8＋T2	學堂	ɦoʔ˧ dɑ̃˥˩	school	白糖	bɑʔ˧ dɑ̃˥˩	white sugar
	葡萄	bəʔ˧ da˥˩	grape	枇杷	biɪʔ˧ bo˥˩	loquat
T8＋T3	學仔	ɦoʔ˧ t͡sɻ̟˥˩	learnt	六點	loʔ˧ ti˥˩	six o’clock
	歷史	liəʔ˧ sɻ̟˥˩	history	杌子	ŋəʔ˧ t͡sɻ̟˥˩	low stool
T8＋T5	白相	bəʔ˧ siɑ̃˥˩	play	烈士	liəʔ˧ ʐ̩˥˩	martyr
	鼻涕	bəʔ˧ tʰiᶻ˥˩	snot	學費	ɦoʔ˧ fiᶻ˥˩	tuition
T8＋T6	日裡	ɲ̟iəʔ˧ liᶻ˥˩	daytime	綠豆	loʔ˧ dɤ˥˩	mung bean
	入調	ʒ̊əʔ˧ diæ˥˩	rule-abiding	肉桂	ɲ̟ioʔ˧ kue˥˩	cinnamon
Type 8.5: 23ˀ 513 [˧ˀ ˥˧]						
T8＋T1	十分	ʒ̊əʔ˧ fən˥˧	extremely(lit.)			
T8＋T5	白菜	bɑʔ˧ t͡sʰe˥˧	Chinese cabbage	十四	ʒ̊əʔ˧ sɻ̟˥˧	fourteen
T8＋T6	白飯	bɑʔ˧ vɛ˥˧	white rice	十二	ʒ̊əʔ˧ ɲ̟iᶻ˥˧	twelve
Type 8.7: 23ˀ 4ˀ [˧ˀ ˧ˀ]						
T8＋T7	熟悉	ʒ̊oʔ˧ siɪʔˀ˧	familiar	落雪	loʔ˧ siɪʔˀ˧	snow (v.)
	直腳	ʒ̊əʔ˧ t͡ɕiɑʔˀ˧	direct	日腳	ɲ̟iəʔ˧ t͡ɕiɑʔˀ˧	date/time
T8＋T8	白讀	bɑʔ˧ doʔˀ˧	colloquial reading	日逐	ɲ̟iəʔ˧ ʒoʔˀ˧	every day
	學習	ɦoʔ˧ ziɪʔˀ˧	study	六月	loʔ˧ ŋəʔˀ˧	June

Table 6.8: Two-syllable tone sandhi, first syllable T8

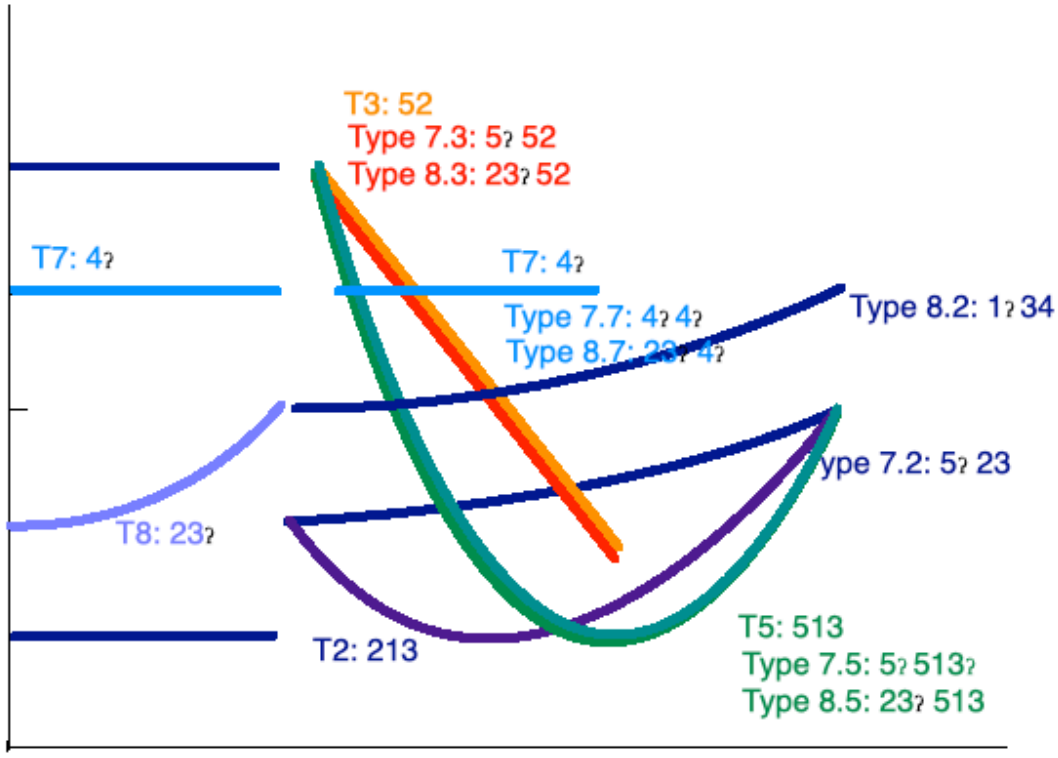

Figure 6.6: A comparison of citation tones and sandhi patterns in checked σ_1 two-syllable domains

are fossils from an era where the other types used to be more productive. Apart from that, Type 8.2 has one more exception 實梗 [ʒə̤ʔ˩ kãˊ] 'like this' and Type 8.5 has common food items starting with 白 'white' – but note that not one given character always promises a single sandhi pattern, as shown by 白 spanning all types except Type 8.2. The proliferation of Type 8.3 is a defining characteristics of the 'Soutseu sound', compared to neighbouring Shanghai/Zaonhe which uses Type 8.2 almost exclusively: 學堂 'school' is [ɦioʔˌ dãˏˎ] in Soutseu but simple low-high [ɦioʔ˩ dãˊ] in Zaonhe.

Figure 6.6 gives an overview of two-syllable checked tone σ_1 domains. We can see that most second syllables conform to their corresponding citation tones, in cases of Types

7.3, 7.5, 7.7, 8.3, 8.5 and 8.7. Type 7.2 reduces T2 into 23, and Type 8.2 is an outlier that both contours of T8 and T2 changed, giving a similar pattern to Type 2X. Since it occurs rather rarely mainly with 掰 [gəʔ˩], we can say that in general T7 and T8 led domains follow the contours of both syllables, with only T2/3/5/7 as the options to end and T1/6/8 merge into their counterparts. Types 7.2 and 8.3 are the clear favourites of T7 and T8-led domains respectively with ample crossovers from other tonal combinations, but nonetheless there are many exceptions.

To conclude this subsection, tone sandhi of two-syllable domains in Soutseu dialect can be summarised with the 13 types above. The non-checked σ_1 domains are more straightforward in that the first citation tone expands to encompass both syllables so that the σ_2 in the word is completely neutralised, but ample amount of crossovers occurs so that the whole picture is highly irregular and one cannot reliably tell which pattern to use just from the tones alone. The checked σ_1 domains have a dominant type for T7 (Type 7.2) and T8 (Type 8.3) respectively so that other tonal combinations cross over to them frequently, but still there are many preservations of original sandhi patterns in particular lexical items and syntactic functions.

6.1.3 Sandhi in three- and four-syllable domains

Now that we have gone through the patterns for two-syllable sandhi domains, I will extend the scope to three- and four-syllable domains. (Four-syllable domains are rare enough in the language and 5+ syllable domains barely exist, they are usually cut into smaller domains.) In Wu varieties where the majority of sandhi patterns are left-dominant, including Soutseu dialect, there is a consistent pattern for each type so when we add more syllable into the domain, the pattern itself gets stretched out instead of changing drastically. In Soutseu dialect, these patterns are dictated by exactly the same patterns as the two-syllable domains, which are the thirteen as outlined in the previous section. In three or

Type	$\sigma_1\sigma_2$	$\sigma_1\sigma_2\sigma_3(\sigma_4)$	Example Word	IPA	Meaning
1X	55 21	55 55 21	獅子林 T152	sz̩˥ t͡sz̩˥ liɲ˩	Lion Garden
5-0	[˥ ˩]	[˥ ˥ ˩]	做人家 T521	t͡səuᵝ˥ n̩iɲ˥ kɑ˩	frugal
		55 55 55 21	豬油年糕 T1221	t͡ʃʒ̩ʷ˥ jʏ˥ n̩i˥ ka˩	lardy cake
		[˥ ˥ ˥ ˩]			
3X	52 21	52 21 11	幾點鐘 T331	t͡ɕiᶻˀ˧ ti˩ t͡ʃoŋ˩	what o'clock
52-0	[˧ ˩]	[˧ ˩ ˩]	敨一敨 T373	tʰʏ˧ iəʔ˩ tʰʏ˩	shake a bit
		55 21 11 11	比一比看 T3735	piᶻˀ˧ iəʔ˩ piᶻˀ˩ kʰɵ˩	compare and see
		[˧ ˩ ˩ ˩]			
5X	51 23	51 23 21	本命年 T362	pən˧ miɲ˨ n̩i˩	zodiac year
513-0	[˧ ˨]	[˧ ˨ ˧]	啥辰光 T521	ʃɑ˧ ʒən˨ kuɑ̃˩	what time
		51 23 33 21	本地黃瓜 T3621	pən˧ diᶻˀ˨ wɑ̃˧ ko˩	local cucumber
		[˧ ˨ ˧ ˧]			
2X	21 44	21 34 21	大塊頭 T652	dəuᵝ˩ kʰue˧ dʏ˩	heavy person
214-0	[˩ ˥]	[˩ ˨ ˩]	尋開心 T211	z̩iɲ˩ kʰe˧ siɲ˩	make a joke
		21 44 33 21	大清老早 T6143	dəuᵝ˩ t͡sʰiɲ˥ la˧ t͡sa˩	early morning
		[˩ ˥ ˧ ˧]			
6X	23 31	23 33 21	坐在許 T683	zəuᵝ˨ ləʔ˧ he˩	sitting there
231-0	[˨ ˩]	[˨ ˧ ˩]			
		23 33 21 11	五角洋鈿 T6722	ŋ̩˨ koʔ˧ ɑ̃˩ di˩	50 cents
		[˨ ˧ ˩ ˩]			

Table 6.9: Phrasal tone patterns and their phonetic values for two, three- and four-syllable non-checked initial domains

more syllable sandhi domains, these patterns form a contour for the whole phrase – akin to tonal phenomena in some Bantu languages such as Luganda (see Hyman & Katamba (1993) for a description of its phrasal tones), so that instead of each syllable bearing the tones on its own, the phrase bears the tone as a single unit. Phonologists working on Chinese languages often assign phonetic pitch values to each syllable in such cases, which I will also do but I will spell out the overarching tonal pattern for each, and specify how they expand in Tables 6.9-6.10. The overall tonal pattern is provided as a sequence of numbers in five-degree notation (0 = toneless), and the numbers for examples after T means the respective citation tones for each syllable.

We can see the left-dominant and phrasal tone tendencies in the sandhi patterns above – each pattern is basically a skeletal plan of how the sandhi should carry on regardless of

Type	$\sigma_1\sigma_2$	$\sigma_1\sigma_2\sigma_3(\sigma_4)$	Example Word	IPA	Meaning
7.2	5 23	5 23 21	拆爛污 T761	t͡sʰɑʔ˥ lɛ˧ əuᵝ˨	mess up
5-23-0	[˥ ˧]	[˥ ˧ ˨]	北寺塔 T767	poʔ˥ ʐ̩˧ tʰaʔ˨	Pohzy Tower
		5 23 33 21	北寺塔上 T7676	poʔ˥ ʐ̩˧ tʰaʔ˦ lɑ̃˨	on Pohzy Tower
		[˥ ˧ ˦ ˨]			
7.3	5 52	5 52 21	八寶飯 T736	poʔ˥ pa˥˩ vɛ˨	eight treasure rice
5-52-0	[˥ ˥˩]	[˥ ˥˩ ˨]			
		5 52 21 11	忽閃嬢嬢 T7322	hoʔ˥ ɕi˥˩ ȵiã˨ ȵiã˩	Lady Lightning
		[˥ ˥˩ ˨ ˩]			
7.5	5 513	5 51 23	弗認得 T767	fəʔ˥ n̩iŋ˥˩ təʔ˧	not recognise
5-513-0	[˥ ˥˧˩]	[˥ ˥˩ ˧]	拙政園 T752	t͡ʃəʔ˥ t͡ʃən˥˩ jə˧	Tsehtsen Garden
		5 51 23 21	拙政園裡 T7526	t͡ʃəʔ˥ t͡ʃən˥˩ jə˧ liᶻ˨	inside TT Garden
		[˥ ˥˩ ˧ ˨]			
7.7	4 4	4 4 21	腳踏車 T781	t͡ɕiɑʔ˦ daʔ˦ t͡sʰo˨	bicycle
4-4-0	[˦ ˦]	[˦ ˦ ˨]	弗作興 T771	fə˦ t͡soʔ˦ ɕiŋ˨	should not
		4 4 21 11	腳踏車行 T7812	t͡ɕiɑʔ˦ daʔ˦ t͡sʰo˨ ɑ̃˩	bike shop
		[˦ ˦ ˨ ˩]			
8.2	1 34	1 34 21	舺搭點 T873	gəʔ˩ taʔ˧ ti˨	surroundings
1-4-0	[˩ ˧]	[˩ ˧ ˨]			
		1 34 44 21	舺場樣子 T8263	gəʔ˩ ʒã˧ jã˦ t͡sʐ̩˨	like this
		[˩ ˧ ˦ ˨]			
8.3	23 52	23 52 21	綠豆湯 T861	loʔ˧ dʏ˥˩ tʰɑ̃˨	mung bean soup
23-52-0	[˧ ˥˩]	[˧ ˥˩ ˨]	白開水 T813	bɑʔ˧ kʰe˥˩ ʃʒ̩ʷ˨	boiled water
		23 52 21 11	學生子篤 T8137	ɦoʔ˧ sã˥˩ t͡sʐ̩˨ toʔ˩	students
		[˧ ˥˩ ˨ ˩]			
8.5	23 513	23 51 23	十二點 T863	ʒ̩əʔ˧ n̩iᶻ˥˩ ti˧	twelve o’clock
23-513-0	[˧ ˥˧˩]	[˧ ˥˩ ˧]			
		23 51 23 21	十二點鐘 T8631	ʒ̩əʔ˧ n̩iᶻ˥˩ ti˧ t͡ʃoŋ˨	twelve o’clock
		[˧ ˥˩ ˧ ˨]			
8.7	23 4	23 4 21	落雪天 T871	loʔ˧ siɪʔ˦ tʰi˨	snowy day
23-4-0	[˧ ˦]	[˧ ˦ ˨]	賊骨頭 T872	ʐ̩əʔ˧ kuəʔ˦ dʏ˨	thief
		23 4 33 21	白塔子巷 T8736	bɑʔ˧ tʰaʔ˦ t͡sʐ̩˦ ɑ̃˩	Bahthahtsy Alley
		[˧ ˦ ˦ ˨]			

Table 6.10: Phrasal tone patterns and their phonetic values for two, three- and four-syllable checked initial domains

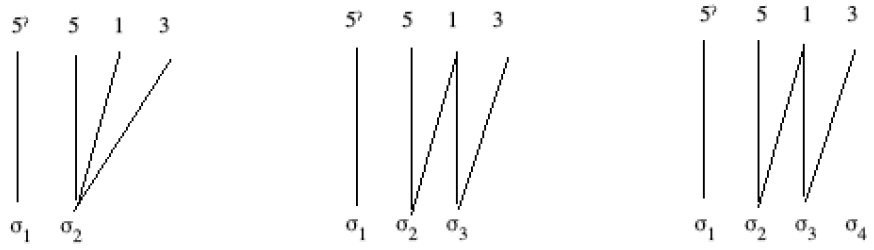

Figure 6.7: Autosegmental phonology of sandhi Type 7.5

syllable count, and usually the syllables towards the right end of phrase are either in most cases low default toneless tones (21 [˩] and 11 [˩]), or an extension of the previous one (in the case of 33 [˧] in the σ_3 of four-syllable Type 5X and Types 1X, 7.7, 8.2 and 8.7 with their high tones spreading to following syllables). Types 7.5 and 8.5 are very uncommon to begin with, but they illustrate the expandable nature of tones and how syllables are no longer treated as singular tone-bearing units: the three-target 513 tone, citation T5, is crammed into one syllable when only one is available in two-syllable domains (σ_1 is occupied by checked tones which do not change their values), but in three-syllable domains it has two syllables 51 23 [˥˩ ˧] to realise the same exact tonal contour, and in four-syllable domains the stretching stops, leaving the fourth syllable toneless. As an example, Figure 6.7 illustrates the allocation of tones to syllables in Type 7.5 using autosegmental phonology. Other types can be represented in a similar fashion, with one-to-many and sometimes many-to-many association lines.

With left-dominant sandhi, tone spreading and phrasal tones, Northern Wu can be argued to resemble more traits with sub-Saharan African languages rather than its Chinese neighbours, but the complexity of citation tones (with peaking and dipping) and its frequent application onto a single syllable still conforms to the landscape of Chinese tone sandhi phenomena.

Phrase-final particles and some grammatical/functional morphemes are incorporated into the previous sandhi domain as a clitic in the phonological sense, similar to how

Japanese particles are included in the previous pitch accent domain (Kori, 2020). In Soutseu dialect, however, there is a connective high tone inserted on the function word or phrase-final particle itself when the particle straddles between two sandhi domains. Below are some examples:

(1) a. 錢老師 [ʐ̩i˩ la˥ sʐ̩˩] (Type 2X, T211) 'Teacher Zii'
錢老師個 [ʐ̩i˩ la˥ sʐ̩˩ kəʔ˩] (Type 2X, T2117) 'Teacher Zii's'

b. 弗一樣 [fəʔ˥ iəʔ˥ jã˩] (Type 7.7, T776), 'different'
弗一樣個 [fəʔ˥ iəʔ˥ jã˥ kəʔ˩] (Type 7.7, T7767) 'be different (predicate)'

c. 俚篤 [liᶻ˥ toʔ˩] (Type 1X, T1 + 7) 'they'
俚篤爺 [liᶻ˥ toʔ˥ jɑ˩] (Type 1X, T172) 'their (SG and PL) father'

d. 幾歲 [t͡ɕiᶻ˧ se˩] (Type 3X, T3 + 5) 'how old'
幾歲則呀 [t͡ɕiᶻ˧ se˩ t͡səʔ˩ jɑ˩] (Type 5X, T3576) 'how old already ah?'

e. 我個 [ŋəuᵝ˩ kəʔ˩] (Type 6X, T6 + 7) 'mine'
我個書包 [ŋəuᵝ˩ kəʔ˥ ʃʒ̩ʷ˥ pa˩] (Type 6X then Type 1X, T6 + 7 and T1 + 1) 'my rucksack'

We can see that particles and function words add a further layer of complexity into the entire picture of sandhi: 個 [kəʔ], the most frequent particle in Wu encompassing a lot of different functions such as sentence-final declarative (1b) and possessive (1a, 1e), is pronounced toneless low tone [kəʔ˩] by default; however, in (1e) it is raised to a high tone because it is a connector between two sandhi domains (in this case 6X for the first one

and 1X for the second) so that this toneless tone surfaces as a high tone [kəʔ˦]. (1c) also shows a similar phenomena where the human plural suffix 篤 [toʔ], default to be toneless [toʔ˩], get raised to [toʔ˦] because it is also used as a possessive. These examples show that there is even sandhi between sandhi domains and the sheer complexity of Soutseu dialect's tone sandhi.

Due to the nature of left-dominant sandhi outlined above, if a morpheme is added on the left side of the word into the domain, the entire sandhi type changes, but if a morpheme is added on the right side it just tags along at the end as part of the original sandhi domain:

(2) a. 辰光 [ʒ̬ən˩ kuɑ̃˦] (Type 2X, T6 + 1) 'time'
小辰光 [siæ˥˧ ʒən˧˩ kuɑ̃˩] (Type 5X, T361) 'childhood (lit. small time)'
啥辰光 [ʃɑ˥˧ ʒən˧˩ kuɑ̃˩]] (Type 5X, T561) 'what time'

b. 寒熱 [ɦɵ˩ n̥iəʔ˧˩] (Type 2X, T2 + 8) 'cold (n.)'
發寒熱 [faʔ˥ ɵ̈˧˩ n̥iəʔ˩] (Type 7X, T728) 'catch a cold'

c. 作興 [t͡soʔ˥ ɕiɲ˧˩] (Type 7.2, T7 + 1) 'should, possible'
弗作興 [fəʔ˥ t͡soʔ˥ ɕiɲ˩] (Type 7.7, T771) 'shouldn't'

d. 順帶 [ʒ̬ən˩ tɑ˦] (Type 2X, T6 + 5) 'conveniently (less common)'
順帶便 [ʒ̬ən˩ tɑ˦ bi˩] (Type 2X, T656) 'conveniently (more common)'

e. 綠豆 [loʔ˧˩ dʏ˥˧] (Type 8.3, T8 + 6) 'mung bean'
綠豆湯 [loʔ˧˩ dʏ˥˧ tɑ̃˩] (Type 7.3, T861) 'mung bean dessert'

There is a clear division between (2a)–(2c) and (2d)–(2e), indicating that the majority of Soutseu dialect's tone sandhi is dictated by the first syllable of each domain. Exceptions of this are followed immediately by the next section.

6.1.4 Tonal simplifications in non-sandhi environments: reduction and toneless syllables

Above are the discussion of everything inside a sandhi domain – As mentioned before, the sandhi patterns do not concern all environments. A notable exception is verb + object phrases. Some of them are very lexicalised as a single word, but still sandhi does not apply to them. Below are some examples:

(3) 上課 T6 + T5 [ʐ̥ɑ̃˧ kʰəuᵝ˥˩] 'attend a class'
求救 T2 + T5 [d͡ʑʏ˧ t͡ɕʏ˥˩] 'cry for help'
揩面 T1 + T6 [kʰɑ˥ mi˨˩] 'swipe face'
教書 T1 + T1 [ka˥ ʃʒ̩ʷ˥] 'teach'
讀書 T8 + T1 [do?˧ ʃʒ̩ʷ˥] 'read a book'
做作業 T5 + (T7 + T8) [t͡səuᵝ˥˩ t͡so?˥ ɲ̟iə?˥] 'do homework'

汪平 Uaon (2011) and several others treat the phenomena in these examples still as right-dominant tone sandhi, for the fact that the first tones of the two change and the second do not – I hold a different opinion that this is merely reduction of nonfinal syllables. Cross-linguistically, such phonetic reductions are very common – for Standard Mandarin, the third citation tone 213 [˨˩˧] is often just heard as a low 21 or 11 or even with creaky voice (Li et al., 2023). In Soutseu dialect for such cases of non-sandhi reduction, first syllable T1, T3, T7 and T8 remain unchanged, T5 merges into T3 [˥˩], and T2 and T6 merge into

a new reduced tone [˧] (similar to T8 but longer). Second syllables (or second sandhi domains, in the cases like 做作業 'do homework') of such phrases remain unchanged. It is not coincidental that the simplification only concerns T2/5/6: their citation values had three targets and they are rather long tones uttered on their own, so as a nonfinal syllable in a phrase they get reduced. This has nothing to do with other sandhi patterns which are mostly based on the spreading of the leftmost syllable.

Further evidence for it being a simple reduction instead of full-on sandhi can be found in sentences like 我 | 是 | 蘇州人 [ŋəuᵝ˧ ʐ̩˧ səuᵝ˥ t͡sʏ˥ ɲiɲ˩] ～[ŋəuᵝ˧ ʐ̩˧ səuᵝ˥ t͡sʏ˥ ɲiɲ˩] 'I am a Soutseu native' – the sandhi domains are 1st, 2nd, 3rd-5th syllables as shown by the dividing lines, and we can see that even though the first two syllables do not participate in sandhi on paper, they still get reduced in speech and cross-linguistically it is a normal part of fast casual speech to reduce syllables. Here 是 'be' as a copula is most reduced – the first reduction of [˨] is to [˧] similar to 我 'I' left of it, but an even further reduction can occur so that it shifts to a level tone [˧]. These reductions, I would argue, are not the same process as 'regular tone sandhi' explored previously in this section, therefore I will reserve the term tone sandhi to its narrow sense in this dissertation and treat the two processes differently.

The flexibility here is also noteworthy – 汪平 Uaon (2011) observes that a lot of sentences can have completely different pitch patterns when spoken formally versus casually. Example (4) below shows a sentence that has a lot of reduced syllables in casual speech – (4a) indicates a formal, slower pronunciation and (4b) indicates a casual, faster one:

(4) a. gəʔ˧.məʔ˥ ne˧ t͡ɕʰiəʔ˥ t͡sʐ̩˩ vɛ˧ ləʔ˧ t͡se˩ t͡ɕʰiᶻ˩ bɑ˧
so(DISC) you eat PRES meal PFV then go SFP
猉麼倷吃仔飯勒再去吧。

b. gəʔ˧.məʔ˧ ne˧ t͡ɕʰiəʔ˥ t͡sʐ̩˥ vɛ˧ ləʔ˧ t͡se˥ t͡ɕʰiᶻ˩ bɑ˧

So, maybe you eat your meal first and then go.

We can see that the tones of most syllables in (4a) simplified in (4b): In 猾麼 /gəʔ.məʔ/ ‘so (discourse particle)’, the Type 8.2 sandhied tones in (4a) are completely neutralised in (4b), yielding two mid tones that are essentially toneless – their lengths are significantly shortened as well, almost as if this word turns into a clitic onto ‘eat’. The particles 仔 /t͡sʐ̩/ ‘PFV’ and the word 再 /t͡se/ ‘then’ go from falling tones in (4a) to a high level tone in (4b) so that their tonal contours also get neutralised – see the previous section 6.1.3 for discussion on this high connective tone. Again, the tonal reduction is accompanied with shortening of those syllables in length, but curiously no synchronic phonetic reduction – diachronically the particles 仔 /t͡sʐ̩/ and 勒 /ləʔ/ are grammaticalised and lenited from 著 ‘put’ (Old Chinese *trak, which also grammaticalised in Mandarin into a progressive aspect marker) and 在 ‘be located’ (Old Chinese *dzˤəʔ). This phenomenon is akin to the so-called ‘neutral tone’ in Mandarin – despite that it shows consistent allophonic variation after different tones, the lack of a stable value and its reduced nature indicate that it is better thought of as a lack of tone rather than a different tones itself. Similarly, these reduced tones in Soutseu dialect should just be considered as a variation of the base tones.

The tonal difference between (4a) and (4b) is not all encompassing because all the content words are unchanged between (2a) and (2b), both reduced once from citation tones: 倷 ‘you’ is [neㇰ] reduced from [neㇴ] and 飯 ‘meal’ is [vɛㇴ] reduced from [vɛㇰ]. However, 勒 ‘PFV’ is pronounced as reduced [ləʔㇰ] in (2a) as well, showcasing that some function words and grammatical words are just always reduced in sentences. The degree of reduction is dependent on the lexical item, but generally it follows that the more semantic content words get reduced once and the more grammatical function words get a second reduction. Similar phenomena are found cross-linguistically, such as in English

going to > *gonna* which only affects the auxiliary indicating prospective aspect, but not the actual 'going to a place' meaning when it is not used as a phrasal verb.

It is worth-noting compared to (4b) which is the usual common spoken version of Soutseu dialect, something like (4a) is actually more common in *Bindae* performance because of its elevated status, even though it still uses colloquial Soutseu dialect extensively (see the previous Chapter 5 for more discussion) – it is reflected in the fact that *Bindae* performers tend to be trained to enunciate each syllable quite clearly, so that the sandhi domains are kept more rigidly than casual speech and syllables tend to be less reduced in general.

An example of natural *Bindae* speech can be seen in Episode 15 of 弦索春秋 *Springs and Autumns of Strings and Threads* (Key: space in between indicates sandhi domains, sandhi types inside parentheses, +H = connective high tone between two domains, R = reduced):

(5) a. ɦo˩.pə˥.n̥iə?˥ ʔiə?˥.ti˦ pə˦ kʰe˥.ʃʒ̥ʷ˥
afternoon(2X+H) one.o'clock(7.3) half(T5R) start(1X+H)
下半日一點半開始

b. t͡sʰiɪʔ˥.tɑ̃˦ ʃʒ̥ʷ˥, me˥ tɑ̃˦ pə˦.kəʔ˧ t͡soŋ˥.dʏ˩
seven.CLF(7.3) Bindae(T1), every(T1) CLF(T3) half.CLF(5XR) hour(1X)
七檔書，每檔三個半鐘頭

c. ʔiəʔ˥.goŋ˦ sɛ˥.kəʔ˥ pə˦ t͡soŋ˥.dʏ˥.məʔ˩
altogether(7.3) 3.CLF(1X+H) half(T5R) hour.TOP(1X)
一共三個半鐘頭麼

d. tæ˦ ŋ̥˩.ti˧.t͡soŋ˩ t͡ɕiəʔ˥.soʔ˥
until(T5R) five.o'clock(6X) end(7.7)
到五點鐘結束

This example reflects the casual speech of a *Bindae* narrator: the sandhi domains are from one to three syllables only, and there are many occurrences of connective high tone insertions and reductions besides regular sandhi patterns. It illustrates the complex nature of tone sandhi in Soutseu dialect – the slicing up of sandhi domains, the allocation of domains into sandhi types, the presence and absence of reduction and terminal high tone insertion all contribute to the overall tonal realisations of a sentence, and every step is largely conventionalised yet somewhat flexible. 汪平 Uaon (2011) notes that there are many ways of saying the same phrase or sentence with different sandhi domain groupings, different levels of reduction and different emphases: for example, 我想 'I want' (T6 + T3) can be pronounced four different ways as [ŋəuᵝ˨ siã˥] (the most common, neutral, T6R + T3), [ŋəuᵝ˧ siã˥] (T0 + T3, first syllable completely toneless, fast casual speech), [ŋəuᵝ˨ siã˩] (Type 6X, rare, considering subject and verb do not usually belong to the same domain) and [ŋəuᵝ˦ siã˧] (citation T6 and T3 + H, inserted connective high tone on the second syllable, used when before a pause); similarly, 看戲 'watch a play' (T5 + T5) can be pronounced with either one sandhi domain – [kʰɵ˧ ɕiᶻ˩] (crossover to Type 1X, common), or two sandhi domains – [kʰɵ˥ ɕiᶻ˥˩] (reduced T5R + citation T5) which emphasises it is *play* that is watched, not anything else. These examples show the subtle semantic and pragmatic differences between one pronunciation and another, demonstrating the difficulty of mastering Soutseu dialect for a non-native speaker and in turn the effort required for performing *Bindae*.

In summary, the non-sandhi simplifications/reductions concern basically everything in a fast casual sentence – usually the three-target citation tones get reduced into either a rising/falling tone with two targets or further into a toneless level tone with just one target. The first reduction is ubiquitous and is an integral part of Soutseu speech, and the second reduction is optional but also quite common in speech as well. These reductions work in tandem with the left-dominant tone sandhi so that anything outside of sandhi

domains get somewhat reduced just for the prosody to flow more naturally, and the degree of reduction is largely dependent on context and idiosyncratic choices.

6.1.5 戲腔 'Operatic style' prosody: overriding tone sandhi

One constant thread consistent with Chapter 5 is that as long as there are patterns, there are always exceptions to them, which adds to the overall difficulty of the language – *Bindae* artists not native to Soutseu city all have to learn it as a second language and it is no easy feat. One major exception to all of the sandhi and non-sandhi processes above is the presence of a stylistic prosody called 戲腔 (lit. opera voice) 'operatic style', which is used in *Bindae* here and there. It stems from the long and diverse traditions of Chinese regional operas, and specifically in Soutseu it was very much influenced by the main predecessor of *Bindae* – 崑曲 *Khun* opera. *Khun* opera is known for its long, melismatic lines and its use of this style of operatic narration which can stradle between speaking and singing.

Previously when I discussed Examples (8)–(9) in Chapter 5, Section 5.2.1, I mentioned that in Example (8) that one line of Little Cabbage is half spoken half sung in the operatic style, and I will provide it again, with a transcription of tonal contours:

(6) 小白菜：請問大叔，帶奴奴到哪裡去啊 –

t͡sʰiɲ˥ vən˩ da˩ soʔ˦, te˥ nəu˥ nəu˥ ta˦ na˦ li˦ t͡ɕʰy˩ a˩

Little Cabbage: May I ask you please Uncle, where are you taking me to ah –

The most notable characteristic about this sentence is that the latter portion in blue started in a very high falsetto before backing down bit by bit. This operatic style prosody is completely different from the former portion of the sentence which abides by the sandhi and reduction rules outlined in the previous three subsections. Instead, the latter part of

the sentence is essentially a falling tone realised incrementally. Another example later in the episode shows the full operatic contour:

(7) 小白菜：正是犯婦人 –

t͡sən˥ ʐ˩ vɛ:::::˧ və:::u:::˥ ʒən˩

Little Cabbage: It is me, the female suspect.

Again, the portion in blue is in operatic style. We can see that the entire contour is a rising-falling one, which directly stems from Khun opera as mentioned and serves as a terminal tone towards the end of the utterance – nevertheless, this terminal tone is distributed into a large portion of the sentence, overriding every single tone in its domain in the process, and the tones outside its domain are not affected. Note the super long vowel markers: the effect is akin to a musical melisma, which will be discussed more thoroughly in the following Section 6.2, and this set 'tonal-musical' pattern is somewhat frequently found when the story is a historical epic or the characters are in a formal setting.

Another example can be found in Episode 3 of 描金鳳 *Portraying the Golden Phoenix*, which is historical love story set in Qing dynasty. The following excerpt is a conversation between two brothers who are both scholars, and thus operatic-style prosody is heavily used:

(8) 弟：哥哥 –

kəu˥ kəu˩ –

Younger Brother: Older brother –

兄：賢弟 –

ɦi::::˧ di::::::˧˥˧˥

Older Brother: My dear young brother –

弟：請問哥哥這三樁大事乃是什麼

t͡sʰiɲ˥(F) vən˧ kəu˩.kəu˩, t͡ʃə˧ sɛ˥(F) t͡ʃuã˧ da˩ ʒ˩ | ne˥(F) ʐ˩ ʃən˧.mo?˧

Young: May I ask you brother, what are those three significant things (that you talked about)? 兄：賢弟啊 –

ɦi:::::˩ di:::::::::˥˧ a::˩ –

Old: My dear young brother ah –

In this dialogue entirely in *Zhongzhouyun*/Layer D and Register 3 (the most Mandarinised register), everything apart from the first word 哥哥 [kəu˥ kəu˩] is affected by the operatic-style prosody. In the second line we see a lengthy melisma on the syllable [di] which does not hit any musical target (so musical transcription would be unhelpful here) but has a general rising contour with incremental falls and subsequent rises that are more than the falls. In the third line, we can see there are three separate prosodic domains, each marked by a very clear falsetto (indicated by F after the tones) falling on a high first syllable. The fourth line employs the aforementioned typical rising-falling contour as seen in the previous Example (7). Curiously, in this example there are still preserved individual tonal contours, like in 大事 [da˩ ʒ˩] 'important thing' both syllables take the reduced values of their original citation tones instead of just being toneless. This again shows that the operatic-style prosody is dynamic and even more subject to artistic choices: everything is flexible within reasons, including the exact range of pitches and tonal contours, the cutting up of prosodic domains and the degree of overriding of pre-existing tonal contours. Overall, it adds yet another layer of tonal computing, partially or completely nullifies the tonal patterns in usual speech.

Since operatic-style prosody straddles the boundary between being spoken language and singing, it is a great stepping stone to the next section, where I talk about how tones are realised in music – the strategies of tone-melody mapping.

6.2 Tone in music: tone-melody mapping in *Bindae*

6.2.1 Tone-melody mapping: principles and previous research

The question of how singing works in a tonal language is a more than frequently asked one, since both tones and music involve sequential relative pitches. Due to the fact that tonal languages use tones to convey meanings, it would be fruitful to somehow keep the tones intact so that that part of meaning is not completely lost. Such a process of ensuring tones can be transferred into music is called tone-melody mapping, also called tonal text-setting, tone-melody matching, among other names (Kirby, 2021) (for ease and consistency I will keep using tone-melody mapping for the dissertation). It is an intricate system of matching the phonetics and phonology of tones to the music, mainly the melodic part, but sometimes also other musical parameters like rhythm. Similar systems exist in non-tonal languages as well, such as the stress-length mapping in English-language songs, and the prosody-rhythm mappings in rap music in most languages. However, tone-melody mapping is special that it concerns multiple constraints, and it is not confined to one parameter – pitch – only: in Chinese-language music, pitch, contour and duration all matter and work in tandem in tone-melody mapping, as shown in different Chinese languages from Quain (2022).

With regard to contour specifically, tone-melody mapping and non-mapping can be classified into three types per Schellenberg (2012), Ladd & Kirby (2020) and summarised neatly in McPherson (2018):

- Parallel mapping: A close resemblance of tonal and musical contours – Rising tone with a rising music contour, level tone with a level music contour, falling tone with a falling musical contour, etc.
- Oblique mapping: A partial resemblance of tonal and musical contours – Mapping contour tones onto a pitch-appropriate level tone, or level tones onto a rising/falling

contour.

- Contrary mapping: No resemblance of tonal and musical contours – Mapping falling tones onto rising musical melodies and vice versa.

Although music and language, and more specifically tone-melody mapping, is a relatively new and not as well-established area of study as others, there are multiple previous researchers addressing this question. Most notably, James Kirby focuses on tone-melody mapping in Southeast Asian languages and finds that 'tonal text-setting practices are not universal across tone languages, nor are they static within a single language' (Kirby, 2021). In another paper, Ladd & Kirby (2020) show that text-setting constraints are the heart of the solution to respecting both the linguistic and the musical functions of pitch. In most of the 15 or 20 Asian and African tone languages where the question has been studied, the most important principle in maintaining intelligibility of song texts seems to be the avoidance of contrary motion: musical pitch movement up or down from one syllable to the next should not be the opposite of the linguistically specified pitch direction. They further explored what the avoidance of contrary motion tells us about the phonological essence of tonal contrasts. This paper gives a good complementary theoretical framework for the principles of tone-melody mapping, and I will incorporate their ideas into the subsequent analyses.

Zhang & Cross (2021) studied Chaozhou/Dieziu/Teochew dialect of Southern Min, exploring the degree to which tone and melody are matched in terms of pitch direction by using a corpus of Teochew songs. A high degree of tone-melody matching was found, with 89% in folk songs and 78% in contemporary songs. Findings also suggest that: 1) Teochew tone sandhi has an effect on the tone-melody matching; 2) the tones realised in context can be categorized into high-, mid-, and low-pitch groups by emphasising the tone-pitch extremes, rather than the ending pitch of tones found to be effective in previous studies of Cantonese songs; 3) in the case of melismas – multi-note realisations

of a syllable, relationships between initial notes were found to have the most consistent influence on tone-melody matching. The point on melisma, which is ubiquitous in *Bindae*, will be explored further in my following discussion of tone-melody mapping in Bindae in Section 6.2.

Vesik (2020) examines the relationship between vowel length and musical note values of Estonian. Estonian has a three-way vowel length contrast – short, long and overlong, and sometimes the length distinctions are disrupted, especially in music. The study takes a perceptual approach and investigates whether Estonian listeners are more flexible in their perception of sung Estonian than spoken language. She concludes that lexical interference is an important factor hindering comprehension.

Last but not least, Laura McPherson is a prominent scholar on music and language but focusing on African languages, most noticeably Tommo So (Dogon, Mali) and Seenku (Mande, Burkina Faso). McPherson (2018) explores tone-melody mapping in Tommo So through optimisation theory (OT) analysis and concludes that contrary mappings are strongly penalised, while oblique mappings (flat tone on changing music, or vice versa) are largely tolerated. Strictness of mapping is further modulated by several factors, including whether the tones straddle a word boundary, whether their source is lexical or grammatical, position in the line, and so forth.

In general, contrary mappings are to be avoided because it interferes with tonal identification and comprehension in music the most, which is found by all of the researchers above. Furthermore, I found in Quain (2022) that among the three parameters, duration is the most rigidly mapped one, followed by pitch, and contour is the least mapped one, with a significant percentage of tones having oblique mapping – this has to do with the abundance and complexity of contour tones. I also found tone-melody mapping is language-specific and genre-specific when it comes to contemporary pop songs in varieties of Chinese. All of the above lay the groundwork for studying tone-melody mapping

in *Bindae* music.

6.2.2 Tone-melody mapping in *Bindae*

As explored in Section 6.1, the tonal phonology of *Bindae* Soutseu dialect is extremely complex, consisting several different layers all working with and on top of each other. Many factors, including different ways to segment sandhi domains, different linguistic registers, as well as different singing styles and artistic choices (to be analysed in this section), contribute to the actual realisation of tones, and this fully extends to the tone-melody mapping of musical numbers in *Bindae*. Thus, I am using a slightly different approach this time compared to Quain (2022) – instead of stating overarching percentages upfront, in this dissertation I will mostly analyse specific cases and try to dissect 1) what is the exact surface realisation of tones that serves as a basis of tone-melody mapping; 2) what are the strategies of tone-melody mapping in *Bindae* and 3) what other non-linguistic factors, including musical, literary and artistic choices, affect the process of tone-melody mapping. In general, tone-melody mapping is a dynamic equilibrium between lyrical content and melodic content – one affects another and both are working together in the music, but in *Bindae* specifically the melody is more affected by the lyrics than the other way around.

To reiterate the same conclusion from my 2022 paper, length/duration is undoubtedly still the most consistently mapped attribute in *Bindae*. This is due to the fact that T7 and T8 in Soutseu are distinctively shorter than other tones with a glottal stop coda. The glottal stop coda is mapped either onto a short note or a staccato articulation, which keeps them distinct from the non-checked tones. However, not all glottal stop codas are rigidly mapped, which is a bit different from what I found in Quain (2022) for songs in Wu varieties. Figure 6.8 shows the mapping of checked tones in the first two lines of 寶玉夜探 'Pauyoh's night visit' in 紅樓夢 *Dream of the Red Chamber*. （X = an unspecific

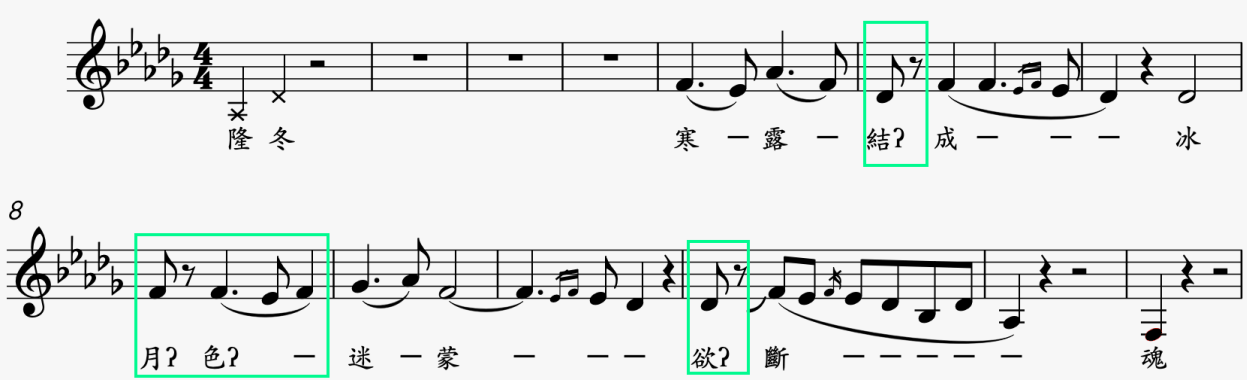

Figure 6.8: First two lines in 寶玉夜探 Pauyoh's night visit

note value, same in the examples below)

We can see that out of the four checked tone syllables shown in green boxes, three of them are mapped onto a quaver / eighth note, and only one, 色 [səʔㄐ] 'colour', is extended, which is because it is next to another checked tone syllable 月 [ɦyəʔㄐ] 'moon' – this is due to the abundance of melismata (one syllable spanning quite a lot of notes) in *Bindae*, which will be discussed further vis-à-vis the mapping of contour.

Another example of the mapping of checked tones can be found in Figure 6.9, an excerpt from the *Khephii* 蘇州個橋 The Bridges of Soutseu performed by 包海燕 Pau Heyii. In this excerpt, we can see a pattern that whenever there is only one checked tone on its own – both neighbouring tones are non-checked tones, it is always mapped to a very short note compared to the melismata of non-checked tones; nonetheless, when two checked tones come next to each other, the second checked tones get lengthened. This is not the same pattern with speech when both checked tones are pronounced very short.

As we can see from this excerpt, checked tones are consistently mapped onto quavers / eighth notes again (shown in green boxes), barring the aforementioned case of two checked tones next to each other where the second checked tone gets stretched out. Overall, duration is almost always mapped perfectly in the *Bindae* tradition – staccato articulations are sometimes there to emphasise that a syllable is a checked tone (e.g. the two checked-tone syllables in the second row of Figure 6.9). A counterexample can be seen

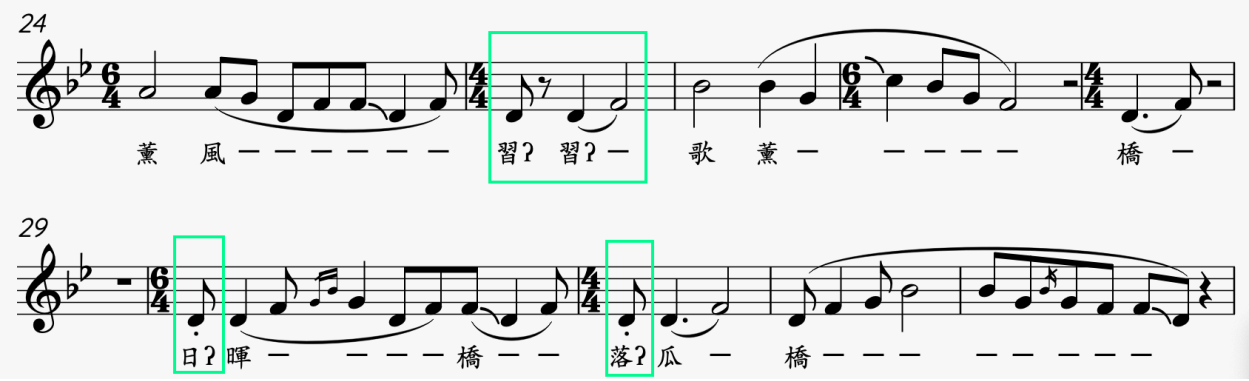

Figure 6.9: Excerpt 1 from 蘇州的橋 The Bridges of Soutseu

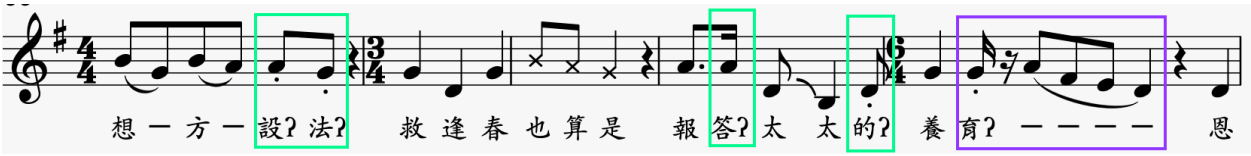

Figure 6.10: Excerpt from 弦索春秋 *Springs and Autumns of Strings and Threads*, Episode 27

in Figure 6.10 from Episode 27 of 弦索春秋 *Springs and Autumns of Strings and Threads*:

Different from the previous examples, Figure 6.10 contains an example of two adjacent checked tones both kept short, with a (musical) rest filling in the rest of the bar. Given the Allegretto tempo, staccato articulations and even shorter note values, in this case semiquavers / sixteenth notes, are used to indicate the shortness of checked tones. Furthermore, there is literally a glottal stop inserted between the 'tonal' portion and the melismatic portion of the second-to-last syllable 育 [ɦio?ɻ] (purple box), in that there is a short rest clearly separating the syllable to its trailing melisma. This technique is widely used if there is supposed to be a melisma on checked tone syllables, but it is not compulsory by any means as evidenced by previous examples.

Compared to duration, the mapping of pitch and contour to music is less consistent. For the mapping of pitch, I will provide different examples and analyse each to showcase the strategies. There are several key points to consider before diving in:

- Similar to the fact that there is a natural speaking range for each person where all

the tones lie, there is a 'natural range' of *Bindae* singing which very specifically straddles the Middle C for men and mostly above it for women, and every mapping of tones is relative to other tones within that vocal range.

- Falsetto is very frequently used as a singing technique, which helps extend the range of modal voice into higher territories so that higher tones can be better mapped.

- As per Quain (2022), there is sometimes a need to adjust tonal domains – that is, re-establishing what the reference points of tones are, when transferring to a lower to a higher range. This is not frequent in *Bindae* per se, but it happens if the song itself requires a wider range than usual.

- The source of tone-melody mapping can be flexible, unlike most Chinese languages (for example, Cantonese has rather rigid tone-melody mapping): due to the extensiveness of tone sandhi and other phonological processes regarding tones, there is some leeway as to what exact tones are to be mapped onto music because a sentence can well be pronounced differently if sandhi domains are cut off in different ways, a different sandhi pattern is used, or there are different levels of reduction (see Sections 6.1.2 – 6.1.4). The sheer complexity of tonal phonology in Soutseu dialect makes examining the exact surface form difficult, but specifically in *Bindae* more underlying tones / citation tones are used than in other more contemporary genres of music in Wu. An excerpt of a contemporary Wu song in Zaonhe dialect, 上海童年 *Zaonhe Childhood*, is shown in Figure 6.11: we can see that compared to Bindae it is way less meslimatic, and more sandhied forms are used for mapping instead of citation tones. Furthermore, we can see that there are way more pitch mismatches in this excerpt than *Bindae*, indicating that tone-melody mapping and especially pitch mapping is very genre specific.

In general, pitch mismatches – a high tone with a low note and vice versa – are uncom-

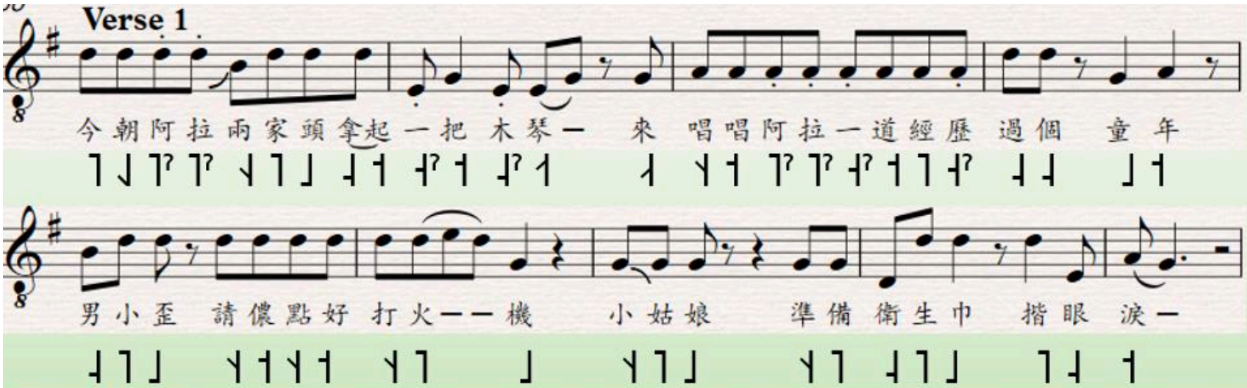

Figure 6.11: Excerpt from contemporary pop song in Zaonhe dialect, 上海童年 *Zaonhe Childhood*, by the band 頂樓的馬戲團 *Circus on the Attic*

mon and to be avoided, because pitches are vital for discerning semantic information and distinguishing minimal pairs as in all tonal languages, but for Soutseu dialect in particular it is all the more crucial due to the large number of tones. Below are some examples illustrating the mapping of spoken pitches from tones onto musical pitches. The first example below (Figure 6.12 is from the *Khephii*《玉蜻蜓·庵堂認母》”Reuniting with mother in the Temple” in *Jade Dragonfly* performed by 徐惠新 Zi Wesin (the sandhi domains are marked by vertical lines):

In comparison, the usual spoken version of this line is provided in Example (9). (In paratheses are the citation tones or sandhi types, R = reduced, +H = connective high tone inserted, same below in this section.) Note that it has different sandhi domains, thus yielding different surface tonal contours:

(9)	ȵ̟iɵ˨.t͡se˥	z̩˧.(mə)	ze˨.ɣ̤˧	kən˥,	ʔɵ˥˨
	Nioetse(2X)	be(T6R).TOP	at.the.back(2X)	follow(T1),	secretly(T5R)
	ȵ̟iᶻ˧.siȵ˨˦				
	have.doubt(6X)				
	元宰是麼隨後跟｜暗疑心				

Nioetse is following from behind and secretly having doubts

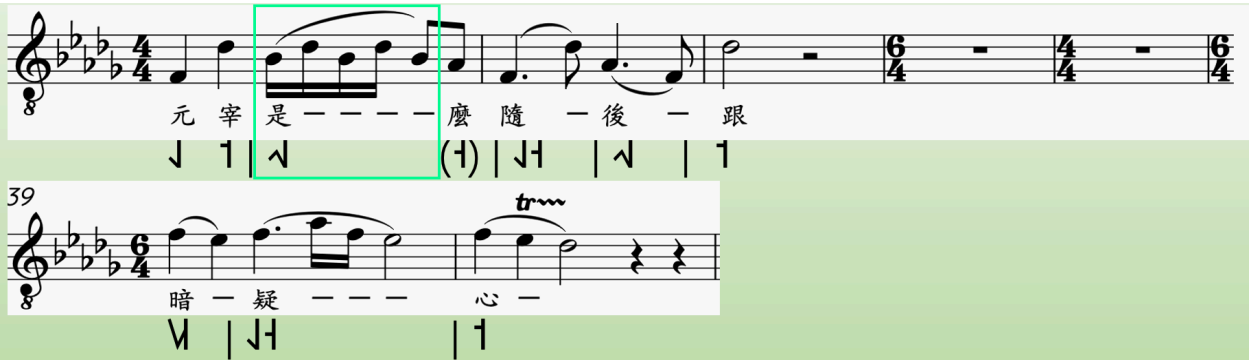

Figure 6.12: Excerpt from 庵堂認母 Reuniting with mother in the Temple

Comparing the two, we can see that the sandhi domains in the sung version are more fine-grained and often times single-syllable domains are preferred rather than the 2+ syllable ones common in speech, which leads to the retention of a large amount of citation tones. This is also due to the fact that the addition of melismata actively separates one syllable from the next so they are not close together any more. Exactly which direction it goes – from the requirement of melismata to the carving up of sandhi domain or vice versa – is debatable, but I argue that it is the former because it is not always the case that a domain in spoken language gets further cut up, and I observe that the more distance there is between two syllables the higher chance of these two syllables being not in the same domain any more, regardless of whether they are originally in the same or different domains. This long-distance blocking effect is also seen in some other phonological processes such as vowel harmony: for example in Finnish, despite the existence of /i/ and /e/ as neutral vowel which is supposedly transparent to vowel harmony, a large number of them can in practice block harmony and separate the left and right sides into two separate harmony domains; also, native words and loanwords behave very differently, showing the effect of multiple phonologies at play (Välimaa-Blum, 1999). This will be further explored in subsequent examples too.

We can see that the relative pitches are very clearly mapped in the first line: the low F3 consistently corresponds to a low tone (1–2 range in five-degree notation), high D♭4 to

a high tone (4–5 range), and the mid-range is occupied by the notes in between, locking the tonal range to be exactly in between the two notes. In the second line, the overall tonal domain shifted higher because a higher vocal register is required musically, so now the new tonal domain is from D♭4 to F4 – the reason why the passing A♭4 does not count is the high starting point of T5 暗 ([ʔɛ˥] in *Zhongzhouyun* as sung, [ʔɵ˥] in spoken Soutseu dialect) and T1 心 [siŋ˧] all fall on F4 instead of A♭4. Given that, the second character T2 疑 [ɲi˩˧˩] has a pitch mismatch because its entirety should be much lower than F4. This is the only instance of pitch non-mapping in this example.

Another famous example to illustrate the mapping of pitch is the *Khephii* 杜十娘 [Section 5.2.2, Example (13)], whose first two lines are transcribed in Figure 6.13. ('>' indicates the values before and after reduction or high tone insertion.)

As comparison, the usual way of speaking these two lines in Soutseu dialect is found in Example (10) below:

(10) a. ʔia˧.dia˨ foŋ˧.lʏ˧ dəu˨.ʒəʔ˦.ɲiã˨
seductive(1X) promiscuous(1X + H) Miss.Dou.the.tenth(2X)
窈窕風流杜十娘

b. ʑʐ̩˨.li˦ ʃə(ŋə)n˧.loʔ˨ ze˦ biən˨.kʰã˧
self.pity(2X) body.fall(1X) be.located(T6R) brothel(lit.)(2X)
自憐身落在平康

The seductive and promiscuous Miss Dou the Tenth / (she) pities herself with her body falling into the abyss of ill repute

Again, there is ample difference with regard to how many sandhi domains there are and where exactly to cut off between the sung and the spoken versions. For instance, in the first line the protagonist's name 杜十娘 [dəu˨ ʒəʔ˦ ɲiã˨] 'Miss Dou the Tenth' takes Type 2X when spoken and it is a three-syllable domain, but in the sung version it

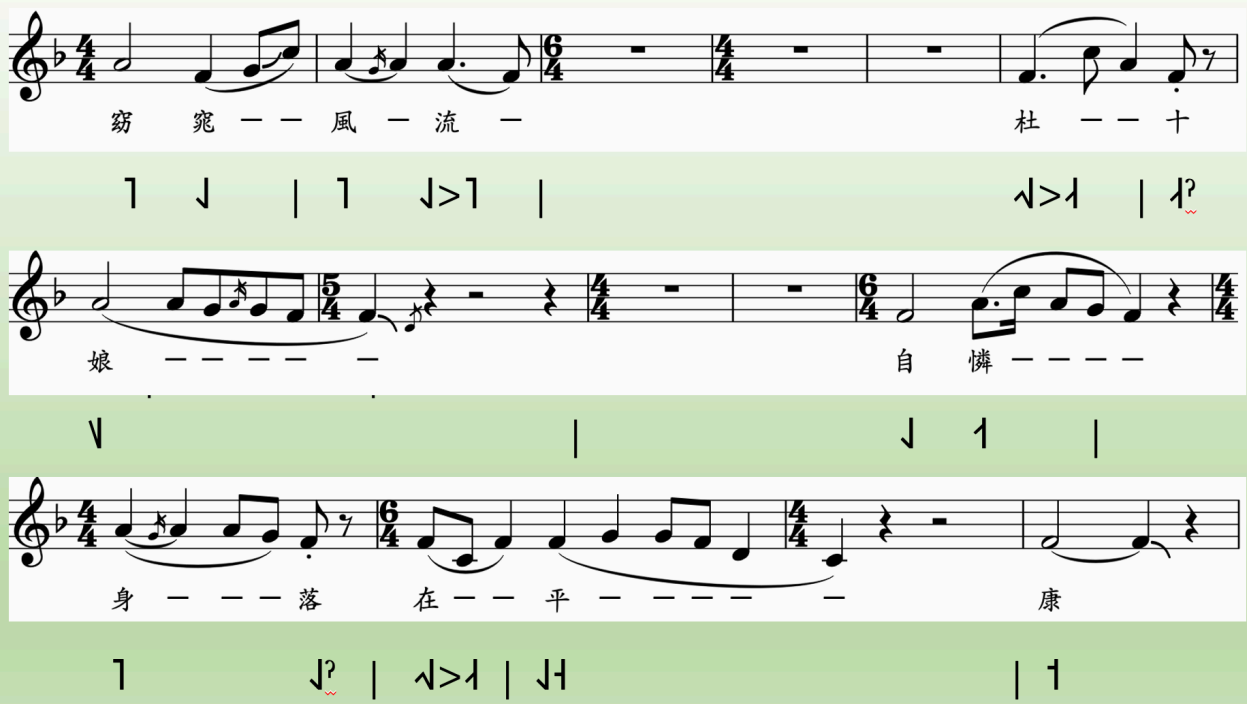

Figure 6.13: First two lines of *Khephii* 杜十娘 *Miss Dou the 10th*

is further cut up into 1 + 2, with 杜 as a reduced T6 [˧] mapped onto F4–C5, and 十娘 forming its own sandhi domain, taking on Type 8.3 [ʒə˨˩˧ n̥iã˧]. The different allocations of sandhi domains yield in two very different tonal patterns: sung [˧ ˧˨˩ ˧] vs. spoken[˩ ˧˨˩ ˩]. However, there is also much correspondence between the two, like the first domain of the second phrase 自憐 [ʐz̥˩ li˧] 'self pity' which is mapped perfectly onto F4 and A5–C5 as a low–high tone pair.

There are two pitch domains in this excerpt – F4–C5 for the first line and the first half of the second line, and C4–F4 for the last three syllables. The boundary between the two is somewhat arbitrary, but it is a musical choice to shift to a relatively low register so that the high T1 can land on the tonic F4 given the previous lower tones should be lower than it. This echoes the techniques used in Cantopop that the shifting 'windows' for tones is by musical choice, often concerning either upward or downward melodic motions or the need to hit a certain note by the requirement of functional harmony (Quain, 2022). *Bindae*

is mostly in major pentatonic (sometimes in the equivalent of western major scale when there is a modulation to the dominant), and due to the structure of Classical Chinese 4×7 poems (see Section 5.2.2), there is a musical tendency to return to the tonic or dominant on the last note of each line, hence here the specific note requirements demand a certain pitch range and an adjustment from the old pitch range into the new one.

The previous point that distance blocks syllables from being in the same sandhi domain still holds: the last two syllables 平康 is quite an indivisible word – only putting them together would make the literary word 'brothel', but in the sung context the two syllables belong to different domains because of the long melisma on the first syllable 平 and a pause. This pause before the last syllable is a very common occurrence in *Bindae* lines, together with singling out the first two syllables of the whole musical number as seen in Figure 6.8 – these conventionalised rhythmic and melodic tropes separating out one or two syllables naturally cut them off from the other syllables and their corresponding sandhi domains, which in turn generates a different tonal pattern.

Despite the often times different tonal patterns between the sung and spoken versions of a line, the starting pitches are almost always faithfully transferred from the pseudo-sung version (with more sandhi domains) to the melody. Often times, as we will see in the following examples, only the first one or two notes in a melismatic passage count as a part of mapping. This will be explored further in the section to follow on contour mapping.

A final example of pitch mapping comes from the *Khephii* 問責 'Holding him accountable', in another classic *Bindae* work 珍珠塔 *Pearl Tower*. The tone-melody correspondences are shown in Figure 6.14.

In this excerpt, there is much arbitrariness of the division of sandhi domains – the last three syllables of the first line (blue box) is the only three-syllable domain, but it consists of an adverb + a verb + a noun, which is usually cut up further. In the second line,

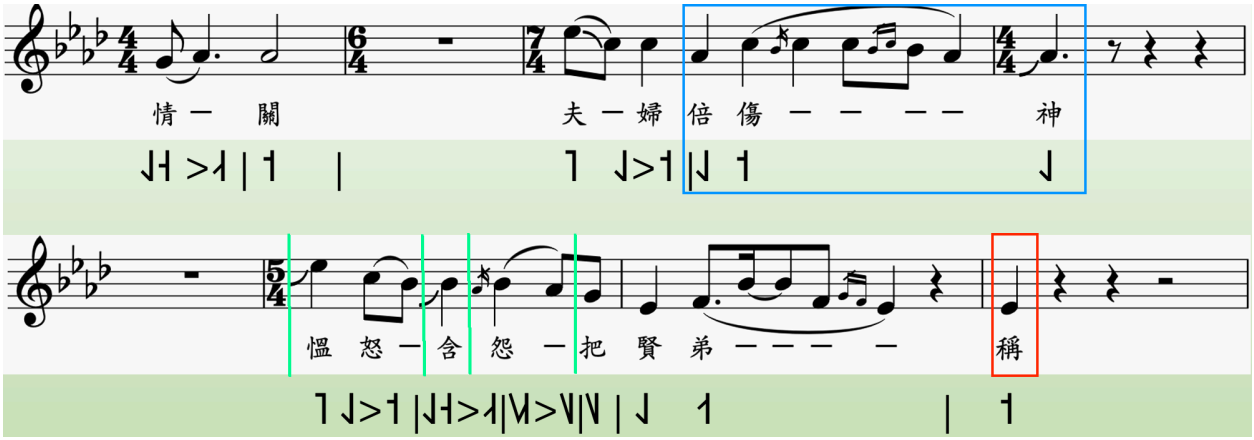

Figure 6.14: Excerpt from 珍珠塔·問責 'Holding him accountable', *Pearl Tower*

慍怒 'hold anger' and 含怨 'hold grudge' are an antithetic pair perfectly corresponding to each other with the V+N structure, but 慍怒 is treated as a single domain while 含怨 is treated as two separate citation tones (shown by green lines) – moreover, 怨 has a pitch mismatch because it should start higher than the previous syllable. The last syllable 稱 'call someone by a name' is also mismatched (red box), considering the vocal range is E♭4–E♭5 and it lands on the lowest note of the range while it is a high tone when spoken. All of the above illustrates the importance of musical choices and specifically a certain melodic pattern in *Bindae*, that is a canonical melismatic fall for the second-to-last syllable of a line followed by a low final syllable – examples from Figures 6.8, 6.10 and 6.14 all show this musical trope. This, together with the fact that the distance created from the melisma on the penultimate syllable separates it from the last one so they belong to different domains, solidifies that the final syllable is often considered by its own with its own tonal domain, therefore not limited to whatever comes before it and free to take on a musically functional note, usually the dominant – the first line usually establishes the tonic and the second line shifts to the dominant (or in the case of Figure 6.8, the third degree / submediant which is also in the major triad). Overall, this example is a great instance of how musical and artistic choices can override tone sandhi domains, but still the individual tones are mapped onto the melody in general.

The mapping of contour is the most complex and again it is hard to pin down a particular percentage for a musical number because of its complexity – I will use more examples to demonstrate specific instances of parallel, oblique and contrary mappings to show the diversity of contour mapping in *Bindae*.

Parallel mapping is always at the core of any case of tone-melody mapping because being faithful to speech is a significant constraint – in Soutseu dialect, citation T3, reduced T5R, and Types 3X and 5X have a falling tone 52 [˥˩] or 51 [˥˩], T2R and T6R merge into a slight rising tone 23 [˧˥], and citation T2, T5 and T6 have three tonal targets each. It is no surprise that we see more mapping of rising or falling contours with two tonal targets than the peaking or dipping contours with three, just because the former is easier and more versatile.

The first four lines of *Khephii* 蘇州個橋 *Bridges of Soutseu* demonstrates the mapping of contours very well, as shown in Figure 6.15 on the next page.

From this excerpt, we can see various strategies being used for different tonal mappings:

- Citation T1 and σ_1 of Type 1X is mapped onto a high tone, often with a trailing downward melisma. Examples (shown in purple boxes) include σ_1 of 蘇州 [səu˥ t͡ʃʏ˨˩] 'Soutseu' > D5–C5–B♭4 in the first 7-syllable line, 清 [t͡sʰiɲ˥] 'clear' > D5–C5 in the second line, 今 [t͡ɕiɲ˥] 'now' > B♭4 in the third line, and 星 [siɲ˥] 'star' > D5 in the last line. These mappings occupy the higher quarter of their given tonal domains, but also just in general considering the range of the song is C4–F5.

- Citation T2 whenever it occurs as its own sandhi domain is consistently mapped onto a rising tone, corresponding to 汪平 Uaon (2011) and others' description that its value is 223 [˨˧˥] – the falling first part is insignificant in the underlying representation. Every line apart from the third ends in a T2 in this excerpt, so we can see two different strategies: for the last syllable of the first line 迢 [diæ˨˧˥] 'distant' (blue box

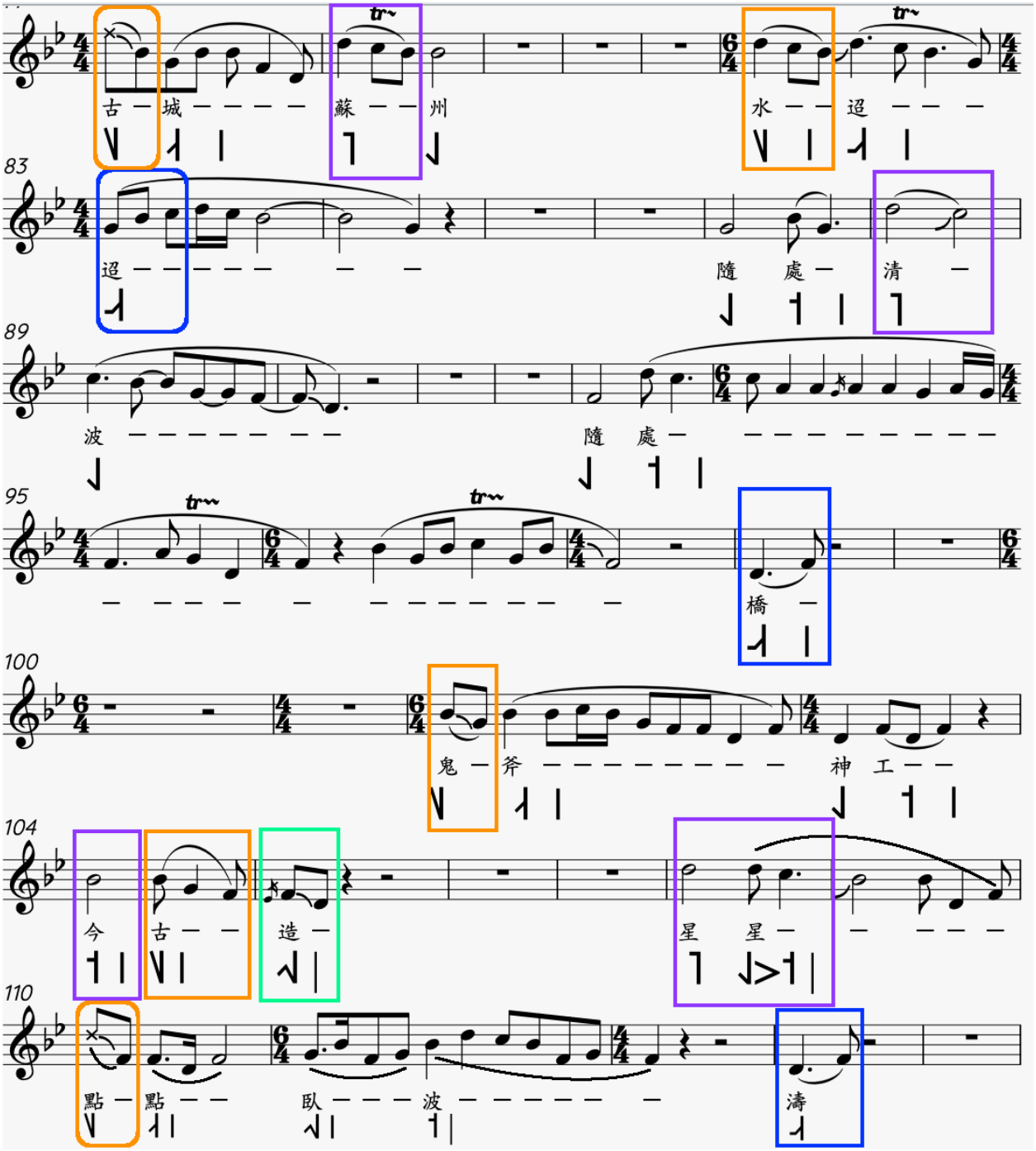

Figure 6.15: First four lines of 蘇州個橋 *Bridges of Soutseu*

with round corners) we can see the beginning few notes G4–B5–C5 forming a rising pattern, but for the last syllables of the second and fourth lines (blue boxes), 橋 [d͡ʑiæ˩] 'bridge' and 濤 [da˩] 'wave, tide', the mapping is musically a lower longer note (D4 in this case) followed by a shorter and marginally higher note (F4). There is also an instance of note subtly sliding upwards on the first 迢 [diæ˧], which is another way of mapping a rising tone commonly found in tone-melody mapping of other languages.

- Citation T3, reduced T5R, and σ_1 of Types 3X/5X are falling tones, and they are quite consistently mapped onto a downward trending melody if they are in their own sandhi domains, which is a frequent occurrence. There are two main strategies for mapping this falling contour as well:

  First, we can see that the first syllables of first and last rows 古 [kəu˥˩] 'ancient' and 點 [ti˥˩] (orange boxes with round corners), there are falls imitating speech by the usage of falsetto – the starting points of the falling contours are not fixed, so I marked the notes with X indicating that the values shown are not exact. Later in the song (not in this excerpt) this re-occurs frequently, such as 火 [həu˥˩] (T3) and σ_1 of 獻花 [ɕi˥˩ ho˧] 'offer flowers' (Type 5X) – both are mapped onto a falsetto starting point rapidly falling down to D4 in the lower range. This use of falsetto is highly stylised and is often times the only occurrences of falsetto in a song, indicating that tone-melody mapping is taken into thorough consideration when performing *Bindae*. Acoustically the falls are very drastic in a short timeframe, reflecting the rapid fall of T3.

  On the other hand, for 水 [ʃue˥˩] 'water' in the first line and 古 [kəu˥˩] 'ancient' in the third line (orange boxes), multiple notes are utilised to expand the downward motion, giving D5–C5–B♭4 and B♭4–G4–F4 respectively. Across tones this is considered the default way of mapping because melismata is preferred, but for the T3

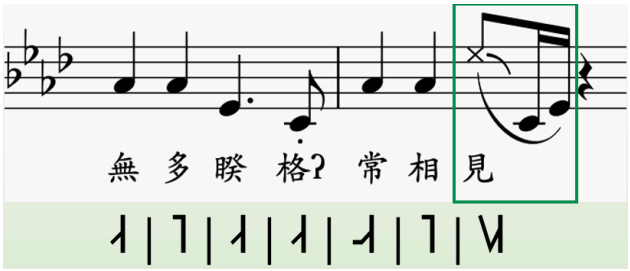

Figure 6.16: Excerpt from Episode 1 of 珍珠塔 *Pearl Tower*

group falsetto is just as used.

- In this excerpt there is not an example demonstrating direct mapping of Citation T5 (and σ_2 of Types 7.5/8.5) and it is an extremely rare occurrence that it is mapped onto a falling–rising melodic contour because the full contour only occurs phrase-finally. An additional example is shown in Figure 6.16, where the final T5 (dark green box) has a way of mapping akin to the falsetto type in T3, in this case a drastic fall from falsetto and a slight rise, mimicking the 513 [˧˥] tonal contour of T5.

- Citation T6 is significantly more frequently mapped compared to T5: for example, in Figure 6.12 the copula 是 [ʐ̩ˇ] is mapped onto a B♭4–D♭5 trill, which corresponds to the contour of citation T6; here in *Bridges of Soutseu*, the last syllable of the third line 造 [zaˇ] 'build', a grace note (E♭4) and a sliding note sequence (F4–D4) mimics the 231 [ˇ] contour perfectly. The disparity between the relatively frequent mapping of T6 and the very rare mapping of T5 is intriguing, and I have yet to find an explanation for it, but one conjecture would be that musically T6 occupies a narrower range and its peaking shape corresponds to existing ornamentations like trill or acciaccatura which are very common in *Bindae* musical vocabulary, whereas T5 requires a more dramatic melodic shape which the melodic content almost always override. This also explains why certain languages such as Standard Mandarin employs less tone-melody mapping overall because three of the four tones are contours, which provide great challenges for melody writing when compared to

a language like Cantonese with essentially four level tones out of six. The abundance of contours in Soutseu dialect citation tones are greatly 'alleviated' by the melismata and overall wide spacing in *Bindae*, but still it is musically not preferred to map T5 so stringently compared to T6 which is an easier fit for musicality.

- As previously discussed, T7 and T8 are mapped mainly regarding their short durations compared to other tones, and their pitches are neutralised if not being σ_1 of a sandhi domain. The slightly rising contour of T8 is not retained.

- The tones above are the main participants of contour mapping – the toneless syllables (commonly non-first syllables of a sandhi domain) are often mapped to a low tone, or high tone when there is a connective high tone inserted – nevertheless it is far less rigid and rule-abiding compared to full tones. Reduced tones behave similarly, and together they are the main sources of oblique and contrary mappings to be discussed below.

Overall, the strategies for parallel mapping of contour include multiple notes, grace notes/ormentation, sliding notes and falsetto. The last one is quite unique to *Bindae* compared to other musical forms, but as mentioned in Section 6.1.5 it is not unexpected considering *Bindae* borrowed from various operatic traditions, especially *Khun* opera, where falsetto is a frequent device even in speech outside of music. Some of the strategies do not even specify exact pitches for one terminus of a tone, indicating that they purely exist to match the contour of tones instead of serving a particular musical purpose. However, tones do not always win out, as we will see in the following examples of oblique and contrary mappings, which are comparatively rare but do exist.

Given the overall complex tonal landscape, it is sometimes very hard to distinguish the source of what spoken tones are chosen to be mapped – from previous examples we see that the division of sandhi domains are sometimes much more fine-grained from the usual

spoken form and more tones are mapped to their citation forms rather than their sandhied forms, which conforms to the generalisation that the language used in *Bindae*, especially when sung, is a heightened and more enunciated register. Thus, determining whether a mapping is oblique or contrary requires a base analysis of the tones getting mapped first. Nonetheless, Figure 6.17 is an excerpt containing clear oblique and contrary mappings, transcribed from the *Khephii* 《情探·梨花落》'Falling pear blossoms' from *Test of Love*, performed by renowned 20th century *Bindae* artist 徐麗仙 Zi Lisii.

The excerpt is still dominated by parallel mappings, such as 淚 [lueˬ] 'tear' in the second line mapped onto a sliding E4–G4 and then down to E, D and C, and 手 [ʃʏ˥] 'hand' mapped onto A4–F4 in the second to last line, shown in green boxes. Determining which trailing melismatic notes to ignore is sometimes tricky, but in this case a trill pattern follows which is a firm indication that they are not part of tone-melody mapping. An interesting case is the first syllable 到 [ta˥] mapped onto the G4–A4–C4–D4 sequence (orange box)– it can be argued that based on the first two notes it is an instance of contrary mapping but the following notes clearly participate in the mapping as well so I prefer that it is parallel mapping instead.

Given that, this excerpt is notable for a higher frequency of instances of oblique and contrary mappings. Several contour tones are mapped onto a single note (yellow boxes), such as the second and third syllables – 曉 [ɕia˥] 'dawn' and 來 [leˬ] 'come' – neither the falling nor rising contour are mapped; if they were, the melody might most likely involve a falsetto start mapping of falling T3 landing on the F, then a slide/bend up to the F again, but Zi's articulations here are very straightforward without ornamentations whatsoever, so they are firmly instances of oblique mapping of contour tones onto a level tone. Similarly, the T2 垂 [ʒeˬ] at the end of the second line is also mapped onto a single note C4. Another kind of 'oblique' mapping is the mapping of T1 to a falling sequence, as in numerous previous examples and the last syllable of the first line 齋 [t͡ʃe˧]

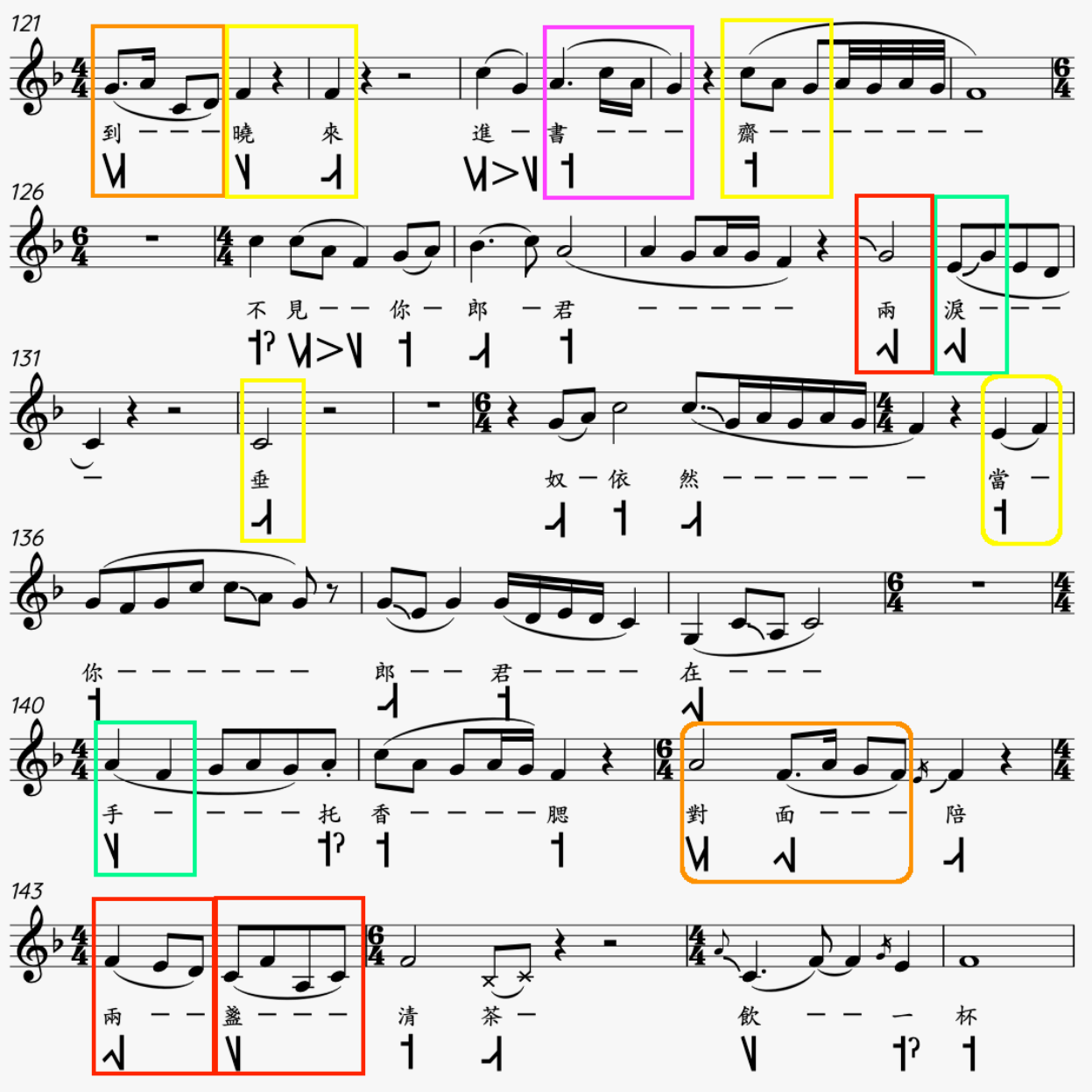

Figure 6.17: Excerpt from 《情探·梨花落》'Falling pear blossoms' from *Test of Love*

‘study room’ mapped onto a melisma from C5 to F4. The opposite case of mapping a level tone to a rising contour is rare, yet it occurs for the character 當 [tɑ̃˥] ‘regard as’ which gets mapped onto E–F (yellow box with round corners). This is way less common because in Type 1X sandhi the pattern is high > low, and low > high is reserved to the opposite Type 2X and reduced T2/6 which has a σ_1 with a dark-tone initial. These instances of oblique mappings are comparatively rare because of the high frequency of melismata – one syllable can often last quite long, giving space for multiple notes or other strategies such as sliding notes, falsetto and other ornamentations to map the tones faithfully. Again, the more distance between two syllables, the higher chance that the former syllable is isolated to be its own domain and the full citation tone gets mapped for contour.

I did not mark the sandhi domains in Figure 6.17 because there is no indication that any sandhied surface forms are taken into consideration, which means that all tones considered in mapping are citation tones. One debatable instance is 對面 (orange box with round corners), usually pronounced [te˥ mi˩] ‘opposite’ (T5+T6 > Type 1X sandhi) in the second to last line: the first syllable 對 does have a high level pitch A4, but the second syllable 面 is clearly mapped onto its citation form [mi˧˩] with a peak in the middle compared to the sandhied toneless low form [mi˩]. This would separate the two syllables from each other which in turn yield an oblique mapping for T5 對, originally [te˨˧], as indicated in the figure. These alternative analyses are also weighed in this specific context: there is close to none two-syllable domains in this excerpt, which supports that the tones are treated individually rather than collectively, and 對 therefore has an oblique mapping of its citation tone instead of a parallel mapping of its sandhied form. Examples like this one once again illustrates the complexity of tone-melody mapping in *Bindae* – compared to contemporary Wu songs which almost always follow the natural sandhied speech, *Bindae* can be very particular with the segmentation of sandhi domains, resulting

in different baselines for mapping.

On the other hand, contrary mapping is the rarest as we can expect – most *Bindae* excerpts lack them and in general they are to be discouraged in performance, however there are several instances in this excerpt of 'Falling pear blossom', all shown in red boxes: the syllable 兩 [liãˬ] 'two of something' occurs twice, first in the second line in 兩淚 'two streams of tears' where it gets mapped to a note bending downward onto G, then in the last line in 兩盞清茶 'two cups of pure tea' where it gets mapped onto a falling F–E–D sequence. These two mappings are considered contrary because although T6 does have a rising-falling contour and mapping the falling part can be seen as a partial mapping, both reduced T6 and Type 6X sandhi pattern have a clear rising pattern before any fall and this rise is more commonly the target of mapping instead of the falling part of citation T6. Moreover, a falling contour interferes with T3, reduced T5R and both Types 3X/5X, even T1 which often has a trailing fall – for this reason, a mere falling mapping of citation T6 can be misleading, and on all bases above I treat such instances as contrary mapping instead of oblique.

Another less debatable instance of contrary mapping is 盞 [t͡seˬ˥] 'small cup, classifier for cups of liquid' in the last line right after 兩: the sequence C4–F4–A3–C4 seems to be a mapping of peaking T6 rather than a simple falling T3. If the beginning C4 were not there, it would be considered a normal parallel mapping with a trailing connective note (the last C4) to the following T1 清 [t͡sʰiŋ˥]; however, the presence of it alters the picture completely in that now the contour becomes rising-falling which maps T6 rather than T3, hence it is a contrary mapping of the syllable. The reason for this melodic choice is unclear, but it is definitely not driven by tones – my hypothesis is that since it is a broken F major triad, it is a way to firmly establish that we are in F major harmonic territory. This instance also shows that in a melismatic sequence, the first two to three (rarely four) notes are the ones taken into consideration, especially the first two, including all

ornamentations and grace notes – they function as the main notes of mapping since the melismata can last very long. Therefore, most of the times it is important for singers to articulate the first two to three notes of a syllable 'correctly' to match the tones, facilitating a higher degree of comprehension of the sung lyrics, given that as stated in the entirety of Chapter 5, the lyrics in the music is frequently in the literary register with significant Mandarin and Classical Chinese infusions.

The balance between tonally driven melody and musically driven melody is an intriguing aspect of *Bindae* music – throughout the examples we can see a lot of musical similarities across the board, some of which I have mentioned like the 'singling out' of two syllables at the very beginning of a musical number, the long melismata on the penultimate syllables of each line landing onto a harmonically functional note (tonic or dominant) on the last, but also others like the frequent occurrences of certain types of peaking ornaments (such as the one on 書 'book' in the first line of Figure 6.17 with A–C–A–G shown in pink box), the alternation between 4-bar and 6-bar beats, and general pentatonicity with traces of heptatonic influences. These musical characteristics in its vocal lines are vital to *Bindae* music as a internally coherent genre, in addition to its instrumentation and accompaniments – thus sometimes (as in the case discussed in the last paragraph) musical choices override tones. Long melismata in particular is free from tonal restrictions, so performers can choose a more personal style on those and add on distinctive interpretations of the same melodic skeleton. However, it is still the case that most of the melody is led by tones and there are ample cases of two otherwise completely parallel melodies differing from each other just because of the linguistic content. This dynamic equilibrium, a term borrowed from chemistry and coined by me a few years ago, is the core of tone-melody mapping in *Bindae*, so that both understandability and musical consistency can be attended to in a single *Bindae* performance.

6.3 Summary

As with the previous Chapter 5 where I discussed the complexity surrounding 'literary' and 'colloquial' language in *Bindae*, its tonal landscape is also extremely, if not more, complex. Layers upon layers of tonal phonology coexist and are stacked onto each other, creating a web of possibilities, which in turn affect the process of tone-melody mapping in music. From 7 citation tones (with a hidden historical 8 tones), to 13 multisyllabic sandhi patterns, to different segmentations of sandhi domains, to inter-domain interactions like reduction and connective high-tone insertion, Soutseu dialect itself presents a series of challenges and flexibilities; as an art form, *Bindae* incorporates it and adds its own twists from musical realms, such as the operatic style prosody and certain melodic tropes. The sheer flexibility of Soutseu dialect's tonal phonology gives rise to a complex system of tone-melody mapping, with its defining traits of being more literary and enunciated than spoken languages manifested in the tonal realm as well – more sandhi domains are cut up smaller than the spoken counterpart so that more citation tones end up being mapped. Duration is still the most closely mapped variable, followed by pitch – mismappings for both are rare; however, when it comes to contour, it is best examined on a case-by-case basis as to which mappings are parallel compared to oblique or contrary. Despite that, *Bindae* music has a high degree of tone-melody mapping and tones are taken into consideration in the composition of musical melodies.

CHAPTER 7

CONCLUSION AND FUTURE DIRECTIONS

7.1 Conclusion

Throughout this dissertation, I have ventured into various topics around the phonologies and language use in *Soutseu Bindae*, one of my most beloved genre of traditional Chinese storytelling and music. While doing this project, I am simultaneously mesmerised and somewhat perplexed by the sheer complexity of *Bindae* as an art form: from the two phonologies of Soutseu dialect versus *Zhongzhouyun*, to the conservation/innovation of different phonological traits, to the lexically based sound changes, to the multiple phonological layers of registers in use under the mask of 'literary versus colloquial language', then to its tonal phonology and tone-melody mapping which are also extremely multi-layered – we can see that the different phonologies and organic language use in *Bindae* are a balancing act between regularity and irregularity. The diverse phonologies, registers and tonal phenomena paint a variegated picture within *Bindae*: its spoken and sung parts differ significantly from each other; certain themes require way different language use from others; and each performer has their own artistic liberty to create something slightly different with personal styles and flavours. Nonetheless, it holds up as a genre of art because of the strings and threads [1] underneath the variation: apart from the musical conventions briefly mentioned in Section 6.2, the linguistic conventions are also at the heart of the dissertation – when to use what piece of language is not a free choice, but highly institutionalised and regularised to the point that a certain vowel, a certain lexical item, a certain choice of tones or even a certain syntactic structure can be interpreted in a very specific way. This implicit understanding between performers and audience is both

1. Pun intended – *Bindae* is often called the art of strings and threads because of the string instruments *Bibo* and *Saeyii* used in performances, see 2.2.3.

unique and not unique to *Bindae,* in that although a lot of art forms have jargon or inside lingo particular to the genre, the amount of it in *Bindae* and the weight each language choice carries is still very much unique. Stemming from all the traditions before it, notably *Khun* opera and Classical Chinese literature, it is an amalgamation of the past and the (in-context) present, a brilliant snapshot of the multifaceted linguistic landscape in Soutseu, a treasure trove of fossilised words and expressions no longer used, and in and of itself an unprecedented and unrepeated linguistic tradition that is worth documenting and investigating.

Therefore, first of all, this dissertation serves as a documentation: as far as I know, there is not a linguistic work dedicated to describing language use in *Bindae* at length, so hopefully it can be a useful resource or reference to people interested in the art form and want to know more about its linguistic and musilinguistic aspects. I acknowledge that the topics discussed here are by no means expansive and all-encompassing, but it would take another dissertation to tackle the several topics omitted from this one which I will briefly go into in the last section on future directions. Nevertheless, the dissertation outlines the main synchronic phonologies used, discusses diachronic phonology and explains its marks on synchronic phonology, examines the widespread but also unique phenomenon that is literary versus colloquial language, and also records everything about its tonal phonology. Overall, it is a somewhat thorough representation of the phonological aspects of language in *Bindae* with some discussion of its vocabulary and syntax as well. Considering the fact that the number of Soutseu dialect users is plummeting, this dissertation hopes to record linguistic data and help raise awareness of Soutseu dialect and Wu language in general – every language is an intangible piece of wealth, especially when well situated in such an intricate form of storytelling; thus, as a devout fan of *Bindae* artistry, I feel the responsibility to promote it, and as a Chinese linguist, bring it to a wider audience in the fields of both linguistics and music.

Secondly, it raises the question of how to deal with complex and multilayered linguistic data – the current trend in linguistics is to quantify and model as much as possible, but this was not the approach I took in this dissertation. From one *Bindae* excerpt to another, there is always bound to be variation on multiple fronts with regard to a certain variable like F0 for tonal contours or specific vowel formants for /a/. This dissertation touched upon phonetic variation, but focused on phonology because phonologies (plural) are at the core of *Bindae* performance, and Chapter 5 is a good example of why certain linguistic phenomena are best analysed on a case-by-case basis instead of an overarching model, because there literally isn't one – though there might be trends as to what groups of characters can have literary versus colloquial pronunciations, lexical diffusion per Wang (1969) dominates in that the preservation or loss of a certain reading is totally dependent on a given lexical item. The ubiquity of 'messy' linguistic data show the limitation of linguistic modelling: although one can say that different co-phonologies can be a theoretic model of how different ranking of constraints under the Optimality Theory (OT) framework (Prince & Smolensky, 1993) (Sande et al., 2020), the amount of switching between different phonologies is akin to code-switching even though *Bindae* itself functions as a coherent 'code' within the scope of the art form – this dissertation does not take any particular theoretical stance with regard to this issue, but through describing the various phonological layers and linguistic registers gives analyses of exactly how complex and interwoven the phonologies can be. However, I do assert that Bindae is a 'grammar of grammars', in that it is internally consistent despite containing a multitude of phonological traits that can be sometimes at odds with each other.

Furthermore, the presence of *Zhongzhouyun*, the 'artificially complete' literary layer, brings about question of whether this particular language system in *Bindae*, and by in large all language use in an art form / musical genre, is actually a form of constructed language, due to the fact that it contains elements not found in actual language. My

inclination is to say no, but rather it is a product of high level of language mixing, not just mere code-switching but more integrated variants where two or more languages fuse into one. Nonetheless, regardless of its classification under Wu or Mandarin or both, *Zhongzhouyun* is a self-consistent phonological system and one of *Bindae*'s fundamental phonologies, indicating that all people involved in the production and consumption of an art form may as well be seen as a linguistic community (Gumperz, 1968), and in the case of *Bindae*, a linguistic community using a web of linguistic varieties drawing from both natural languages and genre-internal creations (e.g. the list of *Bindae* jargon in Section 2.5). The level of prescriptivism, constructed-ness and institutionalisation in *Bindae* differs from say all speakers of a particular linguistic variety, but they represent this unique façade of musilinguistics in that more can be explicitly defined and complied due to internal convergence and subsequent tradition keeping within a community.

Last but not least, this dissertation is a bridge between language and music, and an additional work trying to disentangle the relationship between the two – tone-melody mapping has always been something I have deep personal interest in, and the section in this dissertation inherits my previous work and finds that as most music written in tonal music, lyrics are confined by tones to a great extent, but this kind of limitation can generate other forms of creativity, such as the generous usage of melismata and the different strategies of mapping. I hope that my analysis of tone-melody mapping in *Bindae* can spark more similar research and help make the subdiscipline more visible within both linguistics and music.

7.2 Future directions

Due to the scope of this dissertation, there are unfortunately a lot of topics waiting to be either expanded or explored in the future that did not make it in. Hopefully I will have opportunities to tackle them in my future works.

There is a lot of jargon in *Bindae* as illustrated by the shortlist in Section 2.5, so I have always been interested in specific vocabulary and the use of formulaic language – proverbs, idioms and other 'fixed expressions'. Word and phrase choices are key to *Bindae* artistry in that they carry one of the four pillars – jokes and comedic relief. Thus, although improvisation is encouraged and required, performers deliberate and often write out the words before and practice it intensively to ensure their smooth delivery. In the future, I aim to analyse examples from different *Bindae* subgenres and how appropriate language use can add to the effectiveness of performances. To just give a few brief examples, there are expressions like 看冷鋪 [kʰɵ˥ lã˩ pʰuᵝ˥] 'passively observe and do nothing' (lit. watch cold store), 脫頭落鋯 [tʰə?˥ dɤ˧ lo?˧ pʰɛ˩] 'careless, lose stuff all the time' (lit. remove head drop handle) that rely on non-literal meaning; 歇後語 *xiehouyu/shihgheunyu*, linguistic puns consisting of a former spoken part and a latter unspoken implied part, such as 肚皮裡向吃仔遊火蟲——鋰鋰亮 [dəu˩ biᶻ˧ liᶻ˧ ɕiã˩ t͡ɕʰiə?˥ t͡sʐ˥ ɦɤ˩ həuᵝ˥ ʒoŋ˩ – zã˩ zã˧ liã˩] 'ate a firefly into your stomach – very bright (clear about the situation)' and 橄欖核墊台腳——活裡活絡 [kɛ˥ lɛ˧ wə?˩ di˧ dɛ˩ t͡ɕia?˥ – wə?˩ liᶻ˧ wə?˧ lo?˩] 'put an olive seed under the stage – movable/flexible > quick-witted'; and other expressive metaphors like 一滴水滴勒油瓶裡向 [ʔiə?˥ tiə?˥ ʃʒʷ˩ tiə?˥ lə?˥ ɣ˩ bjɲ˧ liᶻ˧ ɕiã˩] 'a drop of water dropped into the oil jug > palpable, obvious' and 擺到典當行好去當銅鈿個 [pɑ˥ ta˥ ti˥ tã˧ ɦ̩˩ ha˥ t͡ɕʰiᶻ˧ tã˥ doŋ˩ di˧ kə?˩] 'can serve as money if put into a pawn shop > have real ability/capability/talent, real deal'. These limited examples show the fascinating nature of unique Soutseu dialect expressions, and they need to be documented outside Bindae as well so more and more people know about them. More specifically, I want to document what exact words are used in *Bindae* performance that are rare or obsolete judging by today's standards, and analyse what kind of semantic content or imagery makes them extremely descriptive. This part of language is precisely cultural heritage which provides unique ways of thinking about the world, so I want to help preserve more in the future.

Since this is overall a linguistics dissertation, there was little room for me to dive deeply into the specifics of certain musical and musilinguistic aspects in *Bindae* singing, specifically melodic tropes and devices, vocal techniques and vocables. These are briefly mentioned in Chapters 2 and 6 such as the ample use of melismata and falsetto as well as some consonant insertion when lengthening a syllable, but as a musician I want to expand on the musical aspect way more and investigate into particular melodic patterns, compare different styles of singing and dive into the vocables more – all of which are important cornerstones making *Bindae* its own irreplacable genre within the broad umbrella of Chinese music and storytelling. It is a quite understudied area and specifically how *Bindae* performers juggle musical material on top of or in parallel of linguistic material is very complex – in the future I will combine both a Western music theory driven analysis and an ethnomusicological look on how musical prowess is interwoven into *Daezy* and expand on Chapter 2 on the musical characters of *Bindae*.

Moreover, sociocultural aspects of *Bindae* are another group of big topics that unfortunately got limited attention in the dissertation – the sociolinguistics of *Bindae* is just as diverse as its phonologies.

Firstly, *Bindae* is extremely multilingual as an art form: other than the language varieties discussed in Chapter 3 and 5, different *Bindae* programmes employ an array of other language varieties to depict people coming from various places and socioeconomic backgrounds. Specifically, neighbouring Northern Wu varieties like Zaonhe dialect, Zoshing dialect and Vusih dialect are widely used for 'flavour' and comedic relief. If chances arise, I will strive to provide a more thorough analysis of its use of languages outside the '*Bindae* grammatical realm', focusing on the context where such varieties occur and how they are used as a storytelling device. Echoing the brief discussion on accent stereotypes in media and how Soutseu dialect 100 years ago is the 'neutral unmarked variety', I hope to dissect the social meanings of each variety in specific contexts, thereby provide a fuller picture

of what a certain language choice can entail in *Bindae*.

Being such an important cultural symbol of the city, everyone in Soutseu from all walks of life has an opinion on *Bindae*. Throughout the years I have done some ethnographic research on *Bindae*, which was again sadly out of the scope of this particular dissertation. I really hope I get to go back to Soutseu one day and do a sociolinguistic study of *Bindae*, mainly through an ethnographic lens, with perspectives from both insiders (active and retired performers, 老聽客 devout fans and occasional audience) and the general public (locals and non-locals residing in Soutseu). For example from my past interviews, outsiders mostly think *Bindae* to be 'archaic and elegant' because they are mainly exposed to the musical numbers, while the professionals pay much more attention to its linguistic humour and expressive storytelling. The central question is whether *Bindae* is a musilinguistic fossil or it continues to evolve, and whether it *should* evolve – different people have different answers and together makes up the diverse sociolinguistic landscape around *Bindae*. The same question pops up in the discussion of 'revitalising' Soutseu dialect even though it is not technically classified as endangered – the language shift to Standard Mandarin is drastic and a lot of its phonology, vocabulary and syntax is influenced and encroached by Standard Mandarin. The upkeep of traditional art forms and linguistic revitalisation go hand in hand and how we use one to stimulate and enhance the other is a topic near and dear to my heart as a musician and linguist – as someone who is deeply engaged in the matter, I want to hear what different people think and then come up with ways of how to make both the language and the art form palatable to a wider public.

As alluded in the previous paragraph, the current situation of *Bindae* is in steep decline, and the majority of it 'stuck in the past': Fewer and fewer people go to *Bindae* venues to enjoy it causing them to close one by one – the only audience members are usually silver-haired – and the recent waves of economic downturns coupled with problematic Covid

policies make the lives of *Bindae* artists very difficult, many of which struggle to live off of *Bindae* so they are forced to do other jobs, in turn causing a lot of talented performers to retire and leave the *Bindae* industry. To alleviate such situations, many *Bindae* artists seek out new ways to incorporate *Bindae* into other contemporary art forms, such as pop music, dance and short videos on Internet platforms. For example, in my past interviews in 2019, there was one *Bindae* performer that very actively fused *Bindae* with pop songs and more contemporary fashion, which is deemed inauthentic by many but she held the view that only that kind of innovations can save *Bindae*. The dichotomy between keeping traditional values and catering to the masses is always a tricky one, and many artists have to embrace being a content creator to attract people's interests. It is such a shame to me that many *Bindae* performers with their rigorous training and outstanding artistry cannot perform *Bindae* in its original form nowadays, but a more urgent problem is that few people even understand Soutseu dialect, its main linguistic medium, any more and that is the most devastating blow on the vitality of *Bindae*: *Bindae* would be nothing without the languages it uses, and the only way for it to survive is to survive with the language.

The futures of *Bindae* and Soutseu dialect are uncertain – if there is one thing this dissertation can do, I hope it is either making people realise that there is such a beautiful art form in the world if you have never heard of it, or make you think about traditions lost or being lost which are relevant to you in some way, either through your heritage, in your neighbourhood, or via your personal interest. If you happen to be well-versed in *Bindae*, do something, make some noise. It will be an arduous path going forward, but I believe that our efforts will not be in vain and together we get to preserve as many unique linguistic and artistic traditions as possible.

路漫漫其修遠兮，吾將上下而求索。

Thank you for reading.

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描金鳳 *Portraying the Golden Phoenix* (20 episodes)

玉蜻蜓 *The Jade Dragonfly* (53 episodes)

三笑 *Three Laughters* (15 episodes)

三國 *Romance of the Three Kingdoms* (13 episodes)

白蛇傳 *Legend of the White Snake* (30 episodes)

楊乃武 *Yan Nevu* (20 episodes)

雙玉緣 *Serendipity of the Two Jades* (36 episodes)

西廂記 *Romance of the West Chamber* (23 episodes)

珍珠塔 *Pearl Tower* (20 episodes)

水滸·武松 *Water Margin – Vu Song* (18 episodes)

英烈 *Heroes and Martyrs* (29 episodes)

隋唐 *Sui and Tang dynasties* (14 episodes)

神彈子 *Master Slinger* (27 episodes)

大紅袍·海瑞 *Big Red Robe: He Zhe* (32 episodes)

中篇 **Middle forms**

七俠五義 *Seven Knight-errants and Five Duties* (7 episodes)

雷雨 *Thunderstorm* (3 episodes)

胡雪岩傳奇 *Legend of Ghou Sihnyii* (4 episodes)

趙氏孤兒 *The Zrau Orphan* (3 episodes)

暖鍋為媒 *Warming the pot as matchmaking* (4 episodes)

大腳皇后 *Big-feet Empress* (3 episodes)

阿獨 *Ahdoh* (3 episodes)

繡神 *Goddesses of sewing* (3 episodes)

短篇 **Short-forms**

西施沉潭 *Sisyu sinking into the Pond*

一封電報 *A telegram*

隋煬淚 *Tear of Emperor Yang of Sui*

開篇 ***Khephii*/Overtures**

蘇州好風光 *The great sceneries of Soutseu*

鶯鶯操琴 *Yingying Playing the Guqin*

蘇州個橋 *Bridges of Soutseu*

紅樓夢 *Dream of the Red Chamber*:

寶玉夜探 'Pauyoh's night visit'

黛玉焚稿 'Daeyoh burning her letters'

黛玉葬花 'Daeyoh burying flowers'

瀟湘夜雨 'Night rain at Siausian'

杜十娘 *Mrs. Dou the Tenth*

情探 *Test of Love*:

梨花落 'Falling pear blossoms'

擊鼓·戰金山 *Hitting the drum: battle at Gold Mountain*

楓橋夜泊 *Night drifting at Maple Bridge*

花好月圓 *Beautiful flower and round moon*

刀會 *Meeting of knifes*

宮怨 *Lament at the Palace*

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