

**The modes of *tôgaku* from Tang-period China to modern
Japan: focusing on the *ôshikichô*, *banshikichô* and *hyôjô*
modal categories**

Kwok Wai Ng

Department of Music
Faculty of Arts
University of Sydney

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Abstract

Tôgaku (or *tang yue* in Chinese) is a genre of *gagaku*. The music of *tôgaku*, together with a related body of music theory, was imported into Japan from China between the seventh and ninth centuries. While the tradition of *tôgaku* continued strongly through to the end of the Heian period (794-1192), in the centuries that followed, significant changes began to affect both the melodies and the modality of *tôgaku* pieces. In the early fifteenth century, civil wars nearly brought about the complete destruction of the tradition (Nelson 1990:269). A large-scale reconstruction and standardization of *gagaku* was carried out shortly after the Meiji Restoration in Japan (1868). The notations and the versions of *tôgaku* pieces that were developed in the Meiji period (1868-1912) remain the basis for present-day performances.

In modern practice, *tôgaku* pieces are classified into two groups: *ryo* and *ritsu*. This thesis will investigate the transformation and development of the modes in the *ritsu* group—*ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao*—between the Chinese Tang-period and the present. It will examine early Chinese historical and musical treatises in order to clarify the structures of these modes in China prior to their importation to Japan. It will then focus on the *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modal group pieces recorded in Japanese scores compiled between the mid-eighth and mid-fourteenth centuries. It will show that while Tang modal practice was quite well preserved in the Heian period, significant changes began

to occur from the late thirteenth century on.

The music that resulted from the Meiji-period reconstruction and standardization is very different from that of the Heian period and the centuries that immediately followed. Today the lute and the mouth-organ are the only instruments that carry the historical melodies, albeit in forms that render them inaudible in modern performances. Through analysis of the new melodies and associated modal practices carried by the zither, double-reed pipe and flute today, and through comparison of these with earlier practices recorded in historical sources, I will show how the *ritsu* modes of modern *tôgaku* have developed their present form.

Statement of Originality

None of the work presented in this dissertation has been carried out in collaboration with others. Where reference is made to the work of others this is specifically noted at the appropriate place in the text.

Neither this dissertation, nor one substantially similar, has been submitted for any degree, diploma, or other qualification, at any other university.



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Convention for writing English, Japanese and Chinese

This thesis includes many Japanese and Chinese terms and every effort has been made to standardize the usage of non-European languages. The general guidelines are as follows:

1. The system used for the romanization of Japanese is the modified Hepburn system. Because Finale 2004 for Mac does not allow me to insert a macron (¯) in music files, I will use a circumflex (ˆ) rather than a macron, for example, *tôgaku* rather than *tōgaku*. Diacritical marks will not, however, be added to common words such as ‘Tokyo’ unless they are used with other romanized Japanese words, for example, Tōkyō Geijutsu Daigaku.
2. The system used for the romanization of Chinese is the Pinyin system.
3. While the romanization for each Chinese character is separated by a space, the romanized Japanese characters will be grouped together according to their meanings. Furthermore, terms that are commonly used in both Japan and China will be romanized in both Japanese and Chinese, with the Japanese romanization coming first and the Chinese second, for example, *ôshikichô / huang zhong diao*.
4. Chinese characters and Japanese *kanji* will be shown in the Glossary. Chinese characters are written in their traditional rather than their simplified version.
5. The use of hyphens within romanized words is in general avoided. Hyphens

will, however, be used in Chinese names in order to show the surname and the given name, for example, Chen Ying-shi.

6. Proper nouns (such as names of places, people, time periods, universities, archives, libraries etc.) are capitalized but not italicized, for example, Tang, Heian, Minamoto no Hiromasa, Kunaichô Shoryôbu etc.
7. Common nouns in non-European languages are italicized, for example, *tôgaku*, *gagaku*, *huang zhong* etc.
8. Titles of books are italicized, but except for the first word and proper nouns, not capitalized, for example, *Nihon ongaku daijiten*, *Sui shu*, *Music from the Tang court* etc.
9. Titles of articles and unpublished thesis are placed within double quotation marks, for example, “The Kuḍumiyāmalai inscription: a source of early Indian music in notation”, “Dun huang pi pa pu du ji”, “Hakuga no fuefu kaidai” etc.
10. Titles of Chinese books, monographs and audio-visual materials are placed within double chevrons, for example, 《商務新詞典》.
11. Titles of Chinese articles are placed within single chevrons, for example, 〈論敦煌曲譜的琵琶定弦〉.
12. Titles of Japanese books, monographs and audio-visual materials are placed within the Japanese *nijû kakko*, for example, 『正倉院の楽器』.
13. Titles of Japanese articles are placed within the Japanese *kagi kakko*, for example, 「天平、平安時代の音楽—古楽譜の解説による」.
14. English translations of non-European titles and the like are placed within

square brackets, for example, *Sui tang yan yue diao yan jiu* [A study of modes in the Sui and Tang periods].

15. Titles of pieces of music are placed within the Japanese *kagi kakko*, for example, 「*崇明楽*」. The romanized form is placed within double quotation marks, italicized and capitalized, for example, “*Sômeiraku*”.

Chronology of historical periods for Japan and China

Japan

Asuka period A.D. 538-710

Nara period A.D. 710-794

Heian period A.D. 794-1192

Kamakura period A.D. 1192-1336

Nanbokuchô period A.D. 1336-1392

Muromachi period A.D. 1392-1568

Momoyama period A.D. 1568-1603

Edo period A.D. 1603-1868

Meiji period A.D. 1868-1912

China

Sui period A.D. 581-618

Tang period A.D. 618-907

Five Dynasties and
Ten Kingdoms A.D. 907-960

Song period
(Northern Song) A.D. 960-1127

Song period
(Southern Song) A.D. 1127-1279

Yuan period A.D. 1279-1368

Ming period A.D. 1368-1644

Qing period A.D. 1644-1912

Introduction

I. Historical background

Tôgaku (Tang music) is one of the genres of *gagaku*¹ currently performed in Japan. It derives from the Chinese banquet and entertainment music (or *yan yue* in Chinese)² that was imported into Japan between the seventh and ninth centuries, and also includes music composed by the Japanese during the Nara (710-794) and Heian (794-1192) periods in imitation of Chinese entertainment music.

The tradition of *tôgaku* remained relatively strong between the seventh and the early fifteenth centuries in Japan, despite the fact that during this period there were various changes in both music and theory. A series of civil wars that rocked Japan from the middle of the fifteenth century, however, brought about the almost complete destruction of the culture of the imperial court in Kyoto (Nelson 1990:269) and as a consequence, the performance of *tôgaku* began to decline. While *tôgaku* was rarely performed at the court during the time of these civil wars, some *tôgaku* music and dances were preserved as an element of ritual ceremony in Buddhist temples (Nelson 1990:269). Without the continuing performances in the

¹ The Chinese reading of *gagaku* is *ya yue*, which refers to the music of the Confucian ritual. This repertory was, however, never adopted by the Japanese. In the Heian period, *gagaku* represented various types of imported and indigenous music performed at the court and Buddhist temples. As a result, the Japanese usage of *gagaku* is, in a sense, a misnomer (Nelson 1990:271).

² *Su yue* is also used to refer to the entertainment music of China (see Cheung 1970). In order to avoid confusion, I will use only the term *yan yue* in this thesis.

Buddhist temples, this tradition might well have suffered complete extinction (Nelson 1990:269).

The return of peace and the development of the system of *sanbô gakunin* (literally ‘musicians of the three directions’) at the end of the sixteenth century facilitated, to a certain extent, the performance of *tôgaku* in Japan. *Sanbô gakunin* refers to the *gagaku* musicians of the Shintennôji (the Shitennô Temple) in Osaka, the *gagaku* musicians of the Kôfukuji (the Kôfuku Temple) in Nara and the *gagaku* performers who resettled in Kyoto after the long period of civil wars.

Gamô Mitsuko has shown, however, that there are many differences between the music and the tablature-notations of the three traditions that made up the *sanbô gakunin* (Gamô 1976). We might, therefore, expect that the musicians of each *sanbô gakunin* tradition had only limited connections with musicians of the other traditions, and that they performed their music and dances according to their own practices.

Furthermore, because the Tennô (emperor) and court nobles failed to regain position of authority after the civil wars (Nelson 1990:268), it is likely that some performance traditions never returned to their earlier glory. The earlier performance tradition of the string instruments, for example, appears to have been lost at this time (Nelson 1990:268).

A large-scale reconciliation and standardization of *gagaku* was carried out shortly after the Meiji Restoration in Japan (1868). One of the main objectives of the Meiji government was to restore the power and the authority of the emperor. The standardization of *gagaku*, which represents the music of the imperial court,

was part of this restoration. Musicians of the *sanbô gakunin* were brought to Tokyo and ordered to work towards the reconciliation of the differences between their *gagaku* traditions (Nelson 1990:268) and this led to an abandonment of a large number of pieces. Standard part scores that reorganized and standardized the tradition were compiled in 1876 and 1888 (Nelson 1990:268). This collection of *gagaku* scores, which also forms the basis of the present-day *gagaku* performance, is known as *Meiji senteifu* (see also Chapter Three).

II. A definition of ‘mode’

This thesis concerns the study of modes. According to the *New Grove Dictionary of Music and Musicians (second edition)*, in western music theory ‘mode’ is a term with three main applications and all are connected with the meanings of *modus* (‘measure’, ‘standard’, ‘manner’ and ‘way’) in Latin. These three applications are: a) the relationship between the note values *longa* and *brevis* in late medieval notation; b) the intervals of early medieval theory; and c) a concept involving scale type and melody type (Sadie ed. 2001 Vol. 16:775). In this thesis, however, ‘mode’ refers to a common theoretical concept applied to both Japanese and Chinese music, which is called *chô* (sometimes in its voiced sound ‘*jô*’) in Japan but *diao* in China. Mostly importantly, it involves mainly scalar aspects: the internal relationships of the notes in a scale or in a modal species formed by combining the twelve-note fixed-pitch system and the seven scale-degree system (see Chapter Two).

Chinese and Japanese music share a similar theoretical concept of ‘mode’ since it is the ancient Chinese modal theory that forms the basis of the modal system in many repertoires of Japanese music, for example, *gagaku* and *shōmyō* (Buddhist chants). In examining the ‘modal practice’³ and ‘tonality’⁴ of the historical *tōgaku* melodies, I concentrate on the predominance, position, usage and interrelation of the notes. These include the study of the extent to which the notes of a melody correspond to the notes found in the theoretical scale;⁵ the examination of important notes—primarily the tonic and the fifth degree—and their roles in significant cadences; the use of ornaments in the melody, the positions of the relatively unimportant auxiliary notes (see Chapter Two) and their relationship to the prominent notes; and the frequency of occurrence of each note in a melody.

The results of the examination of the modal practice of the historical melodies will form the basis for the study of modern modal practice. In addition, because there has been an increase in the reliance on oral transmission in modern performance (see below), I will show how oral transmission has significantly affected the tonality of the modern pieces. It seems likely, moreover, that some recurring melodic formulae of the modern flute and double-reed pipe melodies are ‘modally significant’ (see Chapters Five to Eight). In this thesis, the terms ‘modally

³ ‘Modal practice’ generally means how the notes of a mode are applied in a melody.

⁴ ‘Tonality’ refers to the orientation of melodies towards the tonic pitch class (Sadie ed. 2001, Vol. 25:583).

⁵ Scale is a sequence of notes in ascending or descending order of pitch. It has to be a sequence that is long enough to define unambiguously a mode, and that begins and ends on the fundamental note of the mode (Sadie ed. 2001 Vol.22:366).

significant' and 'non-modally significant' will be used to indicate whether a musical element can assist listeners in identifying the mode or the modal category (see below) of a melody.

III. Objectives

The objectives of this thesis are: first, to explore the relationship between the modes used in Chinese Tang entertainment music and those used in Japanese *tôgaku* of the Heian period; secondly, to study the historical development of *tôgaku* pieces from the Heian period to the present-day; and thirdly, to show how the modal practice of *tôgaku* was transformed over the past 1200 years. Modern *tôgaku* pieces are categorized into two groups according to their theoretical modal structures, namely the *ryo* group, the scales of which have the theoretical structure TTSTTST⁶ and the *ritsu* group, the scales of which have the theoretical structure TSTTTST. As will be shown in Chapters Six, Seven and Eight of this thesis, most of the instrumental parts of a modern *tôgaku* piece do not adhere to these two structures. The *ryo* group includes pieces from the modal categories (see below) of *ichikotsuchô* / *yi yue diao*, *taishikichô* / *da shi diao* and *sôjô* / *shuang diao* whereas the *ritsu* group includes pieces from the modal categories of *ôshikichô* / *huang zhong diao*, *banshikichô* / *pan she diao* and *hyôjô* / *ping diao*. Although it has been suggested in the previous section that '~*chô*' in Japanese music and '~*diao*' in

⁶ 'T' refers to the interval of a tone and 'S' represents a semitone.

Chinese music fundamentally correspond to the musical term ‘mode’, in discussing and translating these six particular ‘*chô / diao*’ of *tôgaku*,⁷ the term ‘modal category’ or ‘modal group’ will be preferred. The reason is that in Japanese *tôgaku*, each ‘*chô / diao*’ may contain several modes that are confined to the same tonic pitch class, that is, are in the same key.⁸

In this thesis, I concentrate on the *tôgaku* pieces of the *ritsu* group—that is, pieces from the modal categories of *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao*. Furthermore, while some modern *tôgaku* pieces can be performed in both *kangen* (instrumental) and *bugaku* (dance music) styles, my examination is confined to the *kangen* version.

IV. Methodology

In order to understand the relationship between the modes used in Chinese Tang *yan yue* and the modes used in Japanese Heian *tôgaku*, we must first clarify the structures of the Chinese modes. The modes of *yan yue* are clearly elucidated in numerous Chinese historical treatises. In this thesis, I rely on seven important historical treatises in order to establish the structures of the *yan yue* modes. These are *Song shu* [The book of the Song Dynasty in the Nanbei period (420-589)] (c. 494), *Jin shu* [The book of the Jin Dynasty (265-420)] (c. 649), *Sui shu* [The book

⁷ In modern performance, these six ‘*chô / diao*’ are called the *tôgaku rokuchôshi* (the six modal categories of *tôgaku*).

⁸ See Chapter Six for examples.

of the Sui (581-618) Dynasty] (c. 630), *Yue fu za lu* [Miscellaneous records of the *yue fu* music school/office] (late ninth century), *Tang hui yao* [Governmental establishments of the Tang Dynasty] (c. 961), *Xin tang shu* [The new book of the Tang Dynasty] (1060), and *Bu bi tan* [Supplementary notes of *Meng xi bi tan*] (c. 1095).⁹ The sources of these treatises will be discussed in Chapter Two of this thesis.

There is one surviving Chinese score—*Dun huang pi pa pu* (c. 933)—that records Tang *yan yue* in tablature-notation for the four-stringed lute. This score will not, however, be examined in this thesis.¹⁰ *Dun huang pi pa pu* does not include any explanation of the modes and tunings for the pieces, and there are also uncertainties surrounding many signs in this score. For example, some scholars suggest that the dots that are written to the right of each notational column represent metrical signs (Chen 2005:51-69) whereas some consider that these dots only indicate the plucking direction of the lute plectrum (Hayashi 1969f:217).¹¹ Without a fuller understanding of the metrical and rhythmic implications in this score than exists at present, it is impossible to accurately transcribe the pieces and hence investigate their modal practice.

In Japan, however, numerous musical scores, which record in tablature the

⁹ Where possible, my translations of the titles of the Chinese treatises follow Zhou Qin-ru's translations used in Chen Ying-shi's article "Fundamental theories of Chinese traditional music in ancient writings" (Chen 1999).

¹⁰ This score is now preserved in the Bibliothèque Nationale in France (P. 3539, P. 3719 and P. 3808).

¹¹ Steven Nelson also believes that the dots in Tang and early Heian lute scores indicate the directions of plucking (see also Part I of Chapter Four).

Chinese and other repertoires played at the Japanese court, survive from as early as the mid-eighth century (Marett 2001a:855). While the tablature-signs of these historical scores do not indicate pitches but finger-positions on an instrument (see also Chapter Four), historical research into music scores and treatises allows us to be reasonably certain about the pitches that were produced with these fingerings. Firstly, the tablature-notations of the four-stringed lute and seventeen-piped mouth-organ scores are fairly unambiguous with regard to pitch.¹² In the case of the lute, each open string or fret-position generates only one pitch in each form of a tuning, which is always clearly explained in the score: in the case of the mouth-organ, each pipe produces only a single pitch. Secondly, although the tablature-signs of some instruments, such as those for the transverse flute and double-reed pipe, may signify more than one pitches, there is no evident that before the fifteenth century the tablature-signs of these instruments indicated pitches that did not correspond to those of the diatonic forms of the modes encountered in other instruments. It is, therefore, possible to ascertain the pitches of the tablature-signs in such scores by reference to the structure of the *tôgaku* modes and through comparison with versions in scores for other instruments.¹³ Some historical scores, such as *Sango yôroku* and *Jinchi yôroku* (see below), include clear illustrations of the *tôgaku* modes contemporary with the pieces recorded in the scores.¹⁴ Moreover,

¹² See below for the details of the scores selected for investigation in this thesis.

¹³ See Chapter Four for examples.

¹⁴ Although some Japanese musical and historical treatises, such as *Kyôkunshô* (1233), also include discussions of modes, it is usually the description in the scores that provide the clearest elucidation of the modal structures. In *Jinchi yôroku* and *Sango yôroku*, for example, the compiler, Fujiwara no

because the Cambridge Tang Music Project research group has already demonstrated that the *tôgaku* pieces that were performed in and before the thirteenth century were fundamentally in heterophonic style,¹⁵ pitch uncertainties that occur in melodies generated from more ambiguous tablature-notations can usually be clarified by comparing them with melodies recorded in less ambiguous scores.¹⁶

Providing that the historical *tôgaku* melodies are accurately transcribed, we can understand the modal practice of historical *tôgaku* through analysing these melodies. In this thesis, I will first transcribe the *tôgaku* melodies notated in the early Japanese scores using the methodology developed by the Cambridge Tang Music Project (see Chapter One). I will then analyse these melodies so as to clarify the modal practice of *tôgaku* performed between the mid-eighth and mid-fourteenth centuries. I will then proceed to the examination of the modern melodies and explain how these were developed, and how the modal practice of modern performance is different from that of the historical versions. The early Japanese scores that are chosen for detailed examination are:¹⁷

1. *Gogenfu* (late eighth or early ninth centuries), a score for the *gogen biwa* (five-stringed lute)
2. *Hakuga no fuefu* (966), a score for the *ryûteki* (transverse flute)

Moronaga (1138-92), employed not only the theoretical modal terms but also the pitches produced on a standard transverse flute in order to explain the structure of the modes. This has been comprehensively studied in my Masters research (Ng 1998).

¹⁵ See Chapter One for more information on the Cambridge Tang Music Project.

¹⁶ Various examples can be seen in the musical analysis carried out in Chapters Five to Eight of this thesis.

¹⁷ The sources of these scores will be discussed in Chapter Three.

3. *Sango yôroku* (comp. before 1192), a score for the *gakubiwa* (four-stringed lute)
4. *Jinchi yôroku* (comp. before 1192), a score for the *gakusô* (thirteen-stringed long zither)
5. *Kofu ritsuryokan* (c. 1201), a score for the *shô* (seventeen-piped mouth-organ)
6. *Ruisô chiyô* (middle to late thirteenth century), a score for the *gakusô*
7. *Shinsen shôtekifu* (c. 1302), a score for the *shô*
8. *Nakahara roseishô* (c. 1341), a score for the *hichiriki* (double-reed pipe)
9. *Chû ôga ryûteki yôrokufu* (early to mid-fourteenth century), a score for the *ryûteki*

These nine historical *tôgaku* scores¹⁸ do not represent all the early *gagaku* and *tôgaku* scores that survive in Japan,¹⁹ but they are chosen according to four criteria. Firstly, I basically use scores that survive in complete manuscript copies (see

¹⁸ In the following discussion of this thesis, I will use the term ‘historical *tôgaku* scores’ to refer to this group of scores.

¹⁹ Other significant scores include *Biwa shochôshibon* (838), *Nangû biwafu* (921), *Minamoto no Tsunenobu jihitsu biwafu* (late eleventh century), *Motomasa no fuefu* (early twelfth century?) and *Kosôfu* (mid-twelfth century). They are excluded for a variety of reasons. Some, such as *Biwa shochôshibon* and *Nangû biwafu*, include mainly illustrations of tunings and modal preludes. While *Motomasa no fuefu* is an important compilation of flute pieces, uncertainties remain about the reading of its notations. *Minamoto no Tsunenobu jihitsu biwafu* and *Kosôfu*, on the other hand, record only a limited number of *tôgaku* pieces, and in each case only two of these correspond to the pieces selected for this thesis. In the case of *Minamoto no Tsunenobu jihitsu biwafu*, they are “*Sekihaku tôrika*” and “*Kaiseiraku*”; in the case of *Kosôfu*, they are “*Manzairaku*” and “*Kyôunraku*”. See below for the criteria of selecting pieces for investigation.

Chapter Three).²⁰

Secondly, in order to understand the transformation of modal practice, it is necessary to examine scores that were compiled at different periods of time. This group gives us a useful spread. *Gogenfu* was compiled in the early Heian period; *Hakuga no fuefu* in the mid-Heian period; *Sango yôroku* and *Jinchi yôroku* in the late Heian period; *Kofu ritsuryokan* in the early thirteenth century; *Ruisô chiyô* in the middle or late thirteenth century; *Shinsen shôtekifu* at the beginning of the fourteenth century; and *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* in the mid-fourteenth century.

Thirdly, because modern *tôgaku* instrumental pieces are performed with five melodic instruments, namely the four-stringed lute, the seventeen-piped mouth-organ, the thirteen-stringed long zither, the double-reed pipe and the transverse flute, I have to choose historical *tôgaku* scores that are also written for these five instruments in order to facilitate comparisons between the historical and modern melodies.

Lastly, since I need to compare the historical *tôgaku* melodies with the modern version in order to understand the differences between the ancient and modern modal practices, I have to use historical scores that include pieces that are still performed at the present-day.

Because Allan Marett has already shown that melodies performed between the

²⁰ *Hakuga no fuefu* is the only exception. While the surviving version of *Hakuga no fuefu* is not complete, it includes many pieces from two of the modal categories examined in this thesis, namely *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* (see also Chapter Three). Furthermore, it is the only available surviving mid-Heian score that includes as many 40 *tôgaku* pieces.

late-twelfth and mid-fourteenth centuries hold the key to understanding the link between Heian-period *tôgaku* and modern practice (Marett 1985), and because the tradition of *tôgaku* between the fifteenth century and the mid-nineteenth centuries was weak, and its history still somewhat confused, I will not be investigating modal development during this period.

Appendix II of this thesis includes a list of all the *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modal group pieces recorded in the nine historical scores and *Meiji senteifu*. There are 25 pieces that occur in most of the selected historical scores and are still performed today. From these I have selected seven for detailed analysis in this thesis. While at the beginning of my research I surveyed all 25 pieces, I decided that the best way to give a clear account of the modal changes and historical development of the *ritsu* group pieces was to focus in detail on a limited sample from each modal group. Had I attempted to analyse all 25 pieces in the same detail that I adopt for the selected seven, my thesis would have blown out to an excessive length. To have undertaken a less detailed examination of the broader sample would have produced results that are far less rich and revealing than those that I have achieved. Although the sample is quite small, its analysis is informed by broader perspectives gleaned from my preliminary research on the larger sample.

From the four *ôshikichô / huang zhong diao* modal group pieces shaded in Appendix II, I have selected three: “*Sekihaku tôrika*” [Pink and White Peach and Plum Blossoms], “*Kishunraku*” [Joyful Spring] and “*Kaiseiraku*” [The Sea is Blue]. While I have also analyzed in detail the historical and modern melodies for the

fourth piece, “*Yôgûraku*” [The Central Palace], I have excluded it from detailed consideration on the grounds that its historical development and modal practice are so similar to those of “*Kishunraku*” and “*Kaiseiraku*” that detailed consideration would simply add to the bulk of the thesis and add nothing new to my results.

For the *banshikichô* / *pan she diao* and *hyôjô* / *ping diao* modal group pieces. I focus on only two pieces per modal category. In the case of the *banshikichô* / *pan she diao* modal category, they are “*Sômeiraku*” [Respect for Wisdom] and “*Saisôrô*” [The Old Man Plucks Mulberry Leaves]. In the case of the *hyôjô* / *ping diao* modal category, they are “*Manzairaku*” [Ten Thousand Years] and “*Kyôunraku*” [Celebration of the Clouds]. “*Sômeiraku*” is the only piece of the *ritsu* group that occurs in all the nine historical scores as well as in the *Meiji senteifu*. “*Saisôrô*”, “*Manzairaku*” and “*Kyôunraku*” are chosen because they are relatively long pieces, which, on the basis of my preliminary investigation of a wider sample of pieces in each mode, can be seen to exhibit clear and typical modal characteristics.

Unlike the tablature-notation in some historical scores, however, the modern notations do not indicate all the pitches, nor do they notate all aspects of the rhythmic structure of the melodies. For instance, some pitches and pausing points on the modern flute and double-reed pipe melodies are transmitted orally, and the teacher has to mark the corresponding signs and symbols of these on the scores during lessons. This is why I had to carry out a fieldwork in Japan. One of the main objectives of my fieldwork was to learn and record the melodies of the selected pieces—in particular the modern flute and double-reed pipe melodies—in order to

generate accurate transcriptions of the modern melodies.

V. Fieldwork

While this thesis is largely based on source studies, it was necessary for me to travel to Japan to consult the sources in situ.²¹ Moreover, my investigation of the modal practice of modern *tôgaku* is based on the lessons that I took on double-reed pipe and flute and my consultation with practicing musicians. With the support of the Japan Foundation Fellowship I undertook a year's fieldwork in Japan, where I was based in Tokyo, from June 2004 to May 2005. The archive that I most regularly consulted was the Ueno Gakuen Nihon Ongaku Shiryôshitsu (Research Archives for Japanese Music of Ueno Gakuen University). In addition to its own collection of manuscript copies, for example, the *Eman'in* (or *Enman'in*) *monzeki* version of *Hakuga no fuefu* and the *Rakusaidô* version of *Jinchi yôroku* (see Chapter Three), this archive also contains facsimile, photographic and microfilm copies of manuscripts held in other libraries and archives, for example, a facsimile copy of the *Fushimi no miya ke* version of *Sango yôroku* preserved in the Kunaichô Shoryôbu (Archives and Mausolea Department of the Imperial Household Agency) and a photographic copy of the *Sonkeikaku bunko* version of *Chû ôga ryûteki yôrokufu* preserved in the Sonkeikaku Bunko (The Sonkeikaku Archives). Furthermore, it also possesses a facsimile copy of *Meiji senteifu*. This copy of *Meiji*

²¹ My supervisor, Allan Maret, possessed copies of some sources, for example, *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu*, but not all that were needed for this study.

senteifu is probably the only accessible copy in Japan (see Chapter Three). With the support of Professor Fukushima Kazuo of the Research Archives for Japanese Music of Ueno Gakuen University and the assistance of Professor Steven Nelson of Hosei University, I was granted free access to the materials in this archive.

The study of the manuscript copies of the historical *tôgaku* scores was not, however, the only task of my fieldwork. In order to understand the modal practice of modern *tôgaku* performance, it is essential to also analyse the modern melodies. Although Shiba Sukehiro (1898-1982) has transcribed all the pieces in the modern *gagaku* repertory (Shiba 1968, 1969, 1971, 1972), there are errors in his zither and double-reed pipe transcriptions. In my analysis, I have relied on Shiba's transcriptions only for the lute melodies (see Chapter Four). The modern mouth-organ, long zither, double-reed pipe and flute melodies are my own transcriptions.

It is not difficult to transcribe the modern mouth-organ and zither melodies from the modern notations once the structures of the cluster-chords of the mouth-organ and the pattern of the zither fingerings are understood (see Chapter Four). The modern double-reed pipe and flute melodies, on the other hand, are much more complicated since their performance involves many unwritten, orally transmitted practices (see Chapters Four and Five). Some of these orally transmitted practices—particularly those for the double-reed pipe—have important implications for modal practice. Because the number of orally transmitted elements for the double-reed pipe is more than that for the flute, and because the melodies and tonality of the flute are significantly affected by those of the double-reed pipe (see

Chapters Six to Eight), I concentrated on learning double-reed pipe practices in Japan. In addition to the seven pieces that I am going to examine in this thesis, I learned a further nineteen pieces from the *ritsu* group as well as seventeen pieces from the *ryo* group.²²

Ôkubo Nagao and Nishihara Yûji were my double-reed pipe teachers in Japan. Ôkubo Nagao is a professional double-reed pipe performer of the Kunaichô Shikibushoku Gakubu (The Music Department of the Board of the Ceremonies of the Imperial Household Agency). I learned the double-reed pipe pieces with him in the Ono Gagakukai (Ono Gagakukai Society).²³

Nishihara Yûji is a graduate of the NHK Hôgaku Ginôsha Ikuseikai²⁴ and has played the double-reed pipe for more than thirty years. He was appointed as the *ôndô* (principal) for double-reed pipe in the ensemble of the Ono Gagakukai, where he also studied with Ôkubo Nagao. In Nishihara's lessons, I concentrated on the pieces that this thesis examines. The modern double-reed pipe melodies in this thesis are transcribed in the light of what I learned from Nishihara Yûji as well as with reference to recordings of *gagaku* (Kishibe Shigeo et al. ed. 1990; Kunaichô Shikibushoku Gakubu 1990; Kunaichô Shikibushoku Gakubu & The Shimonaka Memorial Foundation 1999; Tôkyô Gakuso 1989a and various performers 2001a).

²² According to the scores published by the Ono Gagakukai (see below), there are a total of 43 *ritsu* pieces and 37 *ryo* pieces in the modern *tôgaku* repertory.

²³ Ono Gagakukai was established in 1888 (Ono 1989:287) and is one of the most famous private *gagaku* organizations in Japan.

²⁴ NHK Hôgaku Ginôsha Ikuseikai is an organization established by the Japan Broadcasting Corporation (NHK) for training young musicians to play Japanese instruments.

While my main practical training in Japan was on the double-reed pipe, I also regularly consulted a professional flute performer, Nishihara Takako, in order to learn how the modern flute notation is interpreted and what orally transmitted practices are applied to the modern flute melodies. Nishihara Takako is also a graduate of the NHK Hôgaku Ginôsha Ikuseikai and a student of Ue Akihiko, a professional transverse flute performer of The Music Department of the Board of the Ceremonies of the Imperial Household Agency. The modern flute melodies in this thesis are transcribed in the light of Nishihara Takako's demonstrations and explanations, as well as with reference to recordings (Kishibe Shigeo et al. ed. 1990; Kunaichô Shikibushoku Gakubu 1990; Kunaichô Shikibushoku Gakubu & The Shimonaka Memorial Foundation 1999; Tôkyô Gakuso 1989a and various performers 2001a).

VI. The structure of this thesis

This thesis comprises eight chapters. Chapter one is a general overview of research on Tang and *tôgaku* modes. In this chapter, I will focus on the most important research carried out by the Japanese, Chinese and westerner researchers in order to locate my research in the field of *tôgaku* studies.

Chapter Two includes an introduction to Chinese modal theory and an explanation of the structures of the *ôshikichô* / *huang zhong diao*, *banshikichô* / *pan she diao* and *hyôjô* / *ping diao* modes used in Chinese *yan yue*.

Chapter Three discusses sources for the historical *tôgaku* scores and *Meiji*

senteifu. Here I will indicate which copy or copies of a historical score I have used and the reasons for choosing that copy.

Chapter Four includes an explanation of the tablature-notation of the historical *tôgaku* scores and *Meiji senteifu*. In order to accurately transcribe the melodies that provide the focus for modal analysis, it is necessary to understand the meanings of the tablatures and other notational signs used in the Japanese scores.

Chapter Five examines the historical development of *tôgaku* melodies from the Heian period to the present-day. Because the development of the pieces in the three modal categories is basically the same, I concentrate mainly on the *ôshikichô / huang zhong diao* modal group pieces. Since alternations of pitches and ornaments in the historical melodies and the development of melodic formulae in the modern melodies are closely related to modal practice, a study of the historical development of the melodies will provide a foundation for the modal analysis in later chapters.

Chapters Six, Seven and Eight investigate the modal practice of the *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modal group pieces respectively. In these three chapters, I will show how *tôgaku* was transformed from a heterophonic musical genre, in which all the melodic instrumental parts were performed in the same modality, to a poly-modal genre whose texture is dominated by musical patterns and formulae.

Chapter One

A short review of research on Tang music and *tôgaku*

This chapter will give a general overview of research on Tang music and *tôgaku*, with a special focus on the research on modes. I do not intend to list all the research in this field but rather to give an introduction to those areas that have been covered and to assess what remain untouched. Rather than classify the research according to its content, I categorize it according to its provenance. My categories are therefore: research by Japanese scholars, research by Chinese scholars and research by western scholars. Because a large amount of the publications on *tôgaku* have been written by Japanese scholars and because their research laid the foundation for some Chinese and western research, I will first discuss Japanese research and then proceed to that of Chinese and western scholars.

I. Research by Japanese scholars

Hayashi Kenzô (1899-1976) and Kishibe Shigeo (1912-2005) are perhaps the two most significant Japanese scholars of Tang music and *tôgaku*. While both examined the modes of *yan yue* (banquet music) in China (Hayashi 1936) (Kishibe 1939a, 1939b, 1940), Hayashi's research focuses more on the decipherment of early *tôgaku* and Tang musical notations (Hayashi 1957, 1969a & 1969c) whereas

Kishibe's concentrates chiefly on the history of Tang music and musical institutions in Tang China (Kishibe 1960, 1961). I will first give a general introduction to Hayashi's work on modes and then provide an overview of Kishibe's research.

Hayashi is one of the earliest Japanese scholars to have carried out detailed research on Chinese modes and their history in Japan. His book, *Sui tang yan yue diao yan jiu* [A study of modes in the Sui and Tang periods] (Hayashi 1936),¹ examines the development of modes in Sui and Tang China and includes a comprehensive description of the modes discussed in Chinese treatises such as *Sui shu*, *Tang hui yao* and *Xin tang shu* (see also Chapter Two). In this monograph, Hayashi also compares the modes recorded in the *Yin yue zhi* [The chronicle of music] chapter of *Sui shu* and the modes illustrated in the *Kudumiyāmalai* Inscription of India (Hayashi 1936:12-52).² While he also explores the relationship between the modes of Tang music and Japanese *tôgaku*, his discussion is limited to a comparison of modal and pitch names in China and Japan (Hayashi 1936:105-8; 170-4). Part Ten (*Ri ben yue diao zhi shi li* [Examples of Japanese modes]) of the *fulun* section also introduces some limited comparisons of Chinese and Japanese modal theory (Hayashi 1936:187-193) and indicates, with reference to the pieces “*Butokuraku*”, “*Etenraku*” and “*Raryôô no ha*”, that many of the modern *tôgaku* flute and double-reed pipe melodies that are classified in the *ritsu* group are likely to be performed in the *shô / shang* (Mixolydian) mode (Hayashi 1936:188).³ I will

¹ This book is now available in Chinese rather than in Japanese.

² For a detailed study of the *Kudumiyāmalai* Inscription, see Widdess 1979.

³ See Introduction and Chapter Two for the explanations of the *ritsu* group and the *shô / shang* mode

show, however, in Chapters Six, Seven and Eight of this thesis that the modern double-reed pipe melodies of the *ritsu* group are not performed in the *shô / shang* mode but in a completely different modal structure that was probably not employed in the performance of Japanese music before the sixteenth century. The modes of the modern flute melodies are, however, ambiguous since, on the one hand, they are influenced by the pitches of the double-reed pipe, while on the other, they nonetheless preserve some of the correct pitches of the historical modes.

Many other publications by Hayashi on early Japanese *tôgaku* notations and musical instruments also include discussion of modes. For instance, the article “Hakuga no fuefukô” [A study of *Hakuga no fuefu*] examines the relationship between the *yuri* technique of the flute (see Chapter Four) and the structure of the Chinese *zheng sheng diao* heptatonic scale (see Chapter Two) (Hayashi 1969d). Another article, “Biwa chôgen no shujusô” [Different aspects of the lute tunings] examines the tunings of the *biwa / pi pa* recorded in various historical *tôgaku* scores in the light of the structures of the *tôgaku* modes (Hayashi 1969h).

Kishibe Shigeo is the other major Japanese scholar of Tang music and *tôgaku*. His huge monograph *Tôdai ongaku no rekishiteki kenkyû: gakusei hen* [A historical study of the music in the Tang period: the music system] (in two volumes) (Kishibe 1960, 1961) is a detailed historical study of Tang music. This monograph is, however, chiefly devoted to the examination of the policies, education, repertoires and institutions of music at the Tang court, and it includes no descriptions of music

respectively.

theory.

Kishibe's *Tôdai ongaku no rekishiteki kenkyû: gakusei hen* was republished in March 2005⁴ together with a new *zokukan* (supplementary volume) (Kishibe 2005). This *zokukan*, which mainly includes previously published essays and articles by Kishibe, is divided into four main sections: *gakurihen* (section on music theory), *gakushohen* (section on music treatises), *gakkihen* (section on instruments) and *gakuninhen* (section on musicians). The *gakurihen* section includes two important articles on modes, one of which, "Tô no zokugaku nijûhachichô no seiritsu nendai ni tsuite" [Concerning the development of the twenty-eight modes for Tang banquet music], provides a comprehensive explanation of the structures of the modes used in the Sui and Tang periods.

Another article, "Sei'iki shichichô to sono kigen" [The origin and the structures of the seven modes in the *sei'iki / xi yu* area], examines the structures and the origin of the seven modes that were introduced to the Sui court by Sujiva (or *Su zi po* in Chinese transliteration (Wei et al. c.630:345)) in the sixth century. Sujiva was a *biwa / pi pa* musician who came to China from *Qiu ci* (Kucha) during the reign of Emperor Wu (560-78) in the Northern Zhou Dynasty (557-81) (Wei et al. c.630:345-6). *Sui shu* clearly states that Sujiva introduced the modes performed in Central Asia to the Chinese in the early Sui period (Wei et al. c.630:345-6).

In addition to these two articles, the book chapter "Tôzokugaku nijûhachichô

⁴ Apart from some minor amendments to Chinese characters and the addition of the *zokukan*, the reprint of *Tôdai ongaku no rekishiteki kenkyû: gakusei hen* is the same as the original published in the early 1960's.

to *kiji sei'iki shichichô*" [The twenty-eight modes for Tang banquet music and the seven modes in the Kucha area] in *Kodai shirukurôdo no ongaku* [The music of the ancient Silk Road] (Kishibe 1982) provides a very clear description of the development and structures of the modes used in Sui and Tang *yan yue* music. Nonetheless, Kishibe's works mainly focus on what is explained in Chinese treatises; there is no attempt to compare the modes recorded in the Chinese historical treatises with the modes recorded in historical *tôgaku* scores.

In addition to Hayashi Kenzô and Kishibe Shigeo, Fukushima Kazuo has carried out important research on *tôgaku*. While his research primarily focuses on source studies rather than on the decipherment of *tôgaku* notations, Fukushima's research has laid the foundation for most recent *tôgaku* research. As the *shitsuchô* (head) of the Research Archives for Japanese Music of Ueno Gakuen University, he has assembled an important research collection of historical musical sources. His collated edition *Nihon ongaku shiryôshitsu tenran mokuroku* [A catalogue of the exhibitions held in the Research Archives for Japanese Music between 1975-1988] (Fukushima 1990) provides a detailed introduction to the sources preserved in the archives. My study of important historical *tôgaku* scores in Chapters Three draws on information provided in this catalogue.

Of the present-day scholars working on the historical scores of *tôgaku*, Endô Tôru, Steven Nelson⁵ and Terauchi Naoko are the most active. Of these, Endô is the

⁵ Steven Nelson is a Japanese- and western-trained scholar who has done research for more than twenty years in Japan. Since many of his publications are written in Japanese rather than in English (see below), it is perhaps more appropriate to consider his publications as part of the Japanese

one who has worked most comprehensively on modes. His article “Ichikotsuchô ni konzai suru futatsu no chô / Bimodality in the *tôgaku* mode *ichikotsuchô*” (Endo 2004a)⁶ investigates lute pieces notated in *Sango yôroku* (see Introduction) and explains why these pieces include pitches that are outside the theoretical scale of the *ichikotsuchô / yi yue diao* mode.

In addition, Endô’s PhD thesis “Heianchô *tôgaku* no chôshi kôzô no kenkyû” [A study of the structures of the modes used in Heian-period *tôgaku*] (Endo 2003) investigates the structures and the practice of all the common *tôgaku* modes performed in the late-Heian period,⁷ and a large proportion of his thesis is devoted to the analysis of the modes in *Sango yôroku*. Part of this research is also published in his article “Gakubiwa no hidarite no gihô to chôshi no kanren—Sango yôroku no bunseki niyoru” [The relationship between the left-hand techniques and the modes for the *gakubiwa*: an analysis of *Sango yôroku*] (Endô 2002).

According to Endô’s analysis, pieces that are grouped in the same modal category in the late-Heian period might not necessarily have been performed in the same mode. For instance, some pieces that were classified in the *taishikichô / da shi diao* (Mixolydian) modal category were actually performed using the *u / yu* (Dorian) modal structure (Endô 2002:210).

While Endô’s research on modes has been invaluable for my investigation of

research.

⁶ This article was first presented in English as a conference paper in 2001 (Endô 2001).

⁷ In 2005, an edited version of this thesis was published as a monograph, the title of which is *Heianchô no gagaku—kogakufu niyoru tôgakukyoku no gakuriteki kenkyû* [Heian-period *gagaku*: a study of the modal theory of *tôgaku* with reference to the musical notations] (Endô 2005).

the transformation of *tôgaku* modes, his main research focus is confined to the Heian period and he examines the modal practice of *tôgaku* primarily for the period between the tenth and the late twelfth centuries (Endô 2003). In my thesis, I concentrate on a more limited number of pieces but examine modal practice of *tôgaku* over a much wider period of time.

Furthermore, Endô is not particularly interested in tracing the transmission of modes from Tang China to Heian Japan. His research examines only a few Chinese sources (Endô 2002, 2003, 2004a). For example, his PhD thesis refers only to *Tang hui yao*, and although *Tang hui yao* is undoubtedly an important source for Tang modes, other Chinese treatises such as *Sui shu*, *Xin tang shu*, *Yue fu za lu* and *Bu bi tan* are also significant. As will be shown in Chapter Two of this thesis, they contain information that is not available in *Tang hui yao*.

Another significant article written by Endô is “Nakahara roseishô bunseki shiron” [A preliminary discussion and analysis on *Nakahara roseishô*] (Endô 1995). This article is a preliminary research on the tablature-notation of *Nakahara roseishô*. One of the key ideas suggested in this article concerns the occurrence of *hen'i*, which in general means pitches in the double-reed pipe melodies that do not necessarily correspond to those in the ‘fundamental melody’ of the pieces (Endô 1995:22-14). He states that the ‘fundamental melody’ is generated by reading *Hakuga no fuefu* and *Motomasa no fuefu* (Endô 1995:22), but does not explain how this is generated. Moreover, Endô examines only one piece, “*Seigaiha*”. Although Endô suggests that the *hen'i* might have related to modes (Endô 1995:24), these limitations make it difficult to relate his results to the present study.

Steven Nelson is another very active *tôgaku* scholar. While his research methodology basically follows the one established by the Cambridge Tang Music Project that was begun at Cambridge University under the direction of Laurence Picken in the 1970's (see below), he is critical of some views recently expressed by Picken regarding specific aspects of history and certain musical sources (Marett 2006:80-1). In his article "Gogenfu shinkô-omoni gogen biwa no jusei oyobi chôgen ni tsuite / The *Gogen-fu*, a Japanese Heian-period tablature score for five-stringed lute: concentrating on the fret system and tunings of the instrument" (Nelson 1986),⁸ Nelson deciphers the fret system, tunings and the melodies of the five-stringed lute (see Chapter Four) through an analysis of the tablature-notation in the light of the information provided in the table of contents of the score. Although this article includes only a brief illustration of the structures of the *tôgaku* modes, it is invaluable to my project since Nelson's research provides an important key to understanding the mid-Heian melody of "*Sômeiraku*" and its implications for modal practice (see Chapters Four and Seven of this thesis).

In addition to Endô, Nelson has also carried out research on *Nakahara roseishô*. His conference paper "Nakahara roseishô ni okeru kifuhô ni kansuru ichikôtsatsu" [A study of the notational methods of *Nakahara roseishô*] (Nelson 1981),⁹ which concentrates on rhythmic implication of the tablature-notation, has assisted me in deciphering the double-reed pipe notation (See Chapter Four). Although Nelson's

⁸ This article is an edited version of his Masters thesis "Gogenfu shinkô-kifutaikei no bunsekiteki kenkyû wo tsûjite-" (Nelson 1983).

⁹ Nelson gave his conference paper to me during my fieldwork in Japan.

research on *Nakahara roseishô* was carried out fourteen years earlier than that of Endô, his research result has never been published.

Prior to 1996, Terauchi Naoko's main research interest was the ornamental, mensural and metrical systems of *tôgaku* pieces in the Heian period. Her results are summarized in the monograph *Gagaku no rizumu kôzô-heian jidai sueni okeru tôgakukyoku ni tsuite* [The metrical and mensural structures of *gagaku*: concerning the pieces of *tôgaku* in the late-Heian period] (Terauchi 1996). Terauchi's current research interest concerns the development of pieces during and after the nineteenth century (Terauchi 2003, 2004). In this work, she has not particularly focused on the Tang and *tôgaku* modes.

Some research on modern *tôgaku* also includes investigation of *tôgaku* modes, for example, Masumoto Kikuko's *Gagaku-dentô ongaku e atarashii apurôchi* [*Gagaku*: New approaches for the investigation of traditional music] (Masumoto 1968) and Gamô Mitsuko's book chapter "Gakuri" [music theory] in *Nihon no koten geinô 2: gagaku* [Traditional Japanese performing arts Vol. 2: *gagaku*] (Gamô 1970). While both Masumoto and Gamô clearly indicate that modern *tôgaku* double-reed pipe and flute melodies of the same modal group usually share similar melodic patterns (Masumoto 1968:131-56) (Gamô 1970:144-150), they do not investigate the relationship between these modern patterns and the historical melodies. This will be one of the main focuses in Chapters Five to Eight of this thesis.

It is also common in Japan for present or former *gagaku* performers of the imperial court to write books on modern *gagaku* and *tôgaku*. These include Shiba

Sukehiro's *Gosenfu niyoru gagaku sôfu Vols. 1-4* [Transcriptions of *gagaku* in western staff] (Shiba 1968, 1969, 1971, 1972), Abe Suemasa's *Gagaku ga wakaruhon* [A book for understanding *gagaku*] (Abe 1998) and Tôgi Toshiharu's *Gagaku eno shôtai* [An invitation to the world of *gagaku*] (Tôgi ed. 1999). The first, which comprises four volumes, is a complete transcription of the modern *gagaku* repertory. Although the first volume includes a section on modes, it simply explains the structures of the modern *gagaku* modes and the tunings of the instruments. Discussion of Shiba's transcriptions is confined mainly to the structures and forms of the modern pieces. The objective of the other two publications is the promotion of modern *gagaku*. They contain no comparison between the modes of Tang China and modern *tôgaku*.

The modes of modern *tôgaku* are also explained in encyclopedic works, such as *Ongaku jiten* [Encyclopedia of music] (Heibonsha ed. 1954-1957), *Gagaku jiten* [Encyclopedia of *gagaku*] (Ono ed. 1989) and *Nihon ongaku daijiten* [Encyclopedia of Japanese music] (Hirano et al. ed. 1989). While the explanations in *Ongaku jiten* (Heibonsha ed. 1954-1957: Vol. 2, 214-5; Vol. 6, 279-80) and *Nihon ongaku daijiten* (Hirano et al. ed. 1989:127-46) give readers some indications of the differences between Chinese and Japanese modal theory, the examination is relatively superficial. Other encyclopedic works, such as *Gagaku jiten*, usually simply provide the modal names and a brief illustration of the structures of the modes used in modern *tôgaku*.

Generally speaking, Japanese researchers have done a substantial amount of research on both Tang music and Japanese *tôgaku*. Indeed, some of the publications,

such as Hayashi Kenzô's *Sui tang yan yue diao yan jiu* (Hayashi 1936) and Kishibe Shigeo's *Tôdai ongaku no rekishiteki kenkyû* (Kishibe 1960, 1961, 2005), might be regarded as classics. We must be grateful to Hayashi and Kishibe whose profound research on Chinese Tang music and Japanese *tôgaku* has laid the foundation for later research. There is, however, more work to be done, particularly with regard to the establishment of a connection between the *yan yue* of Tang China and the *tôgaku* of the Heian-period and modern Japan.

Some Japanese scholars and *gagaku* musicians tend to hold a somewhat conservative view with regard to the relationship between ancient and modern *gagaku*, and this in turn has limited their research on historical and modern modal practice. Despite the fact that the members of the Cambridge research group have already shown that the sound of modern *gagaku* is extremely different from that of the Heian *gagaku* (see below), until recently some Japanese researchers continued to assert that the music of *gagaku* performed today is very similar to the versions performed after the so called *gakusei kaikaku* (reforms of musical system) carried out in the early Heian period.¹⁰ The term *gakusei kaikaku* was first used by Tôgi Tetteki (1869-1925) in his book *Nihon ongakushikô* [A study of Japanese music history]. Fukushima Kazuo clearly indicates in his research that while Tôgi did not treat this *gakusei kaikaku* as a historical fact but merely a *densetsu* (legend) written in some musical sources (Fukushima 1999:133), in a later period many Japanese musicians and scholars simply adopted this 'legend' as a historical fact, and

¹⁰ Some western researchers, such as Robert Garfias (see below), are also affected by this idea (see Garfias 1975:15).

suggested that *gagaku* became a static and unchanged tradition after the processes of the *gakusei kaikaku* (Fukushima 1999:133). This is perhaps one of the reasons why so many Japanese scholars and *gagaku* musicians consider it is unnecessary to examine the historical *tôgaku* scores and include no or only little information on historical scores in their publications.

II. Research by Chinese scholars

Chinese research on Tang music and *tôgaku* generally falls into a number of categories, for example, research on Tang modes, research on the historical *tôgaku* scores and the decipherment and analysis of *Dun huang pi pa pu* (see Introduction).

There has been a long history of research on modes in China. For example, Wang Guang-qi's *Zhong guo yin yue shi* [A history of Chinese music] (Wang 1934), which was published more than eighty years ago, includes a comprehensive discussion of the modes used in different periods of China.¹¹ After the Second World War, however, Mainland China faced various civil wars and political crises, and this hindered Chinese scholars' research activities, particularly between 1950 and 1980. Cheung Sai-bung (Zhang Shi-bin) (1939-1978), a Hong Kong citizen and a graduate of the Chinese University of Hong Kong, was probably the first Chinese scholar to undertake research on the relationship between Tang music and *tôgaku*. Cheung visited Japan in the 1960's and worked at Kyoto University (Yu 1998:1-4).

¹¹ The version I consulted is a reprint published in 1989.

In addition to his work on the music of Chinese *kokin / gu qin* (seven-stringed zither), he also studied historical *tôgaku* scores and Tang modal theory. His article “Tang song su yue diao zhi li lun yu shi yong” [The theory and practices of the modes of the entertainment music in the Tang and Song periods] (Cheung 1970) examines in great detail the theory and structures of modes in Sui, Tang and Song (960-1279) China. Rather than simply referring to Chinese historical sources, Cheung also consulted Japanese sources and *tôgaku* scores. For instance, he used the information in *Sango yôroku* and *Agetsu mondô* [Questions and answers on the modal theory of Agetsubô] (1295) to support his argument about the differences between the pitches used in *yan yue* and *ya yue* repertoires in China (Cheung 1970:15-6).

Cheung’s article “Kyû fushiminomiyabon nangû biwafu niyoru tôdai shûbiwa no gakufu no kenkyû” [A study of the Tang *shûbiwa* musical notation in the *Fushimi no miyabon* version of *Nangû biwafu*] (Cheung 1971)¹² examines the notation of the prelude “Ôshikichô” recorded in *Nangû biwafu*. Cheung, after examining various Chinese treatises—for example, *Tang hui yao* and *Sui shu*—concludes that this piece was composed using the *su yue diao* (or *xia zhi diao*) scale (an Ionian series) rather than the *zheng sheng diao* scale (a Lydian series) (Cheung 1971:11-2).¹³ This research cannot, however, be regarded as complete because Cheung only examined one of the pieces notated in *Nangû biwafu*.

¹² The Chinese version was published in 1974, under the title “Tang dai chou pi pa zi pu zhi jie shuo ji tao lun” [An examination of the tablature-signs in a *chou pi pa* score of the Tang period] (Cheung 1974).

¹³ See Chapter Two for a detailed explanation of the various Chinese scales.

Unfortunately, Cheung passed away a few years after the publication of this article and no one has continued his research.

From 1980 on, some Chinese scholars began to work more intensively on the historical *tôgaku* scores. Ye Dong (1930-1989), who was influenced by the works of Hayashi Kenzô, conducted research on *Gogenfu*, *Hakuga no fuefu*, *Sango yôroku* and *Jinchi yôroku*. Most of his articles on Tang music and *tôgaku* were republished in the monograph *Tang yue gu pu yi du* [The study and transcription of ancient Tang scores] (Ye 2001).

Ye's arguments rely not only on historical Japanese scores, but also on numerous Chinese historical treatises and literary sources. For instance, Ye investigates the structures, forms, meters and rhythms of pieces in *Jinchi yôroku* with reference to various Tang poems (Ye 2001:77-95). Ye did not realize, however, that Laurence Picken (see below) had already examined *tôgaku* scores in the light of Chinese poems (Picken 1969b) and failed to refer to any of Picken's work.

Another Chinese scholar, He Chang-lin, has also published articles on historical scores, including "Tang chuan ri ben wu xian pu zhi yi jie yan jiu" [The decipherment and investigation of the *Gogenfu* transmitted from Tang China to Japan] (He 1983a, 1984) and "Tian ping pi pa pu zhi kao jie yi" [An investigation, explanation and transcription of the *Tenpyô biwafu*] (He 1983b). These two articles generally concentrate on notations and the tunings of the lute. They include, however, no direct examination of modes.

Although both Ye and He were familiar with Hayashi Kenzô's works and were able to refer to Hayashi's publications in their research, they had little idea about

other Japanese research. For example, it seems that neither Ye nor He knew that in the early 1980's Steven Nelson had worked on the notation of *Gogenfu* and suggested a new fret system for the five-stringed lute (see also Chapter Four).

Chinese research on Tang modes focuses mainly on the examination of the *yan yue er shi ba diao* (the twenty-eight modes for banquet music) (see Chapter Two) (Wang 1984) (Ding 1993) (Zhuang 1995), the records in the *Yin yue zhi* chapter of *Sui shu* (Li 2000) and the position of the *ying* degree in Chinese scales (Gong 1988) (Huang 1982). It is no exaggeration to say that Chinese scholars have already thoroughly examined all the available Chinese treatises that include descriptions of the Sui and Tang modes. The main problem is that most of them rely entirely on the Chinese treatises to decipher the structures of the modes and ignore Japanese sources. Moreover, while Chinese sources usually include detailed technical and theoretical explanations of the modes, there is almost no direct information in these sources on the sound of the Sui and Tang music. Such information can be, however, obtained from sources preserved in Japan, for example, the Tang-style instruments stored in the Shôsôin (The Imperial repository of the Japanese court) and the historical scores that are preserved in archives such as the Research Archives for Japanese Music of the Ueno Gakuen University and the Archives and Mausolea Department of the Imperial Household Agency.¹⁴ Hayashi has already shown that the wind instruments in the Shôsôin can assist us to understand the temperament of the scales used in Tang China (Hayashi 1964:164-187). Moreover, some historical

¹⁴ See Chapter Three for a more comprehensive list of important archives in Japan.

scores preserved in Japanese archives, such as *Sango yôroku*, *Jinchi yôroku* and *Ruisô chiyô*, include very clear illustrations of the modes used in late-Heian *tôgaku* and even passages from lost Chinese treatises. For example, Hayashi suggests that the *biwa senkyûhō* section in *Sango yôroku* is quoted from the text of the Chinese treatise *Yue shu yao lu* (*Gakusô yôroku* in Japanese) [Important records from music books] (c. 695) (Hayashi 1969h:264). *Yue shu yao lu* survives only in chapters five, six and seven (Hazuka 1940, 1941, 1942) and these do not include the *biwa senkyûhō* section. I will also demonstrate in Chapter Six that the ornamental practice of the late-Heian *tôgaku* can be used as an evidence to support the view that there was a change in the theoretical structure of heptatonic scale in China during the sixth and seventh centuries.

In addition, Japanese sources sometimes clarify uncertainties in Chinese sources. For example, Song Rui-qiao interprets a passage in the *Li yue zhi* [The chronicle of rites and music] chapter of *Xin tang shu* (see Ouyang 1060:460) as suggesting that at the beginning of the Tang period the interval between two *kyû / gong* degrees in a Chinese scale might have been a major seventh rather than an octave (Song 1991, 1996a, 1996b). The modal structures that are illustrated in the *Li yue zhi* chapter are, however, rather ambiguous, and are not supported by other Sui, Tang and Song treatises. More importantly, if such a scale had been used in the early Tang period, we might expect that it would have been transmitted to Japan along with Tang music. The notations and tuning sections of the Japanese historical *tôgaku* scores show categorically, however, that the interval between the two *kyû /*

gong degrees in a scale must always be an octave.¹⁵ Song's dubious conclusion might have been rectified had he not ignored both Japanese sources and other Tang and Song Chinese sources.

While some Chinese scholars, such as Zhang Qian, Zhao Wei-ping and Chen Ying-shi, realize that there are important sources in Japan and use them in their research, most of their research is not devoted to the study of modes. For instance, Zhang Qian's monograph *Zhong ri yin yue jiao liu shi* [A history of music exchange between Japan and China] examines musical exchanges between China and Japan from the Tang period to the present-day, but his work is quite general and there is little detailed information on modes (Zhang 1999). Zhao Wei-ping focuses mainly on the music institutions and organizations of the Chinese and Japanese courts (Zhao 2000, 2001). Although Chen Ying-shi's book chapter "Nitchû gakuritsu nidai" [Two comparative studies of temperament in China and Japan] in *Ongaku no minamotoe chûgoku no dentô ongaku kenkyû* [Towards the origin of music: a study of traditional Chinese music] is a study of Chinese and Japanese modal theory (Tôkawa & Chen 1996:135-156), it chiefly focuses on the differences between the pitches of the twelve *ritsu / lü* in Chinese and Japanese practices.¹⁶

Taiwanese scholars also began publishing on Tang music during the last decade. Works such as Yang Min-wei's *Tang dai yin yue wen hua zhi yan jiu* [A study of the music culture in the Tang period] (Yang 1993) and Shen Dong's *Tang*

¹⁵ The tuning sections in *Jinchi yôroku* and *Sango yôroku* clearly indicate that the pitches of the *kyû / gong* degrees in different registers are identical. For details, see Ng 1998:50-100.

¹⁶ See Chapter Two for the meaning of *ritsu / lü*.

dai yue wu xin lun [A new approach to the music and dance in the Tang period] (Shen 2000) concentrate mainly on what is contained in Chinese treatises. Neither of these two monographs includes any detailed discussion on modes.

Another important category of Tang music research is the analysis of *Dun huang pi pa pu*. Chen Ying-shi is regarded as one of the leading scholars of this score. According to his list of publications,¹⁷ Chen has published more than thirty books or articles on *Dun huang pi pa pu*.¹⁸ In addition to Chen Ying-shi, Ye Dong (Ye 1982), He Chang-lin (He 1987), Rao Zong-yi (Rao 1960) and Ying You-qin (Ying 1983) have all published articles on *Dun huang pi pa pu*.¹⁹ The main objective of their research is to ascertain the tunings of the four-stringed lute and to decipher various signs written in the score. Some Chinese scholars, such as Chen Ying-shi and Ye Dong, are aware of the historical *tôgaku* scores preserved in Japan and have indicated this in their research. But while they have compared the *Dun huang pi pa pu* with Japanese lute scores, they are more interested in rhythmic aspects of the notation than in the modal structure of the pieces. For instance, Chen Ying-shi's recent article "Zhong ri pi pa gu pu zhong di ‘、’ hao-pi pa gu pu jie zou jie yi di fen qi dian" [The meaning of the ‘、’ sign in ancient Chinese and Japanese lute scores: a discussion of disagreements concerning the decipherment of the rhythm of the pieces] (Chen 2002) only investigates the meanings of dots employed in the notations of *Dun huang pi pa pu*, *Tenpyô biwafu* [The Tenpyô lute score] (c.

¹⁷ Communicated to me personally.

¹⁸ Some of Chen's representative publications are Chen 1983, 1988, 2005; Chen, Rockwell trans. 1991 (in English) and Tôkawa & Chen, Murakoshi trans. 1996 (in Japanese).

¹⁹ For a detailed bibliographical research of *Dun huang pi pa pu*, see Chen 2005:170-227.

747) and *Gogenfu*.

III. Research by western scholars

The most significant research on *tôgaku* in a European language has been carried out by a research group, the Cambridge Tang Music Project, at Cambridge University. This group, which was headed by Laurence Picken, began in the early 1970's and is still continuing.²⁰ Its main contribution is the establishment of a method for reading and deciphering historical *tôgaku* notations with reference only to information provided in the scores and other sources contemporary with them (Picken et al. 1981:11). The historical *tôgaku* melodies in this thesis are transcribed using the methodology developed by the Cambridge research group.

While, by the mid-1970's, some Japanese and western scholars had already carried out research on a limited numbers of historical *tôgaku* scores, their investigations and transcriptions were done mainly with reference to modern performance practice. Picken suggests that even the research of Hayashi Kenzô, the leading Japanese scholar in the field of study of the early *tôgaku* scores, was influenced by modern practice (Picken et al. 1981:10). For instance, it seems that Hayashi followed the tempo of the modern lute performance in transcribing the melodies in *Gogenfu* and that as a result, nearly all the tablature-signs were

²⁰ The original members of this research group were Laurence Picken, Jonathan Condit, Allan Marett, Elizabeth Markham, Mitani Yôko and Rembrandt Wolpert. Subsequently other members, including Stephen Jones and Noel Nickson, joined the project (Marett 2006:79).

transcribed as semibreves (Hayashi 1969c).²¹

Westerner scholars who worked comprehensively on Japanese music and *tôgaku* before the second half of the 1970's also tended to interpret historical scores in the light of modern practice. Typical of such work is Eta Harich-Schneider's *A history of Japanese music* (Harich-Schneider 1973) and Robert Garfias' *Music of a thousand autumns: The tôgaku style of Japanese court* (Garfias 1975). While both works contain much of value—for example, Harich-Schneider's account of the *gagaku* standardization carried out in the nineteenth century and Garfias' transcriptions and analysis of the modern *tôgaku* pieces and techniques—, they show little understanding of historical *tôgaku* scores.

Harich-Schneider's monograph, for example, includes some transcriptions of the tenth-century flute melodies notated in *Hakuga no fuefu* (Harich-Schneider 1973:213). From the fact that she tended to transcribe each tablature-sign of the tenth-century flute notation of "*Seigaiha*" as a semibreve (Harich-Schneider 1973:213), it is clear that Harich-Schneider was significantly influenced by the tempo and techniques of Japanese modern practice. Furthermore, in her transcriptions, the *yuri* technique of the flute (see Chapter Four) is transcribed as an oscillation. While oscillations are frequently used in the modern flute melodies and while these are undoubtedly related to the *yuri* technique of the flute in ancient Japan (see Chapter Five), *yuri* generally represented the technique of a mordent rather than an oscillation in the tenth-century (see Chapter Four).

²¹ Modern *tôgaku* is performed in a fairly slow tempo (see below).

Although Robert Garfias transcribed only the first musical phrase of the *Hakuga no fuefu* version of “*Hakuchû*” (Garfias 1975:118), this transcription shows that Garfias also failed to understand metrical aspects of the notation of *Hakuga no fuefu*. Garfias suggests, moreover, that *Hakuga no fuefu* shows only the skeletal contour of the melodies and that there were many ways to elaborate it (Garfias 1975:118) (Marett 1986:33). He transcribes each tablature-sign of the flute notation as a semibreve and then lines it up with the modern version in order to show how the ‘skeletal contour’ is elaborated in the modern version (Garfias 1975:118).

Harich-Schneider and Garfias’ transcriptions reveal that it is hard to correctly understand the notations of the historical scores if they are interpreted in the light of modern practice. This is why Picken suggested reading the historical scores with no more information than that given in the manuscripts themselves, deliberately ignoring the living tradition and performance practice of today (Picken et al. 1981:11). The research of the Cambridge Tang Music Project focuses on a number of important and early historical *tôgaku* scores, such as *Hakuga no fuefu*, *Jinchi yôroku*, *Sango yôroku*, *Kaichikufu* (c. 1095), *Shinsen shôtekifu*, *Kofu ritsuryokan*, *Ruijû sôfu* (eleventh century), *Ruisô chiyô* and *Ryûteki hikyokufu* (1287). Most of these scores will also be studied in this thesis (see Introduction and Chapters Three and Four). The transcriptions done by the members of the project are published mainly in the series *Music from the Tang court* (Vols. 1-7) (Picken et al. 1981-2000), and their discoveries and achievements may be summarized as follows:

1. The ancient *tôgaku* melodies transcribed by the Cambridge research group are close to the music of *yan yue* in Tang China. This is supported by two

observations. Firstly, the ancient *tôgaku* melodies are, on the one hand, similar to the Chinese tunes recorded in Song sources (Picken 1969b:402-3) and on the other, manifest characteristics of Central Asian tunes (Picken 1967:551).²² Secondly, some *tôgaku* melodies are suitable for the setting of the Tang poetic texts (see Picken 1969b).

2. The sound of Heian *tôgaku* was extremely different from that of the modern version. While it is the flute and the double-reed pipe that play the main melodies in the *tôgaku* ensemble of the present-day, the modern melodies of these two instruments have come into being relatively late in the development of the *tôgaku* style (Marett 1985:410). The forms of the historical melodies are in fact preserved in the modern lute and mouth-organ parts (see also Chapters Five to Eight). Nonetheless, the ancient tunes can no longer be heard as melodies since these two instruments are performed with complicated chordal accretions and at a very slow tempo.
3. The research group argued, on both linguistic and musical grounds, that the ancient *tôgaku* melodies were performed at a substantially faster tempo, probably four to eight times faster (Nelson 1988:28), than that in modern practice (Picken 1969:407).

²² Chinese music was significantly influenced by Central Asian tunes in the Tang period. The *shi bu ji* or 'ten types of music' of the Tang court included music from India, Kucha, Samarkand, Kashgar and Bokhara (Marett 1986:31).

4. In the Heian period, some *tôgaku* and *saibara* pieces²³ shared a nearly identical melodic line. For example, in the Heian period, the melody of “*Jusuiraku*” (*tôgaku*) was said to be identical to that of “*Ise no umi*” (*saibara*) (see Markham 1983). Today these two melodies are completely different. The work of the Cambridge group on *tôgaku* and *saibara* shows that when read correctly, some *tôgaku* and *saibara* melodies in Heian historical scores are virtually identical. This proves that the melodies realized from the Heian *tôgaku* scores are not skeletal contours as suggested by Garfias, but rather that they were real flesh and blood melodies performed in a substantially faster tempo (Marett 1986:33).

While the members of the Cambridge Tang Music Project have carried out research that is focused on Tang and *tôgaku* modes, this research tends to be published in the forms of articles and encyclopaedic entries rather than in the series *Music from the Tang court*. Picken’s article “T’ang music and musical instruments” in *Toung Pao* (Picken 1969a), for example, examines the modes, notational methods, musical forms, instruments and repertoires of the music of Tang China. Although Picken states that this article is basically an ‘observation on reading Martin Gimm’s *Das Yüeh-fu tsa-lu des Tuan An-chieh* (Gimm 1966) [The *Yue fu za lu* of Duan An-jie (fl. 880)] (Picken 1969a:76), it is not merely a book review.

²³ *Saibara*, another genre of *gagaku*, derives from a kind of vocal music that was frequently sung in the Japanese court during the mid- and late-Heian periods.

Picken, on the one hand, indicates inadequacies in Gimm's monograph and on the other, provides his own arguments and conclusions. For instance, he criticizes Gimm's reconstruction of the structures of the twenty-eight modes written in *Yue fu za lu*, pointing out one of the most serious mistakes, namely that Gimm describes the structure of the *u / yu* mode as Aeolian rather than Dorian (Picken 1969a:99).

Among the original members of the research group, Allan Marett has published on various aspects of *tôgaku*, including modes. For instance, his article "Tôgaku: where have the Tang melodies gone, and where have the new melodies come from" (Marett 1985) investigates how the melody of "*Seigaiha*" was transformed over the last millennium. Marett's entry "Japanese *chôshi*" (literally 'key' or 'mode' in Japanese) in *The New Grove dictionary of music and musicians (second edition)* (Marett 2001b:853-60) examines not only the structures but also changes to the *tôgaku* modes between the Heian period and the present-day. In this entry, Marett explains how the scales introduced into Japanese music from the sixteenth century on affected the modal practice of the modern *tôgaku* melodies (Marett 2001b:854-8). The analysis in Part II of each of the last three chapters of this thesis is in fact a continuation of Marett's research. Here I examine the modern modal practice of the five main melodic instruments used in the *tôgaku* ensemble and show that the modern double-reed pipe melodies are significantly affected by the *in* scale, one of the scales introduced later in the history of Japanese music.

While other members of the project have published on other aspects of *tôgaku* (Condit 1976) (Wolpert 1987), none, apart from Picken, have focused in any detail on the relationship between Tang *yan yue* and Japanese *tôgaku* modes.

Monographs or encyclopaedias that are devoted to the study of Japanese and Asian music usually include some discussion of *gagaku*. The *gagaku* sections in these monographs and encyclopaedias are, however, chiefly devoted to the examination of modern rather than historical performance practice, and contain little or no description of historical *tôgaku* scores. For instance, William Malm's *Japanese music and musical instruments* (Malm 1959)²⁴ includes only a general discussion to the music theory, instruments, form and rhythm of modern *tôgaku*. While *The Garland encyclopedia of world music Vol. 7 East Asia: China, Japan and Korea* contains a long description of Japanese modal theory (Provine, Tokumaru & Witzleben ed. 2002:565-584), it includes only a short discussion of the *gagaku* modes. Some of the descriptions in this encyclopedia are, moreover, misleading. For instance, it states that 'in the Heian period, various scales introduced from Tang China were arranged into six types, called *roku tyôsi* (*rokuchôshi*), and divided into two main groups: the *ryo* group and the *ritsu* group' (Provine, Tokumaru & Witzleben ed. 2002:566). The use of the word 'scales' in this sentence is incorrect. As we shall see, in general the modes of *tôgaku* are all formed from a single scale called *zheng sheng diao*. In the late Heian period, the Japanese misunderstood the Chinese system of the *sei / sheng* (see Chapter Two) and this gradually caused the Japanese to think of *tôgaku* modes as being formed from different scales.²⁵ Furthermore, it is unlikely that the *tôgaku* modes were clearly classified into 'six

²⁴ I also consulted the 2000 reprint of this monograph, for which the title was changed to *Traditional Japanese music and musical instruments* (Malm 2000).

²⁵ See Part I of Chapter Six for a more detailed explanation of the misunderstanding.

types' in the Heian period since *Sango yôroku*, which was compiled in the late Heian period, clearly records a total of ten modal categories. Endô Tôru's research shows, moreover, that each modal category in *Sango yôroku* may comprise pieces in a number of different modes (see Part I of this chapter).

In order to thoroughly understand the link between the Tang *yan yue* and Japanese *tôgaku*, it is necessary to study various Chinese and Japanese historical sources. Western researchers do not, however, usually possess a complete mastery of more than one of these two languages. As a result, it is common for western researchers to rely only on the sources that they are familiar with. The research of the Cambridge Tang Music Project and western scholars is sometimes criticized by the Japanese scholars for failing to consult important Japanese research and sources (see Nelson 1988:30-1). One of the objectives of this thesis is to provide in English the results of research that refers comprehensively to both Chinese and Japanese sources.

Chapter Two

The Chinese modal system and the structures of the *ôshikichô* / *huang zhong diao*, *banshikichô* / *pan she diao* and *hyôjô* / *ping diao* modes in the Tang period

Chinese modal theory was imported to Japan along with the music of *yan yue* (banquet and entertainment music) between the seventh and ninth centuries. Although modal theory underwent some changes after its importation from China, the names of Chinese modes have been preserved to the present-day in Japan. The *tôgaku rokuchôshi* (the six modal categories of *tôgaku*) (see p. 6) of present-day *tôgaku*, for example, preserve the names and some features of the Chinese originals.¹ In order to discover what has been changed and what has been preserved in the structure of the *tôgaku* modes since their importation from China, it is necessary to first clarify the structures and the characteristics of the modes in China.

Although most *yan yue* was imported from China to Japan between the seventh and ninth centuries, we need to consider the modal theory not only of Tang China but also of the periods before and after Tang. Such an examination will, moreover, provide a benchmark against which changes in the *tôgaku* modes in Japan can be assessed. This chapter will outline basic Chinese modal theory, and provide a comprehensive explanation of the three *yan yue* modes, *ôshikichô* / *huang*

¹ See Marett 2001b:853-4.

zhong diao, *banshikichô* / *pan she diao* and *hyôjô* / *ping diao*, that form the basis of my examination of modes in this thesis.

I. A general introduction of the Chinese modal theory

Modes in ancient China were formed by combining the *ritsu* / *lü*,² a system of twelve named pitches, and the *sei* / *sheng*, a system of seven degree names. From as early as the third century B.C., the twelve pitches in an octave were calculated by using the method of *sanbun son'ekihô* / *san fen sun yi fa*, whereby the twelve pitches in an octave are derived by alternately adding and subtracting one-third of the length of a string or a tuning pipe. This mechanism produces pitches similar to those of the Pythagorean tuning. The *Gu yue* [Ancient music] chapter of *Lü shi chun qiu* [Master Lü's spring and autumn annals] (c. 235 B.C.) contains a detailed description of the generation of the twelve *ritsu* / *lü*, taking *kôshô* / *huang zhong* as the fundamental pitch (Lü c. 240 B.C.:51).³ Figure 2.1 shows the names of these twelve *ritsu* / *lü*.

In this figure, C is adopted as the pitch of *kôshô* / *huang zhong* merely in order to demonstrate the system. There is no evidence that the pitch of *kôshô* / *huang*

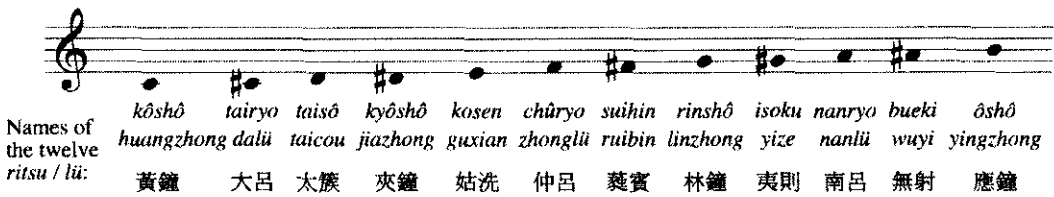
² Here *ritsu* / *lü* 律 has a different meaning from that of the *ritsu* 律 group of Japanese *tôgaku* explained in the Introduction. In Chinese modal theory, '律' refers to the named pitches of the twelve notes that form the octave. In order to avoid ambiguity, I will include the Chinese romanization 'lü' after the Japanese romanization 'ritsu' whenever I use it to indicate the named pitches of the octave.

³ For a detailed explanation of this description, see Ng 1998:8-11.

zhong was exactly C in Tang China. In fact, the pitch of *kôshô* / *huang zhong* did not remain constant throughout the ancient period.

Moreover, when I match the pitches of the twelve *ritsu* / *lü* to the pitches of the twelve semitones in western music, it is only in order to facilitate explanation of the modal structure. I do not intend to imply that the twelve *ritsu* / *lü* are equal to the tempered scale.

Figure 2.1: The names and the sequence of the twelve *ritsu* / *lü*



Sei / *sheng*, on the other hand, does not represent pitch but degree. The *Di yuan* [The land] chapter of *Guan zi* [The speeches of Guan zi] (seventh–eighth centuries B.C.) includes a short description of the formation of the five *sei* / *sheng*, namely, *kyû* / *gong*, *shô* / *shang*, *kaku* / *jue*, *zhi* / *chi* and *u* / *yu*, by using the *sanbun son'ekihô* / *san fen sun yi fa* method (Guan Zhong (?) seventh–eighth centuries B.C.: Vol. 347, Ch. 19, p. 11). The relationship between the five *sei* / *sheng* is that of an anhemitonic pentatonic modal structure, as set out in Table 2.1.

Table 2.1: The intervallic relationship of the five *sei* / *sheng*

Names of the five <i>sei / sheng</i>	<i>kyû/ gong</i> 宮	<i>shô/ shang</i> 商	<i>kaku/ jue</i> 角	<i>chi/ zhi</i> 徵	<i>u/ yu</i> 羽	<i>kyû/ gong</i> 宮
Intervals	Major second	Major second	Minor third	Major second	Minor third	

Chinese modes are not, however, only pentatonic. The heptatonic scale was adopted in China no later than the third century. The two additional *sei / sheng* required for the heptatonic scale are conceived of as altered versions of the pentatonic degrees *kyû / gong* and *chi / zhi*. They are known as *henkyû / bian gong* and *henchi / bian zhi* respectively. In the analysis of this thesis, these two degrees will be called ‘auxiliary degrees’. A note added to the *Zhou yu xia* [Speeches of the Zhou region: Section two] chapter of *Guo yu* [Collected speeches and comments from the states] (fifth century B.C.) in the third century indicates that the positions of the *henkyû / bian gong* and the *henchi / bian zhi* degrees are a semitone below the *kyû / gong* and the *chi / zhi* degrees respectively (Zuo fifth century B.C.:138).⁴ The intervallic relationship of the seven *sei / sheng* that is explained in the third-century note of *Guo yu* is set out in the following table.

Table 2.2: The intervallic relationship of the seven *sei / sheng*

⁴ The present-day versions of *Guo yu* are mainly published with reference to the versions with Wei Zhao’s (204-273) explanatory notes. The *Ming dao ben* and *Gong xu ben* copies of the Song Dynasty (960-1279) are the most common sources of the present-day versions of *Guo yu*.

Names of the seven <i>sei / sheng</i>	<i>kyû / gong</i> 宮	<i>shô / shang</i> 商	<i>kaku / jue</i> 角	<i>henchi / bian zhi</i> 變徵	<i>chi / zhi</i> 徵	<i>u / yu</i> 羽	<i>henkyû / bian gong</i> 變宮	<i>kyû / gong</i> 宮
Intervals	Major second	Major second	Major second	Minor second	Major second	Major second	Minor second	

Theoretically, each *sei / sheng* can be chosen as the first note (or tonic) of a modal series in order to generate seven modal species, namely the *kyû / gong* modal series (a Lydian series), the *shô / shang* modal series (a Mixolydian series), the *kaku / jue* modal series (an Aeolian series), the *henchi / bian zhi* modal series (a Locrian series), the *chi / zhi* modal series (an Ionian series), the *u / yu* modal series (a Dorian series) and the *henkyû / bian gong* modal series (a Phrygian series). It is, however, rare for modal species to be generated on the two auxiliary degrees.⁵ Moreover, each modal species can be transposed to any of the twelve pitches, giving the theoretical possibility of eighty-four modes. Modes generated in this way have specific names, in which the name of the *ritsu / lü* precedes the name of the *sei / sheng*. For instance, if *rinshô / lin zhong* (G) is designated as the pitch of the tonic of a *kyû / gong* mode, the name of the mode will be *rinshô kyû / lin zhong gong*. The structure of this *rinshô kyû / lin zhong gong* mode is shown in the following figure.⁶

⁵ The modal species that are generated on *henchi / bian zhi* and *henkyû / bian kyû* might have been used in ceremonial and sacred music of the court but rarely in the secular music. The *yan yue er shi ba diao* (the twenty-eight modes for banquet music) (see below) includes no modal species on the *henchi / bian zhi* and the *henkyû / bian gong* degrees either.

⁶ For convenience and an easy comparison with the twelve *ritsu / lü* noted in Figure 2.1, I will employ sharpened but not flattened notes in the following illustrations of modes.

Figure 2.2: The *rinshô kyû / lin zhong gong* mode (a *kyû / gong* mode on G)

ritsu / lü:	<i>rinshô</i> <i>linzhong</i>	<i>nanryo</i> <i>nanlü</i>	<i>ôshô</i> <i>yingzhong</i>	<i>tairyo</i> <i>dalü</i>	<i>taisô</i> <i>taicou</i>	<i>kosen</i> <i>guxian</i>	<i>suihin</i> <i>ruibin</i>	<i>rinshô</i> <i>linzhong</i>
sei / sheng:	<i>kyû</i> <i>gong</i>	<i>shô</i> <i>shang</i>	<i>kaku</i> <i>jue</i>	<i>henchi</i> <i>bianzhi</i>	<i>chi</i> <i>zhi</i>	<i>u</i> <i>yu</i>	<i>henkyû</i> <i>biangong</i>	<i>kyû</i> <i>gong</i>

The following figures show the structures of the other six modal species if *rinshô / lin zhong* (G) is designated as the pitch of their tonics.

Figure 2.3: The *rinshô shô / lin zhong shang* mode (a *shô / shang* mode on G)

ritsu / lü:	<i>rinshô</i> <i>linzhong</i>	<i>nanryo</i> <i>nanlü</i>	<i>ôshô</i> <i>yingzhong</i>	<i>kôshô</i> <i>huangzhong</i>	<i>taisô</i> <i>taicou</i>	<i>kosen</i> <i>guxian</i>	<i>chûryo</i> <i>zhonglü</i>	<i>rinshô</i> <i>linzhong</i>
sei / sheng:	<i>shô</i> <i>shang</i>	<i>kaku</i> <i>jue</i>	<i>henchi</i> <i>bianzhi</i>	<i>chi</i> <i>zhi</i>	<i>u</i> <i>yu</i>	<i>henkyû</i> <i>biangong</i>	<i>kyû</i> <i>gong</i>	<i>shô</i> <i>shang</i>

Figure 2.4: The *rinshô kaku / lin zhong jue* mode (a *kaku / jue* mode on G)

ritsu / lü:	<i>rinshô</i> <i>linzhong</i>	<i>nanryo</i> <i>nanlü</i>	<i>bueki</i> <i>wuyi</i>	<i>kôshô</i> <i>huangzhong</i>	<i>taisô</i> <i>taicou</i>	<i>kyôshô</i> <i>jiazhong</i>	<i>chûryo</i> <i>zhonglü</i>	<i>rinshô</i> <i>linzhong</i>
sei / sheng:	<i>kaku</i> <i>jue</i>	<i>henchi</i> <i>bianzhi</i>	<i>chi</i> <i>zhi</i>	<i>u</i> <i>yu</i>	<i>henkyû</i> <i>biangong</i>	<i>kyû</i> <i>gong</i>	<i>shô</i> <i>shang</i>	<i>kaku</i> <i>jue</i>

Figure 2.5: The *rinshô henchi / lin zhong bian zhi* mode (a *henchi / bian zhi* mode on G)

	S	T	T	S	T	T	T	
ritsu / lü:	rinshô linzhong	isoku yize	bueki wuyi	kôshô huangzhong	tairyo dalü	kyôshô jiazhong	chûryo zhonglü	rinshô linzhong
sei / sheng:	henchi bianzhi	chi zhi	u yu	henkyû biangong	kyû gong	shô shang	kaku jue	henchi bianzhi

Figure 2.6: The *rinshô chi / lin zhong zhi* mode (a *chi / zhi* mode on G)

	T	T	S	T	T	T	T	S
ritsu / lü:	rinshô linzhong	nanryo nanlü	ôshô yingzhong	kôshô huangzhong	taicou taisô	kosen guxian	suihin ruibin	rinshô linzhong
sei / sheng:	chi zhi	u yu	henkyû biangong	kyû gong	shô shang	kaku jue	henchi bianzhi	chi zhi

Figure 2.7: The *rinshô u / lin zhong yu* mode (an *u / yu* mode on G)

	T	S	T	T	T	S	T	T
ritsu / lü:	rinshô linzhong	nanryo nanlü	bueki wuyi	kôshô huangzhong	taisô taicou	kosen guxian	chûryo zhonglü	rinshô linzhong
sei / sheng:	u yu	henkyû biangong	kyû gong	shô shang	kaku jue	henchi bianzhi	chi zhi	u yu

Figure 2.8: The *rinshô henkyû / lin zhong bian gong* mode (a *henkyû / bian gong* mode on G)

	S	T	T	T	S	T	T	
ritsu / lü:	rinshô linzhong	isoku yize	bueki wuyi	kôshô huangzhong	taisô taicou	kyôshô jiazhong	chûryo zhonglü	rinshô linzhong
sei / sheng:	henkyû biangong	kyû gong	shô shang	kaku jue	henchi bianzhi	chi zhi	u yu	henkyû biangong

Before embarking upon a broader discussion of the Tang modes, it is important to clarify three further technical terms in Chinese modal theory, namely *ichôshiki / wei diao shi*, *shichôshiki / zhi diao shi* and *kin / yun*. The terms *ichôshiki / wei diao shi* ('the modal system of 'i / wei') and *shichôshiki / zhi diao shi* ('the modal system of 'shi / zhi') were first used by Japanese scholars such as Hayashi Kenzô (Hayashi, Guo trans. 1936) in order to clarify ambiguities in Chinese modal names. *Kin / yun*, on the other hand, is a Chinese term that shares a similar meaning to 'key' in western music.

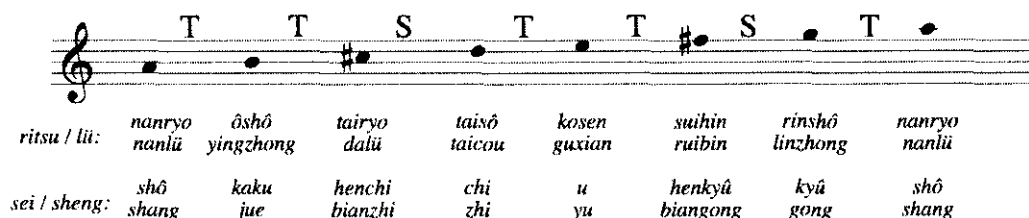
While Chinese modes are always named by combining the names of the *ritsu / lü* and the *sei / sheng*, an additional Chinese character 'i / wei' or 'shi / zhi' needs to be included between the *ritsu / lü* and the *sei / sheng* terms in order to clarify the relationship between the two elements. 'I / wei' means 'to be' or 'to act as' something (Ng 1998:24). As a result, if the *rinshô / lin zhong* (G) 'acts as' the pitch of the *shô / shang* degree to form a *shô / shang* mode, the full name of this mode can be given as *rinshô i shô / lin zhong wei shang*; that is, the *shô / shang* mode where the pitch of *shô / shang* is *rinshô / lin zhong*.

Figure 2.9: The *rinshô i shô / lin zhong wei shang* mode (same as Figure 2.3)

	T	T	S	T	T	S	T	
<i>ritsu / lü:</i>	<i>rinshô linzhong</i>	<i>nanryo nanlü</i>	<i>ôshô yingzhong</i>	<i>kôshô huangzhong</i>	<i>taisô taicou</i>	<i>kosen guxian</i>	<i>chûryo zhonglü</i>	<i>rinshô linzhong</i>
<i>sei / sheng:</i>	<i>shô shang</i>	<i>kaku jue</i>	<i>henchi bianzhi</i>	<i>chi zhi</i>	<i>u yu</i>	<i>henkyû biangong</i>	<i>kyû gong</i>	<i>shô shang</i>

Shi / zhi’ on the other hand means ‘of’ (Ng 1998:24). Hence, if the mode is named as *rinshô shi shô / lin zhong zhi shang*, it refers to the *shô / shang* mode in which *rinshô / lin zhong* is the pitch of *kyû / gong*; that is, the *shô / shang* mode in the *rinshô i kyû / lin zhong wei gong* mode.⁷

Figure 2.10: The *rinshô shi shô / lin zhong zhi shang* mode



Figures 2.9 and 2.10 show that even though both these two modes have a *shô / shang* (Mixolydian) modal structure, the pitches of the *rinshô i shô / lin zhong wei shang* mode and of the *rinshô shi shô / lin zhong zhi shang* mode are different. Only in *kyû / gong* modes are the structures and the pitches of the *~shi kyû / ~zhi gong* mode and the *~i kyû / ~wei gong* mode the same.⁸

Since it is common for Chinese treatises to omit the characters ‘*i / wei*’ and ‘*shi / zhi*’ in the discussions of the modal theory, a reader may have difficulty in

⁷ See Figure 2.2 for the structure of the *rinshô i kyû / lin zhong wei gong* mode.

⁸ For instance, if *rinshô / lin zhong* is designated as the pitch of *kyû / gong* to form a mode, it is known as the *rinshô i kyû / lin zhong wei gong* mode (Figure 2.2). The *rinshô shi kyû / lin zhong zhi gong* mode, which refers to the *kyû / gong* mode in this *rinshô i kyû / lin zhong wei gong* mode, has exactly the same form as the *rinshô i kyû / lin zhong wei gong* mode.

determining whether the *ichôshiki / wei diao shi* or the *shichôshiki / zhi diao shi* system is being referred to. However, in most cases, this can be clarified by reference to the context in which they occur (see Section II B below).

The term *kin / yun* is also frequently used in descriptions of Chinese modal theory. Generally speaking, each *kin / yun* consists of seven modes, all of which are in the same key. A *kin / yun* is generated as follows: firstly, one of the twelve *ritsu / lü* is designated as the pitch of the *kyû / gong* degree of a *kyû / gong* mode. Secondly, different modal species are generated from the pitch set. *Rinshô / lin zhong* will be employed as an example in the following table in order to show how this mechanism works. If *rinshô / lin zhong* is designated as the pitch of *kyû / gong* to form a *kyû / gong* mode,⁹ this *kyû / gong* mode can, on one hand, be viewed as a *rinshô kyû / lin zhong gong* mode and, on the other, as a *rinshô kin / lin zhong yun* (see the shaded column in Table 2.3). A total of seven modes can then be formed on each of the seven *sei / sheng* of this *kin / yun*. These seven modes are regarded as being in the same *kin / yun* (see the seven rows in Table 2.3). It is obvious that the idea of *kin / yun* is very similar to the *shichôshiki / zhi diao shi* system or the idea of ‘key’ in western music.

Table 2.3: The seven modes that can be generated from the *rinshô kin / lin zhong yun*

⁹ I assume that the scale of this *kyû / gong* mode follows the heptatonic scale noted in Table 2.2.

The shaded column here shows the *rinshô kin / lin zhong yun* (G A B C# D E F#).



The seven modes that can be generated from the <i>rinshô kin / lin zhong yun</i>	The mode that is generated from G	G	A	B	C#	D	E	F#
	The mode that is generated from A	A	B	C#	D	E	F#	G
	The mode that is generated from B	B	C#	D	E	F#	G	A
	The mode that is generated from C#	C#	D	E	F#	G	A	B
	The mode that is generated from D	D	E	F#	G	A	B	C#
	The mode that is generated from E	E	F#	G	A	B	C#	D
	The mode that is generated from F#	F#	G	A	B	C#	D	E

II. The *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modes in Tang China

A. The sources for seven key Chinese treatises

In this part, I focus on seven Chinese treatises, namely *Song shu*, *Jin shu*, *Sui shu*, *Yue fu za lu*, *Tang hui yao*, *Xin tang shu* and *Bu bi tan*, in order to ascertain the structures of the *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modes used in Tang China. These treatises have been widely published in China and are commonly available in bookstores and libraries. The following

table summaries the editions that I consulted and the sources of these editions.

Table 2.4: The sources of *Song shu*, *Jin shu*, *Sui shu*, *Yue fu za lu*, *Tang hui yao*, *Xin tang shu* and *Bu bi tan*

Treatise	Edition (Publisher)	Source
<i>Song shu</i> (c. 494)	Zhong Hua Shu Ju	The sources are the <i>San chao ben</i> preserved in the Bei Jing Tu Shu Guan (National Library of China), the <i>Bei jian ben</i> (Ming Dynasty (1368-1644)), <i>Ji gu ge ben</i> (late Ming to early Qing (1644-1912) Dynasties), <i>Wu ying dian ben</i> (Qing Dyansty), <i>Jin ling shu ju ben</i> (Qing Dynasty) and <i>Bai na ben</i> (Northern Song Dyansty (960-1127)) (Shen c. 494:8-9).
<i>Jin shu</i> (c. 648)	Zhong Hua Shu Ju	The main sources are the <i>Jin ling shu ju ben</i> , <i>Bai na ben</i> and <i>Wu ying dian ben</i> . In addition, the editors also examined five more sources compiled in the Yuan (1279-1368) and Ming Dynasties (Fang et al. c. 648:7-8).
<i>Sui shu</i> (c. 630)	Zhong Hua Shu Ju	The main sources are the <i>Song ke di xiu ben</i> (Song Dynasty), <i>Yuan da de rao zhou lu ke ben</i> (Yuan Dynasty) and <i>Yuan zhi shun rui zhou lu ke ming xiu ben</i> (Ming Dyansty). In addition, the editors also examined five more sources compiled between the Song and Qing Dynasties (Wei et al. c. 630:6).
<i>Yue fu za lu</i> (late ninth)	Zhong Guo Xi Ju Chu Ban She	The main source is the <i>Shou shan ge cong shu ben</i> compiled in the Qing Dyansty but

century)		the editor also examined other Song and Ming sources (Duan late ninth century:67).
<i>Tang hui yao</i> (c. 961)	Zhong Hua Shu Ju	The source is the <i>Wu ying dian ben</i> (Wang c. 961:1).
<i>Xin tang shu</i> (1060)	Zhong Hua Shu Ju	The main source is the <i>Bai na ben</i> . Other reference sources include the Northern Song <i>Min ke shi liu heng ben</i> , Southern Song (1127-1279) <i>Min ke shi heng ben</i> , <i>Ji gu ge ben</i> , <i>Wu ying dian ben</i> (Qing Dynasty) and <i>Zhe jiang shu ju ben</i> (Qing Dyansty) (Ouyang et al. 1060:12).
<i>Bu bi tan</i> (c. 1095)	Zhong Hua Shu Ju	The main source is the <i>Ai lu ben</i> compiled in the Qing Dynasty. The editor, moreover, inserted a large amount of notes in the text in order to show the differences between this Qing and other Song and Yuan sources (Shen c. 1095:5).

B. The *yan yue er shi ba diao* (the twenty-eight modes for banquet music)

Xin tang shu and *Yue fu za lu* record the names of a set of twenty-eight modes for performing *yan yue* in the Tang period. This set of modes is known as *yan yue er shi ba diao*. While theoretically a total of eighty-four modes can be generated from the systems of twelve *ritsu / li* and of seven *sei / sheng*, it is unlikely that all eighty-four modes were used in actual performance. The system was therefore reduced to twenty-eight modes, which represents the four modal species transposed to each of the seven degrees.

Table 2.5 summarizes the names of the *yan yue er shi ba diao* according to the

records in the *Li yue zhi* chapter of *Xin tang shu* (Ouyang et al. 1060:473) and the *Bie yue shi wu yin lun er shi ba diao tu* section in *Yue fu za lu* (Duan late ninth century:62-3).

Table 2.5: The names of the yan yue er shi ba diao in Xin tang shu and Yue fu za lu

<i>kyû / gong modes</i>	<i>shô / shang modes</i>	<i>kaku / jue modes</i>	<i>u / yu modes</i>
<i>seikyû (chô) / zheng gong (diao) 正宮(調) *</i>	<i>kotsuchô / yue diao 越調</i>	<i>kotsukaku (chô) / yue jue (diao) 越角(調)</i>	<i>chûryochô / zhong lü diao 中呂調</i>
<i>kôkyû (chô) / gao gong (diao) 高宮(調)</i>	<i>taishikichô / da shi diao 大食/石 **調</i>	<i>taishikikaku (chô) / da shi jue (diao) 大食/石角(調)</i>	<i>seihyôjô / zheng ping diao 正平調</i>
<i>chûryokyû / zhong lü gong 中呂宮</i>	<i>kôtaishikichô / gao da shi diao 高大食/石調</i>	<i>kôtaishikikaku (chô) / gao da shi jue (diao) 高大食/石角(調)</i>	<i>kôhyôjô / gao ping diao 高平調</i>
<i>dôchôkyû / dao diao gong 道調宮</i>	<i>sôjô / shuang diao 雙調</i>	<i>sôkaku (chô) / shuang jue (diao) 雙角(調)</i>	<i>senryochô / xian lü diao 仙呂調</i>
<i>nanryokyû / nan lü gong 南呂宮</i>	<i>shôshikichô / xiao shi diao 小食/石調</i>	<i>shôshikikaku (chô) / xiao shi jue (diao) 小食/石角(調) ***</i>	<i>ôshikichô / huang zhong diao 黃鐘調 ****</i>
<i>senryokyû / xian lü gong 仙呂宮</i>	<i>ketsushichô / xie zhi diao 歇指調</i>	<i>ketsushikaku (chô) / xie zhi jue (diao) 歇指角(調)</i>	<i>banshikichô / pan she diao 盤涉調</i>
<i>kôshôkyû / huang zhong gong 黃鐘宮</i>	<i>rinshôshô (chô) / lin zhong shang (diao) 林鐘商(調)</i>	<i>rinshôkaku (chô) / lin zhong jue (diao) 林鐘角(調)</i>	<i>kôbanshiki (chô) / gao pan she (diao) 高盤涉(調)</i>

Index:

* The bracketed Chinese characters *chô / diao* is used only in the form of names recorded in *Yue fu za lu*.

** The Chinese character ‘食’ is written as ‘石’ in *Yue fu za lu*. Both of these characters are pronounced as ‘shi’.

*** *Shôshikikaku (chô) / xiao shi jue (diao)* is called *seikakuchô / zheng jue diao* in *Yue fu za lu*.

**** The name *ôshikichô / huang zhong diao* is used only in *Yue fu za lu*. In *Xin tang shu*, this mode is called *kôshôu / huang zhong yu*.

In *Xin tang shu* and *Yue fu za lu*, the twenty-eight modes are separated into four groups according to their modal structures, namely *kyû / gong*, *shô / shang*, *kaku / jue* and *u / yu*. Two of the modes that form the focus of this thesis, namely *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modes, are categorized as *u / yu* modes. I will show later in this thesis that the third mode, *hyôjô / ping diao* mode, corresponds to the *seihyôjô / zheng ping diao* rather than the *kôhyôjô / gao ping diao* mode in the *yan yue er shi ba diao*. This mode is also classified as an *u / yu* mode.

In addition to the modal names that are formed by combining the *ritsu / lü* and the *sei / sheng* terms, in the Tang period, modes were usually given an individual name. Indeed, most of the modal names shown in Table 2.5 are written using their individual names. The use of individual names in *Xin tang shu* and *Yue fu za lu* shows that by this time they had become more popular than the names formed by combining the *ritsu / lü* and the *sei / sheng* terms. Some of these individual names are, moreover, transliterations of modal names used in Central Asia.¹⁰

Because *Xin tang shu* and *Yue fu za lu* do not include the modal names that are formed by combining the *ritsu / lü* and the *sei / sheng* terms, we must consult

¹⁰ *Banshikichô / pan she diao* is such an example. The *Yin yue zhi* chapter of *Sui shu* indicates that Sujiva introduced a *ban shan* mode to the Chinese at the beginning of the Sui period (see also Part I of Chapter One). Scholars commonly agree that this *ban shan* mode was identical to the *pancama* mode recorded in the *Kuḍumiyamālai* Inscription of India and the word ‘*ban shan*’ was a transliteration of the name *pancama* (Hayashi 1936:15-27; Widdess 1995:15-19). The structure of the *banshikichô / pan she diao* mode is identical to that of the *ban shan* and the *pancama* modes (Widdess 1995:17), and the word ‘*banshiki / pan she*’ seems to be another transliteration of ‘*pancama*’ or an altered pronunciation of *ban shan*.

other Chinese treatises such as *Tang hui yao* in order to obtain more information on the pitches of the modes.

Tang hui yao, which records the government policies of the Tang Dynasty, includes an edict, dated the tenth date of the seventh month in Tian bao 13 (754), that records changes in the names of some *yan yue* pieces. In the edict, fourteen modal names are recorded together with the names of the pieces. We may conclude that these fourteen modes represent the most important and frequently used modes in the eighth century. Most of these fourteen modes are written using both their individual names and the names formed by combining the *ritsu / lü* and the *sei / sheng* terms.

Table 2.6: The fourteen modes recorded in the edict of *Tang hui yao*

<i>Ritsu / lü</i> and <i>sei / sheng</i> nomenclature	Individual name
<i>taisôkyû / tai cou gong</i> 太簇宮	<i>sadachô / sha tuo diao</i> 沙陀調
<i>taisôshô / tai cou shang</i> 太簇商	<i>taishikichô / da shi diao</i> 大食調
<i>taisôu / tai cou yu</i> 太簇羽	<i>banshikichô / pan she diao</i> 盤涉調
<i>taisôkaku / tai cou jue</i> 太簇角	(not provided)
<i>rinshôkyû / lin zhong gong</i> 林鐘宮	<i>dôchô / dao diao</i> 道調
<i>rinshôshô / lin zhong shang</i> 林鐘商	<i>shôshikichô / xiao shi diao</i> 小食調
<i>rinshôu / lin zhong yu</i> 林鐘羽	<i>hyôjô / ping diao</i> 平調
<i>rinshôkaku / lin zhong jue</i> 林鐘角	(not provided)
<i>kôshôkyû / huang zhong gong</i> 黃鐘宮	(not provided)
<i>kôshôshô / huang zhong shang</i> 黃鐘商	<i>kotsuchô / yue diao</i> 越調
<i>kôshôu / huang zhong yu</i> 黃鐘羽	<i>ôshikichô / huang zhong diao</i> 黃鐘調

<i>chûryoshô / zhong lü shang</i> 中呂商	<i>sôjô / shuang diao</i> 雙調
<i>nanryoshô / nan lü shang</i> 南呂商	<i>shuichô / shui diao</i> 水調
(not provided)	<i>kinfûchô / jin feng diao</i> 金風調

Ôshikichô / huang zhong diao, *banshikichô / pan she diao* and *hyôjô / ping diao* all appear in the edict of *Tang hui yao* (see the shaded rows in Table 2.6), where they are accompanied by the names formed from the *ritsu / lü* and the *sei / sheng* terms. While these names do not include the words ‘*i / wei*’ and ‘*shi / zhi*’ between the *ritsu / lü* and the *sei / sheng* terms, the sequence of the *ritsu / lü* terms makes it clear that the modes are formed according to the system of *shichôshiki / zhi diao shi* rather than *ichôshiki / wei diao shi*. I will now explain the reasons in details.¹¹

It is unlikely that the order of the modal names and the *ritsu / lü* terms are random. There must be a special reason for organizing the sequence of the *ritsu / lü* terms in the way they are. In fact, the five *ritsu / lü* represent the five different *kin / yun* or keys of Chinese modal theory and their sequence reflects the number of modes used during the Tian bao era. This is summarized in Figure 2.11.

Figure 2.11: The sequence of the *ritsu / lü* terms in the edict of *Tang hui yao*

ritsu / lü: *taisô / tai cou* → *rinshô / lin zhong* → *kôshô / huang zhong* →
 chûryo / zhong lü → *nanryo / nan lü*

¹¹ See Sections C and D below for the discussion of the scale and structure of these three modes.

The *taisô / tai cou* and *rinshô / lin zhong* keys are positioned at the beginning because four of the seven modes, namely the *kyû / gong*, *shô / shang*, *kaku / jue* and *u / yu* modes that were chosen to be the fourteen popular modes in the eight century are in these keys. The *kôshô / huang zhong* key is written after the *taisô / tai cou* and *rinshô / lin zhong* keys because only three modes, namely the *kyû / gong*, *shô / shang* and *u / yu* modes, were chosen. The *chûryo / zhong lü* and the *nanryo / nan lü* keys are positioned last since only the *shô / shang* modes from these two keys were included in the fourteen modes. Because the sequence of these modes is organized with reference to the system of *kin / yun* and the theory of *kin / yun* fundamentally corresponds to that of the *shichôshiki / zhi diao shi* system (see Part 1 of this chapter), we may conclude that the modes of *Tang hui yao* were formed according to the *shichôshiki / zhi diao shi* rather than the *ichôshiki / wei diao shi* system.

From this it is clear that *ôshikichô / huang zhong diao* is an *u / yu* mode in which the *kyû / gong* degree is *kôshô / huang zhong* (C); *banshikichô / pan she diao* is an *u / yu* mode in which the *kyû / gong* degree is *taisô / tai cou* (D); and *hyôjô / ping diao* is also an *u / yu* mode in which the *kyû / gong* degree is *rinshô / lin zhong* (E).¹²

¹² For ease of discussion, I will take C as the pitch of *kôshô / huang zhong*. Hayashi Kenzô, however, indicates that five types of pitch standards might have existed in Tang China (Hayashi, Guo trans. 1936:81-103), and that the pitch of *kôshô / huang zhong* was different in each of these five standards (Hayashi, Guo trans. 1936:102). He also suggests that the pitches of modes used in the Tianbao era of Tang China might have corresponded to the pitches of the *koritsu / gu lü* (literally 'ancient *ritsu / lü*') standard (Hayashi, Guo trans. 1936:101), according to which the pitch of *kôshô / huang zhong* was likely to have been between the concert pitches C# and D (Hayashi, Guo trans. 1936:92).

C. The heptatonic scale of Tang modes

While Wei Zhao's note in *Guo yu* indicates that the Chinese heptatonic scale has a 'TTTSTTS' structure, some Chinese sources suggest that between the third and sixth centuries, Chinese music might have been performed using another form of heptatonic scale. A comprehensive investigation of the heptatonic scales used in China will, moreover, clarify some ornamental practices in Heian-period *tôgaku* melodies.

Shen Yue's (441-513) *Song shu* and Fang Xuan-ling (578-648) and others' *Jin shu* both record that a person called Xun Xu's (d. 289) created a set of flutes that could be used to play modes formed from three different forms of heptatonic scale (Shen c. 494:215-7; Fang et al. c. 649:483-5). These three forms are known as *zheng sheng diao* (literally 'the scale of correct sound'), *xia zhi diao* (literally 'the scale of lower *chi / zhi*') and *qing jue diao* (literally 'the scale of clear *kaku / jue*'). The structures of these scales are clearly explained in both treatises. While the *zheng sheng diao* scale shares an identical structure to that illustrated in *Guo yu*, the structures of the *xia zhi diao* and *qing jue diao* scales are 'TTSTTTS' and 'TSTTSTT' respectively.¹³

Let us consider the *xia zhi diao* scale in detail. The difference between the *zheng sheng diao* and *xia zhi diao* scales is that the interval between the first and the

¹³ Although scholars generally agree about the structures of these three scales, there are still some arguments about the size and pitch of Xun Xu's flutes. For a detailed discussion of Xun Xu's flutes, see Wang 1995.

fourth degrees is an augmented fourth in the *zheng sheng diao* but a perfect fourth in the *xia zhi diao*.

In addition to *Song shu* and *Jin shu*, *Sui shu* (c. 630) also records the use of different scales to perform music in the sixth century. The text in Quotation 2.1 is taken from the *Niu hong zhuan* [The biography of Niu Hong (545-610)] chapter of *Sui shu*. It suggests that in the sixth century the *xia zhi diao* scale was more popular and frequently used than the *zheng sheng diao* scale.

Quotation 2.1: Excerpt from the *Niu hong zhuan* chapter of *Sui shu*

今見行之樂，用黃鐘之宮，乃以林鐘為調，與古典有違。晉內書監荀勗依典記，以五聲十二律還相為宮之法，制十二笛。正聲應黃鐘，下徵應林鐘，以姑洗為清角。大呂之笛，正聲應大呂，下徵應夷則，以外諸均，例皆如是。然今所用林鐘，是勗下徵調，不取其正，先用其下，於理未通，故須改之。(Wei et al. c. 630:1308)

This quotation is translated as follows:

‘In modern performance practice, when *kôshô / huang zhong* is designated as the pitch of *kyû / gong* to form a *kôshô shi kyû / huang zhong zhi gong* mode (see Figure 2.12), it is common for musicians to use *rinshô / lin zhong* (marked ‘○’ in Figure 2.12 below) rather than *kôshô / huang zhong* (marked ‘□’) as the tonic. This is different from

traditional practice. Xun Xu, a *Nei shu jian*¹⁴ of the Jin court, created a total of twelve flutes and tuned them by shifting the keys of each modal species. [For the flute of *kôshô / huang zhong*], the tonic of the *zheng sheng diao* scale is *kôshô / huang zhong* (□); the tonic of the *xia zhi diao* scale is *rinshô / lin zhong* (○) and the tonic of the *qing jue diao* scale is *kosen / gu xian* (marked ‘△’). For the flute of *tairyo / da lü*, the tonic of the *zheng sheng diao* scale is *tairyo / da lü* and the tonic of the *xia zhi diao* scale is *isoku / yi ze*, and so on for the other flutes. The way of using *rinshô / lin zhong* [as the tonic of the *kôshô shi kyû / huang zhong zhi gong* mode] in fact follows the theory of Xun Xu’s *xia zhi diao* scale. It is unacceptable to use the *xia zhi diao* but not the *zheng sheng diao*. This must therefore be corrected.’

Figure 2.12: The *kôshô shi kyû / huang zhong zhi gong* mode

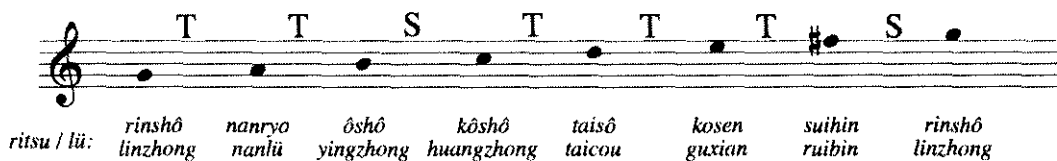
	T	T	T	S	T	T	S	
	□	•	△	♯	○	•	•	
<i>ritsu / lü:</i>	<i>kôshô</i> <i>huangzhong</i>	<i>tai sô</i> <i>taicou</i>	<i>kosen</i> <i>guxian</i>	<i>sui hin</i> <i>ruibin</i>	<i>rinshô</i> <i>linzhong</i>	<i>nanryo</i> <i>nanlü</i>	<i>ôshô</i> <i>yingzhong</i>	<i>kôshô</i> <i>huangzhong</i>
<i>sei / sheng: gong</i>	<i>kyû</i>	<i>shô</i>	<i>kaku</i>	<i>henchi</i>	<i>chi</i>	<i>u</i>	<i>henkyû</i>	<i>kyû</i>
	<i>gong</i>	<i>shang</i>	<i>jue</i>	<i>bianzhi</i>	<i>zhi</i>	<i>yu</i>	<i>biangong</i>	<i>gong</i>

As the passage just quoted makes clear, in Niu Hong’s time, *rinshô / lin zhong* rather than *kôshô / huang zhong* was treated as the tonic of this *kôshô shi kyû / huang zhong zhi gong* mode. This mode, which has a *xia zhi diao* structure, is set

¹⁴ *Nei shu jian* is an official title.

out in the following figure.

Figure 2.13: Rinshô / lin zhong is treated as the tonic of the kôshô shi kyû / huang zhong zhi gong mode



Moreover, the *xia zhi diao* scale may be formed not only by changing the position of the tonic, but, as *Sui shu* indicates, also in some repertoires by simply flattening the pitch of the fourth degree. *Qing yue* (see below) is one such repertoire.

Quotation 2.2: Excerpt from the *Yin yue zhi* chapter of *Sui shu*

譯又與夔俱云：「……清樂黃鐘宮，以小呂為變徵……今請求……清樂去

小呂，還用蕤賓為變徵。」

(Wei et al. c. 630:347)

Quotation 2.3 can be translated as follows:

‘Zheng Yi (fl. late sixth century) and Su Kui (fl. sixth century)¹⁵ indicate that…… in *qing yue* the pitch of *henchi / bian zhi* (the fourth degree) of the *kôshô shi kyû / huang zhong zhi gong* mode is *xiao lü*.¹⁶

¹⁵ Officials of the Sui court.

¹⁶ *Xiao lü* does not exist in the names of the twelve *ritsu / li* of the Chinese modal theory but

We (Zheng and Su) request that [the Emperor orders the musicians] to use *suihin / rui bin* rather than *xiao lü* as the pitch of *henchi / bian zhi* in *qing yue*.⁷

Qing yue probably refers to the music of *qing shang san diao*, which was originally a repertory of folk song called *xiang he ge* (Yang 1981:171). The roots of this repertory can be traced back to the Han Dynasty (Du 801:3716 & Wei et al. c.630:377). From Kai huang 9 (589), a *qing shang shu* office was established by the Sui court in order to supervise this *qing yue* repertory (Wei et al. c.630:349).

If *chûryo / zhong lü* rather than *suihin / rui bin* is used as the pitch of the *henchi / bian zhi* degree, the scale of the *kôshô shi kyû / huang zhong zhi gong* mode is not *zheng sheng diao* but *xia zhi diao*.

Figure 2.14: The *kôshô shi kyû / huang zhong zhi gong* mode of *qing yue*

	T	T	S	T	T	T	S	
ritsu / lü:	kôshô huangzhong	taisô taicou	kâsen guâian	churyô zhonglü	rinshô linzhong	nanryo nanlü	ôshô yingzhong	kôshô huangzhong
sei / sheng:	kyû gong	shô shang	kaku jue	henchi bianzhi	chi zhi	u yu	henkyû biangong	kyû gong

While Zheng Yi, Su Kui and Niu Hong all suggested that the emperor used the *zheng sheng diao* rather than the *xia zhi diao* scale, *Sui shu* does not indicate

scholars generally agree that it is identical to *chûryo / zhong lü* (Cheung 1975:166).

whether the emperor accepted their suggestion or not. *Sui shu* simply records that the emperor finally accepted He Tuo's (fl. sixth century) suggestion that only the *kôshô / huang zhong* key (*huang zhong yi gong*) be used to perform music at the court (Wei et al. c. 630:351). Since *Sui shu* provides no further information on the structure of this *kôshô / huang zhong* key, however, it is uncertain whether this key was formed according to the *zheng sheng diao* or the *xia zhi diao* scale. In order to determine whether the importance of the *zheng sheng diao* scale was re-asserted in the Sui and Tang periods or not, it is necessary to consult a Song-period treatise called *Bu bi tan*.

D. The *yan yue er shi ba diao* (the twenty-eight modes for banquet music) in Shen Kuo's *Bu bi tan*

Bu bi tan was written by Shen Kuo (1031-95) nearly 200 years after the end of the Tang Dynasty. This treatise uses a system of notational-signs to specify the *ritsu / lü* (pitches) and the *sha sheng* (final) of each mode.¹⁷ Each of the notational-signs is known as a *zi*, and there are a total of sixteen *zi* in this system (Shen c.1095:293). It is necessary to note, however, that the *yan yue* of the Northern Song Dynasty (960-1127) was transposed (Shen c.1095:292-3) and that all named pitches of the twelve *ritsu / lü* were two semitones higher than in the past (Shen c.1095:293). In short, if C is assumed as the pitch of *kôshô / huang zhong* in the Tang period, the pitch of *kôshô / huang zhong* in the Song period would have been D. The following

¹⁷ This system of notational sign is very similar to the system of tablature-signs for the Japanese *hichiriki* (double-reed pipe). See Zuo 1993 for details.

table summarizes the relationship between the sixteen *zi* and the twelve *ritsu / lü* (Shen c.1095:293).

Table 2.7: The relationship between the *zi* and the twelve *ritsu / lü*

I	II	III	IV
The sixteen <i>zi</i>	The corresponding <i>ritsu / lü</i> of the <i>zi</i> as recorded in <i>Bu bi tan</i>	The corresponding pitches of the <i>ritsu / lü</i>	The corresponding Tang <i>ritsu / lü</i> of the pitches shown in column III of this table
<i>he</i> 合	<i>kôshô / huang zhong</i>	D	<i>taisô / tai cou</i>
<i>xia si</i> 下四	<i>tairyo / da lü</i>	D#	<i>kyôshô / jia zhong</i>
<i>gao si</i> 高四	<i>taisô / tai cou</i>	E	<i>kosen / gu xian</i>
<i>xia yi</i> 下一	<i>kyôshô / jia zhong</i>	F	<i>chûryo / zhong lü</i>
<i>gao yi</i> 高一	<i>kosen / gu xian</i>	F#	<i>suihin / rui bin</i>
<i>shang</i> 上	<i>chûryo / zhong lü</i>	G	<i>rinshô / lin zhong</i>
<i>gou</i> 勾 (句) ¹⁸	<i>suihin / rui bin</i>	G#	<i>isoku / yi ze</i>
<i>che</i> 尺	<i>rinshô / lin zhong</i>	A	<i>nanryo / nan lü</i>
<i>xia gong</i> 下工	<i>isoku / yi ze</i>	A#	<i>bueki / wu yi</i>
<i>gao gong</i> 高工	<i>nanryo / nan lü</i>	B	<i>ôshô / ying zhong</i>
<i>xia fan</i> 下凡	<i>bueki / wu yi</i>	C	<i>kôshô sei / huang zhong qing</i>
<i>gao fan</i> 高凡	<i>ôshô / ying zhong</i>	C#	<i>tairyo sei / da lü qing</i>
<i>liu</i> 六	<i>kôshô sei / huang zhong qing</i> 黄 鐘清 ¹⁹	D	<i>taisô sei / tai cou qing</i>

¹⁸ Some versions of *Bu bi tan* use the character ‘勾’ but other use ‘句’. For instance, the *Ai lu ben* version of the Qing Dynasty uses ‘句’ whereas the *Qian dao ben* version of the Song Dynasty and the *Hong zhi ben* version of the Ming Dynasty use ‘勾’. See: Shen c.1095:5&293 for further details.

¹⁹ The word ‘sei / qing’ 清 literally means ‘clear’. It is used to indicate pitches in a higher register. This term apparently with the same meaning also appears in some Japanese historical scores, for example, the *Tenri* version of *Chû ôga ryûteki yôrokufu* (see Chapter Three).

<i>xia wu</i> 下五	<i>tairyō sei / da lǔ qīng</i> 大呂清	D#	<i>kyōshō sei / jiā zhōng qīng</i>
<i>gao wu</i> 高五	<i>taisō sei / tai cōu qīng</i> 太簇清	E	<i>kosen sei / gu xiān qīng</i>
<i>jīn wu</i> 緊五	<i>kyōshō sei / jiā zhōng qīng</i> 夾鐘清	F	<i>chūryō sei / zhōng lǔ qīng</i>

Figures 2.15 to 2.18 show the *ōshikichō / huang zhong diao*, *seihyōjō / zheng ping diao*, *kōhyōjō / zheng ping diao* and *banshikichō / pan she diao* modes illustrated in *Bu bi tan*.²⁰ The circled pitch in the *banshikichō / pan she diao* mode (Figure 2.18) is likely to be a scribal error. In fact, *Bu bi tan* survives in several versions and in each the illustration of the *banshikichō / pan she diao* mode is slightly different (see Shen c.1095:292-3). It is possible that errors in the explanation of the structure of the *banshikichō / pan she diao* mode might have occurred early in the transmission of the text. If we ignore the circled note of the *banshikichō / pan she diao* mode, however, all four modes shown in Figure 2.15 to 2.18 have a structure corresponding to the *zheng sheng diao* scale, in which the interval between the *kaku / jue* and the *henchi / bian zhi* degrees is a tone and the interval between the *henchi / bian zhi* and the *chi / zhi* degrees is a semitone. Furthermore, *Tang hui yao* indicates that in the Tang period, the *hyōjō / ping diao* mode was the *u / yu* mode of the *rinshō / lin zhong* (G) key (see Table 2.6). It is clear from Figures 2.16 and 2.17 that it is the *seihyōjō / zheng ping diao* rather than

²⁰ While *Bu bi tan* does not indicate the relevant *sei / sheng* (degrees) of each pitch in a mode, it clearly indicates the *sha sheng* (final). This allows us to deduce the degrees of the pitches in a mode. For example, the *sha sheng* of a *shō / shang* mode must be the *shō / shang* degree.

the *kôhyôjô* / *gao ping diao* mode that corresponds to the *hyôjô* / *ping diao* mode recorded in *Tang hui yao*.²¹

Figure 2.15: The *ôshikichô* / *huang zhong diao* mode illustrated in *Bu bi tan*

Intervals: T S T T T S T

<i>sei / sheng:</i>	u	henkyû	kyû	shô	kaku	henchi	chi	u
	yu	biangong	gong	shang	jue	bianzhi	zhi	yu
<i>zi:</i>	che	gaogong	xiafan	liu	gaowu	gaoyi	shang	che

Figure 2.16: The *seihyôjô* / *zheng ping diao* (or the *hyôjô* / *ping diao*) mode

Intervals: T S T T T S T

<i>sei / sheng:</i>	u	henkyû	kyû	shô	kaku	henchi	chi	u
	yu	biangong	gong	shang	jue	bianzhi	zhi	yu
<i>zi:</i>	gaosi	gaoyi	shang	che	gaogong	gaofan	liu	gaowu

Figure 2.17: The *kôhyôjô* / *gao ping diao* mode

Intervals: T S T T T S T

<i>sei / sheng:</i>	u	henkyû	kyû	shô	kaku	henchi	chi	u
	yu	biangong	gong	shang	jue	bianzhi	zhi	yu
<i>zi:</i>	gaoyi	gou	che	gaogong	gaofan	xiawu	gaosi	gaoyi

²¹ The pitch of the *kyû* / *gong* degree of the *seihyôjô* / *zheng ping diao* mode is G (*rinshô* / *lin zhong*) whereas the pitch of the *kyû* / *gong* degree of the *kôhyôjô* / *gao ping diao* mode is A (*nanryo* / *nan lü*) (see also Columns III and IV of Table 2.7).

Figure 2.18: The *banshikichô / pan she diao* mode

	T	S	T	T	T	S	T		
	Intervals								
sei / sheng:	u	henkyû	kyû	shô	kaku	henchi	chi	u	
	yu	biangong	gong	shang	jue	bianzhi	zhi	yu	
zi:	gaogong	gaofan	liu	gaowu	gaoyi	shang	gou	che	gaogong

* * *

Bu bi tan not only shows that the *yan yue* modes were formed from the *zheng sheng diao* scale, but also provides information about how modes came to be once again formed from the *zheng sheng diao* scale between the Sui and Tang periods. Let us consider discussion of the *kaku / jue* modes recorded in *Bu bi tan*.

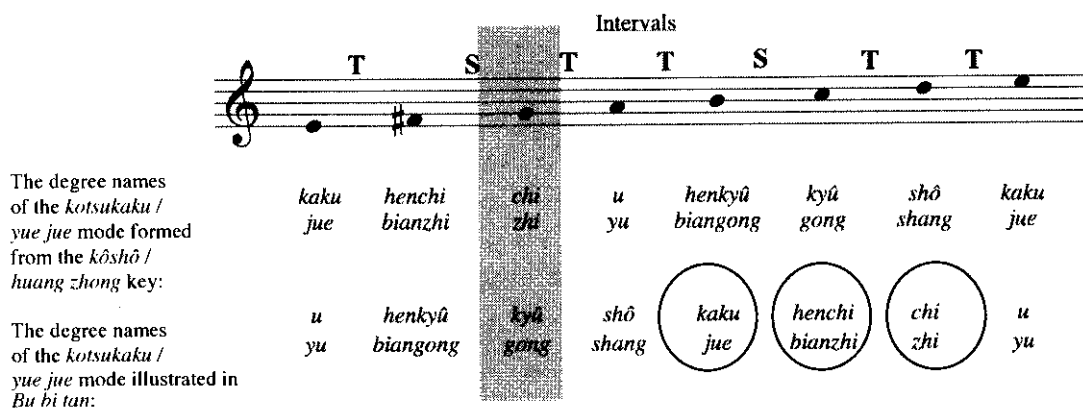
In the following, I will concentrate on the *kotsukaku / yue jue* mode, which is the first *kaku / jue* mode that is elucidated in *Bu bi tan*.²² As in *Tang hui yao*, in *Bu bi tan* modes that are formed from the same key are grouped together. Because the *kotsukaku / yue jue* mode and the *ôshikichô / huang zhong diao* mode are grouped together and the *ôshikichô / huang zhong diao* mode is formed from the *kôshô / huang zhong* key, we can conclude that the *kotsukaku / yue jue* mode is the *kaku / jue* mode of the *kôshô / huang zhong* key.

According to the degree names and pitches established in Figure 2.15, the structure of the *kotsukaku / yue jue* mode (the *kaku / yue jue* mode of the *kôshô /*

²² *Xin tang shu* and *Yue fu za lu* affirm that the *kotsukaku / yue jue* mode was a *jue / kaku* mode in Tang *yan yue er shi ba diao* (see Table 2.5 on p. 58).

huang zhong key) is E F# G A B C D, where the pitch of the *kaku / jue* degree is E. *Bu bi tan* states, however, that the final or the *kaku / jue* degree of the *kotsukaku / yue jue* mode is B rather than E. The following figure compares the degree names of the original *kotsukaku / yue jue* mode formed from the *kôshô / huang zhong* key and the one illustrated in *Bu bi tan*.

Figure 2.19: A comparison of the degree names of the *kaku / jue* mode formed from the *kôshô / huang zhong* key and the one illustrated in *Bu bi tan*

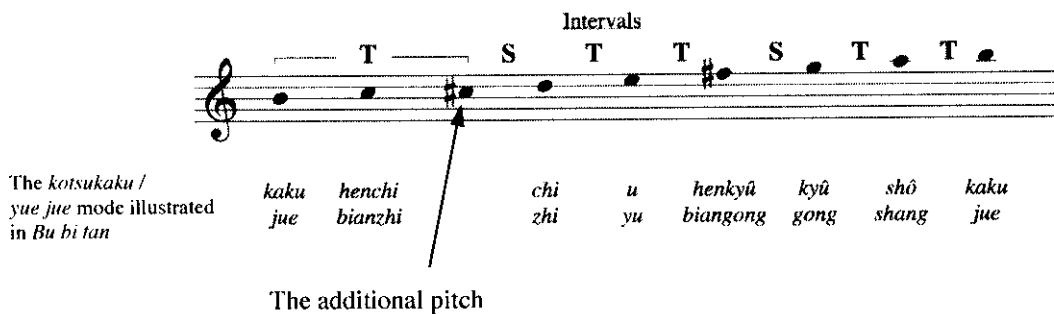


As can be seen in Figure 2.19, the *Bu bi tan* version of the *kotsukaku / yue jue* mode is formed from the *xia zhi diao* heptatonic scale—that is, the interval between the *kaku / jue* and the *henchi / bian zhi* degrees is a semitone and the interval between the *henchi / bian zhi* and the *chi / zhi* degrees is a tone (see the circled degree names in Figure 2.19). This *xia zhi diao* structure is, moreover, generated by the treating the *chi / zhi* degree of the original *kotsukaku / yue jue* mode, which is formed from the *zheng sheng diao* scale, as the *kyû / gong* degree (see the shaded degrees in Figure 2.19). This method is exactly the same as the one illustrated in the

Niu hong zhuan chapter of *Sui shu* (see pp. 64-6).

While all the *kaku / jue* modes illustrated in *Bu bi tan* are formed from the *xia zhi diao* scale, it was unlikely that they were ever played in the *xia zhi diao* structure during the Northern Song period. *Bu bi tan* indicates that in actual performance it is necessary to add an additional pitch to each of the *kaku / jue* modes, and that this additional pitch falls between the *henchi / bian zhi* and the *chi / zhi* degrees of the mode (Shen c.1095:292). The most probable reason that this additional pitch was added to the *kaku / jue* mode was that it allowed the performer to perform that mode in a *zheng sheng diao* scale. The following figure shows the position of the additional pitch added in the *kotsukaku / yue jue* mode.

Figure 2.20: The *kotsukaku / yue jue* mode with an additional pitch



Why was it necessary to use the *kaku / jue* modes in this way? Perhaps this is related to how the *zheng sheng diao* theory was re-emphasized between the sixth and seventh centuries. Figure 2.21 explains a possible scenario of how the interpretation of theoretical scales was changed in China by employing the *kôshô shi kyû / huang zhong zhi gong* mode as an example.

Figure 2.21: A possible scenario of how the interpretation of theoretical scales was changed in China between the sixth and seventh centuries

		The seven <i>sei / sheng</i>	<i>kyû / gong</i>	<i>shô / shang</i>		<i>kaku / jue</i>		<i>henchi / bian zhi</i>	<i>chi / zhi</i>		<i>u / yu</i>		<i>henkyû / bian gong</i>	<i>kyû / gong</i>	<i>shô / shang</i>		
		The <i>kôshô shi kyû / huang zhong zhi gong</i> mode	C	C# ²³	D		E		F#	G		A		B	C	C#	D
Stage One (before the sixth century)	Originally, Chinese modes were mainly formed according to the <i>zheng sheng diao</i> scale.	I		II		III		iv	V		VI		vii	I		II	
Stage Two (the sixth century)	During the sixth century, the fifth degree was assigned as the tonic of a mode. This allowed the musicians to interpret the music according to the <i>xia zhi diao</i> scale.	iv		V		VI		vii	I		II		III	iv		V	
Stage Three (the late sixth and the early seventh century)	Instead of reverting the degrees to their original positions, the musicians		iv	V		VI		vii	I		II		III		iv	V	

²³ This C# is the additional pitch added to the *kotsukaku / yue jue* mode.

seventh centuries)	simply sharpened the fourth degree of the modes in order to return the music to the <i>zheng sheng diao</i> scale. ²⁴																
Stage Four (after the seventh century)	At a later period, the degrees reverted to their original positions.	I		II		III		iv	V		VI		vii	I		II	
	The degrees of the <i>kaku / jue</i> modes did not, however, revert to their original positions. The extra pitch added in Stage Three was retained in the <i>kaku / jue</i> modes.		↓ iv	V		VI		vii	I		II		III		↓ iv	V	

²⁴ This is supported by the case of *qing yue* (see pp. 66-7). Zheng Yi and Su Kui simply asked the emperor to change the pitch of the *henchi / bian zhi* degree from *xiao lü* (*chûryo / zhong lü*) to *suihin / rui bin* rather than revert the degree names to their original positions.

As was shown in Table 2.6, the fourteen *yan yue* modes recorded in *Tang hui yao* include only two *kaku / jue* modes. This implies that in the Tang period *kaku / jue* modes were not used as frequently as the *kyû / gong*, *shô / shang* and *u / yu* modes, and that there were only a limited number of *kaku / jue* modal pieces.²⁵ The reason why performers simply sharpened one degree in order to perform the *kaku / jue* modes in a *zheng sheng diao* structure might have been to avoid frequent change of tunings.

* * *

The period between the middle of the seventh and the late ninth centuries is the period when the Japanese frequently sent embassies to China,²⁶ and this period is also regarded as the most active exchange period between Japan and China during the Tang Dynasty. It is generally agreed that the bulk of the Chinese banquet and entertainment music that became *tôgaku* was transmitted to Japan during this period. Although it is clear that after the seventh century, the importance of the *zheng sheng diao* scale was re-emphasized and the modes of *yan yue* were performed in this scale, it is possible that music and practices

²⁵ Indeed, the historical *tôgaku* scores in Japan rarely include *kaku / jue* modal pieces either. For example, in *Hakuga no fuefu*, the *kakuchô / jue diao* modal category includes only one piece whereas the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal categories include more than fifteen pieces (see Marett 1977:22-5).

²⁶ From 630 to 838, fifteen groups of embassy were successfully sent to China by the Japanese court (Tôno 1999:28-9), and some of these groups consisted of more than 500 people (Tôno 1999:57).

developed during the time that the *xia zhi diao* dominated might have survived to the time when the Japanese began the importation of the Chinese music. This must be borne in mind during the examination of the Heian-period *tôgaku* melodies. I will show in Chapter Six of this thesis that some characteristics of the Chinese *xia zhi diao* scale may have been preserved in Japanese Heian-period *tôgaku*.

Chapter Three

The sources of the historical *tôgaku* scores and *Meiji senteifu*

In this chapter, I will examine the sources of the Japanese historical *tôgaku* scores and discuss the conditions under which they survive. These scores include *Gogenfu*, *Hakuga no fuefu*, *Sango yôroku*, *Jinchi yôroku*, *Ruisô chiyô*, *Kofu ritsuryokan*, *Shinsen shôtekifu*, *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* (see also Introduction). In the last section of this chapter, I will also explain the present condition and the structure of *Meiji senteifu*.

I. *Gogenfu*

Gogenfu, literally ‘five-string score’, is the only surviving example of tablature-notation for the *gogen biwa* / *wu xian pi pa* (five-stringed lute) (Nelson 1986:(4)). Although the outer title of this score is written as ‘*Gogen kinfu*’, which literally means ‘score for the five-stringed zither’, Hazuka Keimei argues that this title was added by someone after the compilation of the tablature-notation (Hazuka 1937:56). Since the tablature-signs used in this score are basically the same as those in scores for the more common four-stringed *biwa* / *pi pa* (four-stringed lute), there is no doubt that this score is written for lute rather than zither.

The table of contents of *Gogenfu* indicates that there are twenty-seven pieces

in this score, of which six are modal preludes. The body of the score, however, comprises twenty-eight pieces: the piece “*Jôgenraku*” is not included in the table of contents.¹ It is generally agreed that many of the pieces recorded in this score were pieces that flourished in the Tang Dynasty (Hayashi 1969a:141;² Nelson 1986:25), and that this score was compiled around the late Nara or early Heian periods (Hayashi 1969a:121-2; Nelson 1986:23). The compiler of this score is, however, not known.

While the original of this score has been lost, the one surviving manuscript copy is relatively old, and just as we do not know the compiler of the original, so too we do not know the compiler of this copy. This single copy, which is classified as an Important Cultural Property, is now preserved in the Yômei Bunko (Yômei Archive) in Kyoto. Scholars generally agree, on the basis of the condition of the paper and the ink, that this single manuscript copy was compiled around the middle of the Heian period (Hayashi 1969a:140; Hayashi 1969c:170;³ Nelson 1986:22). Although the year Jôwa 9 (842) is written at the end of this manuscript copy, this date must be treated with caution. Steven Nelson argues that this date was added at a later period in order to suggest that the score was part of the music materials brought back to Japan from China by Fujiwara no Sadatoshi (807-67) (Nelson

¹ There are other minor inconsistencies between the table of contents and the notation. For details, see Nelson 1986:24.

² This article was first published in the journal *Nihon onkyô gakkaiishi No.2* (1940). The version that I have consulted is a reprint in *Gagaku-kogakufu no kaidoku* (Hayashi 1969c).

³ This article was first published in the journal *Nara gakugeidaigaku kiyô jinbun shakaikagaku No. 13* (1965). The version that I have consulted is a reprint in *Gagaku-kogakufu no kaidoku* (Hayashi 1969c).

1986:22-3). The year Jōwa 9 seems therefore to represent neither the date of compilation of the manuscript copy nor the date of compilation of the original. Most scholars agree that the date of compilation of the original was much earlier than 842 on the ground that it contains the date *ushidoshi urû jūichigatsu* (the intercalary eleventh month of the Year of the Ox), which is written after the notation of the piece “*Yahanraku*”. Hayashi Kenzō identifies this Year of the Ox as 773 (Hayashi 1969a:140).

A photographic reproduction of the whole manuscript is provided in the book *Kogaku kokayōshū* (Yōmei Bunko, ed. 1978:101-193). In addition to this photographic reproduction, Hayashi Kenzō also includes a handwritten copy of the score in his article “Zen’yaku gogenfu” [A complete transcription of *Gogenfu*] (Hayashi 1969c:178-185). The version printed in *Kogaku kokayōshū* is the reference source for this thesis.

II. *Hakuga no fuefu*

The official name of this score is *Shinsen gakufu* [Newly edited music scores] but it is more commonly called *Hakuga no fuefu*, which simply literally means ‘Hakuga’s flute score’. ‘Hakuga’ refers to the flute virtuoso Minamoto no Hiromasa (918-980). In addition to the flute, he was skilful in playing the double-reed pipe and the lute (Marett 1976:13).⁴ This score was compiled by, or under Hiromasa’s

⁴ For a biography of Minamoto no Hiromasa, see Marett 1976:13-14.

editorial supervision in 966⁵ (Marett 1977:1). In addition to the name *Hakuga no fuefu*, this score is also known as *Hakuga no sanmi no fu* [Hakuga-of-the-Third Rank's score]; *Chôshûkyô no take no fu* [Lord Long-Autumn's bamboo score]; *Chôchikufu* [Long bamboo score] and *Hakuga chôchikufu* [Hakuga's long bamboo score] (Marett 1977:1).

The original of this score has been lost, and all surviving manuscript copies date from the eighteenth century or later. Furthermore, only the fourth or final *maki / juan* (chapter)⁶ of the score survives.⁷ The reason that it is generally agreed that the fourth chapter is the last chapter of *Hakuga no fuefu* is because a postface (or *batsubun* in Japanese) and a colophon immediately follow this chapter.⁸ The postface includes an explanation of how and why the score was compiled. It clearly indicates that Minamoto no Hiromasa consulted various earlier flute scores and *setsu* (performance traditions) when he compiled *Hakuga no fuefu*.⁹

According to Marett's research (Marett 1978a:172), there are sixteen surviving manuscript copies of *Hakuga no fuefu*, within which two families can be

⁵ The date Kôhō 3 (966) is written in the colophon, which is reproduced in all the surviving manuscript copies.

⁶ Although *maki / juan* is commonly translated as 'scroll', this thesis employs the word 'chapter' to represent *maki / juan*.

⁷ A table of contents of *Hakuga no fuefu*, which is likely to be a complete copy of the original table, was discovered in 2003 in the Archives and Mausolea Department of the Imperial Household Agency (see Endô 2004b). Because this contains only the titles, not the notations, of the pieces, and because I had no access to this source during my fieldwork in Japan, I will not discuss it further.

⁸ Allan Marett argues with reference to *Sango yôroku* and *Bunkidan* (c. 1280) that Minamoto no Hiromasa's flute score originally comprised thirteen chapters, and that it was grouped into four chapters towards the end of the Heian period (Marett 1978a:173).

⁹ See Marett 1976:11-2 for an annotated translation of the postface.

distinguished.

Table 3.1: The surviving manuscript copies of *Hakuga no fuefu*

Family	Version	Location
1. The <i>Tomoaki</i> Family ¹⁰	1. <i>Rakusaidô</i>	Research Archives for Japanese Music of Ueno Gakuen University
	2. <i>Shôheizaka gakumonjo</i>	Kokuritsu Kôbunshokan (National Archives of Japan)
	3. <i>Shajidai bunko</i>	Ryûkoku University
	4. <i>Rakutei</i>	Tôkyô Geijustu Daigaku Fuzoku Toshokan (Library of Tokyo National University of Fine Arts and Music)
	5. Yamada Takao	A manuscript copy owned by Yamada Takao
2. The <i>Eman'in</i> (or <i>Enman'in</i>) Family ¹¹	6. <i>Eman'in (Enman'in) monzeki</i>	Research Archives for Japanese Music of Ueno Gakuen University
	7. <i>Ôteki kofu</i>	Archives and Mausolea Department of the Imperial Household Agency
	8. <i>Ôteki kofu</i>	Kuni no Miya Ke (The <i>Kuni no miya</i> Family)
Miscellaneous	9. <i>Aoki</i>	Library of Tokyo National University of Fine Arts and Music

¹⁰ Versions Nos. 1-5 are copies of Toyohara no Tomoaki's (1698-1769) copy (1731) (Marett 1978a:173). Unfortunately, Toyohara no Tomoaki's original copy has been lost.

¹¹ Version No. 6 is an undated copy formerly preserved in the Miidera (Mii Temple) near Kyoto and Versions Nos. 7 and 8 are related to this copy (Marett 1978a:173&(10)).

10.	<i>Shôsha</i> ¹²	Library of Tokyo National University of Fine Arts and Music
11.	<i>Shôsha</i>	National Archives of Japan
12.	<i>Shôsha</i>	Research Archives for Japanese Music of Ueno Gakuen University
13.	Yamanoi Kageaki	A manuscript copy owned by Yamanoi Kageaki (1894-1945)
14.	Hayashi Kenzô	A manuscript copy owned by Hayashi Kenzô
15.	<i>Engeki hakubutsukan</i>	Waseda University
16.	Kikkawa Eishi	A manuscript copy owned by Kikkawa Eishi

The fourth chapter of this score can be separated into four sections: the table of contents; the tablature-notation of the pieces; the *anpuhō* section; and the postface (Marett 1978a:174). There are a total of fifty pieces in the body of the score. Exceptions are the *Shôsha* versions that are preserved in the Tokyo National University of Fine Arts and Music (No. 10) and the National Archives of Japan (No. 11). They consist of only twenty pieces.

Pieces are basically organized according to their modal categories, namely *sôjō / shuang diao*, *ôshikichō / huang zhong diao*, *suichō / sui diao*, *banshikichō / pan she diao* and *kakuchō / jue diao*. Forty-eight out of the fifty pieces are

¹² *Shôsha* means 'abbreviated copies'. There is no more specific information given in Marett's research (Marett 1978a).

categorized in one of these five modal categories. The two pieces that are not classified in any of these five modal categories are both titled *ranjô*.

While the names of “*Eiyûraku*”, “*Ten’anraku*” and “*Shôjunraku*”, and a large number of *rin’yûgaku* and *gigaku* pieces are mentioned in the table of contents, these pieces do not occur in the body of the score.

After investigation of most of the manuscript copies, Marett concludes that Nos. 1 and 6 are the best available copies, despite the fact that there are some scribal errors in both versions. (Marett 1978a:173). The *Rakusaidô* version (No. 1) will be used as the main source for this thesis.

III. *Sango yôroku*

Sango yôroku was compiled by Fujiwara no Moronaga (1138-92). Moronaga’s name is reproduced on the first page of every chapter of the many manuscript copies of this score.¹³ The official title *Dajôdaijin* and the rank *jûichii* are usually written together with his name. Although Moronaga was promoted to this official title in 1177 (Dôin, et al. c. 1656:66), we cannot conclude that *Sango yôroku* was necessarily compiled after 1177. It was a general practice in ancient Japan to write the highest rank attained by someone in later writings by or about them.¹⁴ Some pieces recorded in *Sango yôroku* might therefore have been compiled before 1177.

¹³ Fukushima Kazuo suggests that Fujiwara no Takamichi (1166-1237) might also have been involved in the compilation of the score (Kishibe Shigeo Hakase Koki Kinen Suppan Iinkai, ed. 1987:167).

¹⁴ Personal communication with Steven Nelson in 2005.

Fujiwara no Moronaga was one of the most famous musicians in the Heian period. He was a virtuoso on both the thirteen-stringed long zither and the four-stringed lute. *Sango yôroku*, which comprises a total of twelve chapters, is the largest ancient *gagaku* compilation of notations for the four-stringed lute (Kishibe Shigeo Hakase Koki Kinen Suppan Iinkai, ed. 1987:167). ‘*Sango*’ is an alternative name of the four-stringed lute (Hirano et al., ed. 1989:292) and ‘*yôroku*’ means ‘a collection of important records’. Hence, the name *Sango yôroku* can be understood as ‘a collection of important pieces for the four-stringed lute’.

Although *Sango yôroku* records *tôgaku*, *komagaku* and *saibara* pieces, a large proportion of the score is devoted to the *tôgaku* repertory. There are a total of 107 *tôgaku* pieces in chapters five to eleven of this score.¹⁵ Many of them occur in more than one version. Alternative versions are marked *dôkyoku*, literally ‘same piece’.

While the original of this score has been lost, there are numerous surviving manuscript copies. The present situation of the manuscript copies is, however, rather complicated, not only because there are many different manuscript copies each with different copying dates, but also because there are incomplete, abbreviated and *ihon* (alternative copies with a lot of variations) versions. While there is no accurate information on the total number of surviving manuscript copies, there are more than thirty in Japan. *Kokusho sômokuroku* records a total of twenty-eighty copies (Iwanami Shoten ed. 1990:Vol.3, 781) and Endô Tôru’s recent research shows that there are at least six more manuscript copies in Japan (Endô

¹⁵ For a complete list of all the pieces recorded in *Sango yôroku*, see Terauchi 1996:477-84.

2003:23). Many of these are, however, incomplete. The following table is a list of some of the most important complete copies known from *Kokusho sômokuroku* and Endô's research.

Table 3.2: Important sources for *Sango yôroku*

Version	Location
1. <i>Fushimi no miya ke</i>	Archives and Mausolea Department of the Imperial Household Agency
2. <i>Kikutei ke</i> or <i>Karyaku</i>	Archives and Mausolea Department of the Imperial Household Agency
3. <i>Bunsei</i>	Archives and Mausolea Department of the Imperial Household Agency
4. <i>Kyôdai</i>	Kyoto University Library
5. <i>Geidai</i>	Library of Tokyo National University of Fine Arts and Music
6. <i>Kano bunko</i>	Tôhoku Daigaku Fuzoku Toshokan (Tohoku University Library)
7. Yamanoi Kageaki	A copy owned by Yamanoi Kageaki

The first two of these complete sources are early copies that were compiled during the Kamakura period (1192-1336), namely the *Fushimi no miya ke* and the *Kikutei ke* versions (Kishibe Shigeo Hakase Koki Kinen Suppan Iinkai, ed. 1987:167). Although it is commonly held that because it has less handwritten and copying mistakes, the *Fushimi no miya ke* version is better than the *Kikutei ke* version (Terauchi 1996:44), my comparison of the notations of the selected pieces

in these two scores shows no significant difference or disagreement. I, therefore, use the *Kikutei ke* version as the main reference source in this thesis.

IV. *Jinchi yôroku*

Fujiwara no Moronaga also compiled a score for the thirteen-stringed long zither (*gakusô*), *Jinchi yôroku*.¹⁶ The structure of this score is very similar to that of *Sango yôroku*, and the pieces and melodies recorded in this score are essentially the same as those recorded in *Sango yôroku*. Because pieces in *Jinchi yôroku* are compiled for the thirteen-stringed long zither rather than for the lute, however, they incorporate moves that are idiomatic to the long zither.

Jinchi yôroku, which comprises a total of twelve chapters, is chiefly devoted to *saibara*, *tôgaku* and *komagaku* pieces, with the largest proportion of the notation (chapters four to ten) dedicated to the *tôgaku* repertory. As in *Sango yôroku*, the number of *tôgaku* titles is 107. The *chôshibon* section in the first chapter includes a detailed explanation of the tunings of the instrument.

The original of this score has been lost and at present there is no accurate information on the number of existing manuscript copies. According to *Kokusho sômokuroku* (Iwanami Shoten ed. 1990: Vol. 4, 734) and Endô's research (2003:26-7), there are at least thirty-four known manuscript copies in Japan. While two early manuscript copies of *Sango yôroku* survive, all known manuscript copies

¹⁶ *Jinchi* is an alternative name of the long zither (Hirano et al., ed. 1989:278).

of *Jinchi yôroku* are late copies, that is, of the eighteenth century or later. Furthermore, nearly all the surviving copies are incomplete. Four of the available manuscript copies are considered particularly important.

Table 3.3: Important sources for *Jinchi yôroku*

Version	Location
1. <i>Fushimi no miya ke</i>	Archives and Mausolea Department of the Imperial Household Agency
2. <i>Takatsukasa ke</i>	Archives and Mausolea Department of the Imperial Household Agency
3. <i>Kikutei ke</i>	Kyoto University Library
4. <i>Rakusaidô</i>	Research Archives for Japanese Music of Ueno Gakuen University

Nos. 1-3 in the above table are regarded as particularly important because the notations are clearly written and they contain relatively few scribal errors (Terauchi 1996:60). It is possible that these three copies were compiled from the same source(s) (Endô 2003:27). The main weakness of these three copies is that they do not include the last chapter (chapter twelve) of the score. While No. 4, the *Rakusaidô* version, is a complete manuscript copy and can be referred to for the last chapter, it contains some scribal errors.¹⁷ Since the most accessible copy during my fieldwork in Japan was the *Rakusaidô* version, this will be my main reference source for *Jinchi yôroku*.

¹⁷ See Ng 1998:61 for examples.

V. *Ruisô chiyô*

Ruisô chiyô literally means ‘Important notes on the repertoires of zither’. The compiler and the exact year of compilation of this score are uncertain. Although the *okugaki* (colophon) of chapter five in many manuscript copies (see below) states that the compiler decided to compile this score in Ei’ nin 2 (1294) because he or she was old and feeling very sick (Terauchi 1996:99), none of the manuscript copies includes a record of who the compiler was. It is generally agreed, however, that this score comprises zither pieces that were taught and used by Fujiwara no Munesuke’s (d. 1162) daughter, Wakagozen no Ama (fl. late twelfth century) (Terauchi 1996:99-100) (Kishibe Shigeo Hakase Koki Kinen Shuppan Iinkai, ed. 1987:434). For this reason, the zither notation is believed to record melodies that were commonly performed during the late twelfth and the early thirteenth centuries.

As was the case with *Jinchi yôroku*, there is no accurate information on the exact number of manuscript copies that survive for this score. All manuscript copies that are in good condition are late copies. These late copies were mainly compiled during the Genroku (1688-1704) period or later (Terauchi 1996:100).

According to Terauchi’s research, the available manuscript copies of *Ruisô chiyô* can generally be divided into three different families (Terauchi 1996:100-2). This division is established on the basis of the number of chapters in each copy. The following table lists all three families and important manuscript copies for each

family.¹⁸

Table 3.4: Important sources for *Ruisô chiyô*

Family	Version	Location
1. Manuscript copies with a total of sixteen chapters	1. <i>Kakushôji</i>	Library of Tokyo National University of Fine Arts and Music
	2. <i>Rakusaidô</i>	Research Archives for Japanese Music of Ueno Gakuen University
	3. <i>Aoki</i>	National Archives of Japan
2. Manuscript copies with a total of eighteen chapters	4. <i>Katsura no miya ke</i>	Archives and Mausolea Department of the Imperial Household Agency
	5. <i>Hino ke</i>	Kyoto University Library
	6. <i>Takatsukasa ke</i>	Archives and Mausolea Department of the Imperial Household Agency
3. Manuscript copies with a total of twenty chapters	7. <i>Konoe ke</i>	The Yômei Archives
	8. <i>Kikutei ke</i>	Kyoto University Library
	9. <i>Onkô</i>	Library of Tokyo National University of Fine Arts and Music
	10. <i>Gakubu</i>	Archives and Mausolea Department of the Imperial Household Agency

The *Kikutei ke* version (No. 8), which is a twenty-chapter copy, has been chosen as the main reference source in this thesis. It was the most accessible copy

¹⁸ The *Rakusaidô* version (No. 2) is not included in Terauchi's research.

during my fieldwork in Japan. One must note, however, that while shorter versions may include less explanation on the tunings and include no *komagaku* and/or *saibara* pieces, they are not necessarily unreliable. In addition to the *Kikutei ke* version, I consulted the *Rakusaidô* version (No. 2) during my stay in Japan and this will be used as a supplementary reference. The structures of the *Rakusaidô* and *Kikutei ke* versions of *Ruisô chiyô* are summarized as follows:

Table 3.5: The structures of the *Rakusaidô* and *Kikutei ke* versions of *Ruisô chiyô*

Chapter	<i>Rakusaidô</i> version (sixteen chapters)	<i>Kikutei ke</i> version (twenty chapters)
One	<i>Anpuhô</i> (Notes on the method of scoring)	<i>Anpuhô</i>
Two	<i>Ritsuzuhen</i> (Section about pitches)	<i>Chôshibon jô</i> (Explanation of the modes (1))
Three	<i>Chôshihen</i> (Section about modes)	<i>Chôshibon chû</i> (Explanation of the modes (2))
Four	<i>Chôshibon</i> (Explanation of the modes)	<i>Chôshibon ge</i> (Explanation of the modes (3))
Five	<i>Gakkyoku ichi</i> (Pieces (1)) (<i>Ichikotsuchô</i> / <i>yi yue diao</i> pieces)	<i>Ichikotsuchô jô</i> (<i>Ichikotsuchô</i> / <i>yi yue diao</i> pieces (1))
Six	<i>Gakkyoku ni</i> (Pieces (2)) (<i>Ichikotsuchô</i> / <i>yi yue diao</i> pieces)	<i>Ichikotsuchô chû</i> (<i>Ichikotsuchô</i> / <i>yi yue diao</i> pieces (2))
Seven	<i>Gakkyoku san</i> (Pieces (3)) (<i>Sadachô</i> / <i>sha tuo diao</i> pieces)	<i>Sadachô</i> (<i>Sadachô</i> / <i>sha tuo diao</i> pieces)
Eight	<i>Gakkyoku shi</i> (Pieces (4)) (<i>Hyôjô</i> / <i>ping diao</i> pieces)	<i>Hyôjô</i> (<i>Hyôjô</i> / <i>ping diao</i> pieces)
Nine	<i>Gakkyoku go</i> (Pieces (5)) (<i>Taishikichô</i> / <i>da shi diao</i> pieces)	<i>Taishikichô</i> (<i>Taishikichô</i> / <i>da shi diao</i> pieces)
Ten	<i>Gakkyoku roku</i> (Pieces (6)) (<i>Sôjô</i> / <i>shuang diao</i> pieces)	<i>Sôjô</i> (<i>Sôjô</i> / <i>shuang diao</i> pieces)
Eleven	<i>Gakkyoku shichi</i> (Pieces (7)) (<i>Ôshikichô</i> / <i>huang zhong diao</i> pieces)	<i>Ôshikichô jô</i> (<i>Ôshikichô</i> / <i>huang zhong diao</i> pieces (1))

Twelve	<i>Gakkyoku hachi</i> (Pieces (8)) (<i>Suichô</i> / <i>shui diao</i> pieces)	<i>Ôshikichô jô</i> (<i>Ôshikichô</i> / <i>huang zhong diao</i> pieces (1)) ¹⁹
Thirteen	<i>Gakkyoku kyû</i> (Pieces (9)) (<i>Banshikichô</i> / <i>pan she diao</i> pieces)	<i>Banshikichô kô</i> (<i>Banshikichô</i> / <i>pan she diao</i> pieces (A))
Fourteen	<i>Gakkyoku jû</i> (Pieces (10)) (<i>Banshikichô</i> / <i>pan she diao</i> pieces)	<i>Banshikichô otsu</i> (<i>Banshikichô</i> / <i>pan she diao</i> pieces (B))
Fifteen	<i>Gakkyoku jûichi</i> (Pieces (11)) (<i>Banshikichô</i> / <i>pan she diao</i> pieces)	<i>Banshikichô hei</i> (<i>Banshikichô</i> / <i>pan she diao</i> pieces (C))
Sixteen	<i>Gakkyoku jûni</i> (Pieces (12)) (<i>Banshikichô</i> / <i>pan she diao</i> pieces)	<i>Banshikichô tei</i> (<i>Banshikichô</i> / <i>pan she diao</i> pieces (D))
Seventeen	-	<i>Komakyoku jô</i> (<i>Komagaku</i> pieces (1))
Eighteen	-	<i>Komakyoku ge</i> (<i>Komagaku</i> pieces (2))
Nineteen	-	<i>Saibara ritsu</i> (<i>Saibara</i> pieces of <i>ritsu</i>)
Twenty	-	<i>Saibara ryo</i> (<i>Saibara</i> pieces of <i>ryo</i>)

VI. *Kofu ritsuryokan*

This is the oldest surviving score for the mouth-organ. It is known variously as *Kofu ritsuryokan* [Old score: *ritsu* and *ryo* chapters], *Kofu ryoritsukan* [Old score: *ryo* and *ritsu* chapters], *Hôshô ritsuryokan* [*Ritsu* and *ryo* chapters for mouth-organ], *Toshiakifu* [Toshiaki's score] and *Taifu* [The score of *Tai*].²⁰ There are three colophons in this score and the last, which was inserted by Toyohara Fumiaki in 1813, clearly states that this score is based on a manuscript copy made by Toyohara

¹⁹ In the *Kikutei ke* version of *Ruisô chiyô*, both chapters eleven and twelve are headed *ôshikichô jô*. While they record similar *ôshikichô* / *huang zhong diao* pieces, the notation in chapter eleven is clearer than that in chapter twelve. For instance, many lines and dots are missing from the notation of chapter twelve. As a result, this thesis will only examine the *ôshikichô* / *huang zhong diao* pieces recorded in chapter eleven.

²⁰ This name appears in the last colophon (see below) of the score but the reason for using the word 'tai' 太 is uncertain.

no Toshiaki (1152-1212) after he gave the original to Fujiwara no Iezane (also know as Inokuma Kanpaku) (1179-1241) when he taught him the *hikyoku*²¹ in the third month of Kennin I (1201). The only available reliable manuscript copy of this score was written in the Edo period (Kishibe Shigeo Hakase Koki Kinen Shuppan linkai ed. 1987:156), and is preserved in the Bunno (Toyohara) Family.²² The Bunno Family is the *honke* (the head/leading family) for the mouth-organ repertory of *gagaku*, and *Kofu ritsuryokan* is also the oldest mouth-organ score of this family (Kishibe Shigeo Hakase Koki Kinen Shuppan linkai ed. 1987:156).

One must, however, note that while the Edo-period manuscript copy of *Kofu ritsuryokan* is based on a copy written by Toyohara no Toshiaki, the last colophon also indicates that a descendant of Toshiaki, Toyohara no Chikaaki (1203-84), also made a copy for his son. Moreover, the second colophon, which precedes directly before the last, states that in 1244 another descendant, Toyohara no Yoshiaki (1193-1271), might have added mensural notation and colophons to the copy written by Toshiaki. As a result, the Edo-period version may have incorporated information in Chikaaki's copy as well as the mensural notation added by Yoshiaki.

Kofu ritsuryokan is divided into two chapters: the *kofuritsukan* and the *kofuryokan*. The *kofuritsukan* comprises pieces in the modal categories *hyôjô / ping diao*, *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* whereas the *kofuryokan* consists of pieces in the modal categories *ichikotsuchô / yi yue diao*,

²¹ 'Hikyoku' literally means 'secret pieces', which probably refers to pieces that can be transmitted only to selected disciples.

²² These days, the Toyohara Family is commonly known as the 'Bunno Family'.

sôjô / shuang diao and *taishikichô / da shi diao*.

The titles written in the table of contents of the two chapters for the most part correspond to those of the pieces notated in the body of the score. There are twenty *hyôjô / ping diao*, seventeen *ôshikichô / huang zhong diao*, twenty-seven *ichikotsuchô / yi yue diao*, fourteen *sôjô / shuang diao* and seventeen *taishikichô / da shi diao* pieces in this score.²³ The only inconsistency between the table of contents and the notation occurs in the *banshikichô / pan she diao* section, where the table of contents lists a total of eighteen *banshikichô / pan she diao* pieces, while the notations of only sixteen of these occur in the score. “*Yûnijo*” and “*Keimeiraku*” are omitted.

VII. *Shinsen shôtekifu*

Shinsen shôtekifu [Newly edited score of mouth-organ] is an important score for *tôgaku* since the early fourteenth-century original survives to the present-day. In this thesis I will refer to this original. The score, which comprises a total of two chapters, is now preserved in the Yômei Archive in Kyoto. According to the two colophons written at the end of each chapter, the score was compiled in 1302 at the request of Jôchi / Zheng zhi. It was proofread in 1304 and then transmitted to Seiin in 1305. Since the score is signed by a person called Raiin, it is assumed that Raiin is the compiler of this score (Kishibe Shigeo Hakase Koki Kinen Shuppan Iinkai ed.

²³ The “*Chôshi*” (modal prelude) in each modal category is not counted.

1987:217). Although little is known about these people, Jôchi / Zheng zhi, Seiin and Raiin all sound like the names of Buddhist monks. One of the colophons suggests that Jôchi / Zheng zhi was a *sô'nin* (a person of the Song Dynasty of China) and we might conclude therefore that Jôchi / Zheng zhi was probably a Buddhist monk from China. The source on which this score is based, if any, is uncertain but the colophons clearly state that mensural signs were added during the course of compilation in 1302.

The score is devoted entirely to *tôgaku* pieces. Chapter one comprises thirty *ichikotsuchô / yi yue diao*, eleven *sôjô / shuang diao*²⁴ and sixteen *taishikichô / da shi diao* pieces. Chapter two records twenty-four *hyôjô / ping diao*,²⁵ eighteen *banshikichô / pan she diao* and seventeen *ôshikichô / huang zhong diao* pieces.

VIII. *Nakahara roseishô*

The title written inside this score, which is probably the strictly accurate title, is *Roseishô*. '*Rosei*' literally means 'the sound of reeds' and '*shô*' can be understood as 'compendium'. The title '*roseishô*' can therefore be translated as 'compendium for the double-reed pipe'. Since there are various surviving *Roseishô* in Japan, this score is usually called *Nakahara roseishô*. *Nakahara* refers to the double-reed pipe performer Nakahara no Shigemasa (1274-?). Shigemasa was the student of Abe no Suetoshi (1243-1321), who was a musician of the Kyoto school

²⁴ Nine of them are, however, *watashimono* (transposed pieces) from other modal categories.

²⁵ One of them is a *watashimono*.

(Kishibe Shigeo Hakase Koki Kinen Shuppan Iinkai, ed. 1987:440). The colophon of this score clearly states that Shigemasa compiled this score between the eleventh month of 1341 and the twelfth month of 1342.

Nakahara roseishô is not only dedicated to the notation of *tôgaku* but also to *komagaku* and *kagura* (ritual music). There are a total of 105 *tôgaku* pieces in this score, excluding the modal preludes. The music recorded in this score is the earliest record of the Kyoto double-reed pipe tradition (Kishibe Shigeo Hakase Koki Kinen Shuppan Iinkai, ed. 1987:440).

There are four known manuscript copies of this score and these are tabulated below.

Table 3.6: The four sources for *Nakahara roseishô*

Version	Location
1. <i>Abe ke</i>	The Abe Family
2. <i>Kubo ke</i> ²⁶	Research Archives for Japanese Music of Ueno Gakuen University
3. A version written in the Edo period	Present location uncertain
4. <i>Yamanoi</i>	The Yamanoi Family

The *Abe ke* score is the oldest surviving manuscript copy of this score. It was compiled during the *chûsei* period of Japan.²⁷ I have decided, however, to use the

²⁶ In the *Kubo ke* manuscript copy, the notation of “*Sanju*” is incomplete. This piece belongs, however, to the modal category of *taishikichô / da shi diao* and will not be examined in this thesis.

²⁷ *Chûsei* is a general historical term that refers to the period between the late-Heian and the end of

Kubo ke score as the main reference source and the *Abe ke* as a supplementary source, even though the *Kubo ke* score was copied in the Edo period (Kishibe Shigeo Hakase Koki Kinen Shuppan Iinkai, ed. 1987:440). The reason is that the *Kubo ke* score includes two different sets of dots that may imply two or more systems of rhythm whereas the *Abe ke* score records only one. The two sets of dots in the *Kubo ke* score are the *kuten kifuhô* (phrase-mark notation) and *kobyôshiten kifuhô* (beat-mark notation),²⁸ which will be explained in Chapter Four. The *Abe ke* score records only the *kobyôshiten kifuhô*. In the *Abe ke* score, however, the tablature-signs are regularly and systematically separated by spaces, and these spaces generally correspond to the *kuten kifuhô* used in the *Kubo ke* score. It is, however, sometimes difficult to judge whether a space after a tablature-sign in the *Abe ke* score is really intended or not and the *kuten kifuhô* in the *Kubo ke* score helps us to make these decisions.

Moreover, there are many scribal errors in the *kobyôshiten kifuhô* of the *Abe ke* score. For instance, in “*Sekihaku tôrika*”, the *taiko* drum-beat is incorrectly assigned to the sixth beat of a drum-cycle from the second notational column.

The other two manuscript copies will not be discussed here: the present location of one of them is uncertain and the *Yamanoi* score, which was copied in the Edo period (Kishibe Shigeo Hakase Koki Kinen Shuppan Iinkai, ed. 1987:440), is not available for examination.

the Muromachi (1392-1568) periods.

²⁸ These two terms are commonly used by Terauchi Naoko (Terauchi 1996:230&234).

IX. *Chû ôga ryûteki yôrokufu*

Yamanoi Kagenori (1637-1715) suggests that the most accurate name of this score is *Ryûteki yôrokufu* [Important record-score for the transverse flute] (Marett 1988:120, n.1). As was the case with *Nakahara roseishô*, however, this name is generic rather than specific; many other flute scores share this name. For this reason, the name *Chû ôga ryûteki yôrokufu* [Comments on the important record-score for flute of the Ôga Family] is commonly used to refer to the score compiled by Ôga (or Yamanoi) no Kagemitsu (1273-1353 or 1354) in the first half of the fourteenth century. The exact year of compilation is, nevertheless, uncertain. Even though the colophon of some manuscript copies states that the score was compiled in Shôwa 5 (1316), this date must be treated with caution because the colophon was probably added in a later period (Marett 1988:211). Ôga no Kagemitsu was one of the musicians of the Kyoto based Ôga Family (Endô 1996:48) and was appointed as the flute teacher of Emperor Godaigo (r. 1318-39) (Hirano ed. 1989:607).

Chû ôga ryûteki yôrokufu is the oldest complete collection of notations in all *tôgaku* and *komagaku* modes for *tôgaku* flute and *komagaku* flute (or *komabue*) known to have survived to the present (Marett 1988:210).

Allan Marett carried out detailed research on the sources for this score in the 1980's and discovered that there are at least twenty-six known manuscript copies (Marett 1988:211). According to Marett's research, these twenty-six copies can be divided into three families (Marett 1988:212-4) (see below). Unfortunately, four of

the known copies have been destroyed by fire and the location of one of them is unknown (Marett 1988:211). Furthermore, some are in private hands and are unavailable for investigation (Marett 1988:211). Hence, it is possible to investigate only thirteen of the twenty-six copies. The following table summarizes the details of these thirteen available copies.

Table 3.7: The thirteen available sources for *Chû ôga ryûteki yôrokufu*

Family	Version	Location
1. Family One (Group A)	1. <i>Sonkeikaku bunko</i>	The Sonkeikaku Archives
	2. <i>Takatsukasa ke</i>	Archives and Mausolea Department of the Imperial Household Agency
(Group B)	3. <i>Fushimi no miya ke</i>	Archives and Mausolea Department of the Imperial Household Agency
	4. <i>Eman'in</i> (or <i>Enman'in</i>) <i>monzeki</i>	Research Archives for Japanese Music of Ueno Gakuen University
(Group C)	5. <i>Kano bunko</i>	Tohoku University Library
	6. <i>Rakusaidô</i>	Research Archives for Japanese Music of Ueno Gakuen University
	7. <i>Hibiya shoke</i>	Tôkyô Toritsu Chûô Toshokan (Tokyo Metropolitan Central Library)
	8. <i>Kyôdai</i>	Kyoto University Library

(Group D)	9.	<i>Kano bunko</i> ²⁹	Tohoku University Library
2. Family Two	10.	<i>Tenri</i>	Tenri Toshokan (Tenri Central Library)
	11.	<i>Fushimi no miya ke</i>	Archives and Mausolea Department of the Imperial Household Agency
3. Family Three	12.	<i>Eman'in</i> (or <i>Enman'in</i>) <i>monzeki</i>	Research Archives for Japanese Music of Ueno Gakuen University
	13.	<i>Inaba shi kyûzô</i>	Research Archives for Japanese Music of Ueno Gakuen University

Many of the thirteen copies include more than 120 *tôgaku* and 25 *komagaku* pieces. The earliest copies are the *Sonkeikaku bunko* version and the *Tenri* version. The physical nature of these two manuscript copies suggests that they both date from the early Muromachi period (1392-1568) (Marett 1988:215). All other copies were compiled in the Edo period (1603-1868) or later. Both the *Sonkeikaku bunko* and the *Tenri* versions appear to be parents of a family of later manuscripts (Marett 1988:215). In short, the *Sonkeikaku bunko* version is the parent of Family One and the *Tenri* version is the parent of Family Two. Although the copying history of the *Tenri* version is unknown, the *Sonkeikaku bunko* version appears to have been copied from a copy made by Ôe Masa (fl. fourteenth century) in 1353 (Marett 1988:215). While both the *Sonkeikaku bunko* and the *Tenri* versions are significant, the main reference source of *Chû ôga ryûteki yôrokufu* in this thesis is the

²⁹ This *Kano bunko* version is different from No. 5.

Sonkeikaku bunko version. The *Tenri* version has, however, been consulted as necessary.

X. *Meiji senteifu*

Three copies of *Meiji senteifu* are preserved in three different offices of The Music Department of the Board of the Ceremonies of the Imperial Household Agency, namely the office of the head of the music department (*gakuchôshitsu*), the office of school affairs (*kyômushitsu*) and the office of musical instruments (*gakkishitsu*). According to Hashimoto Yôko, all three copies comprise a total of 72 volumes (Hashimoto 1983:42). The handwriting of the three copies is also very similar, and therefore it is assumed that they were compiled by the same person at the same period (Hashimoto 1983:42).³⁰

While all three copies owned by the Music Department of the Imperial Household Agency are inaccessible, I was allowed to examine a facsimile copy of the *gakuchôshitsu* version preserved in the Research Archives for Japanese Music of Ueno Gakuen University during my fieldwork in Japan. This is also the only *gakuchôshitsu* version of *Meiji senteifu* available as a copy.

Meiji senteifu is not only devoted to *tôgaku* but also to all musical and dance genres of *gagaku*. It is divided into nine main sections: *uta* (songs); *wagon* (Japanese six-stringed zither); *biwa* (four-stringed lute); *sô* (thirteen-stringed long

³⁰ Hashimoto does not, however, indicate the name of the compiler or the year of compilation.

zither); *hōshō* (seventeen-piped mouth-organ); *hichiriki* (double-reed pipe); *ryūteki* (transverse flute); *tsuzumi* (drums); and *mai* (dances). Each section consists of a number of volumes, and pieces are organized with reference to their genre and size. *Tōgaku* and *komagaku* pieces are further grouped into different modal categories.³¹ *Tōgaku* pieces selected for detailed examination in this thesis are recorded in Volumes 9 (*biwa*), 10 (*biwa*), 17 (*sō*), 18 (*sō*), 25 (*hōshō*), 27 (*hōshō*), 28 (*hōshō*), 35 (*hichiriki*), 37 (*hichiriki*), 38 (*hichiriki*), 49 (*ryūteki*), 51 (*ryūteki*) and 52 (*ryūteki*) of *Meiji senteifu*.

³¹ For a complete list of the pieces in *Meiji senteifu*, see: Hashimoto 1983.

Chapter Four

The tablature-notation of the Japanese scores and the tunings of the instruments

Before undertaking an analysis of the ancient and modern *tôgaku* melodies, it is necessary to explain the tablature-notation of the Japanese scores and, where relevant, the tunings for playing the selected pieces.¹ This chapter is in three parts. The first part examines the tablature-notations of *Gogenfu* and *Hakuga no fuefu*. This will allow the reader to understand how the tablature-notation of *tôgaku* functioned during the early and middle Heian periods.

The second part discusses the tablature-notation and tunings of the instruments used between the late Heian and early Nanbokuchô (1336-1392) periods. The tablature-notation of *Sango yôroku*, *Jinchi yôroku*, *Ruisô chiyô*, *Kofu ritsuryokan*, *Shinsen shôtekifu*, *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* will be investigated in this part.

The last part examines the tablature-notation of *Meiji senteifu*. The scores published by the Ono Gagakukai and Nihon Gagakukai (The Japan Gagaku Society) will also be discussed in this section.

¹ While the tablature-notations of *Gogenfu*, *Hakuga no fuefu*, *Sango yôroku*, *Jinchi yôroku*, *Ruisô chiyô*, *Kofu ritsuryokan* and *Shinsen shôtekifu* have already been examined by some scholars (see the discussion of the scores in each section of this chapter), the tablature-notation of *Chû ôga ryûteki yôrokufu* has not. Furthermore, there are only some preliminary studies of *Nakahara roseishô*, for example, Nelson 1981 and Endô 1995.

Part of this chapter will be devoted to a discussion of meter and rhythm. Accuracy in transcription relies not only on the correct decipherment of the *itches* of the tablature-signs but also a correct understanding of the mensural signs. Correct transcription of the metrical and rhythmic structures is, moreover, essential for comparative analysis of ancient and modern versions of a piece and to modal analysis.

I. The tablature-notation and rhythmic implication in *Gogenfu* and *Hakuga no fuefu*

A. The tablature-notation of *Gogenfu*

1. The tablature-signs and the fret system of the instrument

A total of twenty-five tablature-signs are employed in *Gogenfu* to represent the open strings and the positions of the frets. Eighteen of them are basically the same as those used in scores for the four-stringed lute, such as *Sango yôroku* (see below). In addition, there is a set of seven tablature-signs not encountered in other scores for the four-stringed lute. The following figure compares the tablature-signs that are common to *Sango yôroku* and *Gogenfu*.²

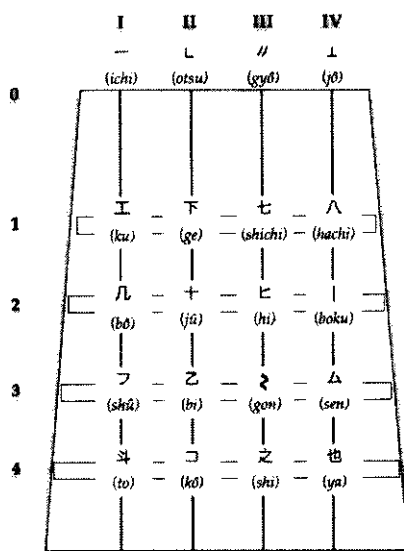
² Although the tablature-signs ‘ス’, ‘レ’ and ‘ヤ’ in *Gogenfu* seem different from the corresponding tablature-signs in *Sango yôroku*, a comparison between the *Dun huang pi pa pu* and the lute scores in Japan shows that the tablature-signs ‘ス’, ‘レ’ and ‘ヤ’ are in fact earlier and in two cases abbreviated forms of ‘下’, ‘コ’ and ‘世’ respectively (Hayashi 1969f:205).

Figure 4.1: A comparison between the tablature-signs employed in the notations of *Sango yôroku* and *Gogenfu*

<p>Tablature-signs used in <i>Sango yôroku</i></p> <p>一 工 几 フ 斗 下 十 乙 コ ャ セ ヒ ズ 之 上 八 一 ム 也</p>	<p>The additional seven tablature-signs in <i>Gogenfu</i></p> <p>子 九 中 口 四 五 小</p>
<p>Tablature-signs used in <i>Gogenfu</i></p> <p>一 工 几 フ 斗 下 ス 十 レ ャ セ ズ 之 上 八 一 ム ヤ</p>	

The fret system of the four-stringed lute set out in the following figure is based on chapter one of *Sango yôroku*, and was also explained in my Masters research (Ng 1998:83-6).

Figure 4.2: The frets and their relevant tablature-signs of the four-stringed lute



The Roman numerals (I, II, III and IV) in Figure 4.2 refer to the strings. String I refers to the thickest string (lowest pitch) and string IV to the thinnest. The

Arabic numerals represent the upper bridge positions (i.e. the open strings) (0) and the frets (1, 2, 3 and 4).

The fret system of the five-stringed lute is not explained in *Gogenfu*. A Chinese treatise of the Tang period called *Yue yuan* includes important information that can, however, assist scholars to understand this matter.

Chen You's (fl. Tang period) *Yue yuan* states that a five-stringed lute has five *gen / xian* (strings), four *kaku / ge* (frets) and one *kojû / gu zhu* (independent small fret). A performer can generate five pitches from the open strings, twenty from the frets and one from the independent small fret.³

Let us assume that the twenty tablature-signs that correspond to those of the four-stringed lute represent the same finger positions as on the five-stringed lute.⁴ The five-stringed lute, however, contains a fifth string and an extra fret. The basic structure of the five-stringed lute could be conceived in terms of the following figure.

Figure 4.3: The basic structure of the five-stringed lute

³ *Yue yuan* is only preserved as fragments quoted in other Chinese sources. The description of the structure of the five-stringed lute is contained in the *Wu xian tan* section in the *Xin yue fu ci qi* (new *yue fu* poetry seven) chapter of scroll 96 of *Yue fu shi ji* (Guo late thirteenth century:1350).

⁴ Two of the twenty tablature-signs of the four-stringed lute, namely *bi* 乙 and *hi* 匕, are not used in the notation of *Gogenfu* (see Figure 4.1). This is probably because the notes produced with these fingerings were not needed in the pieces recorded in *Gogenfu*.

	I	II	III	IV	V
0	一 (ichi)	二 (otsu)	三 (gyô)	四 (jô)	?
1	工 (ku)	ス (ge)	七 (shichi)	八 (hachi)	?
2	九 (bô)	十 (jû)	ヒ (hi)	卜 (boku)	?
3	フ (shû)	乙 (bi)	之 (gon)	厶 (sen)	?
4	斗 (to)	レ (kô)	之 (shi)	𠂇 (ya)	?

This gives rise to two questions: what is the relationship between the tablature-signs and the finger positions on the fifth string; and which tablature-sign signifies the *kojû* / *gu zhu* (small fret) and what is its position? Many scholars have already carried out research on the structure of the five-stringed lute and the notation of *Gogenfu* (Hayashi 1969a, 1969c; Wolpert 1975, 1981a, 1981b; Nelson 1986; He 1983a, 1984 and Ye 2001). Most scholars agree that the additional tablature-signs, namely *shi* 子, *kyû* 九, *chû* 中 (or *kô* 口),⁵ *shi* 四 and *go* 五, represent the finger positions from the open string to the fourth fret of the fifth string respectively (Hayashi 1969a, 1969c; Nelson 1986; He 1983a, 1984; Ye 2001) and that *shô* 小 is the tablature-sign of the small fret (Hayashi 1969a; Wolpert 1975, 1981b; Nelson 1986; He 1983a). *Shô* literally means ‘small’. There is, however, no

⁵ Scholars generally agree that the tablature-sign *kô* 口 represents the same position as *chû* 中, that is, the second fret of the fifth string (Hayashi 1969a; Nelson 1986; He 1983; Ye 2001). While the tablature-sign *chû* frequently appears in the notation, only six *kô* signs are used in the whole score (Nelson 1986:35). Perhaps the *kô* sign is an abbreviated form of the *chû* sign.

consensus on the position of this small fret. Rembrandt Wolpert and He Chang-lin suggest that the small fret is positioned below the fourth fret of the fifth string (Wolpert 1975:123, 1981b:111; He 1983a:16). Steven Nelson, on the other hand, argues that this small fret is positioned between the upper bridge and the first fret of the fourth string (Nelson 1986:43).

Some scholars suggest that *shô* is not the tablature-sign for the small fret at all. Hayashi Kenzô came to believe that *shô* is actually an alternative tablature-sign for *boku* | or *hachi* 八 (Hayashi 1969c:174).⁶ I am not convinced, however, by Hayashi's argument since it is common for both *shô* and *boku* or *hachi* to be used in a same piece, for example, "*Hyôjô kahô*".

Like Hayashi, Ye Dong believes that *shô* is not a tablature-sign for the small fret. He argues that *shô* is an alternative tablature-sign for *sen* △ (Ye 2001:25). I do not find Ye's argument persuasive either. He considers that *shô* is another form of *sen* because *sen* is written as '尔' in *Dun huang pi pa pu* (Ye 2001:24). The notation of "*Seimeiraku*", however, clearly shows that in *Gogenfu sen* is written as '△', but not as '小' or '尔'.

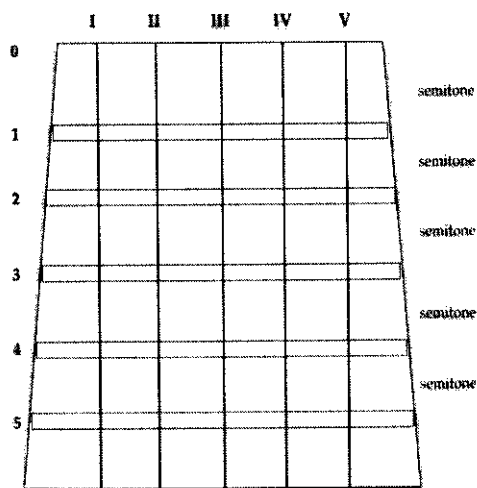
In my opinion, Nelson's argument is the most convincing. This is because he has, on the one hand, thoroughly examined the structure of the only surviving Tang-style five-stringed lute preserved in the Shôsôin, and on the other,

⁶ In fact, Hayashi first indicated that the *shô* tablature-sign signified a small fret that was positioned below the fourth fret of the fifth string, and this view is identical to that suggested later by Wolpert and He. Nevertheless, Hayashi changed his view after 1964. For details, see Hayashi 1969c and Nelson 1986:31-8.

comprehensively and systematically investigated the usage of the tablature-signs in the score. Before turning to a discussion of Nelson's arguments, it is first necessary to provide a brief introduction to the structure of the five-stringed lute preserved in the Shôshôin.

Together with a number of other scholars, Hayashi Kenzô investigated and measured various parts of the surviving five-stringed lute in 1952 (Hayashi, Kishibe, Taki & Shiba 1967:15, 83, 103). The fret system of this lute is different from the one described in *Yue yuan*. The surviving five-stringed lute consists of a total of five strings and five frets, and there is no independent small fret. This structure is set out in the following figure.

Figure 4.4: The fret system of the five-stringed lute preserved in the Shôshôin

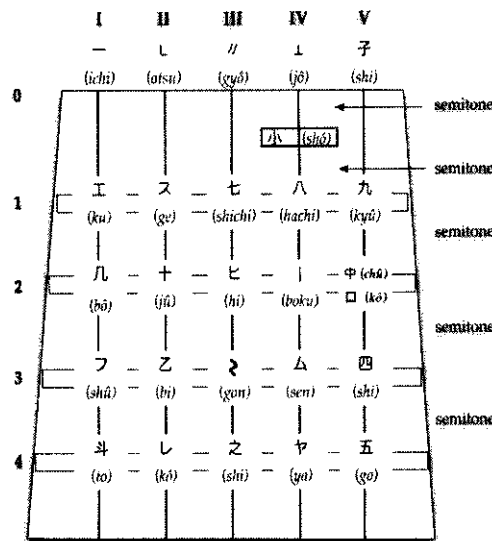


Because many instruments in the Shôshôin have been repaired and reconstructed, scholars generally prefer to rely on *Yue yuan* rather than the lute in the Shôshôin to establish the fret system of the five-stringed lute. No detailed record of these repairs and reconstruction survives, and for this reason it is impossible to

determine the original form of the fret system of the surviving five-stringed lute.

Nelson, however, does not ignore the fret system of the surviving lute. He believes that the long Fret I of the surviving lute was not originally the first fret of the five-stringed lute (see Figure 4.4) but rather that an independent small fret (*kôju* / *gu zhu*) filled this position. It seems likely that this small fret was replaced by a long fret during repairs (Nelson 1986:33&43). Nelson's opinion was arrived at through an analysis of the actual usage of the tablature-signs in *Gogenfu*. Nelson observes that the *shô* 小 tablature-sign always appears in conjunction with the *jô* 丄 and *boku* | tablature-signs. Since the *jô* and *boku* tablature-signs both represent finger positions on the fourth string, the *shô* tablature-sign might also be a fret on the fourth string. Nelson concludes that the most reasonable position for the small fret signified by *shô* is between the upper bridge and the first fret of the fourth string (Nelson 1986:38-43). This fret system is set out in the following figure.

Figure 4.5: Nelson's fret system of the five-stringed lute



2. The tunings of the instrument and the pitches of the tablature-signs

Because the five-stringed lute can be tuned in different ways, a single tablature-sign does not represent a fixed pitch but rather various pitches according to different tunings. *Gogenfu* comprises modal preludes in the modes of *hyôjô / ping diao*, *taishikichô / da shi diao* (two pieces), *ichikotsuchô / yi yue diao*, *ôshikichô / huang zhong diao* and *banshikichô / pan she diao*. It is to be expected, therefore, that pieces in *Gogenfu* will fall within these five modal categories. The score does not, however, include any explanation of the tunings that correspond to these modes.

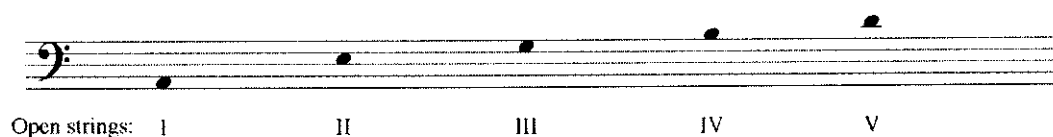
Many researchers have carried out research on the tunings of the instrument (Hayashi 1969a, 1969c; Nelson 1986; Wolpert 1981b; Ye 2001; He 1983a). The only tuning that will be discussed here is the tuning for playing “*Sômeiraku*” since this is the only piece selected from *Gogenfu* to be examined in this thesis. The following figure shows the notation of “*Sômeiraku*”.⁷ The notation of *tôgaku* scores is written vertically and the columns are read from right to left.

Figure 4.6: The notation of “*Sômeiraku*”

⁷ The notation in this figure is taken from the photographic reproduction of “*Sômeiraku*” printed in *Kogaku kokayôshû* (Yômei Bunko, ed. 1978:124-5).

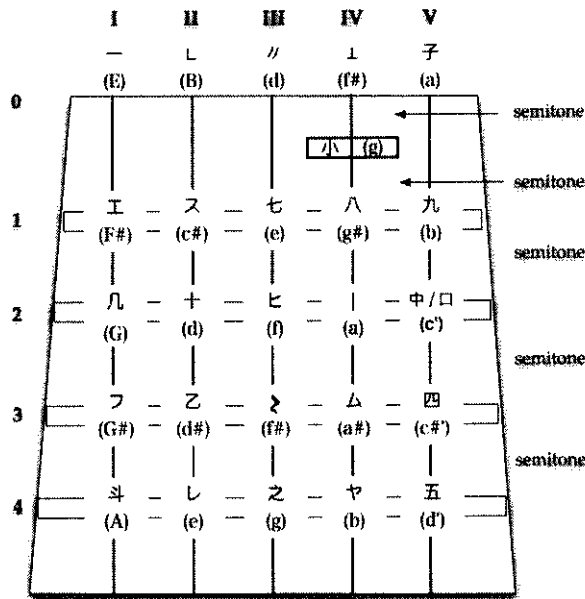
He Chang-lin is the only scholar who has a different idea about the tuning. His tuning is a perfect fourth higher than the tuning set out in Figure 4.7 (He 1983a:21).

Figure 4.8: He Chang-lin's tuning



Since the intervallic relationship between the pitches of the five strings in He Chang-lin's tuning is exactly the same as the one shown in Figure 4.7, the music performed by using He's tuning will be diatonically transposed. That is, He's tuning will change the key but not the melodies of the *banshikichô / pan she diao* pieces. In this thesis, "*Sômeiraku*" will be transcribed according to the tuning set out in Figure 4.7. The following figure shows the pitches of the tablature-signs with reference to Nelson's fret system according to this tuning.

Figure 4.9: The tuning of *banshikichô / pan she diao* and the pitches of the tablature-signs



3. Other notational signs in “*Sōmeiraku*”

In addition to tablature-signs that indicate the open strings and the fret positions, there are numerous additional ornamental and special signs in this score. This section concentrates on the special signs that occur in the notation of “*Sōmeiraku*”.

The most frequently used sign in “*Sōmeiraku*” is a small dot, which frequently appears on the right-hand side of the notational columns. Because similar dots are commonly used as indicators of meter and rhythm in other ancient *tōgaku* scores, for example, *Sango yōroku* and *Jinchi yōroku* (see below), one might assume that the small dots in *Gogenfu* are also metrical signs.

This is clearly not the case, however, as I shall now show. The following figure is a transcription of the last thirteen tablature-signs of “*Sōmeiraku*” (see the boxed area in Figure 4.6). The result is unconvincing since the rhythmic structure of

this phrase is highly irregular.

Figure 4.10: A transcription of the last thirteen tablature-signs of “*Sômeiraku*”



Examination of another piece, “*Kyûmeiraku*”, confirms that these small dots do not have a metrical function since only one dot occurs in the notation of this piece.

In November 2005, Steven Nelson suggested in a public lecture given in the Shanghai Conservatory of Music (which I attended) that these dots might signify the plucking direction of the plectrum. While his research result has not yet been published, I find his arguments convincing.

The *tei* 丁 sign is also commonly used in “*Sômeiraku*”. This sign is explained as ‘a short pause’ in some historical *tôgaku* scores, for example, *Hakuga no fuefu* (see below). In my transcription of the *Gogenfu* version of “*Sômeiraku*”, I simply use a ‘丁’ symbol to represent the occurrence of this sign.

The *dô* 同 sign⁸ shares a similar function to *dal segno* (D.S.) in western music. A single *dô* sign indicates that the performer should repeat the music from the point marked by an earlier *dô* sign. For instance, a *dô* sign is written at the end

⁸ *Dô* 同 literally means ‘the same’.

of “*Sômeiraku*” (see Figure 4.6). This means that the performer has to repeat the music from the *dô* sign that is placed in the middle of the third column of the notation. This sign is commonly used in other ancient *tôgaku* scores as well, for example, *Hakuga no fuefu*.

The meaning of the ‘✓’ sign is uncertain. In *Sango yôroku* it means *kaeshibachi* (plucking upwards by using the plectrum) (see below) but this sign is also used with the *tei* sign (フ) in *Gogenfu*.⁹ It does not make sense to indicate both a short pause and that the performer should pluck the instrument by using the plectrum. The ‘✓’ sign in *Gogenfu* may signify an extension (or doubling) of a time unit, so that a ‘フ✓’ sign may imply the prolongation of a pause.

Although there are numerous special signs in the notation of “*Sômeiraku*”, none of them seems to affect the rhythm and meter of the piece. It is in fact possible to ascertain the meter and rhythm of “*Sômeiraku*” by referring to the melodies of the same piece in other scores. This will be demonstrated after the examination of the tablature-notation of *Hakuga no fuefu*.

B. The tablature-notation of *Hakuga no fuefu*

1. Tablature-signs and their pitches

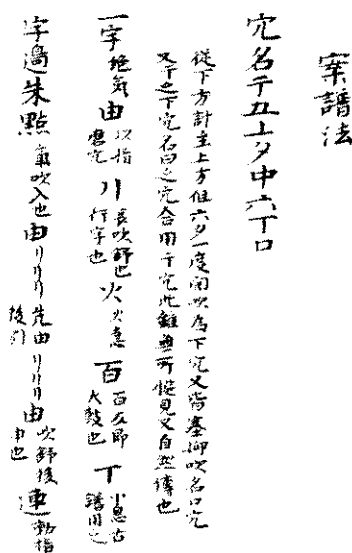
Allan Marett identifies six different tablature-styles in *Hakuga no fuefu*, and suggests that each reflects the style, or more precisely the notational system, of one or other of Minamoto no Hiromasa’s sources (Marett 1977:2). This section

⁹ See the sixth column of the notation in Figure 4.6.

concentrates on the examination of what Marett designates Notational System I; the notations of all the selected pieces are confined to this system.¹⁰

The tablature-signs of the transverse flute are clearly explained in the *anpuhō* section of *Hakuga no fuefu*. The following figure shows the *anpuhō* section of the *Rakusaidō* version.

Figure 4.11: The *anpuhō* section of *Hakuga no fuefu*



According to the *anpuhō* section, a total of eight tablature-signs are employed. These are *kan* 千, *go* 五, *jō* 上, *shaku* 夕, *chū* 中, *ge* 下, *roku* 六 and *kō* 口. All but two of these, the *ge* and *kō* tablature-signs, indicate finger-holes on the flute. *Ge* 下, refers to a fingering with the finger-holes *roku* 六 and *shaku* 夕 opened while other finger-holes are closed.¹¹ *Kō* 口 indicates a fingering with all the finger-holes

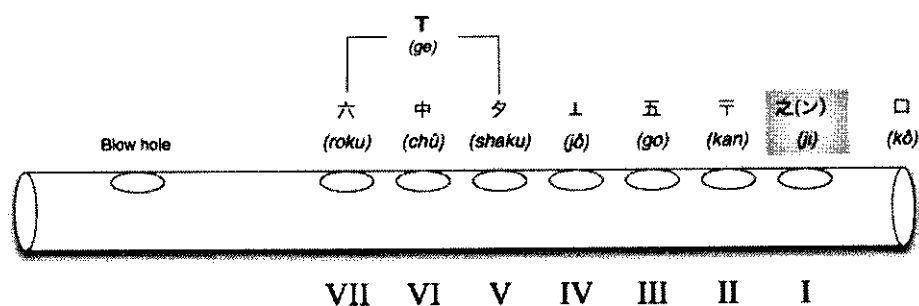
¹⁰ For the characteristics of other notational systems, see Marett 1978a.

¹¹ 六夕一度開吹為下穴

closed.¹² An additional tablature-sign called *ji* 之 (or ヂ) is also noted in the *anpuhō* section but this tablature-sign does not occur in the notation of the surviving score.

A diagram of the transverse flute in *Zoku kyōkunshō* (c. 1322) can be used to clarify the relationship between the tablature-signs and the finger-holes (Marett 1977:4). The following figure is drawn with reference to the diagrams in *Zoku kyōkunshō* (Koma c. 1322:497) and Marett's article "Tunes notated in flute-tablature from a Japanese source of the tenth century" (Marett 1977:4).

Figure 4.12: The relationship between the tablature-signs and the finger-holes of the transverse flute



Most tablature-signs indicate that the hole of the same name, along with all holes distal to the named hole, is open (Marett 1977:3). The only exception is the *roku* 六 sign, which means all holes distal to the *roku* hole are closed (Marett 1977:3).

¹² 皆塞抑吹名口穴

The pitch produced by each of the finger-holes is not indicated in the score. Although there are four Tang-style flutes preserved in the Shôshôin, the registers of these four flutes are slightly different from each other. The lowest pitches of these four flutes vary approximately between the concert pitches B^b4 and D5 (Hayashi, Kishibe, Taki & Shiba 1967:62).¹³ This suggests that in the Nara period flute pieces were performed by a set of flutes in different keys.

Marett clearly showed in his research, however, that ‘a standard flute was in use at the time of *Hakuga no fuefu* and, indeed, from c. 830 or earlier onward’ (Marett 1976:71). While his conclusion is established by consulting various materials and sources (Marett 1976:60-72), the most important data concerns the use of the tablature-signs in the *Hakuga no fuefu* notation of each modal category (see Section III in Introduction). Marett demonstrates that pieces that are classified in the same modal category usually finish on the same tablature-sign. For instance, the tablature-sign used for the final of all but one piece in the modal category of *ôshikichô / huang zhong diao* is *shaku* 夕 (Marett 1976:67). Furthermore, the *shaku* tablature-sign must refer to the pitch A because other *tôgaku* scores, such as *Sango yôroku*, clearly state that the structure of the mode of *ôshikichô / huang zhong diao* is ‘A B C D E F# G’.¹⁴ If a set of flutes in different keys were to be used in Hiromasa’s time, *shaku*, which simply indicates the finger-hole but not the pitch produced from the flute, would not necessarily be used as the final of the *ôshikichô /*

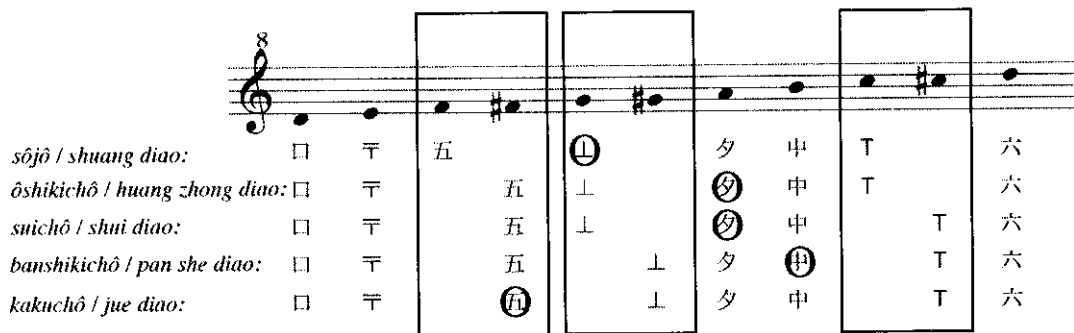
¹³ The system for naming the pitches conforms to a system commonly used in the USA for scientific work (Sadie ed. 2001:Vol. 19, 807). C4 refers to middle C.

¹⁴ See my Masters thesis for details (Ng 1998:83-98).

huang zhong diao pieces.

The modal information in *Sango yôroku* also holds the key to understanding the pitches that can be produced from the fingerings of a standard transverse flute. For instance, if the pitch of the *shaku* finger-hole is A, the finger-hole that is directly to the left of the *shaku* finger-hole, namely *chû* 中, must then produce the pitch of B in the mode of *ôshikichô* / *huang zhong diao*. The *jô* 上 finger-hole that is to the right of the *shaku* finger-hole, on the other hand, produces the pitch of G. The following figure summarizes the flute tablature-signs and their corresponding pitches in all the modal categories recorded in *Hakuga no fuefu*.¹⁵ One must note, however, that in order to play all the modal categories with a single standard flute, it is necessary for some fingerings to produce two pitches (see the boxed sections of Figure 4.13).

Figure 4.13: The pitches produced from the fingerings of a single standard transverse flute and their corresponding tablature-signs



⊕ = The tonic of the mode¹⁶ □ = Tablature-signs that yield more than one pitch

¹⁵ The register used follows that of the present-day transverse flute.

¹⁶ Not all the pieces grouped within these modes finish on the 'correct' tonic. This suggests that a modal category or group may contain pieces that are in fact in a variety of modes (see also Maret

2. The metrical, ornamental and other signs in *Hakuga no fuefu*

The *anpuhō* section records all the signs that are commonly used in the notation of *Hakuga no fuefu*. Allan Marett has already investigated these signs in his research (Marett 1976, 1977, 1978a). The following table summarizes the signs recorded in the *anpuhō* section and their relevant meanings.

Table: 4.1: A summary of the signs used in *Hakuga no fuefu*

Name of the sign	The relevant symbol or character	Meaning	Interpretation in the transcriptions of this thesis
<i>ichi</i>	一	‘stop blowing’ (see also below)	
<i>yuri</i>	由	‘rub the finger-hole’ (The effect of this technique is similar to the effect produced by a mordent. (Marett 1977:11))	a delayed mordent (see also below)
<i>hiku</i>	リ	‘lengthen by long blowing’	doubles the note-duration
<i>ka</i>	火	‘move quickly’	halves the note-duration
<i>hyaku</i>	百	an indicator of the <i>taiko</i> 太鼓 drum-beat	百
<i>tei</i>	丁	‘short pause’	(This sign does not occur in the notation of the surviving score.)
<i>shuten</i> 朱点	、	‘blow the breath in’	。



2001c). Chapter Six of this thesis includes more discussion of this hypothesis.

(red dot)		(This probably indicates overblowing (Marett 1976:135))	
<i>hiku</i> after <i>yuri</i>	由リリリ	‘play a mordent and then lengthen the blowing’	a mordent (see also below).
<i>yuri</i> after <i>hiku</i>	リリリ由	‘lengthen the blowing and then follow with a mordent’	(This sign does not occur in the notation of the surviving score.) (see also below)
<i>ren</i>	連	‘move the finger’	(This sign does not occur in the selected pieces and will not be discussed here.)

In addition to indicating ‘stop blowing’, the *ichi* sign has another important function in the notation of *Hakuga no fuefu*, namely to demarcate groups of two beats or multiple thereof. Groups containing an odd number of beats must be supplemented in some way to yield an even number of beats (Marett 1977:15-6). The easiest way to do this is by prolonging the last note of an odd-numbered group by one beat (Marett 1977:16). A single note followed by the *ichi* is therefore extended to two beats. A note followed by the *hiku* ㇿ sign and then the *ichi* must be sustained for four beats (Marett 1977:16-7). In the transcriptions, a tie with a ‘+’ sign is used to indicate such prolongations.

The *yuri* 由 and ‘*hiku* after *yuri*’ 由リリリ signs frequently appear in pieces in Notational System I. While the ‘*hiku* after *yuri*’ 由リリリ sign is clearly defined as ‘first play a mordent and then lengthen the pitch’ in the *anpuhō* section,¹⁷ the single

¹⁷ 先由後引

yuri 由 sign only instructs the performer to play, but not *when* to play the mordent. Marett has suggested that the single *yuri* sign may in fact be an abbreviated form of the ‘*yuri* after *hiku*’ リリリ由 sign (Marett 1976:119). Accordingly, a single *yuri* sign will represent a delayed mordent whereas the ‘*hiku* after *yuri*’ sign will signify a mordent on the beat (Marett 1976:119). Since in the course of my analysis of the historical melodies, I will discuss the pitch of the auxiliary note, it is necessary to write out all the pitches of a mordent in the transcriptions of the *Hakuga no fuefu* melodies. A tablature-sign attached to a single *yuri* 由 will therefore be transcribed with the rhythmic structure  whereas a tablature-sign attached to a ‘*hiku* after *yuri*’ 由リリリ sign will be transcribed with the rhythmic structure .

In addition to the signs explained in the *anpuhō* section, a ‘ \equiv ’ sign is also frequently used in the *Hakuga no fuefu* notation. This sign is commonly used in Japanese and Chinese written language in order to indicate a repetition of the preceding character or lexigraph. It is, therefore, to be expected that in *Hakuga no fuefu* this sign indicates a repetition of the preceding tablature-sign in the notation. In this thesis, I follow Marett’s practice of calling this sign ‘*ni*’ (Marett 1976:73).

The following two figures show the tablature-notation and a transcription of the first two *taiko* drum-cycles (the boxed section) of the piece “*Seigaiha*”.¹⁸ My intention here is to show how I am going to transcribe pieces from *Hakuga no fuefu*. “*Seigaiha*” belongs to the *banshikichō / pan she diao* modal category. As each *taiko* drum-cycle consists of a total of eight crotchet-beats, the time-signature 8/4 is

¹⁸ The octave levels of the flute pitches follow Marett’s transcriptions done in the late 1970’s (Marett 1977:27-59).

adopted.

Figure 4.14: The notation of “Seigaiha” (from the *Rakusaidô* version of *Hakuga no fuefu*)

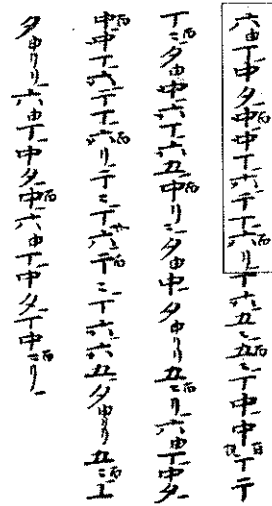


Figure 4.15: A transcription of the first two drum-cycles of “Seigaiha”



C. The metrical and rhythmic structures of the “*Sômeiraku*” melody recorded in *Gogenfu*

Rembrandt Wolpert has already suggested a method for reading the pitches and rhythm of the pieces recorded in *Gogenfu*, and has shown that when these values are adopted, the melody of “*Sômeiraku*” in *Gogenfu* is very similar to that in

Hakuga no fuefu (Wolpert 1981b).¹⁹ Musical Example 1 in Appendix III shows my transcriptions of the *Hakuga no fuefu* and *Gogenfu* versions of “*Sômeiraku*”,²⁰ in which the rhythm is slightly different from Wolpert’s version (Wolpert 1981b:123). The relevant tablature-signs of the pitches are also indicated in my transcriptions.

Hakuga no fuefu records two versions of “*Sômeiraku*”: the *jo* (prelude) and the *juha* (broaching).²¹ Here the melody of the *juha* version is chosen to line up with the *Gogenfu* melody.

Despite the fact that there are some pitch disagreements (indicated by boxes in Musical Example 1), the two melodies are fairly similar. Some disagreements are caused by the fact that what is idiomatic on the lute may not be idiomatic on the flute. In addition, Marett has suggested that a degree of melodic variation was tolerated in the early Heian period. Indeed, these variants do not disturb our ability to recognize the two melodies as being essentially the same (Marett 2006:90).²²

The positions of the *tei* 丁 signs in the *Gogenfu* melody are also worth discussing. These *tei* signs, which are mainly placed at the end of a measure, may signify the end of a musical phrase. The similarity of the two melodies and the positions of the *tei* signs suggest that the metrical and rhythmic structures of the lute

¹⁹ Allan Marett’s article “Research on early notations for the history of *tôgaku* and points of scholarly contention in their interpretation” (Marett 2006) also includes transcriptions of the *Gogenfu* and *Hakuga no fuefu* versions of “*Sômeiraku*”. There are only minor differences between Wolpert’s transcriptions and those of Steven Nelson (Nelson 1986) quoted by Marett.

²⁰ While figures that contain only short melodic fragments are shown together with the text, musical transcriptions of whole pieces are put in Appendix III of this thesis.

²¹ Allan Marett’s research shows that the *jo* and the *juha* are two slightly different versions rather than discrete movements of “*Sômeiraku*”. Each corresponds to a different source (Marett 2006:86).

²² See Chapter Seven for a further discussion of these pitch disagreements.

melody are correctly transcribed.

The melodies shown in Musical Example 1 also reveal an important characteristic of *tôgaku* notations compiled before the mid-Heian period, namely that a tablature-sign that is not modified by any ornamental or metrical sign tends to represent a single time-unit (crotchet-beat).

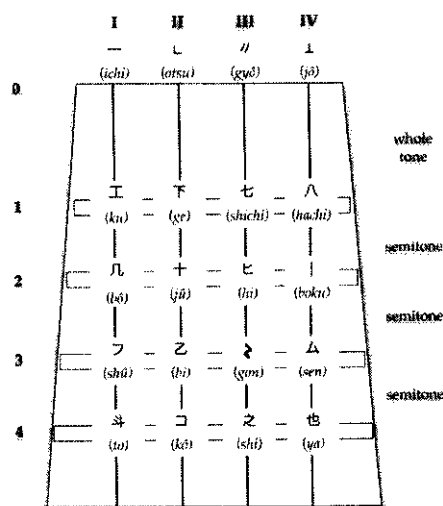
II. The tablature-notation of *tôgaku* between the late Heian and early Nanbokuchô periods

A. The tablature-notation of *Sango yôroku*

1. The tablature-signs and the fret system of the instrument

Sango yôroku includes detailed explanations of its tablature-signs and tunings. These are given in the *anpuhō* section of the first chapter and the *chōshibon ge* (Explanation of the structure of the modes: Part 2) section of the second chapter respectively. The *anpuhō* section in the first chapter clearly indicates the fret positions and their corresponding tablature-signs. Unlike the five-stringed lute, there is no independent small fret in the fret system of the four-stringed lute.

Figure 4.16: The fret positions of the four-stringed lute and their corresponding tablature-signs



The four Tang-style four-stringed lutes preserved in the Shōsōin show that while the distance between the upper bridge and the first fret (0&1) allows the performer to generate a whole-tone interval, it is only possible to generate semitone intervals between the other frets (1&2; 2&3 and 3&4) (Hayashi, Kishibe, Taki & Shiba 1967:41-7). Even though the four-stringed lutes in the Shōsōin have, like the five-stringed lute, been repaired, independent sources confirm that the present fret system of the Shōsōin four-stringed lutes is correct. For example, the *chōshibon ge* section in chapter two of *Sango yōroku* explains the tunings of the lute and the pitches of the frets,²³ and this confirms the fret system of the present-day Shōsōin four-stringed lutes.

2. The tunings of the instrument and the pitches of the tablature-signs

Because the four-stringed lute is a tunable instrument, the pitches of the tablature-signs will vary according to the tunings. The *chōshibon ge* section

²³ See Ng 1998:83-98 for a complete explanation of the tunings recorded in *Sango yōroku*.

introduces eight tuning names for the lute. They are *fukôjô*, *henfukôjô*, *ôshikichô*, *hen'ôshikichô*, *seichô*, *sôjô*, *hyôjô* and *takubokuchô*.²⁴

According to the description in the *chôshibon ge* section, pieces in the *hyôjô / ping diao* modal category can be played using either the *ôshikichô* or *seichô* tunings; pieces in the *ôshikichô / huang zhong diao* modal category can only be played using the *fukôjô* tuning; and pieces in the *banshikichô / pan she diao* modal category can be played either using the *fukôjô*, *seichô* or *hyôjô* tunings.²⁵

Most tuning names in *Sango yôroku* cover more than one mode. For instance, *fukôjô* can be used for both the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal categories. It is necessary to note, however, that the pitches of the open strings of the *fukôjô* tuning for *banshikichô / pan she diao* are different from those for *ôshikichô / huang zhong diao*. The difference between these two *fukôjô* tunings is simply that one is a transposition of the other.

The structures of the tunings are clearly illustrated in *Sango yôroku*. Rather than describe the tuning only by reference to the names of the seven *sei / sheng* and the twelve *ritsu / lü*, Fujiwara no Moronaga also clarified them according to the pitches generated by the transverse flute. For instance, in the case of the *fukôjô* tuning for *ôshikichô / huang zhong diao* pieces, the first open string (String I) must

²⁴ The character *chô* or *jô* 調 usually means 'mode' but in these cases the names are not modal names. Rather, they represent tunings of the four-stringed lute. Although some of the names correspond to the names of the *tôgaku* modes, for example, *hyôjô*, the *hyôjô* tuning is not necessarily the appropriate tuning for playing *hyôjô / ping diao* pieces.

²⁵ *Sango yôroku* includes a very clear description of which tuning is to be used for each piece. This is given either at the beginning of a modal section or after the title of a piece.

be tuned to the same pitch as the one generated by the *shaku* 夕 fingering of the flute. As already shown in Part I of this chapter, this flute is the single standard flute rather than a set of flutes in different keys. Marett argues that a standard transverse flute had been used for the performance of *tôgaku* since the early ninth century at least (see p. 120). According to the pitches of the transverse flute established earlier (see p. 121), the pitch produced from the *shaku* finger-hole is A. The pitch of the first open string of the *fukôjô* tuning used to play *ôshikichô / huang zhong diao* pieces is therefore also A. The following six figures show all the tunings for playing the pieces classified in the modal categories of *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao*. These have been established according to the information written in the *chôshibon ge* section of *Sango yôroku*.

Figure 4.17: The *fukôjô* tuning for playing *ôshikichô / huang zhong diao* pieces

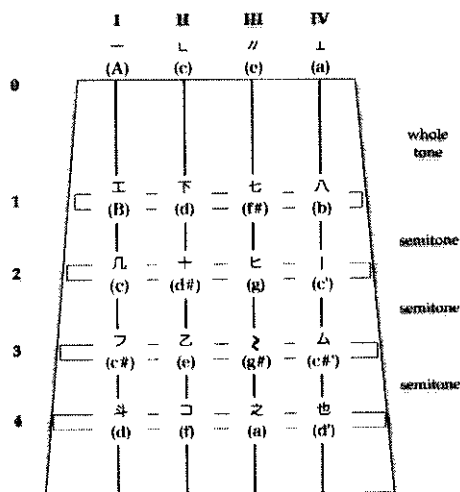


Figure 4.18: The *fukôjô* tuning for playing *banshikichô* / *pan she diao* pieces

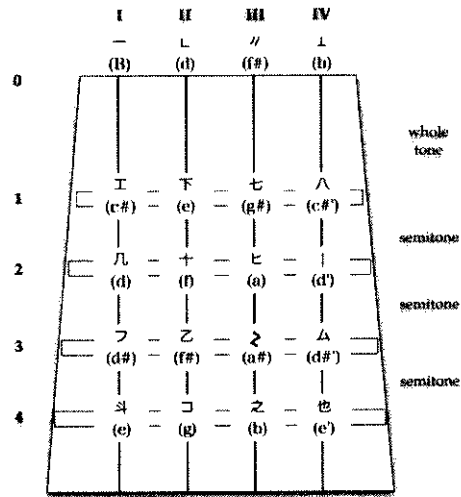


Figure 4.19: The *ôshikichô* tuning for playing *hyôjô* / *ping diao* pieces

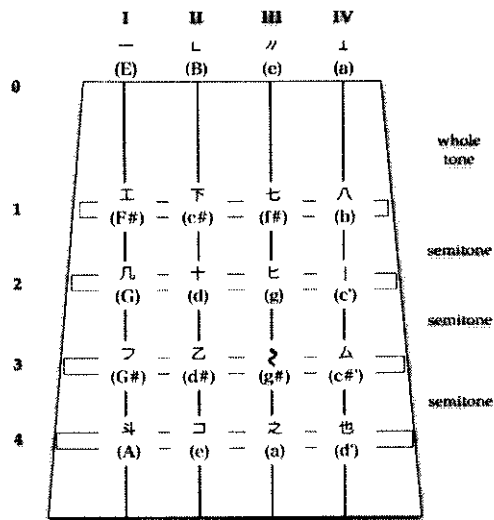


Figure 4.20: The *seichô* tuning for playing *hyôjô* / *ping diao* pieces

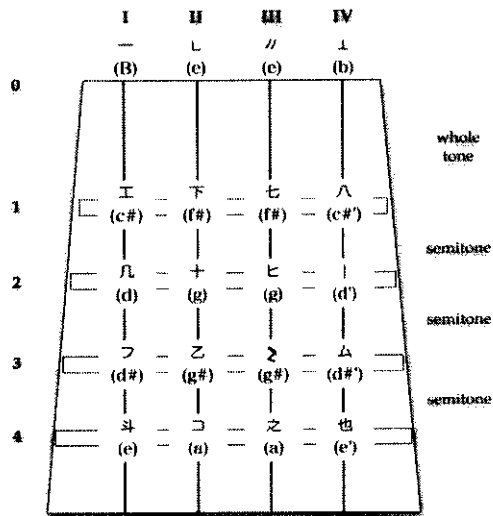


Figure 4.21: The *seichô* tuning for playing *banshikichô* / *pan she diao* pieces

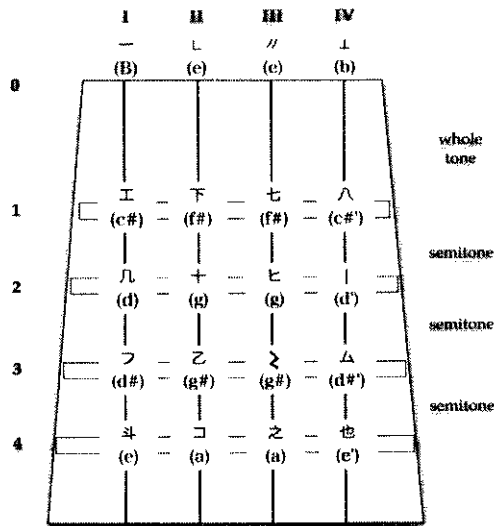
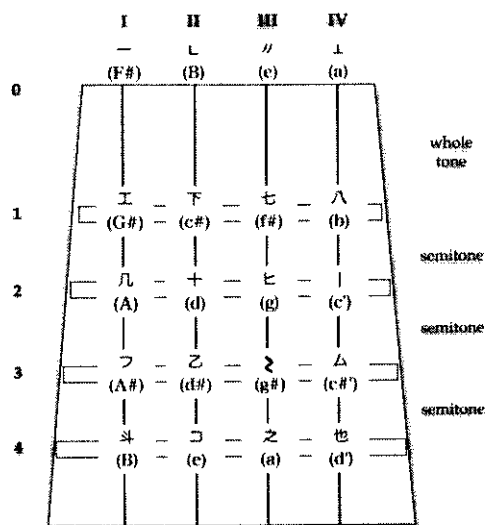


Figure 4.22: The *hyôjô* tuning for playing *banshikichô* / *pan she diao* pieces



3. Metrical and mensural notations

The *hyaku* 百, *ka* 火 and *hiku* 引 (or 引) signs found in earlier scores are also used in the notation of *Sango yôroku*. Although the *anpuhō* section in the score does not include an explanation of the meaning of the *hyaku* sign, there is no problem in defining it as an indication of the *taiko* drum-beat on the basis of its use in other scores, such as *Hakuga no fuefu*. The *ka* sign is explained as ‘pluck/play rapidly’²⁶ in the *anpuhō* section and it means the same as the *ka* sign in *Hakuga no fuefu*. Therefore, in the transcriptions, the note value of the tablature-signs before and after the *ka* sign will be reduced by half. The *hiku* sign, on the contrary, normally indicates a ‘prolongation’.²⁷ In some environments, for example, the syncopated version of pieces, however, the *hiku* sign must be ignored (see the analysis of Figure 4.26 below).

²⁶ 急弾

²⁷ 延引

While the small dots in *Gogenfu* do not function as metrical indicators, in the notation of *Sango yôroku* they do. These small dots are written *either* under the tablature-signs *or* to the right of the notational columns.²⁸ The terms *kuten kifuhô* (phrase-mark notation) and *kobyôshiten kifuhô* (beat-mark notation) are adopted to indicate these two systems respectively (see also p. 98). Dots written under the tablature-signs in fact demarcate binary groups, that is, tablature-signs written between two dots usually occupy two crotchet-beats.²⁹ Dots written to the right of a tablature-sign, on the other hand, define a single time unit, namely one crotchet-beat. If pieces are transcribed according to these two principles, most pieces comprise either eight-crotchet-beat measures with a *taiko* drum-beat on the fifth beat or four-crotchet-beat measures with a *taiko* drum-beat on the third beat. Moreover, the melodies that result are in general convincing.³⁰

The *ichi* — sign is occasionally used in the notation of this score. In the transcriptions, a vertical line (|) will be used to signify this sign. While the *ichi* signs in *Sango yôroku* share the phrasing function that they have in *Hakuga no fuefu*, they do not mark off binary units in *Sango yôroku*. The binary groups of the lute notation are signified by the *kuten kifuhô*.

²⁸ The *juha* movement of “*Shunnôden*”, where dots are written both to the right and under the tablature-signs, is the only exception. This piece is not discussed in this thesis.

²⁹ In this study, I accept Terauchi’s interpretation of the time-values of the tablature-signs between two single dots of the *kuten kifuhô* system (Terauchi 1996:230-4).


³⁰ This judgment is made on the basis of the melodies transcribed in this thesis and in my Masters thesis (Ng 1998:123-69).

4. Special performing techniques

Two further signs defined in the *anpuhō* section indicate special performing techniques. These are the ‘] ’ and the ‘ √ ’ signs. The ‘] ’ sign connects two tablature-signs and indicates that the performer should pluck the two strings together.³¹ The ‘ √ ’ sign, which is the technique described to this day as *kaeshibachi*, indicates ‘plucking the string by moving the plectrum upwards’. A ‘ √ ’ sign will be added to the relevant notes in the transcriptions to represent this technique.

Some tablature-signs are written smaller than the main tablature-signs. They are commonly grouped together with a large tablature-sign in sequences of two or three consecutive tablature-signs. In the case of a group of two consecutive tablature-signs, the first is a large tablature-sign and the second is a small one, for example, a combination of the *hi* and *shichi* tablature-signs (ヒ七). In the case of a group of three consecutive tablature-signs, the first tablature-sign is often the same as the third, with the second and the third signs written smaller, for example, a combination of *hi*, *shichi* and *hi* (ヒ七ヒ). Although the score does not include any explanation of how to perform these small signs, scholars generally agree that they indicate a performing technique that is similar to the modern *tataku* technique of the lute (Hayashi 1970; Endō 2002). That is, the performer first plucks the string with the plectrum in order to obtain the pitch of the first (large) tablature-sign. The pitches of the remaining one or two small tablature-signs are obtained by changing

³¹ 以撥勾兩絃

the fingering of the left hand without re-plucking the string. In the case of a group of three consecutive tablature-signs, the second tablature-sign always refers to a fret position that is directly below the fret position of the first and the third tablature-signs, and the effect of performing a *tataku* technique is thus similar to the musical effect of a mordent. In the transcriptions, the rhythmic structure of this mordent will be transcribed as . Slurs will be used in the transcriptions in order to indicate fingerings that are performed under one stroke of the plectrum.

The following figure shows the tablature-notation of “*Saisôrô*” and Figure 4.24 demonstrates how the boxed section of the tablature-notation is transcribed. This piece belongs to the modal category of *banshikichô / pan she diao* and is played in the *hyôjô* tuning for *banshikichô / pan she diao* pieces (see Figure 4.22). The rhythm and meter of this piece are indicated by the *kuten kifuhô* system. That is, the tablature-signs that occur between two dots must be transcribed within two crotchet-beats. An 8/4 time signature is given to this transcription because each drum-cycle of this piece consists of a total of eight crotchet-beats.

Figure 4.23: The notation of “*Saisôrô*” (from the *Kikutei ke* version of *Sango yôroku*)



Figure 4.24: A transcription of the boxed part of the “Saisôrô” notation



Many pieces in *Sango yôroku* occur in more than one version. With only a few exceptions,³² the first version is written with the *kuten kifuhô* system and the following version(s) with the *kobyôshiten kifuhô* system. For convenience, I will call the first version the ‘primary version’ and the other versions the ‘alternative version’. I will now explain in detail how the tablature-signs are transcribed for the

³² See the case of “*Kaiseiraku*” discussed in Chapter Five.

kobyôshiten kifuhô system.³³

“*Saisôrô*” occurs in two versions in *Sango yôroku*. The notation shown in Figure 4.23 is the primary version and is written in the *kuten kifuhô* system. The one shown in Figure 4.25 is the alternative version, in which the rhythm is indicated by the *kobyôshiten kifuhô* system.

Figure 4.25: The alternative version of “*Saisôrô*”



The following figure shows a transcription of the boxed part in Figure 4.25. It is clear that if, in the *kobyôshiten kifuhô* system, the metrical structure of an 8/4 time-signature is to be maintained, tablature-signs that are accompanied with a *hiku* 引 sign must not be prolonged (see the circled notes).

³³ See below for the interrelationship between the *kobyôshiten kifuhô* system and the modern melodies.

Figure 4.26: A transcription of the boxed part of the alternative version of “Saisôrô”

The image shows two staves of musical notation in bass clef with a key signature of two sharps (F# and C#) and a 4/4 time signature. The notation includes various rhythmic values and tablature signs. The first staff has a circled 'L' tablature sign followed by '八引', '八火', '之', 'z', '之', '之', '火', 'L', '八', '+', '下', '下', '火', 'コ', 'リ', '+', '下', '+', '火', '+', '下'. The second staff has '下', 'L', '八引', '八火', '之', 'z', '—', '七', '七', '火', '—', '七引', '七', '之', 'z', 'Z', '火', '之', 'z', '之'. The circled signs are 'L', '八引', and '七引'. Boxed signs are 'L', '八', '+', '下', '下', '火', 'コ', 'リ', '+', '下', '+', '火', '+', '下' in the first staff and 'L', '八', '+', '下', '下', '火', 'コ', 'リ', '+', '下', '+', '火', '+', '下' in the second staff. The character '百' appears above the first and second staves.

Like the *hiku* sign, the role of the *ka* sign is fairly redundant. Since each dot in *kobyôshiten kifuhô* clearly indicates a single crotchet-beat, one can easily determine the duration of the tablature-signs without consulting the *ka* sign. For instance, the *shi* 之 and *otsu* L tablature-signs boxed in Figure 4.26 are best interpreted as quavers, and we can ignore the *ka* sign between them.

Although the pitches of the lute melody shown in Figure 4.26 are similar to those shown in Figure 4.24, the rhythmic structures of the two melodies are different since the alternative version of “Saisôrô” is performed in a syncopated rhythmic mode.

Rembrandt Wolpert has already carried out research on this syncopated rhythmic mode (Wolpert 1987). He concludes that the syncopated rhythmic mode was developed around the twelfth century (Wolpert 1987:117), as a type of variation-technique, and that it is characterized by the conversion of crotchet

movement in the melody of the primary version to quaver movement, such that a pair of quavers replaces most crotchets (Wolpert 1987:122). Its most striking melodic feature appears to be the repetition of the preceding pitch as the first pitch of the succeeding quaver-group, or its equivalent (Wolpert 1987:122). The effect is of syncopation of the original primary melody (Wolpert 1987:122).

The following figure lines up the first two drum-cycles of the primary version of “*Saisôrô*” with its syncopated alternative version. The straight lines join the syncopated notes of the alternative version and their corresponding notes in the primary version.

Figure 4.27: A comparison between the primary and the alternative versions of “*Saisôrô*”

The figure displays two systems of musical notation, each consisting of two staves. The top system is labeled "The primary version of 'Saisôrô'" and the bottom system is labeled "The alternative version of 'Saisôrô'". Both systems are in the key of D major (two sharps) and 8/4 time. The primary version features a melody with crotchet notes, while the alternative version features a melody with quaver notes. Straight lines connect the syncopated notes in the alternative version to their corresponding notes in the primary version. The character '百' (hundred) is written above the notes in both systems. A bar line is present at the end of the primary version's staff.

In addition to the above characteristics, Wolpert also indicates that more left-hand finger-plucked ornaments are to be found in the music of the syncopated

versions (Wolpert 1987:121). Moreover, there is a substantial increase in repeated notes and broken octaves in the music played in this syncopated rhythmic mode (Wolpert 1987:121).

B. The tablature-notations of *Jinchi yôroku* and *Ruisô chiyô*

In *Jinchi yôroku* and *Ruisô chiyô*, as in *Sango yôroku*, many *tôgaku* pieces also occur in more than one version. Again, the primary versions are mainly written with the *kuten kifuhô* system whereas the alternative versions are written with the *kobyôshiten kifuhô* system. Pieces that are written with the *kobyôshiten kifuhô* system are usually in the syncopated rhythmic mode.

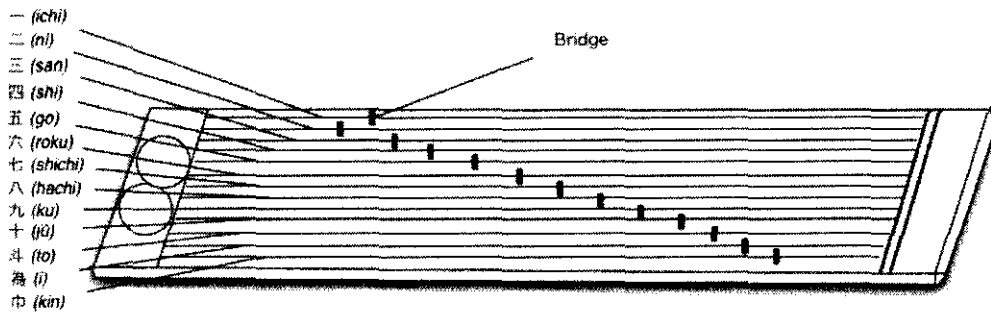
Before considering musical examples for the long zither, I will first elucidate its tablature-signs, tunings and fingering techniques.

1. The thirteen strings of the long zither and their corresponding tablature-signs

Thirteen tablature-signs are employed to represent the thirteen strings of the long zither, namely *ichi* 一, *ni* 二, *san* 三, *shi* 四, *go* 五, *roku* 六, *shichi* 七, *hachi* 八, *ku* 九, *jû* 十, *to* 斗, *i* 為 and *kin* 巾.³⁴ The tablature-sign *ichi* refers to the string farthest away from the performer whereas the *kin* string is the one closest to the performer. The instrument is tuned by changing the positions of the moveable bridges.

³⁴ While the first chapter of *Ruisô chiyô* names the thirteen strings of the long zither with reference to the twelve *ritsu / lü*, this is not a form of notation.

Figure 4.28: The structure of the thirteen-stringed long zither



2. The tunings of the instrument and the pitches of the tablature-signs

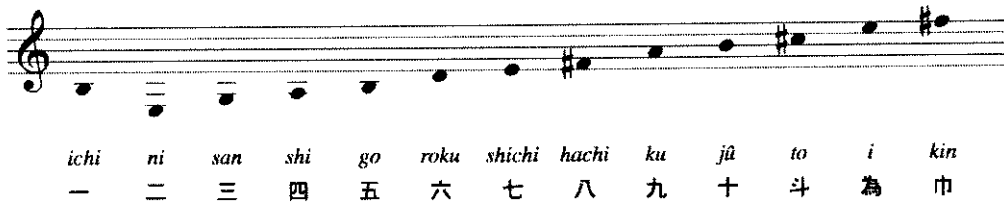
Jinchi yōroku records a large number of zither tunings but as my Masters research showed: a) certain tunings are used for more than one modal category; b) certain other tunings do not yield the correct pitches for modes of the same name.³⁵ For example, with reference to a), *hyōjō* / *ping diao*, *ōshikichō* / *huang zhong diao* and *banshikichō* / *pan she diao* modal group pieces are all played in the *hyōjō* tuning or a transposition of this tuning.

When the *hyōjō* tuning is used to play pieces in the *hyōjō* / *ping diao* modal category, the pitches of the thirteen strings are:³⁶

Figure 4.29: The *hyōjō* tuning

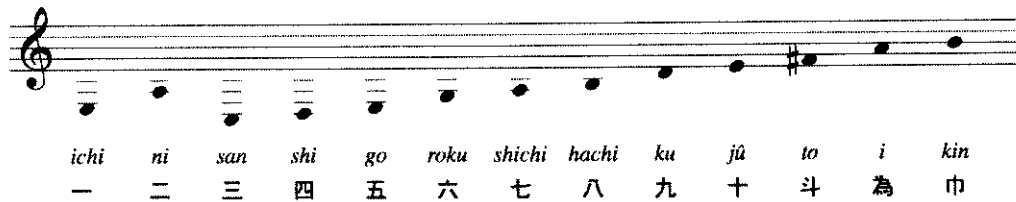
³⁵ See Ng 1998:170-2 for details.

³⁶ Because all the Tang-style zithers preserved in the Shōsōin are seriously damaged, the register of the instrument is decided according to the long zither used in modern *tōgaku* performance.



Pieces belonging to the *ôshikichô / huang zhong diao* modal category have to be played in a tuning which is a perfect fifth lower than the *hyôjô* tuning.³⁷

Figure 4.30: The tuning for playing the *ôshikichô / huang zhong diao* pieces

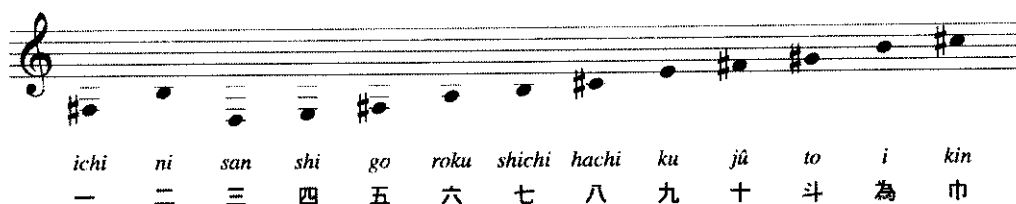


Pieces that are classified in the modal category of *banshikichô / pan she diao* have to be played in a tuning which is a perfect fourth lower than the *hyôjô* tuning.³⁸

Figure 4.31: The tuning for playing the *banshikichô / pan she diao* pieces

³⁷ The acoustics of the long zither demand that the pitches of the first two strings are transposed up a perfect fourth rather than down a perfect fifth.

³⁸ The pitches of the first two strings are transposed up a perfect fifth rather than down a perfect fourth.



As shown in my Masters research (Ng 1998:120-172), the *ôshikichô* and *banshikichô* tunings illustrated in *Jinchi yôroku* do not yield the correct pitches for playing the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* pieces.

Although *Ruisô chiyô* also records many zither tunings, the *hyôjô / ping diao*, *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* pieces in this score are undoubtedly to be performed using the tunings illustrated in Figures 4.29, 4.30 and 4.31. This is supported by two pieces of evidence.

Firstly, the tunings shown in Figures 4.29, 4.30 and 4.31 are clearly illustrated in the *ritsusôchûyô* and the *ritsuchû shidai* sections of *Ruisô chiyô*. Other sections in *Ruisô chiyô* include some different versions or different method of explaining these three tunings. For example, the *banshikichô* tuning illustrated in the *sôchôgô goin'yô* section is designated as a *hizô* (secret preservation) version. We may assume that such a tuning would not have been commonly used to play the zither pieces.

In the *chôyô* and the *goin* sections, tunings are explained according to a system of naming pitches commonly used in the *shômyô* (Buddhist chant) repertory. Since it is unlikely that the tunings explained in this method are different in any significant way from the standard tunings illustrated in Figures 4.29, 4.30 and 4.31,

I will not pursue this matter further.

Secondly, the zither notations of the same piece in *Jinchi yôroku* and *Ruisô chiyô* are nearly identical. The following figure compares the zither notations of “*Keitoku*” recorded in these two scores. The abbreviated terms JCYR and RSCY refer to *Jinchi yôroku* and *Ruisô chiyô* respectively.

Figure 4.32: A comparison of the notations of “*Keitoku*” in *Jinchi yôroku* and *Ruisô chiyô*

RSCY	JCYR	RSCY	JCYR	RSCY	JCYR
八 ^三 ・	八 ^三 ・	十 ^五 ・	十 ^五 ・	十 ^五 ・	十 ^五 ・
十・	十・	為	為	八	八
斗 ^六 百	斗 ^六 百	斗 ^六 百	斗 ^六 百	八 ^三 百	八 ^三 百
為	為	斗	斗	引	引
八 ^三 ・	八 ^三 ・	斗 ^六 ・	斗 ^六 ・	斗 ^六 ・	斗 ^六 ・
七	七	九	九	為	為
七 ^二 百	七 ^二 百	九 ^四 百	九 ^四 百	為 ^七 百	為 ^七 百
引	引	引	引	引	引
—	—	—	—	—	—
		市 ^八 ・	市 ^八 ・	八 ^三 ・	八 ^三 ・
		為	為	八	八
		斗 ^六 百	斗 ^六 百	八 ^三 百	八 ^三 百
		十	十	七	七
		八 ^三 ・	八 ^三 ・	斗 ^六 ・	斗 ^六 ・
		八	八	十	十
		八 ^三 百	八 ^三 百	十 ^五 百	十 ^五 百
		引	引	引	引
		—	—	—	—

The boxes highlight all the disagreements between the two notations. It is clear that these disagreements mainly concern the use of phrase marks and the dots for

indicating the left-hand techniques (see below) rather than the tablature-signs.³⁹ It is therefore expected that pieces notated in the same modal category in *Jinchi yôroku* and *Ruisô chiyô* used the same tuning.

3. Metrical and mensural notations

The metrical signs in *Jinchi yôroku* and *Ruisô chiyô* are basically identical to those used in *Sango yôroku*. The meanings of the *hyaku* 百, *ka* 火, *hiku* 引, *tei* 丁 and *ryô* 了 signs are explained in the *sô anpuhō* (notes on the method of scoring for the zither) section of *Jinchi yôroku* and the *anpu ni iwaku* (or *anpu ni iu*) (discussion of the methods of scoring) section of *Ruisô chiyô*. They all share the same meanings as those used in the notation of *Sango yôroku*. A new sign, which is written as *kaka* 火ㄨ, is also introduced. This sign, which is defined as ‘extremely fast’,⁴⁰ does not occur in the notation of the selected pieces and will therefore not be further discussed here.

The functions of the small dots in *Jinchi yôroku* and *Ruisô chiyô* also correspond to those in *Sango yôroku*. That is, dots written under the tablature-signs are used to demarcate binary groups (the *kuten kifuhō* mensural system), and dots written to the right of the notational columns are used to indicate a single crotchet-beat (the *kobyôshiten kifuhō* mensural system).

While the meaning of the *ichi* sign is not explained in the two zither scores, it

³⁹ Comparison with the *Sango yôroku* melodies shows that in most cases the discrepancies result from scribal errors (see Chapter Five).

⁴⁰ 急中急也

is appropriate to assume that when used in the zither notation, the *ichi* sign shares the same meaning and function as in *Sango yôroku*, that is, that it indicates the end of a musical phrase.

4. Special fingering techniques

Numerous signs are used in the notation of *Jinchi yôroku* and *Ruisô chiyô* to indicate special fingering techniques. These techniques are clearly explained in the *sô anpuhô* section of *Jinchi yôroku*, and the *yôshuhô* (the methods of using the hands) and *anpu ni iwaku* sections in *Ruisô chiyô*. The illustration in *Ruisô chiyô* is not as clear as the one in *Jinchi yôroku* because the *yôshuhô* and *anpu ni iwaku* sections of *Ruisô chiyô* do not include the dots and lines that signify certain left-hand and right-hand techniques. As a result, the following explanation is based on the illustrations noted in the *sô anpuhô* section of *Jinchi yôroku*.

The fingering techniques of the long zither can generally be separated into two groups: techniques for the right hand and techniques for the left hand. The following diagrams are drawn according to the figures shown in the *sô anpuhô* section of *Jinchi yôroku*, and I will provide my explanation of these techniques following the diagrams.⁴¹ The squares symbolize the tablature-signs of the zither notation. Techniques for the right hand are summarized in Group A whereas techniques for the left hand are grouped in Group B.

⁴¹ Jonathan Condit has also written an article about the zither techniques and notation in *Jinchi yôroku* (Condit 1976).

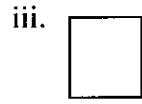
Group A: Techniques for the right hand:



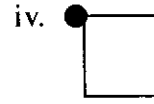
食指



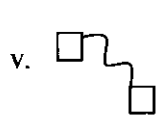
中指



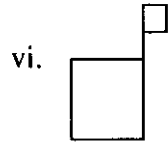
大指



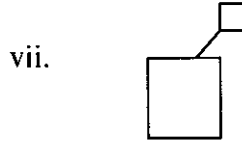
返爪



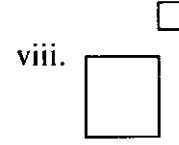
食指中指連也



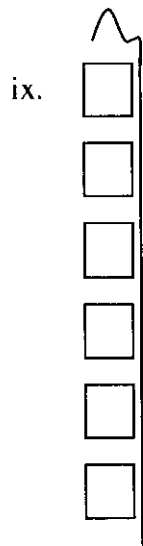
中指大指適合也



食指中指大指摺合也



三指適合後更加大指



大指歷渡六絃一聲 但絃多少隨使用之

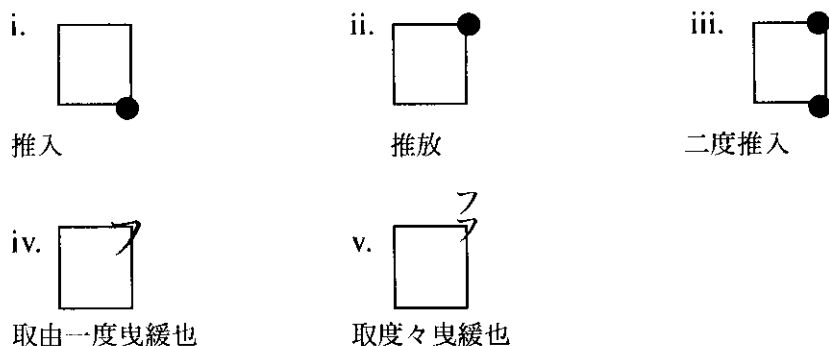
- i. Where the tablature-sign is written smaller and to the left within the column of the tablature-notation, the performer should pluck the string with the forefinger.
- ii. Where the tablature-sign is written smaller and to the right within the

column of the tablature-notation, the performer should pluck the string with the middle finger.

- iii. Where the tablature-sign is written in normal size and placed in the middle of the column of the tablature-notation, the performer should pluck the string with the thumb.
- iv. Where a red dot is added to the top left-hand corner of a tablature-sign, the performer should pluck the string inwards rather than outwards. A '▼' sign will be used in the transcriptions to represent this *kaeshizume* technique.
- v. This combination of tablature-signs instructs the performer to first pluck the string that is signified by the small tablature-sign written to the left with the forefinger, and then to immediately pluck the string indicated by the small tablature-sign written to the right with the middle finger.
- vi. This combination of tablature-signs instructs the performer to pluck the two strings together with the thumb and middle finger.
- vii. This combination of tablature-signs instructs the performer to pluck the strings together with the thumb, forefinger and middle finger.
- viii. This combination of tablature-signs instructs the performer to pluck the strings together with the thumb, forefinger and middle finger, and to then pluck the string indicated by the large tablature-sign with the thumb.
- ix. This combination of tablature-signs instructs the performer to pluck all the strings with the thumb in arpeggiated style, beginning from the string indicated by the tablature-sign at the top. Although the example shown in

the *sô anpuhō* section comprises a total of six tablature-signs, this technique can be applied to a group of any multiple number of tablature-signs.

Group B: Techniques for the left hand:



- i. Where a red dot is added to the lower right-hand corner of a tablature-sign, the performer should press the string down on the left-hand side of the bridge with the left hand before plucking the string with the right hand. This allows the performer to raise the pitch by a semitone or a whole-tone.
- ii. Where a red dot is added to the top right-hand corner of a tablature-sign, the performer should press the string down on the left-hand side of the bridge with the left hand before plucking the string with the right hand. After plucking the string, the performer should release it. The *to 斗* string (C#) of the *hyōjō* tuning (see p. 143) is chosen as an example to demonstrate the musical effect of this technique. In this case the pitch is raised by a semitone, and this is normally the case. The rare instance where the pitch may be raised by a tone will be discussed in Chapter Five.

Figure 4.33: An illustration of technique ii in Group B



- iii. Where two red dots are written to the right of a tablature-sign, the performer should first press the string on the left-hand side of the bridge with the left hand. After plucking it with the right hand, the performer releases the string before once again pressing it. The musical effect generated by this technique is similar to a mordent, as shown in the following figure. The *to* string of the *hyôjô* tuning is employed once again to demonstrate this musical effect.

Figure 4.34: An illustration of technique iii in Group B



- iv. Where a red sign 'フ' is added to the top right-hand corner of a tablature-sign, the performer should pull the string to the right towards the bridge with the left hand after the string is plucked. The string is then immediately released in order to restore the original pitch. This technique can only lower the pitch by a semitone. The musical effect generated by this technique is also similar to a mordent. In the following figure, the *ku* 九 string (A) of the *hyôjô* tuning is chosen as an example in order to show the

musical effect of this technique.

Figure 4.35: An illustration of technique iv in Group B



- v. When ‘ㄗ’ is written twice (ㄗㄗ), the performer should play technique iv twice in succession.

In addition to the signs illustrated above, the sign ‘z’ is occasionally added to the top right-hand corner of a tablature-sign. For instance, this sign is added to some of the *hachi* and *jû* tablature-signs in the piece “*Anrakuen*”. Because this sign is not included in the explanation of the *sô anpuhō* section, its meaning is uncertain. Since the melodies of the pieces in *Jinchi yōroku* and *Sango yōroku* are virtually identical,⁴² however, it is possible to ascertain the implication of this sign by comparing the melodies in these two scores. This has already been done in my Masters research.⁴³ A comparison of the lute and zither melodies of “*Anrakuen*” suggests that the ‘z’ sign also signifies a musical effect of a mordent. Unfortunately, the fingering of the ‘z’ sign is unclear.

Figure 4.36 shows the primary version of “*Manzairaku*” recorded in the

⁴² See Ng 1998:123-169 and the analysis in Chapter Five of this thesis.

⁴³ See Ng 1998:129.

Rakusaidô version of *Jinchi yôroku*.⁴⁴ This piece belongs to the *hyôjô / ping diao* modal category and occurs in two versions in *Jinchi yôroku*. The small tablature-signs in the notation are glosses, which show variants of the main tablature-signs. In this thesis, important variants that affect the tonality of a piece will also be shown as glosses in the transcriptions. The boxed part of the notation is transcribed in Figure 4.37.

Figure 4.36: The notation of “*Manzairaku*” (from the *Rakusaidô* version of *Jinchi yôroku*)

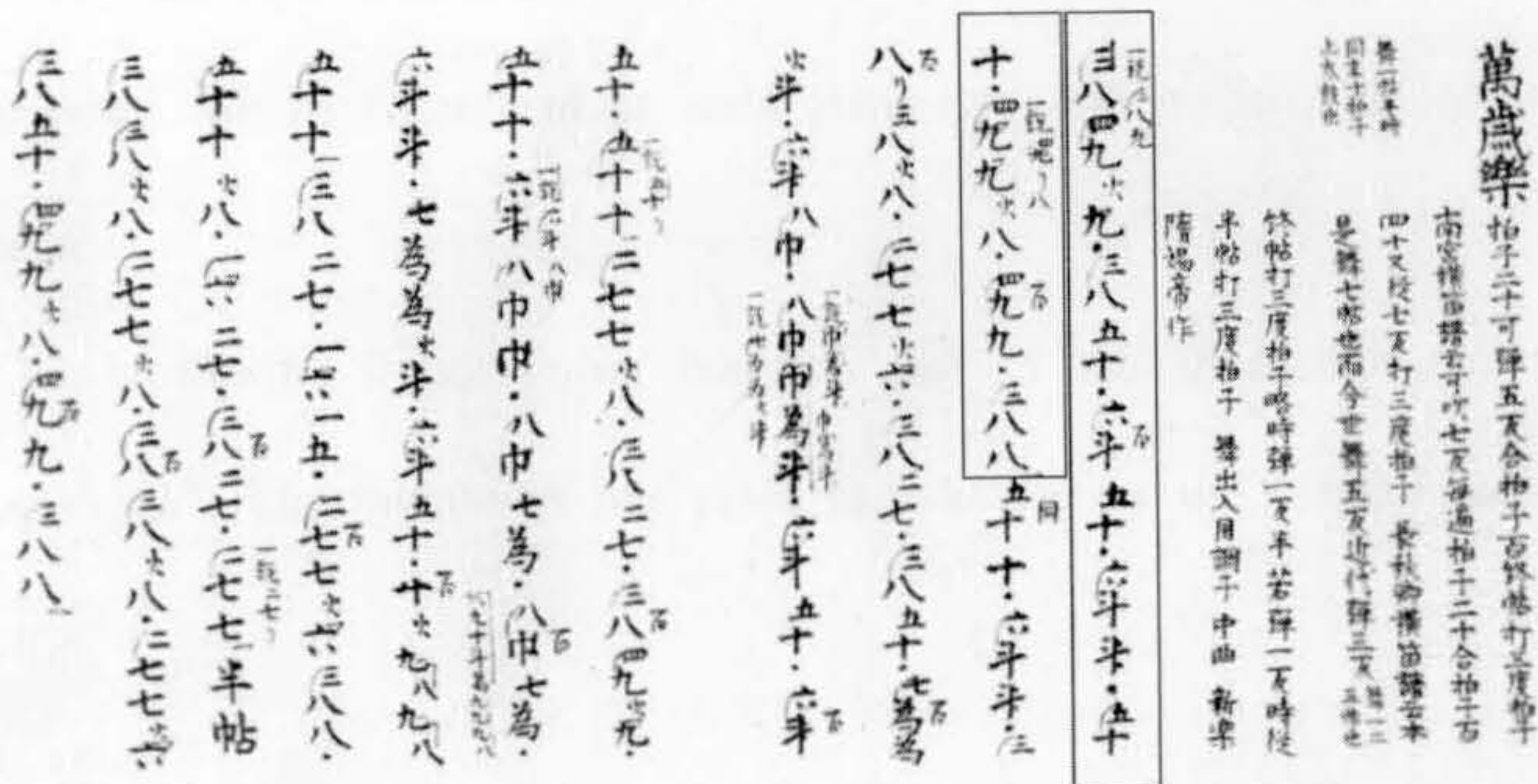
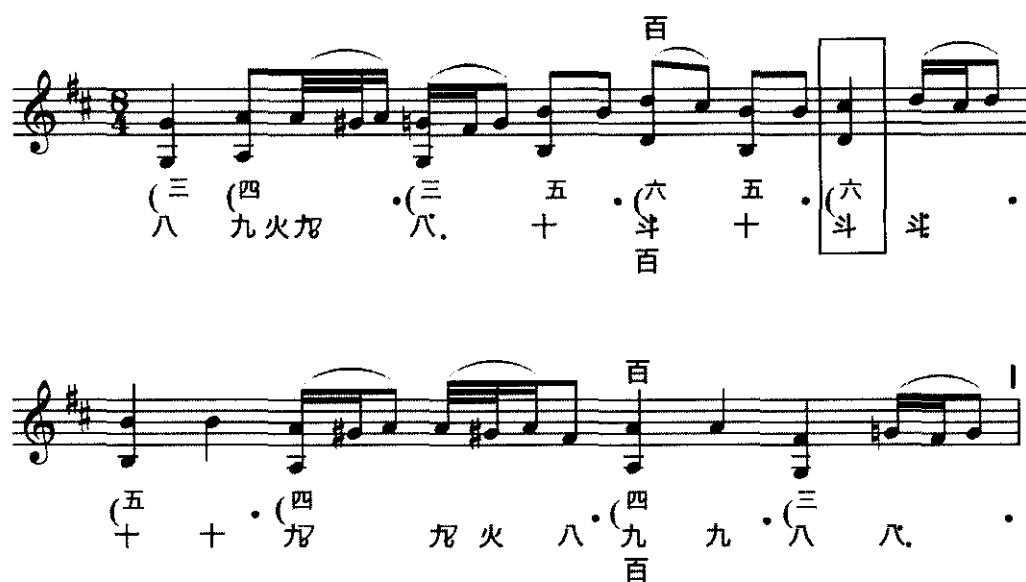


Figure 4.37: A transcription of the boxed part of the “*Manzairaku*” notation

⁴⁴ The *Ruisô chiyô* notation of “*Manzairaku*” is very similar to the one in *Jinchi yôroku*.



Historical zither melodies frequently include notes an octave, seventh (which invariably resolve to octave) or fifth below the melody note. In these cases only the upper notes will be considered as main pitches for the purpose of comparative analysis.

The following figure shows the first half of the alternative notation of “Manzairaku”. The rhythm of this piece is indicated by the *kobyôshiten kifuhô* system.

Figure 4.38: The alternative version of “Manzairaku” (from the *Rakusaidô* version of *Jinchi yôroku*)

同曲

九^四八^三八^九九^四九^四八^三八^七八^三八^十

五^十五^十斗^六斗^六斗^六斗^六斗^八斗^八斗^八

八^七七^七六^六六^六八^八八^七七^七八^三八^三

十^十斗^七斗^七斗^六斗^六斗^六斗^六斗^中

八^中斗^七斗^六斗^六斗^六斗^五斗^五斗^十

六^斗斗^十斗^十斗^十斗^五斗^七斗^七斗^七斗^八斗^三斗^八

二^七斗^七斗^八斗^三斗^九斗^四斗^九斗^五斗^五斗^十斗^六

斗^六斗^七斗^八斗^中斗^七斗^七斗^七斗^中斗^中斗^七

二統中八中七為七為

The boxed part of the alternative version is transcribed in the following figure.

Figure 4.39: A transcription of the boxed part of the alternative version of “Manzairaku”

(三) 八[・] (三) 八^火斗^九 (四) 九[・] 八[・] (三) 八^火斗^十 (五) 十^斗 十[・] (五) 十^斗 (六) 斗^火斗[・]

(六) 斗^十 十[・] (五) 十^斗 斗^九 (四) 九^火八[・] (三) 八^斗 九[・] (四) 九^斗 (四) 九^斗 八[・] (三) 八^火八[・]

The alternative version of “Manzairaku” is performed in the syncopated

rhythmic mode. This can be confirmed by lining up the primary version with the alternative version in the following figure. The straight lines join the syncopated notes of the alternative version and their corresponding notes in the primary version.

Figure 4.40: A comparison between the primary and alternative zither versions of “Manzairaku”

The figure displays two musical staves for each version of "Manzairaku". The top staff is labeled "The primary version of 'Manzairaku'" and the bottom staff is labeled "The alternative version of 'Manzairaku'". Both staves are in treble clef with a key signature of one sharp (F#) and a 2/4 time signature. The primary version features a melody with several syncopated notes. The alternative version follows the same melodic line but with different rhythmic values for the syncopated notes. Straight lines connect the syncopated notes in the alternative version to their corresponding notes in the primary version, demonstrating their alignment. The Japanese character "百" (hundred) is written above the notes in both versions. The bottom pair of staves shows a continuation of the comparison, with a bar line at the end of the primary version's staff.

The investigation of the tablature-notations in *Sango yōroku*, *Jinchi yōroku* and *Ruisō chiyō* reveals that there were two different mensural systems—namely the *kuten kifuhō* system (phrase-mark notation) and *kobyōshiten kifuhō* system

(beat-mark notation)—for indicating the rhythm of a *tôgaku* piece in the late twelfth and the thirteenth centuries. Although the basic function of the dots of the *kuten kifuhô* system corresponds to the *ichi* signs used in *Hakuga no fuefu*, the *kobyôshiten kifuhô* system does not occur in *tôgaku* scores compiled before the tenth century.⁴⁵ Since the *kobyôshiten kifuhô* system is mainly used to indicate the rhythm of the syncopated rhythmic mode in *Sango yôroku*, *Jinchi yôroku* and *Ruisô chiyô*, it is possible that this mensural system was developed specifically to facilitate the notation of the syncopated rhythmic mode.

C. The tablature-notations of *Kofu ritsuryokan* and *Shinsen shôtekifu*

1. The tablature-signs of the seventeen-piped mouth-organ

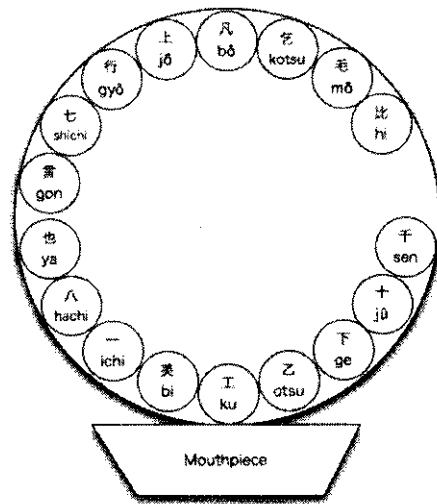
While mouth-organs of various types occur in China, those used in the Tang period normally had seventeen pipes (Hayashi 1964:67). Indeed, the three *shô* that are preserved in the Shôsôin are also seventeen-piped (Hayashi, Kishibe, Taki & Shiba 1967:63). Furthermore, the fact that the notations of *Kofu ritsuryokan* and *Shinsen shôtekifu* contain no more than seventeen tablature-signs (see below) suggests that the pieces in these two scores are for seventeen-piped mouth-organ.

The arrangement of the seventeen pipes of the three *shô* in the Shôsôin is basically the same, and is shown in the following diagram.⁴⁶

⁴⁵ It has been demonstrated in Part I of this chapter that the dots used in *Gogenfu* do not have any metrical or rhythmic implication.

⁴⁶ The *shô* preserved in the Shôsôin have pipe-names clearly marked on some of the pipes. These pipe-names also correspond to the tablature-signs of the mouth-organ scores. See Hayashi 1964:191-94 for a comprehensive discussion of these names.

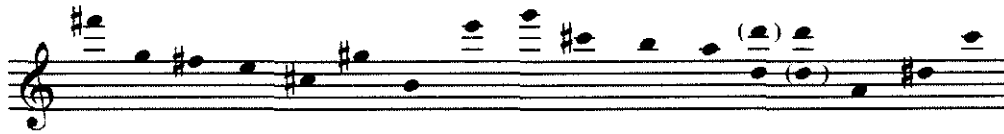
Figure 4.41: The arrangement of the seventeen pipes and their corresponding names / tablature-signs



2. The pitches of the seventeen pipes

Each pipe produces a single pitch. The pitch is determined by the distance between the reed and the *byōjō* (air hole). Because the air hole is cut inside the pipe, the sounding length is not the same as the full length of the pipe. According to Hayashi’s research, the pitches produced by the seventeen-piped mouth-organ during the Nara period were extremely close to those of modern practice (Hayashi 1964:189). The following figure shows the pitches of the seventeen pipes (Hayashi 1964:311).

Figure 4.42: The pitches of the seventeen pipes




千 十 下 乙 上 美 一 八 也 言 七 行 上 几 乞 毛 比
sen jū ge otsu ku bi ichi hachi ya gon shichi gyô jô hô kotsu mô hi

(●) = modern practice

This arrangement is slightly different from modern practice. Firstly, the pitch of the *bô* 几 pipe is an octave lower in modern performance whereas the pitch of the *jô* 上 pipe is an octave higher. This is not a difference of pitch but a difference of register. In order to facilitate comparison between the ancient and modern melodies, the *bô* and *jô* tablature-signs in *Kofu ritsuryokan* and *Shinsen shôtekifu* will be transcribed according to modern practice. Secondly, while it is clear that the mouth-organs in the Shôsôin had reeds for the *mô* 毛 and *ya* 也 pipes (Hirano ed. 1989:341), these two pipes do not have any reeds at the present-day and therefore do not sound. The notations of *Kofu ritsuryokan* and *Shinsen shôtekifu* do not include the tablature-signs *mô* and *ya*. This suggests that the use of these two pipes had already been abandoned before the thirteenth century.⁴⁷

3. The *yuri* and the mensural signs

Mouth-organ tablature-signs that have a *yuri* 由 attached will not be transcribed as written out mordents. Rather, they will be signified by a ‘’ sign in

⁴⁷ See Kishibe & Traynor 1952 (the version that I consulted is a reprint in 2005) for a more detailed discussion on the historical background of the *mô* and *ya* pipes, and the possibility of using two alternative pipes which could be substituted for these in ancient Japan.

the transcriptions. It is uncertain, however, whether *yuri* in these cases represents the technique of a mordent or not.⁴⁸ According to *Hakuga no fuefu* (see p. 122), *yuri* indicates that the performers should ‘rub the hole with a finger’. If this meaning is used in reading *yuri* in the mouth-organ scores, two identical pitches are generated successively. This possible interpretation should be borne in mind when reading the score.

The meanings of the *ni* 二, *ka* 火 and *nobe* 延 signs in the mouth-organ scores, on the other hand, are clear. The *ni* and *ka* signs have the same meanings as in *Hakuga no fuefu*. The word *nobe*, which literally means ‘extension’, corresponds to the *hiku* 引 (or 引) sign used in other *tôgaku* scores.

The *kuten kifuhô* and *kobyôshiten kifuhô* mensural systems are also used in *Kofu ritsuryokan* and *Shinsen shôtekifu*. While the dots of the *kuten kifuhô* system are solid in *Kofu ritsuryokan*, they are hollow in *Shinsen shôtekifu*. It is important to note that even though the *kuten kifuhô* and *kobyôshiten kifuhô* systems are *not* generally used together in the notations of *Sango yôroku*, *Jinchi yôroku* and *Ruisô chiyô*, the two mensural systems are used together in the notations of *Kofu ritsuryokan* and *Shinsen shôtekifu*. The following two figures show the notations for “*Sômeiraku*” in *Kofu ritsuryokan* and *Shinsen shôtekifu*.

Figure 4.43: The “*Sômeiraku*” notation in *Kofu ritsuryokan* (from the version preserved by the Bunno Family)

⁴⁸ This technique does not occur in modern mouth-organ practice. See also Part III below.

Figure 4.44: The “Sômeiraku” notation in *Shinsen shōtekifu* (from a microfilm-copy of the original)

While *Shinsen shōtekifu* includes some small tablature-signs and straight lines that do not occur in the *Kofu ritsuryokan* notation, these signs will be ignored for the present. I will discuss them in the next section.

Although the *kuten kifuhō* and *kobyōshiten kifuhō* systems are used together in

the mouth-organ notation, their meanings and function have not changed. As shown in the following two figures, the dots of the *kuten kifuhô* system separate the tablature-signs into binary groups and the dots of the *kobyôshiten kifuhô* system indicate beats.

Figure 4.45 lines up the first two drum-cycles of the mouth-organ melodies of “*Sômeiraku*” with that recorded in *Hakuga no fuefu* (see Musical Example 1). Here the rhythm of the mouth-organ melodies is transcribed only by reference to the *kuten kifuhô* system. Even though the *hyaku* 百 sign, which is normally used together with the *kuten kifuhô* system in order to signify a *taiko* drum-beat, is not included in the mouth-organ notations,⁴⁹ there is no reason to assume that the positions of the *taiko* drum-beats had been changed.

Figure 4.45: A comparison between the “*Sômeiraku*” melodies recorded in *Hakuga no fuefu*, *Kofu ritsuryokan* and *Shinsen shôtekifu*

The figure displays three staves of music in G major (one sharp) and 4/4 time. The first staff, labeled 'The "Sômeiraku" melody recorded in Hakuga no fuefu', shows a melody with a large red dot above the second measure and a '百' (hyaku) sign above the fifth measure. The second staff, 'The "Sômeiraku" melody recorded in Kofu ritsuryokan', shows the same melody with dots below the notes: 乞 (under the first note), 下 (under the second), 乙 (under the third), 几 (under the fourth), 美 (under the fifth), 乞 (under the sixth), 一 (under the seventh), and 乞 (under the eighth). The third staff, 'The "Sômeiraku" melody recorded in Shinsen shôtekifu', shows the melody with dots below the notes: 乞由 (under the first), 下 (under the second), 下乙 (under the third), 几 (under the fourth), 美 (under the fifth), 乞由 (under the sixth), 一由 (under the seventh), and 乞 (under the eighth). The dots in the second and third staves correspond to the positions of the *taiko* drum-beats.

⁴⁹ The large red dots signify the *taiko* drum-beats of the *kobyôshiten kifuhô* system.

Leaving aside differences of the octave levels of the pitches and the usage of *yuri*, the two mouth-organ melodies are nearly identical to the *Hakuga no fuefu* melody.

The following figure demonstrates that when the mouth-organ melodies are transcribed by reference to the *kobyôshiten kifuhô* system, they still preserve the form of the *Hakuga no fuefu* melody, despite the fact that they are performed in a slightly different metrical structure. The first crotchet-beat in each mouth-organ piece is prolonged and the *taiko* drum-beats are shifted one crotchet-beat forward in the mouth-organ melodies.⁵⁰

⁵⁰ Because the *taiko* drum-beat should fall on the fifth rather than the fourth crotchet-beat in an eight-crotchet-beat drum-cycle, I believe that one dot is missing at the beginning of the *Shinsen shôtékifu* notation of “*Sômeiraku*” (Figure 4.44). This is supported by the fact that in the *Kofu ritsuryokan* notation of “*Sômeiraku*” (Figure 4.43), the first *kotsu* 乞 tablature-sign is accompanied by two dots rather than one.

Figure 4.46: Another comparison of the “*Sômeiraku*” melodies recorded in *Hakuga no fuefu*, *Kofu ritsuryokan* and *Shinsen shôtekifu*

The "Sômeiraku" melody recorded in *Hakuga no fuefu*

The "Sômeiraku" melody recorded in *Kofu ritsuryokan*

乞 下 乙 几 美 乞 一 乞
 . . . ● . . .

The "Sômeiraku" melody recorded in *Shinsen shôtekifu*

乞由 下下火 乙 几 美 乞由 一由乞
 . . . ● . . .

工 几 乞 一 二 延 下
 . . . ● . . .

工 几 乞由 一 二 延 下
 . . . ● . . .

Unlike *Sango yôroku*, *Jinchi yôroku* and *Ruisô chiyô*, the pieces in *Kofu ritsuryokan* and *Shinsen shôtekifu* do not have written out alternative versions. Although the pieces in the two mouth-organ scores are notated using both mensural systems, Figures 4.45 and 4.46 show that neither version is syncopated. Does this mean that *Kofu ritsuryokan* and *Shinsen shôtekifu* do not include syncopated versions?

Rembrandt Wolpert clearly demonstrates in his research that, on the contrary, the *kobyôshiten kifuhô* system employed in *tôgaku* scores compiled after the thirteenth century may also indicate syncopation (Wolpert 1987). In order to perform the pieces in a syncopated rhythmic mode, the performer must play each tablature-sign marked with a dot half a beat in advance (including the *yuri*), and then either sustain it, or possibly repeat it on the beat indicated by the dot (Wolpert 1987:128).⁵¹

The following figure shows the result of reading the “*Sômeiraku*” notation in *Kofu ritsuryokan* and *Shinsen shôtekifu* according to Wolpert’s system. In Figure 4.47, I will adopt a convention of marking syncopation with a slur. Because in the syncopated version of the *Sango yôroku* and *Jinchi yôroku* melodies, however, the syncopated notes are clearly not tied to their preceding notes, in Figure 4.47, staccato dots are added above notes that are joined by a slur in order to show that these notes are separated rather than sustained. For convenience, in the transcriptions of whole pieces (Appendix III), the notes of the syncopated melodies are written without the slurs and staccato dots.

Figure 4.47: A comparison of the un-syncopate and syncopated versions of “*Sômeiraku*”

⁵¹ Terauchi Naoko also suggests that the *kobyôshiten kifuhô* system of some pieces in *Kofu ritsuryokan* indicates the syncopated rhythmic mode (Terauchi 1996:379-80). While Terauchi’s interpretation of the dots is slightly different from that suggested by Wolpert (Terauchi 1996:380), the musical result is basically the same.

The "Sômeiraku" melody recorded in *Kofu ritsuryokan* (un-syncopate)

乞 下 乙 几 美 乞 一
 . . . ● . . .

The "Sômeiraku" melody recorded in *Kofu ritsuryokan* (syncopated)

乞 下 乙 几 美 乞 一
 . . . ● . . .

The "Sômeiraku" melody recorded in *Shinsen shôtekifu* (un-syncopate)

乞由 下下火 乙 几 美 乞由 一由
 . . . ● . . .

The "Sômeiraku" melody recorded in *Shinsen shôtekifu* (syncopated)

乞由 下下火 乙 几 美 乞由 一由
 . . . ● . . .

乞 工 几 乞 一 二 延 下
 . . . ● . . .

乞 工 几 乞 一 二 延 下
 . . . ● . . .

乞 工 几 乞由 一 二 延 下
 . . . ● . . .

乞 工 几 乞由 一 二 延 下
 . . . ● . . .

It is in fact not difficult to ascertain the reason for using the *kobyôshiten kifuhô* system to signify the syncopated rhythmic mode. Although many compilers of *tôgaku*, for example, Fujiwara no Moronaga, were famous performers, they were not composers. Many *tôgaku* scores, such as *Hakuga no fuefu* and *Sango yôroku*, were compiled with reference to sources that had existed for many years.⁵² The compilers of *Kofu ritsuryokan* and *Shinsen shôtekifu* might well have compiled their scores by reference to earlier mouth-organ notations, and these reference notations might have been compiled in a period when the syncopated rhythmic mode was not yet fully developed. That is, the original notation might only have recorded the un-syncopate versions signified by the indicators of binary groups (*kuten kifuhô* system). The compiler might then have added the dots of the *kobyôshiten kifuhô* system in the new scores. This would explain why the dots of the *kobyôshiten kifuhô* are particularly written in red in *Shinsen shôtekifu*. Remember that, as noted in the previous chapter, the colophon in *Shinsen shôtekifu* specifically notes that the compiler added mensural notations to the scores (see p. 96). Since the convention for generating the syncopated rhythmic mode is not complicated, a performer can easily produce a syncopated version by repeating the proceeding tablature-signs. It is not necessary, therefore, to rewrite the tablature-signs or include a new syncopated version for each piece in the score.

⁵² *Hakuga no fuefu* was compiled from a number of earlier sources, some of which dated from the early ninth century (Maret 1977:2).

4. Other important signs in *Shinsen shōtekifu*

Two types of sign occur frequently in the notations of *Shinsen shōtekifu* but not in *Kofu ritsuryōkan*. These are the small red tablature-signs written to the right of the notational columns and the red straight lines that join a group of two or more tablature-signs. *Shinsen shōtekifu* does not include any explanation of these signs.

Although small red tablature-signs are written to the right of the notational columns, they are not written next to the large tablature-signs but rather between them. This suggests that the notes indicated by the small tablature-signs are to be inserted between the large ones. Even though cluster-chords are used in modern mouth-organ performance (see below), it is unlikely that these small tablature-signs represent notes of the cluster-chords. There are two pieces of evidence to support this view. Firstly, the *ka* 火 sign is sometimes used within a group of small tablature-signs. *Ka* means ‘move quickly’ (see p. 122). This implies that the small tablature-signs are played separately rather than together.⁵³

Secondly, small tablature-signs are sometimes inserted between large tablature-signs that are marked with a *yuri*. It is difficult to see how a *yuri* could be played as part of a chord.⁵⁴

At this stage, there is no evidence to show that the small tablature-signs are performed together with the main tablature-signs. Steven Nelson suggests that these

⁵³ Examples of using the *ka* signs in a group of small tablature-signs can be seen in the piece “*Sandai*”. Although in modern practice, performers transfer from one cluster-chord to another by quickly transferring the fingers one by one (*teutsuri*) (see below), it is unlikely that the small tablature-signs indicated such a technique in the fourteenth century.

⁵⁴ See the circled part of the “*Sōmeiraku*” notation (Figure 4.44) for an example.

tablature-signs may be glosses that give the pitches of a more decorated melody carried by another instrument rather than elaboration of the mouth-organ melodies (personal communication). These small tablature-sign will be examined more fully in Chapter Six in order to ascertain whether they include pitches that affect the tonality of a piece or not.

The red straight line is another sign that commonly appears in the *Shinsen shōtekifu* notation. It is clear from the “*Sōmeiraku*” notation (Figure 4.44) that these straight lines usually join tablature-signs that are separated by a *ka* sign. It seems likely therefore that these straight lines share the same function as the *ka* sign, namely to indicate a ‘quick movement’. Indeed, it is the straight line rather than the *ka* sign that indicates ‘quick movement’ in the modern mouth-organ notation (see below). The reason of adding extra straight lines along with the *ka* signs in the score is, however, unclear.

The signs *su* ス, *san* 三, *kaeshi* 返 and ‘ㄣ’ are occasionally used in *Shinsen shōtekifu*. Although the score contains no explanation of these signs, they are not as ambiguous as the small tablature-signs and the straight lines. The *su* ス sign is probably a cursive version of the *ka* 火 sign. The *san* sign, which has one more horizontal stroke than the *ni* 二 sign, may indicate two repetitions of the previous tablature-sign. The *kaeshi* sign, which literally means ‘return’, shares the same function of the ‘D.S.’ sign in western scores and the ‘ㄣ’ sign simply indicates the point from which the music repeats.

D. The tablature-notation of *Nakahara roseishô*

1. The tablature-signs and their corresponding pitches

Nine tablature-signs are used in this score, namely *tei* ㄗ,⁵⁵ *jô* 丄, *itsu* 一, *shi* 四, *riku* 六, *han* 凡 (or 凡), *kô* 工, *go* 五 and *zetsu* 舌. The *hichiriki* section of chapter eight of *Kyôkunshô* (1233), a reliable music treatise devoted to the explanation of ancient *gagaku* practice, states that all but the *zetsu* signs represent finger-holes on the double-reed pipe (Koma 1233:154).⁵⁶ *Zetsu* indicates a fingering with all the finger-holes closed (Koma 1233:154).⁵⁷ The following figure shows the structure of the modern double-reed pipe. There are seven finger-holes on the front and two on the back. This structure matches with the descriptions in *Kyôkunshô* (Koma 1233:154-5).⁵⁸ The *mu* ㄥ sign used to mark the lower of the back finger-holes appears neither in *Nakahara roseishô* nor in modern practice, and has probably never been used as a tablature-sign.

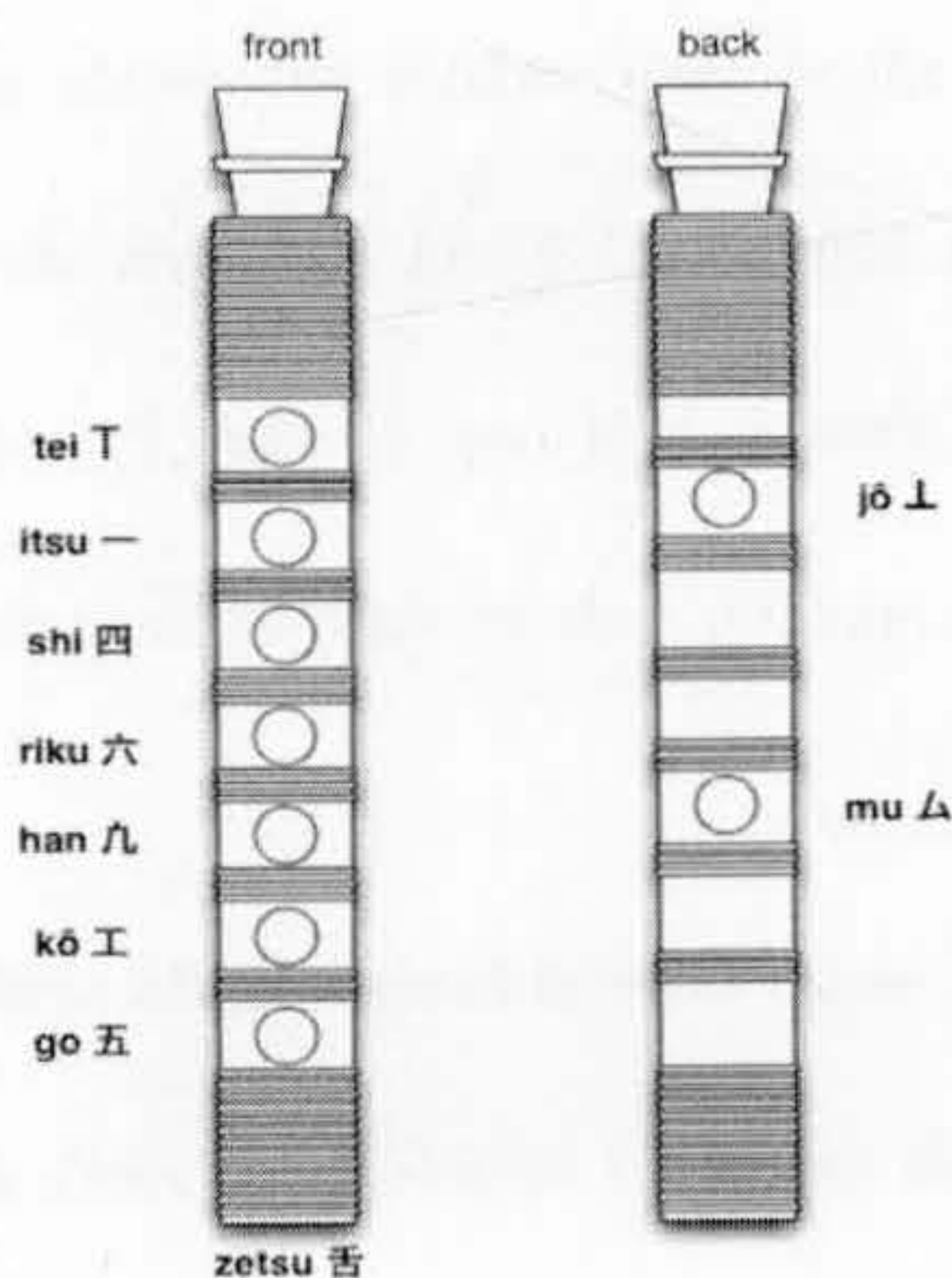
Figure 4.48: The structure of the modern double-reed pipe

⁵⁵ 'Tei' is the modern pronunciation of this tablature-sign. It might have been pronounced as 'ge' in ancient Japan (Hirano et al. 1989:339).

⁵⁶ 穴名 四一丄工凡五六

⁵⁷ 舌ハ皆塞音

⁵⁸ 面ニ穴七 裏穴ニアリ



Each fingering of the double-reed pipe can produce more than one pitch and this allows the melodies in *Nakahara roseishô* to be performed in the correct mode. I assume, therefore, that the tablature-signs in *Nakahara roseishô* indicate pitches that correspond to those of the diatonic forms of the modes encountered in other instruments. For example, in *ôshikichô / huang zhong diao* and *hyôjô / ping diao* modal group pieces, *jô ⊥* represents G natural whereas in *banshikichô / pan she diao* modal group pieces, it signifies G# (see also Figure 4.49 below).

While in modern practice double-reed pipe performers also lower the standard pitch (or *seiritsu* in Japanese) of certain tablature-signs by altering breathing and lip pressure (the pitches produced by this technique are commonly called *meri*), this technique is now used to produce the non-diatonic modes played by the reed-pipe in modern practice. There is no evidence that these non-diatonic modes were used in the fourteenth century. This matter will be discussed more fully in Chapter Six.

The following figure shows the pitches used in the *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modal group pieces. It is important to note that *zetsu* 舌, *han* 几 and *jô* 工 signify more than one pitch. The circled tablature-signs represent the tonic of their relevant modes.

Figure 4.49: The pitches of the double-reed pipe tablature-signs used in *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modal group pieces

<i>ôshikichô / huang zhong diao</i>	舌	Ⓟ	工	几	六	四	—	+	Ⓡ
<i>banshikichô / pan she diao</i>	舌	五	Ⓡ	几	六	四	—	+	工
<i>hyôjô / ping diao</i>	舌	五	工	几	六	Ⓟ	—	+	工

2. The mensural notation

As in the mouth-organ scores, both the *kuten kifuhô* and *kobyôshiten kifuhô* systems are notated in *Nakahara roseishô*. This suggests that the notation can yield melodies with three different rhythmic structures: a) a version indicated by the binary group (*kuten kifuhô* system); b) an un-syncopate version signified by the dots of the *kobyôshiten kifuhô* system; and c) a syncopated version signified by the dots of the *kobyôshiten kifuhô* system. Figure 4.50 shows the notation of “*Sômeiraku*”. The boxed section of Figure 4.50 is transcribed in Figure 4.51 with reference to the

kuten kifuhô system. The *Hakuga no fuefu* version of “*Sômeiraku*” is included in Figure 4.51 for reference.

Figure 4.50: The notation of “*Sômeiraku*” (from the *Kubo ke* version of *Nakahara roseishô*)

Handwritten notation for "Sômeiraku" in the Kubo ke version of Nakahara roseishô. The notation consists of vertical columns of numbers and characters. A box highlights a specific section of the notation.

Figure 4.51: The boxed part transcribed according to the *kuten kifuhô* system

The "Sômeiraku" melody recorded in *Hakuga no fuefu*

The "Sômeiraku" melody recorded in *Nakahara roseishô* (*kuten kifuhô*) (un-syncopate version)

T - , - 四 六リ、T + Tリ、工 五 リ、

六 几 六リ、T + T - 工火 工 リ、

It can be seen that when the score is read in this way, the double-reed pipe melody is very similar to the tenth-century flute melody. While the pitches of each crotchet-beat of the two melodies do not completely correspond, pitch disagreements are caused mainly by the application of ornaments, for example, mordent, appoggiatura, anticipation and syncopated notes, in either the flute or the double-reed pipe melody. Many of these ornaments were commonly used to decorate *tôgaku* melodies in the late-Heian period (see Chapter Five). The only exception is the F# quaver indicated by the box. This F# is an additional pitch that does not occur in the tenth-century flute melody and would be unusual in late-Heian practice. I will fully investigate these additional pitches in the next chapter.

One peculiar characteristic of the *kuten kifuhô* system in *Nakahara roseishô* is that *hiku* ㇿ does not necessarily double the note-value of its preceding tablature-sign. It seems likely that a tablature-sign followed by a *hiku* simply indicates that it has a longer note-value than the other tablature-signs in the same binary group. For example, in the second binary group ‘一四六ㇿ’ (shaded in Figure 4.51), the *hiku* sign indicates that the *riku* 六 tablature-sign should keep the note-value of a crotchet while the *itsu* 一 and *shi* 四 tablature-signs are performed as quavers.

Turning now to the un-syncopate melodies indicated by the *kobyôshiten kifuhô* system, the following figure shows a transcription of the boxed section of Figure 4.50 read according to the un-syncopated *kobyôshiten kifuhô* system. Here each dot

indicates a single crotchet-beat. The *Shinsen shōtekifu* melody transcribed according to the un-syncopated *kobyōshiten kifuhō* system is included for comparison.

Figure 4.52: A transcription of the boxed section in Figure 4.50 with reference to the un-syncopate *kobyōshiten kifuhō* system

The figure displays two musical staves for the melody "Sōmeiraku". The top staff is labeled "The 'Sōmeiraku' melody recorded in *Shinsen shōtekifu*". The bottom staff is labeled "The 'Sōmeiraku' melody recorded in *Nakahara roseishō* (*kobyōshiten kifuhō*) (un-syncopate version)". Both staves are in G major (one sharp) and 2/4 time. The melody consists of several measures, with a boxed section highlighted in the original image. In the *Nakahara roseishō* version, certain notes are shaded, and dots are placed below the tablature signs (T, 一, 四, 六, リ, 一, 一, リ, 工, 五) to indicate syncopation. The bottom staff also includes tablature signs (リ, 六, 几, 六, リ, 一, 一, 一, 火, 工, リ) with dots below them, and a circled dot under the "一" sign.

There is one significant difference between the un-syncopated *kobyōshiten kifuhō* versions in *Nakahara roseishō* and those in other *tōgaku* scores compiled before the early fourteenth century. The shaded parts of the above transcription show instances where the dots of the *kobyōshiten kifuhō* system coincide with *hiku* ㇿ signs rather than their preceding tablature-signs. The insertion of a dot next to a

hiku rather than its preceding tablature-sign produces a rhythmic anticipation similar to that found in the fully syncopated version of the melody (see Figure 4.53 below). This way of using dots occurs rarely in *tôgaku* notation compiled before the early fourteenth century. For instance, Figure 4.26 showed that in *Sango yôroku* the dots of the *kobyôshiten kifuhô* system tend to coincide with tablature-signs rather than with *hiku* signs (see p. 139 and the circled tablature-signs in Figure 4.26). While some *hiku* 丿 or *nobe* 延 signs in *Kofu ritsuryokan* and *Shinsen shôtekifu* coincide with a dot, this only happens when the configuration of signs represents two full un-syncopated crotchet-beats rather than a syncopation. Typical example of this configuration of signs can be seen in bar 2 of Figure 4.46 (see the *ni* 二 and *nobe* 延 signs).

As can be seen in Figure 4.52, the mid-fourteenth-century melody produced from the un-syncopated *kobyôshiten kifuhô* system is an elaborated version of the *Shinsen shôtekifu* melody. The basic mechanism for producing elaboration is that while the pitches of the mouth-organ melody tend to be preserved in the first half of each crotchet-beat of the double-reed pipe melody, the second half is replaced by anticipation, ornaments or additional pitches. Furthermore, the double-reed pipe melody can also be modified rhythmically. The boxed part shows such a modification.

In addition to the version shown in Figure 4.52, the dots of the *kobyôshiten kifuhô* system in *Nakahara roseishô* also yield a syncopated version of the melody. The following figure shows the third possible reading of the “*Sômeiraku*” notation

in *Nakahara roseishō*. The syncopated version of the *Shinsen shōtekifu* melody is given for comparison.

Figure 4.53: A transcription of the boxed section in Figure 4.50 into a syncopated version

The syncopated "Sōmeiraku" melody recorded in *Shinsen shōtekifu*

The "Sōmeiraku" melody recorded in *Nakahara roseishō* (*kobyōshiten kifuhō*) (syncopated version)

ト ー ー 四 六 リ ト ー ト リ 工 五
、 、 、 、 、 ○ 、 、 、

リ 六 凡 六 リ ト ー ト ー 工 火 工 リ
、 、 、 、 、 ○ 、 、 、

The double-reed pipe melody is extremely similar to the mouth-organ melody. Appoggiatura and mordent are the main ornaments that produce pitch differences between the two melodies. The only pitch that cannot be accounted for by reference to late-Heian practice is the circled F# note in the double-reed pipe part. This additional pitch does not appear in the mouth-organ melody.

3. The special ornamental signs

Two special signs are occasionally used in the notation of *Nakahara roseishô*. These are ‘△ ㄣ’ and ‘/’.⁵⁹ In the *Abe ke* version of *Nakahara roseishô*, ‘△ ㄣ’ is, however, written as ‘ㄣ ㄣ’ rather than ‘△ ㄣ’.⁶⁰ Since notes that are accompanied with the ‘△ ㄣ’ sign in the historical double-reed pipe melodies usually correspond to mordents used in other historical *tôgaku* melodies (see Musical Examples 14, 15 and 16 in Appendix III), this sign possibly represents a technique for generating a mordent from the double-reed pipe by moving the lips but not the fingers.

The meaning of the ‘/’ sign is uncertain but it seems that this sign does not yield any significant influence upon the pitches of the double-reed pipe melodies.

E. The tablature-notation of *Chû ôga ryûteki yôrokufu*

1. The tablature-signs and their corresponding pitches

Even though *Chû ôga ryûteki yôrokufu* does not include an *anpuhô* section, the main tablature-signs in this score, namely *roku* 六, *ge* 丌, *chû* 中, *shaku* 夕, *jô* 上, *go* 五 and *kan* 𠄎, are almost identical to those used in *Hakuga no fuefu*.⁶¹ We may assume, therefore, that these tablature-signs represent the same finger-holes as in *Hakuga no fuefu*.⁶²

⁵⁹ Because it is impossible to insert a ‘ㄣ’ sign in the music files, the ‘△ ㄣ’ sign is represented by a ‘△ ”’ sign in the transcriptions.

⁶⁰ This also suggests that the ‘△’ part of the ‘△ ㄣ’ sign is not the *mu* △ tablature-sign since it is written as ‘ㄣ’ in the *Abe ke* version.

⁶¹ The *kô* □ tablature-sign is, however, not used in *Chû ôga ryûteki yôrokufu*.

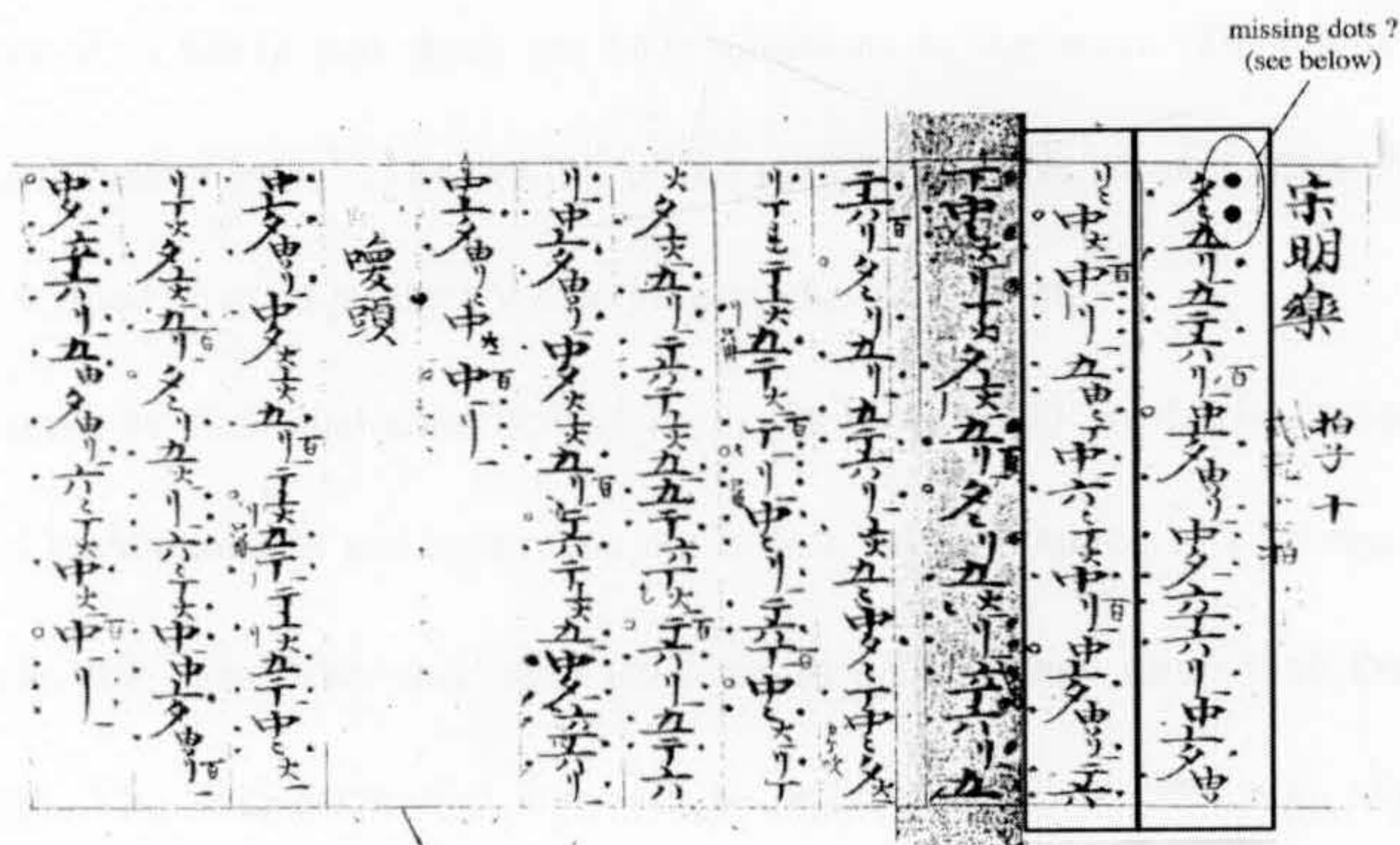
⁶² See p. 119 for the relationship between the finger-holes and the tablature-signs of the flute.

As demonstrated earlier, a standard flute had already been used to play *tôgaku* since the early ninth century (Marett 1976:71). As was the case with the double-reed pipe, there is no evidence that the transverse flute played anything other than the historically correct diatonic pitches for each mode. It will be assumed, therefore, that the pitches produced from the fingerings of the fourteenth-century transverse flute were the same as those produced from the tenth-century transverse flute. The relationships between the fingerings and the pitches have already been illustrated in Figure 4.13 (p. 121) of this chapter.

2. The mensural notation

The flute notation in *Chû ôga ryûteki yôrokufu* incorporates both the mensural system of the *ichi* 一 sign (where binary groups are indicated) and the mensural system of the *kobyôshiten kifuhô* (where beats are indicated). The following figure shows the “*Sômeiraku*” notation from the *Sonkeikaku bunko* version of *Chû ôga ryûteki yôrokufu*.

Figure 4.54: The flute notation of “*Sômeiraku*” (from the *Sonkeikaku bunko* version of *Chû ôga ryûteki yôrokufu*)



In addition to the *kobyōshiten kifuhō* notation written to the right of the notational columns, a second *kobyōshiten kifuhō* notation is written to the left. While some *tōgaku* pieces include two versions of *kobyōshiten kifuhō*—for example, “*Chikurinraku*” in *Kofu ritsuryokan*—, this is not common. Nor is it common in *Chū ōga ryūteki yōrokufu*, where in the selected modal categories only “*Sōmeiraku*” and “*Ringa*” are notated with two *kobyōshiten kifuhō* notations.

Figure 4.55 below shows the melody of the first three drum-cycles of “*Sōmeiraku*” transcribed according to the *ichi* signs. The *Hakuga no fuefu* version of “*Sōmeiraku*” is given as reference. *Chū ōga ryūteki yōrokufu* does not include *shuten* (red dots) (see pp. 122-3) to indicate overblowing. The notation does, however, occasionally employ the signs *se* せ and *fu* ㇿ to indicate register. *Se* is an abbreviated form of *seme* 責 and *fu* represents *fukura* 和. In modern practice, *seme* indicates the upper register whereas *fukura* refers to the lower register. Because these two signs appear to be written in a different hand using different ink,

however, it is likely that these are later additions to the score. They will not be discussed further here.⁶³ The pitches of the *Chû ôga ryûteki yôrokufu* melodies will be transcribed so as to produce a smooth melodic movement.



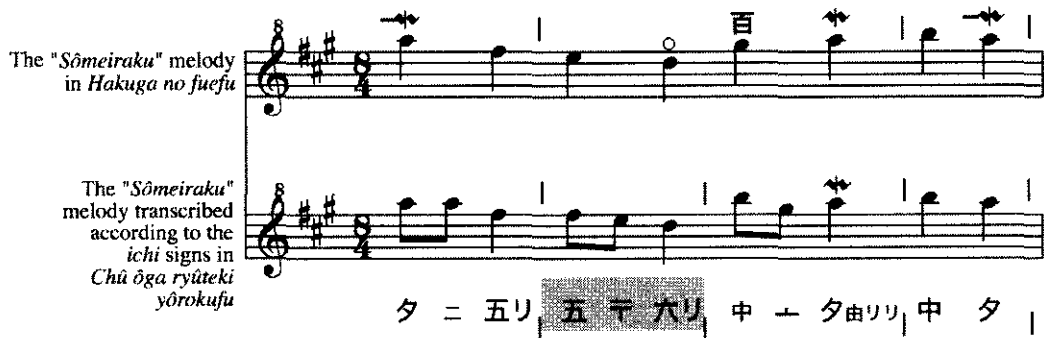
Since the flute melodies in *Chû ôga ryûteki yôrokufu* are fairly complicated, the *yuri* technique will not be written out in full. In the notation of *Chû ôga ryûteki yôrokufu*, the ‘*hiku after yuri*’ sign (由リ or 由リリ) appears more than the single *yuri* sign. The ‘*hiku after yuri*’ sign will be represented by a ‘’ sign whereas a single *yuri* sign will be indicated by a new notational convention of ‘’ in the transcriptions. The mordents of the *Hakuga no fuefu* melody of Figure 4.55 will also be represented according to the same principle.



Figure 4.55: A transcription of the boxed part of the “*Sômeiraku*” notation according to the *ichi* signs



The "Sômeiraku" melody in *Hakuga no fuefu*

The "Sômeiraku" melody transcribed according to the *ichi* signs in *Chû ôga ryûteki yôrokufu*

タニ五リ、五十六リ、中一タ由リリ、中タ

⁶³ The *Tenri* version does not employ the *se* and *fu* signs to indicate registers. Rather, the ‘’ and ‘’ signs serve as the indicators of registers (Marett 1988:225). These signs may have been added to the notation at a later period.

六 T 六リ | 中 一 夕由リリ 中火中 | リ |

五由ニ T 中 | 六ニT火中リ | 中 一 夕由リリ 六 T |

As shown in Figure 4.55, the *Chû ôga ryûteki yôrokufu* melody yielded by reading the notation according to the *ichi* signs is a decorated and slightly modified version of the tenth-century flute melody. The box highlights one of the relatively rare differences between the two melodies.

The convention for reading the *ichi* signs in *Chû ôga ryûteki yôrokufu* includes a number of features encountered in reading the *kuten kifuhô* system in *Nakahara roseishô* as well as some new features. Firstly, as in *Nakahara roseishô*, the *hiku* 𠄎 sign does not necessarily indicate doubling of the value of a note. Rather, it is used to indicate the relative duration of tablature-signs in a binary group. The shaded binary group in bar 1 is a typical example. Here the *roku* 六 sign, which is accompanied with the *hiku* sign, represents a crotchet-beat while *go* 五 and *kan* 𠄎

signs represent quaver-beats. This coincides with the conventions for regarding *hiku* signs in *Nakahara roseishô*.

Secondly, small tablature-signs are commonly used to indicate notes with shorter note-values. This notational convention has not been previously discussed.⁶⁴ It was probably developed in order to notate the detail of the increasingly complicated flute melodies. Small signs usually occur when a binary group contains a large number of tablature-signs. For instance, the shaded binary group in bar 3 contains the signs *roku* 六, *chû* 中, *hiku* ㇿ written in large and *ni* 二, *ge* ㇿ, *ka* 火 written in small. *Chû* is the only tablature-sign that is followed by a *hiku*. We may therefore assume that it represents the longest note-value in this binary group and I give it a value of a crotchet. *Roku*, *ni* and *ge* all occur within the first crotchet-beat. Because *ni* and *ge* are written smaller and *ge* is followed by *ka*, I assume that *ni* and *ge* are to be performed with shorter note-values. *Ni* and *ge* are therefore transcribed as semiquavers whereas *roku* is transcribed as a quaver.

Let us turn now to the *kobyôshiten kifuhô* notation written to the right of the notational columns. Two dots of the *kobyôshiten kifuhô* system might be missing at the beginning of the notation of “*Sômeiraku*” (see Figure 4.54). Since the piece clearly finishes on the eighth crotchet-beat of the last drum-cycle, I have assumed that it starts from the first rather than the third crotchet-beat of the first drum-cycle.

Figure 4.56 shows the first three drum-cycles of “*Sômeiraku*” transcribed according to the un-syncopated *kobyôshiten kifuhô* written to the right. As was the

⁶⁴ Although rarer, small tablature-signs also occur in the notation of *Nakahara roseishô* and it is likely that these small tablature-signs also indicate notes with a shorter note-value.

case in the notation of *Nakahara roseishô*, some dots of the *kobyôshiten kifuhô* systems are placed next to the *hiku* リ but not its preceding tablature-sign. The double-reed pipe melody from *Nakahara roseishô* is included in Figure 4.56 as reference.

Figure 4.56: A transcription of the boxed part of the “*Sômeiraku*” notation according to the un-syncopate *kobyôshiten kifuhô* notation written to the right

The "Sômeiraku" melody transcribed according to the un-syncopated *kobyôshiten kifuhô* in *Chû ôga ryûteki yôrokufu*

The "Sômeiraku" melody transcribed according to the un-syncopated *kobyôshiten kifuhô* in *Nakahara roseishô*

Figure 4.56 displays two musical transcriptions of the "Sômeiraku" melody. The top system shows the melody transcribed according to the un-syncopated *kobyôshiten kifuhô* notation in *Chû ôga ryûteki yôrokufu*. The bottom system shows the melody transcribed according to the un-syncopated *kobyôshiten kifuhô* notation in *Nakahara roseishô*. Both systems use a treble clef and a key signature of two sharps (F# and C#). The notation includes tablature signs (dots) and the character "リ" (hiku) placed next to the notes. The melody is transcribed in a 2/4 time signature. The top system has a tempo marking of 8. The bottom system has a tempo marking of 8. The notation includes various musical symbols such as beams, slurs, and accents.

Figure 4.56 displays two musical transcriptions of the "Sômeiraku" melody. The top system shows the melody transcribed according to the un-syncopated *kobyôshiten kifuhô* notation in *Chû ôga ryûteki yôrokufu*. The bottom system shows the melody transcribed according to the un-syncopated *kobyôshiten kifuhô* notation in *Nakahara roseishô*. Both systems use a treble clef and a key signature of two sharps (F# and C#). The notation includes tablature signs (dots) and the character "リ" (hiku) placed next to the notes. The melody is transcribed in a 2/4 time signature. The top system has a tempo marking of 8. The bottom system has a tempo marking of 8. The notation includes various musical symbols such as beams, slurs, and accents.

The image shows two staves of musical notation in G major (one sharp). The top staff has a treble clef and a 2/4 time signature. The first two bars are boxed, and the next two bars are shaded. Below the staves is the kobyôshiten notation, which consists of two rows of symbols: the first row has '五由', '二', '丁', '中', '六', '二', '次', '中', 'リ', '中', '夕', '由', 'リ', '丁', '六'; the second row has '・', '・', '・', '・', '百', '・', '・', '・'. Below this is another row of symbols: '一', '四', '一', '一', 'エ', 'リ', '一', '六', 'エ', 'リ', '丁', '丁', '一', '六', '四', '六', followed by various punctuation marks like commas, a circle, and dashes.

While there are some rhythmic differences as well as a relatively small number of pitch disagreements between the two melodies (boxed), the first two bars of the fourteenth-century flute melody are very similar to those of the fourteenth-century double-reed pipe melody.

The flute and double-reed pipe melodies in bar 3 do not, however, correspond to the same degree. There are clear pitch and rhythmic discrepancies between the two melodies in the shaded part.

If we were to produce a syncopated version according to the *kobyôshiten kifuhô* notation written to the right of the notational columns, it would look like that in Figure 4.57. Here the syncopated version of “*Sômeiraku*” recorded in *Nakahara roseishô* is included for comparison.

Figure 4.57: A transcription of the boxed part of the “*Sômeiraku*” notation in a syncopated version

The syncopated
"Sômeiraku" melody
recorded in *Chû ôga*
ryûteki yôrokufu

The syncopated
"Sômeiraku" melody
recorded in
Nakahara roseishô

Again, the flute and double-reed pipe melodies are very similar in bars 1 and 2.

The only limited number of pitch differences are marked by the boxes. The shaded

area of the two melodies in bar 3 are, however, fairly different.

Turning now to the *kobyôshiten kifuhô* system written to the left of the notational columns, Figure 4.58 shows the result of transcribing the notation according to this system. The *Chû ôga ryûteki yôroku* melody transcribed according to the *ichi* signs (Figure 4.55) is included for reference.

Figure 4.58: A transcription of the boxed part according to the *kobyôshiten kifuhô* notation written to the left

The "Sômeiraku" melody transcribed according to the *ichi* signs

The "Sômeiraku" melody transcribed according to the *kobyôshiten kifuhô* notation written to the left

タ ニ 五 リ 五 千 六 リ 中 一 夕 由 リ リ 中 夕

● ● ● ● 百 ● ● ●

六 丁 六 リ 中 一 夕 由 リ リ ニ 中 火 中 リ

● ● ● ● 百 ●● ●

五 由 ニ 中 六 ニ 火 中 リ 中 十 夕 由 リ テ 六 ニ

It is clear that the melody transcribed according to the dots written to the left is extremely similar to the melody transcribed according to the *ichi* signs. The disagreements between the two melodies, which are marked by the boxes, involve only minor rhythmic adjustments. Perhaps there was a slightly different version of the melody indicated by the *ichi* signs and therefore the performers added another mensural notation in the score in order to indicate this alternative version.

3. Other fingering techniques

The signs *ren* 連 and *ugoki* (or *dô*) 動 are commonly used in the notation of *Chû ôga ryûteki yôrokufu*. According to the *sô anpuhō* section of *Jinchi yôroku*, *ren* refers to a technique used to produce a descending run (see p. 148, point ix). We may, therefore, assume that it indicates a descending run in *Chû ôga ryûteki yôrokufu*.

The *ugoki* technique is occasionally employed in modern performance. If the *ugoki* character is inserted after the tablature-sign *go* (五動), the flute performer has to first blow the flute with the *go* and all the finger-holes distal to its left closed.

This fingering yields the pitch of G. Then the performer must quickly move his/her middle finger of the right hand from right to left and subsequently close the *go* finger-hole again. The result of this technique is similar to an inverted mordent of 'G – A – G'. Since the inverted mordent is a common decorative device in fourteenth-century flute melodies (see Chapter Five), it is possible that the *ugoki* in *Chû ôga ryûteki yôrokufu* also represents a technique that generates an inverted mordent.

In the transcriptions of the fourteenth-century flute melodies, tablature-signs that are supplemented with these two signs will be transcribed as notes with the gloss of '連' or '動' characters respectively.

III. The tablature-notation of *Meiji senteifu*

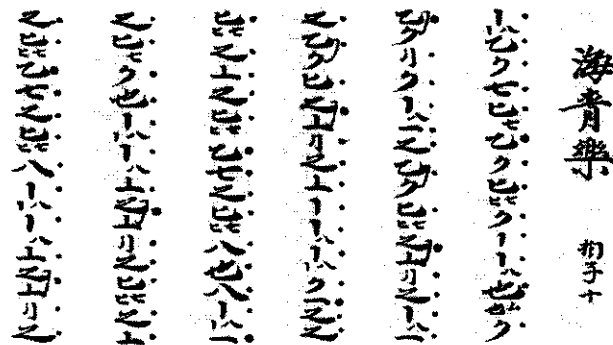
A. The notation of the four-stringed lute

The notation of the modern four-stringed lute is extremely similar to that employed in *Sango yôroku*: the open strings and the fret positions are represented by the same twenty tablature-signs used in *Sango yôroku*; *ka* 火, *kaeshibachi* ✓ and '] ' signs also commonly occur in the modern notation. The rhythm of the modern lute pieces is, however, indicated only by the *kobyôshiten kifuhô* system. Because of the substantial reduction of tempo in modern practice (see Section III of Chapter One), *tôgaku* scholars and musicians tend to interpret each dot of the *kobyôshiten kifuhô* system as a *measure* rather than a *beat* in transcribing the modern pieces into

western notation (see Shiba 1968-1972; Masumoto 2000). In this thesis, I will follow this practice in transcribing the modern melodies.

The following figure shows an example of the modern lute notation. This notation is a photographic reproduction of the piece “*Kaiseiraku*” printed in the lute score of the Nihon Gagakukai (Nihon Gagakukai ed. 1986).

Figure 4.59: The modern lute notation of “*Kaiseiraku*”



A number of *gagaku* organizations and ensembles in Japan publish their own versions of *gagaku* scores, which they claim reflect the notation of *Meiji senteifu*. All photographs of modern notation shown in this thesis are taken either from the scores published by the Nihon Gagakukai or the Ono Gagakukai.⁶⁵ Although I was allowed to examine the facsimile copy of the *gakuchōshitsu* version of *Meiji senteifu* during my fieldwork in Japan, I was not allowed to make copies. I have nonetheless compared the *gakuchōshitsu* version of *Meiji senteifu* with the notations of the selected pieces published by these two organizations. There are no significant

⁶⁵ Ono Gagakukai only publishes scores for the flute, mouth-organ and double-reeded pipe.

differences between these scores, and we may therefore conclude that the modern editions published by the Nihon Gagakukai and the Ono Gagakukai reflect the versions in *Meiji senteifu*.⁶⁶

An important aspect of modern lute practice is that arpeggios are frequently added to the notes indicated by tablature-signs. These are not notated but are taught orally. Arpeggios are most frequently applied to the first beat of a measure. It is also common to apply an arpeggio to the fifth beat of an eight-beat measure in 8/4. The pitches of the added arpeggios comprise all open strings below that to which the tablature-signs apply. For instance, *ya* 也 (the fourth fret of the fourth string) is executed with an arpeggio that moves from the first open string, through the second and third open strings to the pitch generated at the *ya* fret. This arpeggio is shown in the highlighted part of Figure 4.60 below, which is a transcription of the first column of the Nihon Gagakukai version of “*Kaiseiraku*”. The modern lute melodies illustrated in this thesis directly follow Shiba Sukehiro’s transcriptions done in the late 1960’s and early 1970’s (Shiba 1968, 1969, 1971, 1972). While Shiba’s transcriptions for other instruments are sometimes problematic (see below), his transcriptions of the modern lute notation are fairly accurate. It is also easy to compare his transcriptions with the ancient lute melodies. Examples of such comparisons can be seen in Chapters Six, Seven and Eight of this thesis.

⁶⁶ There are, however, a few tablature differences between some zither pieces published by the Nihon Gagakukai and those written in *Meiji senteifu*. “*Saisôrô*” is one of these examples. In view of the ‘model’ nature, the *gakuchôshitsu* version of *Meiji senteifu* will be used as the main reference source for transcriptions of modern zither melodies.

Figure 4.60: Shiba's transcription of the first column of "Kaiseiraku"

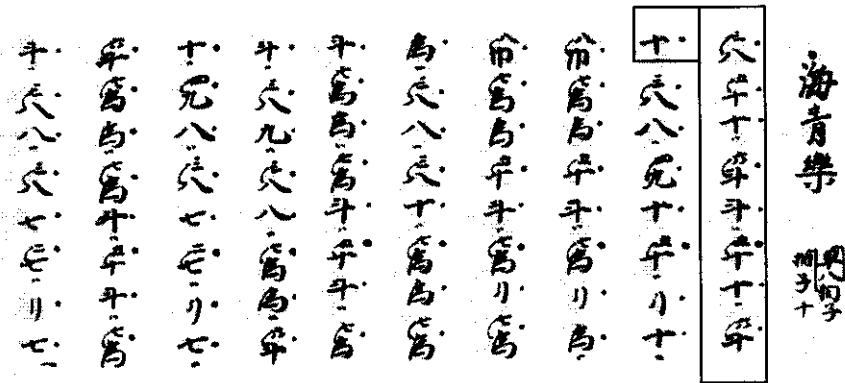
The image shows two staves of musical notation in bass clef with a key signature of one sharp (F#) and a 4/4 time signature. The notation includes chords and individual notes. Below the staves is a line of koto notation consisting of vertical stems with various symbols: exclamation marks, the character 'ハ', '乙', 'リ', '七', 'ヒ', '七', '乙' on the first line; and 'リ', 'ヒ', '七', 'ヒ', 'リ', '!', '!', 'ハ', '也', 'ム', '也', 'リ' on the second line. A vertical grey bar highlights the section of the score corresponding to the '也' character in the second line of koto notation.

B. The notation of the thirteen-stringed long zither

The modern notational method for the thirteen-stringed long zither is similar to that employed in *Jinchi yōroku* and *Ruisō chiyō*. The names of the thirteen strings are identical and the rhythm is indicated by the *kobyōshiten kifuhō* system. Each dot in the modern practice, however, is interpreted as a single measure rather than a single beat. The ‘、、’ marks employed in the middle of a notational column can be regarded as indicators of short pauses. Although the positions of these marks correspond to the *kuten kifuhō* indicators of binary groups in the historical scores, they do not have any metrical implication today.

A striking difference between the ancient and modern zither practices is that the left-hand techniques of the twelfth century have been totally abandoned in modern practice. Dots signifying left-hand techniques are completely absent from the modern notation. The following figure shows the modern notation of "Kaiseiraku" printed in the Nihon Gagakukai version of the zither score (Nihon

Figure 4.61: The modern zither notation of “Kaiseiraku”



A second difference is the inclusion in the modern zither melodies of two formulaic patterns, namely the *shizugaki* ('gentle plucking') and *hayagaki* ('quick plucking') patterns. Where a small tablature-sign is joined to a large tablature-sign with a line in the modern notation, these two tablature-signs will be performed together using either the *shizugaki* or *hayagaki* pattern. A single tablature-sign, on the other hand, represents a single plucked note.

Figures 4.63 and 4.64 demonstrate how the *hachi-kin* 𠄎^八 combination of tablature-signs is performed with the *shizugaki* and *hayagaki* patterns respectively in the *ôshikichô* tuning. The modern *ôshikichô* tuning is similar to the historical *ôshikichô* tuning illustrated in Figure 4.30 (p. 143) of this chapter, except that the *san* and *roku* strings of the modern version are tuned to the pitches of B and F# rather than C and G respectively, and the pitches of the first, third and fourth strings are all tuned to an octave higher in modern practice.

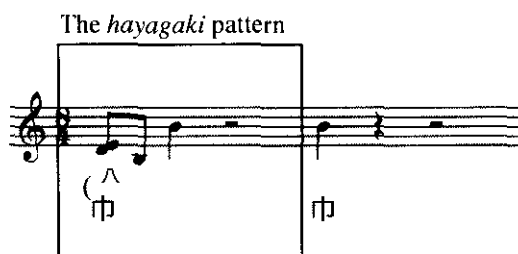
Figure 4.62: The modern tuning for playing *ôshikichô* / *huang zhong diao* pieces



Figure 4.63: An example of *shizugaki* pattern



Figure 4.64: An example of *hayagaki* pattern



In the case of the *shizugaki* pattern, even though the notation only shows a combination of two tablature-signs, namely *hachi* 八 (8) and *kin* 巾 (13), the

performer has to perform these two tablature-signs as part of the following string sequence: *ku* 九 (9) – *hachi* 八 (8) – *ku* 九 (9) – *jû* 十 (10) and *to* 斗 (11) and *kin* 巾 (13). This configuration is transposed according to the notated pitch.⁶⁷

The *hayagaki* pattern is simpler than the *shizugaki* pattern. The combination of *hachi* and *kin* tablature-signs is performed by first plucking the *ku* 九 (9) and *jû* 十 (10) strings together. The performer then plucks the *hachi* 八 (8) and *kin* 巾 (13) strings successively. Again, the pattern is transposed according to the notated pitch.

Modern zither pieces are performed with either the *shizugaki* or *hayagaki* patterns.⁶⁸ The title of each zither piece recorded in *Meiji senteifu* is followed by an instruction that states which pattern is to be used. The zither notation, however, does not notate these two patterns; rather they are taught orally by the zither teacher during the lessons.

Ren 連 is a technique that is occasionally used in modern zither melodies. This *ren* technique is similar to the arpeggio technique introduced in Section II B of this chapter (see p. 148). Other minor techniques such as *kaeshizume* and *sawaru* do not affect the pitch of the melodies. They will be explained in the analysis only as necessary.

While the modern lute melodies shown in this thesis directly follow the transcriptions done by Shiba Sukehiro, the modern zither melodies are my own

⁶⁷ The plucking force and the loudness of each pitch of the patterns are also precisely determined. Since these aspects of performance practice do not affect the pitches or the zither melodies, they will not be shown in the transcriptions. For further interpretation, see Masumoto 1968:67.

⁶⁸ A few pieces, such as the *nokorigaku* ('remaining music') version of "*Etenraku*" classified in the modal category of *hyôjô* / *ping diao*, use both the *shizugaki* and *hayagaki* patterns.

transcriptions. Shiba's transcriptions, unfortunately, include many errors. Figure 4.65 shows the transcription of the highlighted part of the zither notation of "Kaiseiraku" (Figure 4.61). This piece is performed in the *shizugaki* pattern in modern practice.

Figure 4.65: A transcription of the boxed part of the zither notation

C. The notation of the seventeen-piped mouth organ

The modern tablature-signs corresponding to the pipes of the mouth-organ are identical to the tablature-signs used in *Kofu ritsuryokan* and *Shinsen shōtekifu*. The modern mouth-organ notation is, however, simpler than the historical notations, especially that of *Shinsen shōtekifu*. Firstly, *yuri* 由 signs do not occur in modern notation. Secondly, rapid movement is not represented by a *ka* sign but by a straight line. This straight line is, moreover, similar to the one used in the notation of *Shinsen shōtekifu* (see p. 169). The rhythm of the modern mouth-organ melodies is indicated by the dots of the *kobyōshiten kifuhō* system written to the right of each

column. Each dot signifies a duration of a complete measure rather than of a single beat. The dots that are written in the middle of the notational columns have no metrical function in modern practice.

While on the surface the modern mouth-organ notation appears simpler than the historical notation, modern performance practice is far from simple. Instead of producing only the pitches indicated by the tablature-signs, the mouth-organ performers add *aitake* (literally ‘joining the bamboo pipes’) to the main melodies. *Aitake*, which are not notated in the modern notation but taught orally, refer to standard cluster-chords added above the written melody-note (Marett 1985:411). In general, in modern performance all the melody-notes that are written in the notation are decorated with their relevant standard *aitake*. This has the effect of obscuring the original mouth-organ melody (see Chapter Five).

The term *aitake* frequently occurs in the “*Chôshi*” (modal prelude) pieces of *Kofu ritsuryokan* but rarely in the notation of the *tôgaku* pieces. Furthermore, the meaning of *aitake* in *Kofu ritsuryokan* is uncertain because the score provides no illustration on this term. There is no evidence that cluster-chords were used in thirteenth-century *tôgaku* pieces.

The following figure shows the structures of all the modern *aitake*. The solid note-heads represent the pitches that are indicated by the tablature-signs and the hollow notes refer to the notes of the un-notated cluster-chords. There are two different forms of the *jû* + *aitake*. The one that is marked with a small dot in Figure 4.66 is only used for pieces that are classified in the modal category of *sôjô* /

shuang diao.

Figure 4.66: The modern *aitake* of the mouth-organ

Figure 4.66 shows a musical score for the modern *aitake* of the mouth-organ. The score is written on a single treble clef staff. It consists of eleven measures, each containing a cluster-chord. The notes in each chord are grouped together, and the chords move from left to right across the staff. Below the staff, the Japanese characters and their romanizations are listed: 乞 (kotsu), 一 (ichi), 工 (ku), 几 (bô), 乙 (otsu), 下 (ge), 十 (jû), 斗 (jû), 美 (bi), 行 (gyô), and 比 (hi).

In modern practice, mouth-organ performers use some fixed fingering patterns to move from one cluster-chord to another. This technique is called *teutsuri* ('moving hands'). The transcriptions in this thesis will not, however, show the *teutsuri* patterns since they do not influence the tonality of the mouth-organ part.⁶⁹

Figure 4.67 shows the modern notation of "*Kaiseiraku*" printed in the Ono Gagakukai mouth-organ score (Ono Gagakukai ed. 1977c) and Figure 4.68 is a transcription of the boxed section. All modern mouth-organ melodies shown in this thesis are my transcriptions.

Figure 4.67: The modern mouth-organ notation of "*Kaiseiraku*"

⁶⁹ For a detailed illustration of the *teutsuri* patterns, see Garfias 1975:177-88.

十	十	二	十	十	月	平	色	比
一	二	一	一	二	九	二	二	比
二	二	二	二	二	一	二	二	比
二	二	二	二	二	一	二	二	比
二	二	二	二	二	一	二	二	比
二	二	二	二	二	一	二	二	比
二	二	二	二	二	一	二	二	比
二	二	二	二	二	一	二	二	比
二	二	二	二	二	一	二	二	比
二	二	二	二	二	一	二	二	比

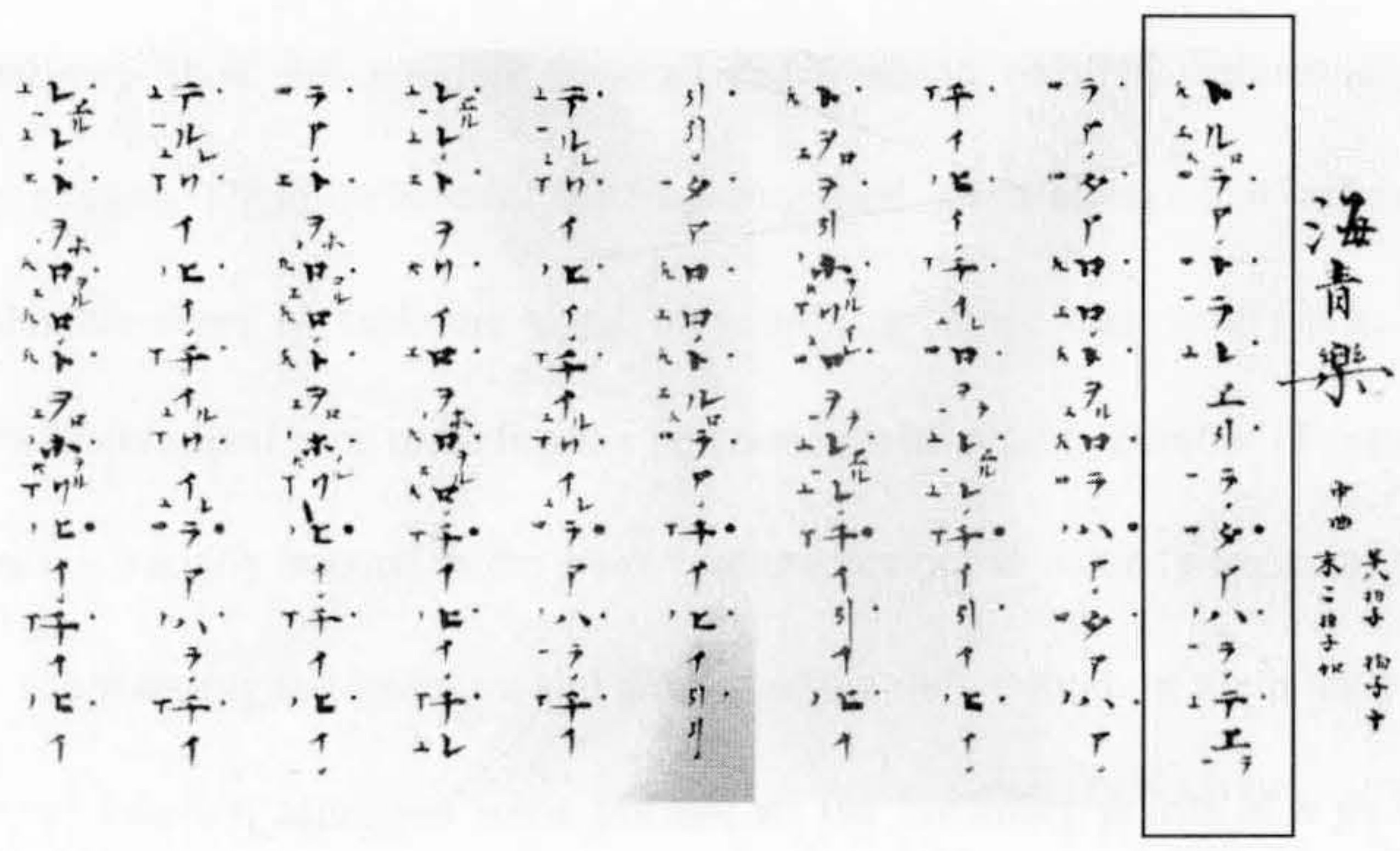
海青樂
中曲天徳子卷第十
本指圖

Figure 4.68: A transcription of the boxed part of the mouth-organ notation

D. The notation of the double-reeded pipe

The modern notation of the double-reeded pipe is significantly different from the historical versions. Figure 4.69 shows the modern notation of “*Kaiseiraku*” printed in the Ono Gagakukai double-reed pipe score (Ono Gagakukai ed. 1977b).

Figure 4.69: The modern double-reed pipe notation of “*Kaiseiraku*”



The main signs in the middle of each notational column are not tablature-signs but *katakana* characters for the syllables used in the singing of the melody (*shôga*). The function of *shôga* is to help the performer to memorize the melody of a piece.⁷⁰ Even though the tradition of *shôga* has existed in Japan for several hundred years—the term *shôga* is clearly recorded in the thirteenth-century treatise *Kyôkunshô* (Koma 1233:43)—, there is no evidence that *shôga* in *Kyôkunshô* had the same meaning as the term has today.

While the notational columns of the modern double-reed pipe score are dominated by the characters for the *shôga*, the notation also includes tablature-signs, which are written smaller and to the left of the *shôga* column. There are a number of

⁷⁰ Although *shôga* is unquestionably an important element that facilitates oral transmission and that realizes the modern melodies, I decided not to include a detailed discussion of it in this thesis because, firstly, the system of *shôga* has already been examined by Garfias (1975:68-71), and secondly, the modern flute and double-reed pipe melodies in this thesis are not transcribed through reading the *shôga* but directly according to the performances and demonstrations of professional performers. I will, however, consider studying the relationship between the *shôga* and the modern formulae (see below) of the flute and double-reed pipe melodies in my post-doctoral research.

reasons why it is not possible to read the notation only by reference to the tablature-signs. These include: a) the fingering used is not always that indicated by the tablature-sign; b) tablature-signs may indicate more than one pitch; c) the modern double-reed pipe melodies are performed with a large number of ornaments that are not initially notated in the score (the teacher marks some of these ornaments on the score during the lessons); and d) the hollow dots written in the middle of the notational columns represent some but not all the breathing points of a piece (the teacher has to mark the extra breathing points for the student in the score before teaching him/her the *shôga*). These four special practices will be further discussed in Chapters Five and Six of this thesis.

The modern double-reed pipe melodies in this thesis are transcriptions of Nishihara Yûji's demonstrations (see Introduction). Shiba Sukehiro's transcriptions will not be used because his transcriptions fail to show some ornaments. Figure 4.70 shows the melody of the boxed section of the "*Kaiseiraku*" notation.

Figure 4.70: A transcription of the first notational column of "*Kaiseiraku*"

The figure shows two staves of musical notation in G major (one sharp). The first staff contains the first seven notes of the melody: G4, A4, B4, C5, B4, A4, G4. Below the staff are three rows of symbols: *shôga* (ト, ル, □, ラ, ア, ○, ト, ラ, レ, エ), tablature-signs (几, エ, 几, 四, 四, -, ↓), and *kobyôshiten kifuhô* (●, ●, ●, ●, ●, ●, ●). The second staff contains the next seven notes: F#4, E4, D4, C4, B3, A3, G3. Below it are the same three rows of symbols: *shôga* (引, ラ, ○, タ, ア, ハ, ラ, ○, テ, エ, ラ), tablature-signs (●, -, 四, ノ, -, ↓, ●, -), and *kobyôshiten kifuhô* (●, ●, ●, ●, ●, ●, ●, ●).

E. The notation of the transverse flute

As was the case with the double-reed pipe notation, the characters of the *shōga* are written in the middle of the notational columns of the modern flute score, and the tablature-signs are written smaller and to the left of the *shōga* column. The following figure shows the modern flute notation of “*Kaiseiraku*” printed in the flute score published by the Ono Gagakukai (Ono Gagakukai ed. 1977a).

Figure 4.71: The modern flute notation of “*Kaiseiraku*”

The figure displays the modern flute notation for the piece "Kaiseiraku". It consists of several columns of notation. Each column contains a sequence of characters (shōga) and smaller characters (tablature-signs) to its left. The notation is written in a traditional Japanese style. On the right side of the page, there is a vertical title "海青樂" (Kaiseiraku) and some smaller text including "中曲" (Chūkyō) and "早八拍子 拍子十" (Haya Yatsu-bi, Uchi-yatsu-ju).

Once again, it is not possible to read the notation only by reference to the tablature-signs. Firstly, while the fingering of a tablature-sign is not altered in the flute tradition, some tablature-signs of the flute notation also represent more than one pitch. Secondly, like those for the double-reed pipe, the modern flute melodies are decorated with ornaments that are not clearly written out in the notation. The

number of such ornaments is, however, significantly less than in the melodies of the double-reed pipe. Thirdly, as with the double-reed pipe, the hollow dots placed in the middle of the notational columns do not signify all the breathing points. A detailed analysis of these flute practices will be provided in Chapters Five and Six. Lastly, although the *se* ㇼ and *fu* ㇾ signs are the terms that indicate the register of a pitch, these two signs only occasionally appear in the notation. Students must memorize the register of the pitches together with the *shôga*.

The modern flute melodies in this thesis are transcribed from Nishihara Takako's demonstrations and performances (see Introduction). There are some differences between Shiba's transcriptions and Nishihara's interpretations, particularly with regard to the positions of breathing points. While, in the transcriptions of this thesis, breathing points of the flute are mainly indicated by rests, an extremely quick breath may simply be signified by a ' ' sign. The following figure shows the melodies of the boxed part of the "*Kaiseiraku*" notation.

Figure 4.72: A transcription of the first notational column of "*Kaiseiraku*"

The figure displays two staves of musical notation in G major (one sharp). The first staff is in 4/4 time and contains the melody for the first part. Below it are three rows of symbols: *shôga* (hiragana characters), tablature-signs (vertical bars and circles), and *kobyôshûten kifuhô* (solid black dots). The second staff continues the melody. Below it are two rows of symbols: *shôga* (hiragana characters) and *kobyôshûten kifuhô* (solid black dots).

<i>shôga:</i>	ト	ル	ロ	ラ	ア	○	タ	ラ	ハ	チ	ヤ	ラ	ッ
tablature-signs:	┆		由	┆			┆	五	二		中	タ	┆
<i>kobyôshûten kifuhô:</i>	●			●			●				●		

	ロ	ヲ	ィ	ラ	○	タ	ア	ハ	ラ	ハ	チ	ィ	ィ	ヤ
	五		┆	五		┆		二		五	二		五	┆
	●					●		●					●	

* * *

While the modern tablature-notations for the lute, mouth-organ and long zither are very similar to those recorded in the historical scores, the interpretation of the notations is not identical to that of the historical practice. On the other hand, the modern tablature-notations for the double-reed pipe and transverse flute are not that similar to the historical scores. Furthermore, there are many oral practices in modern double-reed pipe and flute performance, some of which significantly affect the pitches and modality of the melodies. In the following chapters, I will demonstrate how the *tôgaku* melodies were developed and how modal practice was transformed over the last millennium.

Chapter Five

The historical development of the *ôshikichô* / *huang zhong diao* modal group pieces from the tenth century to the present-day

This chapter will focus on three pieces—“*Sekihaku tôrika*”,¹ “*Kishunraku*”² and “*Kaiseiraku*”—all of which occur in sources from the tenth century on, and all of which are performed today.³ Part I of this chapter concentrates on the historical development of the three pieces over the period from the tenth to the fourteenth century. In Section A, I will examine the historical development of *tôgaku* pieces from the tenth to the late twelfth century. This is carried out by a comparative analysis of the *Hakuga no fuefu* melodies with the *Sango yôroku* melodies. As shown in the previous chapter, in mid-Heian scores, mensuration was indicated by signs that demarcate binary groups, for example, the *ichi* sign in *Hakuga no fuefu*. It is these melodies that correspond to the *kuten kifuhô* versions in later scores such as *Sango yôroku*, *Jinchi yôroku*, *Ruisô chiyô*, *Kofu ritsuryokan*, *Shinsen shôtekifu*, *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu*.⁴ I will first compare

¹ Because the present-day version of “*Sekihaku tôrika*” comprises only the first and second sections (or *chô* in Japanese) of the *ha* (broaching) movement, only these sections will be analysed.

² In ancient *tôgaku* scores, such as *Sango yôroku*, “*Kishunraku*” comprised two movements: *jo* and *ha*. Since the *jo* movement has been abandoned in present-day performance of *tôgaku*, only the *ha* movement will be examined.

³ See Introduction for the rationale for choosing these pieces.

⁴ See, for example, the analysis of “*Sômeiraku*” in Figures 4.45 (pp. 162-63), 4.51 (p. 173) and

the *Hakuga no fuefu* melodies of “*Sekihaku tôrika*” and “*Kishunraku*” to their un-syncopate *kuten kifuhô* versions in *Sango yôroku* in order to show the relationship between the tenth- and the late-twelfth-century melodies.

I will then compare the *Hakuga no fuefu* melody of “*Kaiseiraku*” to the un-syncopate version of “*Kaiseiraku*” recorded in *Sango yôroku*. Unlike “*Sekihaku tôrika*” and “*Kishunraku*”, in *Sango yôroku*, the un-syncopate version of “*Kaiseiraku*” is notated with the *kobyôshiten kifuhô* rather than the *kuten kifuhô* system. As stated in the previous chapter, the *kobyôshiten kifuhô* mensural notation was probably developed in the late-Heian period to accommodate changes in performance practice. A comparison between the *Hakuga no fuefu* and the un-syncopate *kobyôshiten kifuhô* versions of “*Kaiseiraku*” will show that the tenth-century melodies are also closely related to the un-syncopate melodies notated in the *kobyôshiten kifuhô* system in later scores, even though there are significant metrical differences between the tenth-century and the post-twelfth-century un-syncopate *kobyôshiten kifuhô* melodies.

As shown in the last chapter, the meter of the versions of the melodies performed today is signified by the *kobyôshiten kifuhô* mensural notation. This suggests that the modern melodies relate only to the historical melodies that are read according to the *kobyôshiten kifuhô* system. In the case of the three selected pieces, the modern versions of “*Sekihaku tôrika*” and “*Kishunraku*” relate to the syncopated historical versions whereas the modern version of “*Kaiseiraku*” relates

4.55 (pp. 181-2) of Chapter Four.

to the un-syncopate historical version. Before turning to a detailed study of the *kobyôshiten kifuhô* melodies recorded in post-twelfth-century scores, I will first compare, in Section B, the *kuten kifuhô* (un-syncopate) and the *kobyôshiten kifuhô* (syncopated) versions of “*Sekihaku tôrika*” and “*Kishunraku*” recorded in *Sango yôroku*. This allows us to understand the relationship between the twelfth-century un-syncopate and syncopated melodies.

Questions relating to the development of the syncopated rhythmic mode in the twelfth century, while fascinating, must lie outside the scope of this thesis. These questions have little bearing on the main focus of this thesis, namely melodic modes. As will be demonstrated in Chapter Six, there is no significant difference between the modal practice of an un-syncopate melody and that of a syncopated melody.

In Section C, I will examine the historical development of the *kobyôshiten kifuhô* reading of the melodies recorded in *Jinchi yôroku*, *Ruisô chiyô*, *Kofu ritsuryokan*, *Shinsen shôtekifu*, *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu*. As there is no ambiguity in the pitches of tablature-signs and the fingering techniques of the lute notation, the *Sango yôroku* melodies notated with the *kobyôshiten kifuhô* system will be used as the main reference point for an examination of the historical development of these melodies.⁵

⁵ Only the versions that correspond to the modern melodies will be examined. These refer to the syncopated versions of “*Sekihaku tôrika*” and “*Kishunraku*”, and the un-syncopate version of “*Kaiseiraku*”.

* * *

In modern performance, it is usually said that the double-reed pipe and the transverse flute play the main melody (Gamô 1970:152), whereas the lute, long zither and mouth-organ are supporting instruments (Garfias 1975:147) that play a harmonic role in the *tôgaku* ensemble (Gamô 1970:152). Allan Marett argues, nevertheless, that 'while it cannot be denied that the melodies played by the flute and the double-reed pipe today dominate the ensemble, these do not provide an appropriate starting-point for analysis, since they have come into being relatively late in the development of the *tôgaku* style'. (Marett 1985:410). On the contrary, it is the lute and mouth-organ that 'preserve most accurately the forms of ancient melodies in modern *tôgaku*' (Marett 1985:410). In Part II, I will first compare the *Sango yôroku* and the *Kofu ritsuryokan* melodies with their relevant modern versions in order to show that the forms of the historical lute and mouth-organ melodies are preserved in modern performance. I will then demonstrate that there are significant rhythmic and pitches differences between the historical and modern zither, double-reed pipe and transverse flute melodies. It is no exaggeration to say that the historical melodies for these three instruments are transformed beyond recognition.

I. The historical development of *tôgaku* pieces from the tenth to the mid-fourteenth century

A. The historical development of the *tôgaku* melodies from the tenth to the late twelfth century

1. The relationship between the *Hakuga no fuefu* and the un-syncopate *Sango yôroku* melodies of “*Sekihaku tôrika*” and “*Kishunraku*”

The *Hakuga no fuefu* and *Sango yôroku* melodies of “*Sekihaku tôrika*” and “*Kishunraku*” are shown in Musical Examples 2 and 3 of Appendix III respectively.^{6,7} Because the nature of the changes that occurred in the course of transmission between the tenth and twelfth centuries of these two pieces are similar, my discussion will concentrate on “*Sekihaku tôrika*”.

While *Sango yôroku* includes the notation only of the first two drum-cycles of the second section of “*Sekihaku tôrika*” and informs the performer to return to the *dô* 同 sign to play until the end of the first section, *Hakuga no fuefu* notates the whole second section. Since the second section of the flute melody is slightly different from the first section, I provided the whole second section in the musical example.

It is clear from Musical Example 2 that the *Sango yôroku* melody transcribed

⁶ Tablature-signs will not be shown in the transcriptions in this and the following chapters unless they are essential to the elucidation of a specific problem or argument. Some boxes, circles and marks in the musical examples referred to the analyses contained in the following chapters.

⁷ While *Hakuga no fuefu* includes two sections of the *ha* movement of “*Kishunraku*”, *Sango yôroku* records only one. The second section of the flute melody will therefore be ignored.

according to the *kuten kifuhô* reading of notation is very similar to the *Hakuga no fuefu* melody. One might even say that between the tenth and the late twelfth centuries the first and second sections of the *ha* movement of “*Sekihaku tôrika*” were well preserved—at least in this reading. Pitch differences are caused mainly by the application of ornaments to both melodies. Bracketed small letters are employed in Musical Example 2 to indicate pitches differences that are caused by the application of ornaments. Letter (a) refers to the use of an appoggiatura; (s) represents the use of a suspension;⁸ and (m) indicates the use of a mordent.

Two important observations may be made with regard to the use of ornaments. Firstly, while mordents are commonly used in both the tenth-century flute and the late twelfth-century lute melodies, the lute melody is performed with more mordents. For instance, there are only nine ‘(m)’ signs in the *Hakuga no fuefu* version of “*Sekihaku tôrika*” but sixteen in the *Sango yôroku* version. Secondly, appoggiaturas and suspensions appear only in the late-twelfth century lute melody. This suggests that the development of the *tôgaku* melodies between the tenth and the late twelfth centuries involved, on the one hand, adding more mordents and, on the other, inserting the decorative devices of appoggiatura and suspension. I will demonstrate in the next chapter that mordents and appoggiaturas are related to modal practice while suspensions are not. As was explained in Section II of Introduction, I will use the terms ‘modally significant’ and ‘non-modally significant’ to indicate whether the insertion of ornament or a

⁸ The suspensions in the *tôgaku* melodies do not have any harmonic significance. They may occur in either octave in the lute melodies (see the suspension in bar 2 of Musical Example 2).

modification of pitch in the *tôgaku* melodies is related to modal practice or not.

“*Kishunraku*” is the same as that of “*Sekihaku tôrika*” in this regard. The late twelfth-century lute melody of “*Kishunraku*” is performed with some additional mordents, appoggiaturas and suspensions (See Musical Example 3). While passing notes (p) also occasionally appear in the lute version of “*Kishunraku*”, this was probably not a common decorative device because it occurs rarely in Heian-period *tôgaku* pieces.⁹

2. The relationship between the *Hakuga no fuefu* and the un-syncopate *Sango yôroku* melodies of “*Kaiseiraku*”

In Musical Example 4, the *Hakuga no fuefu* and the *Sango yôroku* melodies of “*Kaiseiraku*” are lined up from their first crotchet-beat. Unlike the cases of “*Sekihaku tôrika*” and “*Kishunraku*”, these two melodies do not completely correspond. Firstly, the *taiko* drum-beats (百) of the flute and lute melodies are not positioned on the same crotchet-beat in a drum-cycle. Secondly, it seems that the lute melody has shifted and is generally played one crotchet-beat later than the flute. The straight lines drawn in the musical example indicate those pitches that are played one crotchet-beat later.

This structural disagreement is typical of the difference between the *kuten kifuhô* and the un-syncopate *kobyôshiten kifuhô* readings of the same melody. For example, the flute and mouth-organ melodies of “*Sômeiraku*” shown in Musical

⁹ See also the transcriptions of “*Kaiseiraku*” and other Heian-period *tôgaku* pieces in Appendix III.

Example 4.46 of the last chapter manifested a similar relationship (see p. 164).

Musical Example 5 shows another transcription of the two “*Kaiseiraku*” melodies that allows us to see the relationship more clearly. In Musical Example 5, the flute melody is lined up with the lute melody from the second crotchet-beat of the lute melody in order to show the correspondence between the pitches of the two melodies.

The metrical structures of the tenth-century flute and the late twelfth-century lute melodies of “*Kaiseiraku*” are, however, different. In order to allow all the *taiko* drum-beats of the lute melody to be positioned on the fifth crotchet-beat of a drum-cycle, the first crotchet-beat of the lute melody must be treated as an upbeat. Since the lute melody now starts one crotchet-beat earlier than the flute, it must finish one crotchet-beat earlier than the flute. Thus, the last bar of the lute melody consists of only seven rather than eight crotchet-beats.

The change of metrical structure of the lute melody of “*Kaiseiraku*” produces changes in phrase structure. Boxes (2), (3) and (6) show that the musical phrases of the lute melody, which are signified by the *ichi* (|) signs in the notation, do not coincide with those of the flute melody. For instance, the phrase of the lute melody marked by Box (2) finishes one crotchet-beat later than the flute whereas the phrases of the of the lute melody marked by Boxes (3) and (6) finish one crotchet-beat earlier than the flute (see the *ichi* signs in these boxes).

While the modification of musical phrases requires some minor changes of rhythm in the lute melody, these do not significantly affect the pitches. For example, when the cadence is extended by a beat in Box (2), the C and B

crotchets of the flute melody are compressed into C and B quavers to produce a 'C – B – A' run in the lute melody. In the case of Box (3), by contrast, the cadence is shortened and an extra A crotchet (marked with an asterisk) is added in the lute part later in order to bring the lute melody back into line with the flute. The situations of Boxes (4) and (6) are similar to that of Box (3). They involve a shortening of cadence that requires some melodic materials to be anticipated.

The above analysis reveals that while some adjustments of the phrase and rhythmic structure occur when the twelfth-century version of "*Kaiseiraku*" is read according to the *kobyôshiten kifuhô* system, these differences do not significantly affect melodic modal structure. The only significant difference between the two forms of the melody is indicated by Box (1). The appearance of a B quaver (marked with an asterisk) in the second crotchet-beat of the lute melody is difficult to understand. This B quaver, which does not occur in the flute melody, is definitely not a standard ornament and is somewhat puzzling.

B. The relationship between the "*Sekihaku tôrika*" and "*Kishunraku*" melodies written in the *kuten kifuhô* and the *kobyôshiten kifuhô* systems in *Sango yôroku*

Because the modern melodies correspond to the *kobyôshiten kifuhô* rather than the *kuten kifuhô* reading of "*Sekihaku tôrika*" and "*Kishunraku*", in order to show the link between the *Hakuga no fuefu* and the modern melodies, it is necessary to ascertain the relationship between the *kuten kifuhô* and the *kobyôshiten kifuhô* versions of these two pieces. I will demonstrate this through

examining the lute melodies in *Sango yôroku*.

“*Sekihaku tôrika*” and “*Kishunraku*” both occur in two versions in *Sango yôroku*. While the primary versions of these two pieces (written in the *kuten kifuhô* system) are un-syncopate, the alternative versions (written in the *kobyôshiten kifuhô* system) are syncopated. As the characteristics of all the *Sango yôroku* melodies that are performed in the syncopated rhythmic mode are basically the same, my analysis in this section will focus on “*Sekihaku tôrika*”.¹⁰

The un-syncopate and syncopated melodies of “*Sekihaku tôrika*” are shown in Musical Example 6. Straight lines join the syncopated notes in the alternative version and their corresponding notes in the primary version. Except in the three specific environments discussed below, syncopation involves the prolongation of a beat into the first half beat of the following note.¹¹ The only environments in which this does not occur are as follows: a) at the beginning of a piece; b) at the beginning of a musical phrase; and c) in cases where syncopated notes have already been produced by suspensions in the primary version and are not therefore further syncopated. Such cases are marked by the circles in Musical Example 6.

There are only two places in “*Sekihaku tôrika*” where the relationship between the two versions is puzzling. In the first (Box (1)), the B quaver in the syncopated version appears to be a scribal error. In the second (Box (2)), the

¹⁰ The alternative version of “*Kaiseiraku*” is ignored in the analysis of this section because the modern version of “*Kaiseiraku*” corresponds only to the un-syncopate version read according to the *kobyôshiten kifuhô* mensural system—that is, the version discussed in the previous section (Musical Example 5).

¹¹ See also the comparative analysis of Figures 4.27 (p. 140) and 4.40 (p. 156) in Chapter Four.

syncopated version seems to incorporate a variant.

The case of “*Kishunraku*” is similar to that of “*Sekihaku tôrika*”,¹² although in this case the metrical structure of the syncopated melody is different from its un-syncopate version. Box (1) of Musical Example 7 shows that the first drum-cycle of the syncopated melody starts from the third crotchet-beat. The first two crotchet-beats are therefore merely upbeats. The last drum-cycle of the syncopated melody, on the other hand, comprises only six crotchet-beats.

Even though the syncopated melodies of “*Sekihaku tôrika*” and “*Kishunraku*” are rhythmically and in one case metrically different from their un-syncopate melodies, these differences do not influence the tonality or modal structure of the pieces. I will demonstrate this in the next chapter.

C. The historical development of the *tôgaku* melodies from the late twelfth to the mid-fourteenth century

1. The relationship between the *Jinchi yôroku*, *Ruisô chiyô* and *Sango yôroku* melodies

Because the tablature-notations of *Jinchi yôroku* and *Ruisô chiyô* are very similar, and the tuning for the *ôshikichô* / *huang zhong diao* modal group pieces is the same, we might expect that their versions of the melody will be very similar.

In this section, the zither melodies will be compared to one another and to the

¹² The bracketed letter ‘(an)’ shown in the transcription of the syncopated melody refers to an anticipation. Anticipation is, however, not a common decorative device in Heian-period *tôgaku* melodies.

lute melodies recorded in *Sango yôroku*. Since *Ruisô chiyô* does not include a syncopated version of “*Sekihaku tôrika*”, my analysis will concentrate on “*Kishunraku*”.

Musical Example 8 clearly shows the similarity between the *Jinchi yôroku*, *Ruisô chiyô* and *Sango yôroku* versions of “*Kishunraku*”. Differences result from only three causes: a) scribal errors (Box (1)); b) the idiomatic practice of different instruments (Box (2)); and c) variants (Box (3)).

In Box (1), the *hachi* 八 tablature-signs of the zither melodies were probably written with a dot (八.) to indicate the *oshiire* 推入 technique, that is a technique that raises the pitch from B to C (see p. 150). Since *Jinchi yôroku* and *Ruisô chiyô* survive only in late copies, such scribal errors are to be expected.

In Box (2), the ‘D – C#’ melodic movement of the second quaver-beat of the lute part does not correspond to the D mordent in the zither melody. This should not be regarded as a significant pitch difference since what is idiomatic on one instrument may not be on another. The zither performer can only produce a ‘D – C#’ melodic movement by applying the ‘フ’ technique (see pp. 150-2) on the *ku* 九 string. The musical result of this technique is, however, a D mordent rather than a simple ‘D – C#’ melodic movement.

In the passage marked as Box (3), it seems likely that the pitches of the zither melodies correspond to the variant rather than the primary notation in *Sango yôroku*. The C# pitches of the zither melodies in this box are generated by applying the *oshihanashi* 推放 technique (see p. 150) on the *hachi* 八 string. While it is common to use the *oshihanashi* and *oshiire* techniques to raise the

pitch of the *hachi* string from B to C natural in the performance of the *ôshikichô / huang zhong diao* modal group pieces, in the case of Box (3) the *oshihanashi* technique must raise the pitch by a tone (from B to C#) in order to correspond to the lute melodies. I will discuss the C#s in “*Kishunraku*” again in Chapter Six.

As was the case with “*Kishunraku*”, the “*Sekihaku tôrika*” (Musical Example 9) and “*Kaiseiraku*” (Musical Example 10) melodies recorded in the historical zither scores are virtually identical to those recorded in *Sango yôroku*. The disagreements indicated by the boxes in Musical Examples 9 and 10 are not significant, and they are probably caused by scribal errors involving the small red dots employed in the zither notations. These scribal errors and their expected correct versions are summarized in the following table.

Table 5.1: The scribal errors of red dots in the zither notations of “*Sekihaku tôrika*” and “*Kaiseiraku*” and their expected correct versions

Box	<i>Jinchi yôroku</i>	<i>Ruisô chiyô</i>	The expected correct version	Result
“ <i>Sekihaku tôrika</i> ” (1)	八 [・]	-	八:	The ‘C – B’ melodic movement in the zither part will become a C mordent.
“ <i>Sekihaku tôrika</i> ” (2)	八	-	八.	The upper-note of this quaver beat will become C.
“ <i>Sekihaku tôrika</i> ” (3)	巾:	-	巾 [・]	The C mordent will become a ‘C – B’ movement.
“ <i>Sekihaku tôrika</i> ” (4)	巾	-	巾:	The B quaver will become a C mordent.

“Kaiseiraku” (1)	八、	八、	八、	The C crotchet will become a ‘C – B’ melodic movement.
“Kaiseiraku” (2)	斗	(correct)	斗、	The F# crotchet will become a G mordent.
“Kaiseiraku” (3)	(correct)	八、	八、	The C mordent will become a ‘C – B’ melodic movement.
“Kaiseiraku” (4)	(correct)	斗	斗、	The F# crotchet will become a G mordent.
“Kaiseiraku” (5)	(correct)	八、	八、	The ‘C – B’ melodic movement will become a C mordent.
“Kaiseiraku” (6)	$\begin{matrix} \text{三} \\ \text{八} \end{matrix}$	(correct)	$\begin{matrix} \text{三} \\ \text{八} \end{matrix}$	The upper note of this crotchet will be separated into a C and a B quavers.

2. The relationship between the *Kofu ritsuryokan*, *Shinsen shōtekifu* and *Sango yōroku* melodies

In Musical Examples 11, 12 and 13, the historical mouth-organ melodies of “*Sekihaku tōrika*”, “*Kishunraku*” and “*Kaiseiraku*” are lined up with their corresponding *Sango yōroku* versions. Because the rhythmic structure of the *tōgaku* melodies performed in and after the thirteenth century gradually became more complicated, the transcriptions in this and the following sections will not mark ornaments by using bracketed letters. My analysis in this section will concentrate on “*Sekihaku tōrika*”.

“*Sekihaku tōrika*” occurs in three versions in *Shinsen shōtekifu*, namely the primary, the *mata no setsu* (literally ‘another transmission’) and the *Koresue* versions (a version transmitted from Ōga no Koresue (1026-94?)). The melody of the *Koresue* version is significantly different from the other two versions in

Shinsen shōtekifu. The reliability of the *Koresue* version is, however, uncertain because Ôga no Koresue was a virtuoso of *ryūteki* (transverse flute) rather than *shō* (mouth-organ). For this reason, the *Koresue* version will be ignored in the following analysis.

As discussed in the previous chapter, the small tablature-signs employed in the *Shinsen shōtekifu* notation do not seem to represent the pitches of a chord. Since there is no direct evidence that these tablature-signs were performed together with the main melodies, they will be transcribed as separate small hollow notes in the musical examples.¹³

The three mouth-organ melodies of “*Sekihaku tōrika*” are very similar to the late twelfth-century lute melody. Differences between the melodies are not modally significant because they are caused either by scribal errors or rhythmic adjustments in the *Shinsen shōtekifu* melodies.¹⁴

In Box (1), the primary version of the *Shinsen shōtekifu* melody includes some C#s but the *mata no setsu* and the *Kofu ritsuryokan* versions do not. These C#s are possibly errors because none of the “*Sekihaku tōrika*” melodies in other selected historical scores employ C# as a main pitch.¹⁵

While the *mata no setsu* melody shown in Box (2) is different from the other three melodies, this difference is entirely rhythmic and the ‘E – C – E – G’ melodic movement of the late-twelfth-century lute melody is preserved in the

¹³ I will discuss the pitches of these small tablature-signs in the next chapter.

¹⁴ Differences between the mouth-organ and lute melodies of “*Kishunraku*” in Musical Example 12 are also caused by errors (the F#s in Box (3)) and rhythmic adjustments (Boxes (1) and (2)).

¹⁵ See also Musical Examples 2, 6, 9, 14 and 17.

mata no setsu melody.

It is also worth discussing the “*Kaiseiraku*” melodies shown in Musical Example 13. While the *Kofu ritsuryokan* versions of “*Sekihaku tôrika*” and “*Kishunraku*” are extremely similar to the *Sango yôroku* versions, there are some differences between the “*Kaiseiraku*” melodies recorded in these two historical scores.

Boxes (1) and (3) of Musical Example 13 show a discrepancy whereby C natural is used in the *Sango yôroku* but C# in the *Kofu ritsuryokan* melodies. The C#s in the *Kofu ritsuryokan* melody are probably errors made in the course of transmission since the “*Kaiseiraku*” melodies recorded in other historical scores, for example *Shinsen shôtékifu* (see Box (1)), do not use C# as a main pitch.

The pitch disagreements between the *Kofu ritsuryokan* and *Sango yôroku* melodies shown in Boxes (2) and (6) are puzzling. In fact, these disagreements also occur between the *Shinsen shôtékifu* and *Sango yôroku* melodies.¹⁶ Perhaps this is related to the idiomatic practice of the mouth-organ. Again, they should not be considered as modally significant disagreements.

Despite the fact that there are some disagreements between the mouth-organ and lute versions of “*Kaiseiraku*”, the similarities between the mouth-organ and lute versions of “*Sekihaku tôrika*” and “*Kishunraku*” suggest that the late-Heian melodies were still fairly well preserved up until the late thirteenth centuries. I

¹⁶ Boxes (4) and (5) indicate two more puzzling pitch disagreements between the *Shinsen shôtékifu* and *Sango yôroku* melodies. These disagreements do not, however, occur between the *Kofu ritsuryokan* and *Sango yôroku* melodies.

will, however, demonstrate in the following two sections that the mid-fourteenth-century melodies are more highly elaborated, and that the methods of adding pitches and ornaments to the melodies are very different from the Heian practice. Most importantly, the addition of certain pitches in the fourteenth-century melodies significantly affects the modal practice of a *tôgaku* piece.

3. The relationship between the *Nakahara roseishô* and *Sango yôroku* melodies

In general, the pitch and rhythmic discrepancies that occur between *Nakahara roseishô* and *Sango yôroku* are more extensive than those between the historical mouth-organ scores and *Sango yôroku*. “*Sekihaku tôrika*” will be used as the main example for the following discussion.

Boxes (1) to (7) of Musical Example 14 indicate the important discrepancies between the *Nakahara roseishô* and the *Sango yôroku* melodies of “*Sekihaku tôrika*”. Boxes (1), (5) and (7) mark addition of pitches that cannot be accounted for in terms of twelfth-century modal practice. The C natural semiquavers in Boxes (1) and the F# semiquavers in Boxes (5) and (7) (marked with asterisks) are pitches that do not exist in the lute melody nor are they allowable as ornaments in the pre-fourteenth-century practice. These pitches will be called ‘non-standard additional pitches’ in the following discussion.

Similar use of non-standard additional pitches can also be seen in the double-reed pipe melodies of “*Kishunraku*” and “*Kaiseiraku*”: C naturals are

added in both “*Kishunraku*” and “*Kaiseiraku*” (see Box (4) of Musical Example 15, and Boxes (7) and (8) of Musical Example 16) and G naturals are added in “*Kaiseiraku*” (see Box (3) of Musical Example 16).

These non-standard additional pitches are worth discussing in more detail. C natural is the only non-standard additional pitch that appears in all the three selected pieces. Furthermore, this C natural is only inserted between the pitches B and A when they are separated by a rising minor seventh (see Box (1) of Musical Example 14; Box (4) of Musical Example 15; and Boxes (7) and (8) of Musical Example 16). Since it is difficult to perform huge leaps from lower to higher registers and vice versa using a double-reed pipe, it seems likely that the reason for inserting C natural is to avoid a direct minor seventh movement from B to A. Robert Garfias suggests that an elaborate connecting figure is usually required when a double-reed pipe performer wants to move from lower to higher registers (Garfias 1975:123). This C natural might therefore have been inserted for this purpose.

The insertion of C natural creates an ascending ‘B – C – A’ melodic pattern in the melody, which matches a descending ‘A – C – B’ melodic pattern that commonly appears in the double-reed pipe melodies of “*Sekihaku tôrika*” and “*Kishunraku*” (see Box (1) in the first staff of Musical Example 14 and Box (2) of Musical Example 15). The ascending ‘B – C – A’ melodic pattern may be seen as a symmetrical response to the more commonly appearing descending ‘A – C – B’ pattern. Box (1) of Musical Example 14 is a typical example. If the reason for inserting non-standard additional pitches in the double-reed pipe melodies is not

just to alleviate a technical difficulty but also to create unique melodic patterns, we might be seeing the emergence in the fourteenth-century of a formulaic practice of the type already identified by Allan Marett for the flute (Marett 1985).

As has been pointed out by many innumerable scholars of *gagaku* (Gamô 1970; Masumoto 1968 and Marett 1985), modern double-reed pipe and flute melodies are formulaically organized. One of the most important modern *ôshikichô* / *huang zhong diao* formulae is developed from this ‘B – C – A’ pattern. This modern formula is shown in the following figure (see also Formula (b) in Section D of Part II below).¹⁷

Figure 5.1: An example of a modern double-reed pipe formula and its corresponding historical melodic pattern

The historical melodic pattern



The corresponding modern formula



In fact, the F#s added in the “*Sekihaku tôrika*” melody might also have been used to create a formulaic pattern. An F# is usually inserted between the pitches G and B in order to form a descending ‘G – F# – B’ melodic pattern (see Boxes (5) and (7) of Musical Example 14). This ‘G – F# – B’ pattern can be regarded as the

¹⁷ See Part II of this chapter for a further discussion of the meaning and development of the formulae.

forerunner of one of the formulae in modern double-reed pipe practice (see also Formula (o) in Section D of Part II below).

Figure 5.2: The descending ‘G – F# – B’ melodic pattern and its corresponding modern formula

The historical melodic pattern



The corresponding modern formula



In addition to the non-standard additional pitches, there are other disagreements between the *Nakahara roseishô* and the *Sango yôroku* versions of “*Sekihaku tôrika*”. Box (3) shows a case where the mordent of the lute melody is replaced by an inverted mordent in the double-reed pipe melody. While the lute melodies in *Gogenfu* seem to include some inverted mordents,¹⁸ I have not found any inverted mordent in the *Hakuga no fuefu*, *Sango yôroku*, *Jinchi yôroku* and *Ruisô chiyô* versions of the melodies investigated. We may conclude that this technique was not a standard ornamental technique in *tôgaku* performance between the middle and the late Heian periods. It seems, however, that inverted mordent became a common decorating technique in the fourteenth century, particularly in the performance practice of the transverse flute (see the analysis of the flute melodies below).

¹⁸ See Wolpert 1981b:120-35; Nelson 1986:62-74 and bar 3 of Musical Example 1.

Boxes (2) and (4) indicate rhythmic adjustments of the double-reed pipe melody that do not involve the introduction of significant new pitches. In Box (2), while the structure of oscillation between C and B in the double-reed pipe part is different from that of the lute part, the pitches are the same. Similar rhythmic adjustments can also be seen in the “*Kishunraku*” melodies (see Boxes (1) and (2) of Musical Example 15).

The rhythmic discrepancy marked by Box (4) is slightly more complex because a D *appoggiatura*¹⁹ is added, but the principle is the same.

Box (6) marks a more profound change, namely the replacement of G in the twelfth-century melody with A in the fourteenth-century melody. Although this replacement does not conform to the standard ornamental practice of the Heian period, the melody that results has its own logic as a sort of prolonged *appoggiatura* that does not resolve until the G of the fourth beat. Similar sorts of modification of pitches also appear in the case of “*Kaiseiraku*” (see Boxes (1), (4) and (6) of Musical Example 16).

All the changes noted here point to the fact that by the fourteenth century the melodies of the double-reed pipe were beginning to break free from the historical versions that underpinned them. Writing about the flute, Marett suggests that the increasing melodic independence of the melodic wind instruments in the fourteenth century was the first step towards the creation of the new melodic forms that dominate *tôgaku* today (Marett 1985).

¹⁹ D *appoggiatura* means D as *appoggiatura* to C. This usage is applied to the whole thesis.

4. The relationship between the *Chû ôga ryûteki yôrokufu* and *Sango yôroku* melodies

The fourteenth-century syncopated flute melodies are more highly elaborated and slightly modified versions of the twelfth-century melodies. In addition to the use of ornamental devices such as mordent, appoggiatura and suspension, the flute melodies incorporate many repeating notes. These will not be discussed in detail here.²⁰

Like *Nakahara roseishô*, the fourteenth-century flute melodies include non-standard additional pitches that do not appear in their corresponding late-Heian lute melodies. These pitches are marked by the circles in the transcriptions. None of them can be explained simply in terms of twelfth-century ornamental practice. In the case of “*Sekihaku tôrika*” (Musical Example 17), the non-standard additional pitches all take the form of runs. Some are written out in full and some indicated by the sign *ren* 連.

The *ren* technique is, moreover, mainly assigned to a C and this C is usually followed by a single G or a G decorated with an *ugoki* 動 technique. This ‘C (*ren*) – G (*ugoki*)’ pattern and the following G and E pitches in the historical melody of “*Sekihaku tôrika*” are joined together and become one of the common formulae in the modern flute practice (see also Formula (h) in Section E of Part II below).

²⁰ See Chapter Six for a discussion of the modal implications of the mordents and appoggiaturas.

Figure 5.3: The ‘C (*ren*) – G (*ugoki*)’ melodic pattern and its corresponding modern formula

The historical melodic pattern



The corresponding modern formula



In addition to runs, the fourteenth-century flute melodies of “*Kishunraku*” and “*Kaiseiraku*”, like those in *Nakahara roseishō*, also include some non-standard additional F#s (see the circled F#s in Musical Examples 18 and 19). In *Chū ōga ryūteki yōroku*, these additional F#s are mainly inserted between the C performed with the *ren* technique and the G (see the last bar of Musical Example 18). Hence, the main objective of adding the F#s in the fourteenth-century flute melodies is probably to generate a quick descending run: ‘C – B – A – G – F# – G’. The following figure shows one form of the corresponding modern formula of this pattern (see also Formula (s) in Section E of Part II below).

Figure 5.4: The descending run ‘C – B – A – G – F# – G’ and its corresponding modern formula

The historical melodic pattern



The corresponding modern formula



Inverted mordents are also commonly used in the fourteenth-century flute melodies. Box (1) of Musical Example 17, Box (3) of Musical Example 18 and Box (2) of Musical Example 19 are examples of this. All inverted mordents are applied to A.

Again, rhythmic adjustments of the twelfth-century melody can also be seen in the fourteenth-century flute melody. For instance, Boxes (1) and (2) of Musical Example 18 and Box (3) of Musical Example 19 indicate some rhythmic discrepancies between the mid-fourteenth- and the late-twelfth-century melodies.

Boxes (1) and (5) of Musical Example 19, like the examples noted in the *Nakahara roseishô* melodies (see Box (6) of Musical Example 14 and Box (1) of Musical Example 16), mark pitch differences that seem to manifest a degree of independence melody.

D. A short summary of the historical development of the *tôgaku* melodies from the tenth to the mid-fourteenth century

The development of the *tôgaku* melodies from the tenth to the mid-fourteenth centuries can be summarized as follows:

1. Between the tenth and the late twelfth centuries, the *tôgaku* melodies were well preserved. The late twelfth-century melodies are elaborated versions that add standard decorative devices—mordent, appoggiaturas and suspensions—to the tenth-century melodies.
2. The *kobyôshiten kifuhô* mensural notation and the syncopated rhythmic

mode were developed around the late-Heian period. Metrical and rhythmic differences occur when the same piece is interpreted or performed according to different readings of the mensural notation. These differences have very little influence, however, on the tonality of the melody.

3. By the mid-fourteenth century, non-standard additional pitches and new decorative devices and techniques had been added to the melodies. The use of non-standard additional pitches is a feature of the fourteenth-century *tôgaku* melodies, and this suggests that melodies were no longer conforming to pre-fourteenth-century ornamental conventions and were beginning to evolve a degree of independence from their historical antecedents.

II. The relationship of the melodies in modern performance to the melodies in historical scores

A. The relationship between the modern and the late-twelfth-century melodies for the lute

As was explained in Section IIIA of Chapter Four, because one measure of the modern melody corresponds to one crotchet-beat in the historical melody, we are able to line them up. The modern and historical *Sango yôroku* melodies of “*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*” are lined up in this way in Musical Examples 20, 21 and 22 respectively. In my transcriptions, the modern

lute melodies of “*Sekihaku tôrika*” and “*Kishunraku*” are written with the time-signature 8/4, and the modern lute melody of “*Kaiseiraku*” is written with the time-signature 4/4. In modern practice, the metrical structure of 8/4 is known as *nobebyôshi* whereas the metrical structure of 4/4 is known as *hayabyôshi*. Indeed, a large proportion of the modern instrumental pieces of *tôgaku* is performed in either *nobebyôshi* or *hayabyôshi*.²¹

Since the modern lute melodies of “*Sekihaku tôrika*” and “*Kishunraku*” can be lined up with their syncopated historical versions and the modern lute melody of “*Kaiseiraku*” can be lined up with its un-syncopate historical version, we might conclude that the modern *nobebyôshi* structure relates to the historical syncopated structure while the modern *hayabyôshi* structure corresponds to the historical un-syncopate structure generated according to the *kobyôshiten kifuhô* mensural system. Although this conclusion is based on a very small sample, it is supported by the pieces from the modal categories of *banshikichô / pan she diao* and *hyôjô / ping diao* that I have selected for detailed investigation (see Chapters Seven and Eight).

I will use “*Sekihaku tôrika*” to demonstrate that the late-twelfth-century lute melodies are well preserved, albeit massively slowed down, in the uppermost notes of the modern lute versions. Musical Example 23 shows a transcription of the modern melody of “*Sekihaku tôrika*” in which all the arpeggios are eliminated

²¹ A small number of pieces are performed in a compound metrical structure (2/4 + 4/4) called *tadabyôshi*. Because none of the selected pieces in this thesis is performed in this metrical structure, *tadabyôshi* will not be investigated.

and only the uppermost notes are retained. Leaving aside differences in meter and tempo, the modern “*Sekihaku tôrika*” melody is exactly the same as the historical melody notated in *Sango yôroku*.

The cases of “*Kishunraku*” and “*Kaiseiraku*” are similar to that of “*Sekihaku tôrika*”. The forms of the historical melodies of these two pieces are also preserved in the uppermost notes of the modern versions (see Musical Examples 21 and 22). The only pitch disagreement appears in Box (1) of “*Kishunraku*”, where a C mordent in the historical melody is changed to a ‘C – B’ melodic movement in the modern version.

Another important characteristic of the modern lute melodies is that they sometimes follow variants contain in glosses rather than the main versions of *Sango yôroku*. For instance, in Box (1) of Musical Example 22, the modern melody follows the A crotchet indicated by the variant of the historical “*Kaiseiraku*” notation.

The comparative analysis here shows that the forms of the lute melodies from about 800 years ago are preserved in the modern lute part of the present-day *tôgaku*. Furthermore, while we still do not know the sources that musicians consulted during their standardization of *gagaku* in the nineteenth century, there can be little doubt that the lute notation that was consulted by the musicians was, if not *Sango yôroku* itself, very similar to *Sango yôroku*. Although *Sango yôroku* does not include any information on the use of arpeggios, the modern lute notation includes no such information either. The structures and performing methods of these arpeggios are transmitted orally from teachers to students. Rembrandt

Wolpert suggests that there is no reason to assume that the modern practice of adding an arpeggio has any antiquity (Wolpert 1975:254). Moreover, it seems unlikely that in the twelfth century, an arpeggio was added to each beat of the lute melodies.

B. The relationship between the modern and the early-thirteenth-century melodies for the mouth-organ

In Musical Examples 24, 25 and 26, the modern melodies of “*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*” are lined up with those in *Kofu ritsuryokan*. In these modern melodies, solid note-heads indicate the notes that are notated in modern scores whereas the hollow notes represent the un-notated notes of the added cluster-chords.

While the modern cluster-chords are basically played continuously without any pause,²² for the sake of clarity chords will not be joined by slurs. Slurs will, however, be used to indicate prolongations of tablature-signs to which a *hiku* 引 is attached.

Musical Examples 24, 25 and 26 show that the forms of early thirteenth-century mouth-organ melodies are preserved in the notated (solid) notes of their corresponding modern versions. There are a few pitch differences between the modern and the historical melodies; some are caused by the addition of minor ornaments in the historical melodies. I will use “*Sekihaku tôrika*” as an example to

²² The instrument can be sounded by both inhalation and exhalation.

explain the use of these ornaments.

Musical Example 27 shows another transcription of the modern mouth-organ version of “*Sekihaku tôrika*”. In this transcription, the modern melody is stripped of its cluster-chords. Notes in the historical melodies that do not exist in the modern melody are marked by asterisks. Many of these notes are, however, simply suspension or anticipation. The C semiquaver shown in Box (1) can be regarded as an appoggiatura of the following B semiquaver since the only C natural that can be produced from the seventeen-piped mouth-organ is the one that is two octaves above middle C.

Significant pitch differences between the modern and historical mouth-organ melodies are marked by Boxes (1) in Musical Examples 25 (“*Kishunraku*”) and 26 (“*Kaiseiraku*”). In both of these two cases, the historical melodies do not include the F# pitches used in the modern melodies.

The comparative analysis in this section gives us two pieces of important information. Firstly, the mouth-organ melodies were modified in a similar way to those of the lute in the course of transmission. That is, even though the basic shape of the historical melodies was preserved over the millennium, complicated chordal accretions were gradually added. These include the cluster-chords of the mouth-organ and the arpeggios of the lute. A massive reduction of tempo further destroys the melodic sense of the music played by these two instruments, and this has led to the ancient Japanese tunes becoming inaudible as melodies in present-day performance.

Secondly, the similarities between the historical melodies in *Kofu ritsuryokan*,

the oldest mouth-organ score of the Bunno family (Kishibe Shigeo Hakase Koki Kinen Shuppan linkai ed. 1987:156), and the notations in the modern scores suggests that in the processes of standardization reference might have been made to the *Kofu ritsuryokan* or another old score in the tradition of the Bunno Family.

C. The relationship between the modern and the late-twelfth-century melodies for the long zither

The modern zither melodies are completely different from their corresponding historical versions. The abandonment of the left-hand techniques and the use of the formulaic fingering patterns destroy any sense of the original melodies. All three selected modern *ôshikichô* / *huang zhong diao* modal group pieces for this study are performed with the *shizugaki* pattern.

In Musical Examples 28, 29 and 30, the modern zither melodies of “*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*” are lined up with their corresponding *Jinchi yôroku* versions. I will use the melodies shown in Box (1) of the “*Sekihaku tôrika*” transcription (Musical Example 28) to explain how the use of formulaic patterns and the abandonment of the left-hand techniques in the modern part lead to the complete destruction of the historical zither melodies in modern performance.

The first quaver-beat of the historical melody in Box (1) contains the pitches A3 and A4,²³ and the tablature-signs of which (*shichi* 七 and *i* 為) are joined by

²³ C4 refers to middle C.

a line, which indicates that they are to be performed together (see pp. 148-50). In modern practice, this diad is replaced by the *shizugaki* pattern.

The modern *shizugaki* pattern is probably the forerunner of the *kakezume* pattern used in the *koto kumiuta* music (Adriaansz 1973:153) (Marett 2001b:857), and it has been suggested that since the first *kumiuta* piece, “*Fuki*”, dates back to the sixteenth century (Adriaansz 1973:147), the modern *shizugaki* pattern might have been used in the *tôgaku* repertory as far back as that.²⁴

The second quaver-beat of the historical melody in Box (1) is a C mordent. This C mordent is generated by applying the left-hand technique of *nido oshiire* 二度推入 on the *kin* 巾 string (see pp. 150-1). Since all the left-hand techniques have been abandoned in modern practice, the performer plucks the *kin* string without the application of the *nido oshiire* technique. The musical result is, therefore, a B crotchet rather than a C mordent.

The use of the *shizugaki* pattern and the abandonment of the left-hand techniques affect almost every beat of the historical melody, with attendant destruction of the ancient zither tunes.

D. The relationship between the modern and the mid-fourteenth-century melodies for the double-reed pipe

The main focus of Sections D and E will be the development of the modern

²⁴ Although Terauchi Naoko notes that the *kakiawase* zither preludes in *Jinchi yôroku* might include some fingering patterns that were similar to the modern *shizugaki* pattern (Terauchi 1996:440-446), there is no evidence that these patterns were applied in the twelfth-century *tôgaku* pieces.

double-reed pipe and transverse flute melodies respectively. A detailed examination of the development of these two instruments is fundamental to the next chapter's investigation of modern modal practice.

In Musical Examples 31, 32 and 33, the modern double-reed pipe melodies of “*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*” are lined up with their corresponding *Nakahara roseishô* versions according to the proportional relationship of ‘one measure of the modern to one crotchet-beat of the historical melodies’. While it is clear that the modern and historical versions of the same piece follow the same basic melodic shape, one sees a clear rhythmic relationship between the two versions only in a few musical phrases, for example, Box (a) of Musical Example 33.²⁵ In addition, there are some pitch disagreements between the modern and historical melodies. For instance, in Box (1) of Musical Example 33, the pitch of the last crotchet (circled) of the modern melody is F natural whereas the pitch of its corresponding note in the historical melody is F#. In this section, I will first discuss the metrical and rhythmic relationships of the historical and modern melodies, teasing out the reasons for differences in the rhythmic detail of the two versions. I will then proceed to an investigation of pitch alteration and formulaic development.

There are four main reasons why rhythmic discrepancies occur between the modern and historical melodies: a) inconsistencies between the way that syncopation is applied in the historical melodies and the way that it is applied in

²⁵ In order to facilitate my analysis of formulae later in this section, some boxes in the transcriptions are labeled with letters rather than numbers.

the modern *nobebyôshi* pieces; b) the insertion of additional breathing points (rests) in the modern versions; c) extensions of the note-value of some pitches in modern performance; d) differences between the modern and historical notations. Let us first consider case a). I will focus here on Boxes (b) and (f) of “*Sekihaku tôrika*” (Musical Example 31) since inconsistencies of syncopation occur mainly in the modern *nobebyôshi* pieces. For the illustrations of cases b), c) and d), I will focus on the modern melody of “*Kaiseiraku*” (Musical Example 33).

Rhythmic discrepancies occur more in *nobebyôshi* double-reed pipe melodies than in *hayabyôshi* melodies because, unlike the modern lute and mouth-organ melodies, the modern double-reed pipe melodies do not completely correspond to the syncopated rhythmic structure of the historical melodies.

How did this come about? The following is a possible scenario. Because syncopations were unambiguously notated in the lute and mouth-organ scores, these were retained at the time of the Meiji standardization.²⁶ It is possible, however, that at that time, the double-reed pipe melodies were mainly performed in an un-syncopate form, and that when the musicians came to reconcile the reed-pipe part with the lute and mouth-organ parts, they discovered that the rhythmic structure of some un-syncopate double-reed pipe pieces was significantly different from that of the syncopated lute and mouth-organ pieces.

²⁶ I have already shown that the lute melodies notated with the *kobyôshiten kifuhô* system in *Sango yôroku* are usually performed in the syncopated rhythmic mode (see Section II A of Chapter Four) and that the reference source of the modern lute notation is, if not *Sango yôroku* itself, very similar to it (see Section A of this part).

“*Sekihaku tôrika*” and “*Kishunraku*” may have been cases in point.²⁷ If my hypothesis is correct, the un-syncopate double-reed pipe melodies would have needed some adjustments in order to give a sense of syncopation. The degree to which it was applied, however, resulted in the modern double-reed pipe melodies not lining up strictly with the syncopated lute and mouth-organ parts. Box (b) of “*Sekihaku tôrika*” (Musical Example 31) shows such a case. The modern and historical melodic fragments in this box are shown in Figure 5.5 below together with their tablature-notation.

Figure 5.5: The melodic fragments marked by Box (b) of Musical Example 31

In two positions the dots of the modern notation do not exactly align with the *kô* 工 and *tei* テ tablature-signs (see the arrows in Boxes (1) and (2) of Figure 5.5),

²⁷ “*Kaiseiraku*” is not a problem because the lute version of this piece is performed in an un-syncopate structure even though it is notated with the *kobyôshiten kifuhô* system (see p. 206).

and it seems likely that the alignment between dots and tablature-signs was adjusted during the standardization so as to create a sense of anticipation and hence syncopation in the modern melodies. These anticipations are similar to those produced when the syncopated rhythmic mode is applied in the historical version. In Figure 5.5, the circled B and A notes of the modern melody are clearly of the same type as the shaded notes that are generated by the application of the syncopated rhythmic mode to the historical melody.²⁸

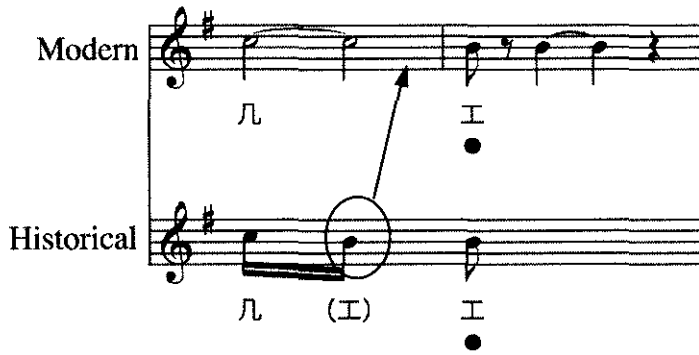
One must note, however, that the proportion of anticipation in the modern *nobebyôshi* pieces is not always identical to that of the syncopated historical melodies. While the proportion of anticipation between the two versions is the same in Box (2) of Figure 5.5—that is, the anticipation in the modern melody takes up 1/4 of the measure (two crotchets) and the anticipation in the historical melody takes up 1/4 of the beat (one semiquaver)—, in Box (1) the anticipation in the historical melody takes up 1/4 of the beat (one semiquaver) whereas in the modern melody it takes up only 1/8 of the measure (one crotchet).

The type of anticipation shown in Figure 5.5 is, nevertheless, not applied to every measure of the modern “*Sekihaku tôrika*” and “*Kishunraku*” melodies. For instance, in Box (f) of Musical Example 31, the alignment of the dot and the *kô* 工 tablature-sign in the modern melody is not adjusted and consequently the modern melody does not include an anticipation. As a result, the circled B semiquaver of

²⁸ The relevant tablature-signs of the shaded notes are bracketed because they are not written out in *Nakahara roseishô*. The processes whereby a syncopated melody is generated from the *kobyôshiten kifuhô* reading of the notation were explained in Section II C of Chapter Four.

the historical melody, which is a note generated by the application of syncopated rhythmic mode, does not have a corresponding pitch in the modern melody.

Figure 5.6: Box (f) of Musical Example 31



Perhaps it was a tension between a desire on the part of the musicians to maintain the form of their orally transmitted melodies and the need to accommodate the rationale of standardization—that is, a closer match between different parts—that led to such a degree of inconsistency. Eta Harich-Schneider indicates that the standardization of *gagaku* in the Meiji period was undertaken mainly for political reasons without much consideration being given to historical accuracy (Harich-Schneider 1973:555). The Imperial Household put strong pressure on the musicians to follow their instructions and to ignore their own traditional performing practices (Harich-Schneider 1973:551-5). Even if some musicians had been able to work out the principles underlying the application of anticipation in the historical lute and mouth-organ parts, it is unlikely that the political circumstances under which they performed the standardization would have allowed them to regularly apply anticipation to the modern *nobebyōshi*

melodies. Perhaps this is also the reason why musicians added orally transmitted breathing points to the modern melodies. These breathing points allow the melodies to be performed in a quasi-syncopated way, even though anticipations of this type are not strictly proportional to those generated by the historical syncopated rhythmic mode. Before turning to case b)—discrepancies caused by the insertion of additional breathing points, I will outline the different types of breathing points used in the modern double-reed pipe melodies.

Two types of breathing points are employed in the performance of the modern double-reed pipe melodies: breathing points that are signified by the dots written in the middle of the notational columns and breathing points that are taught by teachers.²⁹ The duration of the first type is always a crotchet-beat. In the case of the *hayabyôshi* melodies, they only fall on the fourth crotchet-beat of a measure (see the circled rest in Box (c) of the third musical staff of Musical Example 33). In the case of the *nobebyôshi* melodies, they fall on the fourth crotchet-beat (see the circled rests in the third staff of Musical Example 32) and occasionally on the eighth crotchet-beat of a measure (see the shaded rests in the sixth staff of Musical Example 32).

Breathing points of the second type, namely orally transmitted breathing

²⁹ Although the dots written in the middle of the notational columns of the modern scores fundamentally correspond to the dots of the *kuten kifuhô* system in the historical scores, in modern practice they do not constitute mensural signs. It seems likely, however, that the boundaries of modern double-reed pipe and flute formulae (see below) are sometimes, but not always, marked by these dots. Where they are not, the boundaries of the modern formulae usually confined to the breathing points that are taught by the teachers.

points, are indicated by teacher and marked on the scores during the lessons. Orally transmitted breathing points usually fall, in both the *hayabyôshi* and *nobebyôshi* melodies, on the second half of the first crotchet-beat or on the whole second crotchet-beat of a measure. In the first case, I transcribed them as quaver rests whereas in the second case, I transcribed them as crotchet rests (see the shaded rests in Figure 5.7 below). If these orally transmitted breathing points were eliminated, the rhythmic relationship between some modern and historical musical phrases would become clearer. I will demonstrate this in the following figure with references to the melodic fragments marked by Box (1) in Musical Example 33.

Figure 5.7: The result of eliminating all the orally transmitted rests in the modern melodic fragment marked by Box (1) of Musical Example 33

The figure displays three musical staves in G major (one sharp). The top staff, labeled 'The modern melody with all the orally transmitted rests (shaded)', shows a melodic line with two shaded rectangular boxes labeled (1) and (2). Box (1) contains a G quaver followed by a G minim, with an asterisk above the quaver. Box (2) contains an E crotchet followed by an E minim, with an asterisk above the crotchet. The middle staff, 'The modern melody without the orally transmitted rests', shows the same melodic line but with the shaded rests removed, resulting in a more continuous flow. The bottom staff, 'The historical melody in Nakahara roseishô', shows a similar melodic line with a square box above the second measure containing the character '百' (hundred).

It seems likely that many of the orally transmitted breathing points were added in order to create a sense of suspension or anticipation in the modern melodies. For instance, the G quaver in Box (1) of Figure 5.7 (marked with an asterisk) sounds like a suspension of the preceding G minim. On the other hand, the E

quaver in Box (2) (also marked with an asterisk) sounds like a syncopation of the preceding E minim or an anticipation of the following E crotchet. Suspensions and anticipations of this type were probably introduced to imitate the syncopated rhythmic structure of the historical melodies. I will use Box (f) of Musical Example 31 again to illustrate this imitation.

It is clear in Figure 5.8 that the insertion of the orally transmitted quaver rest (shaded) allows the modern melody to be performed in a ‘C – B – B’ melodic sequence, so that this sequence (but not the rhythmic proportions) is identical to the one in the historical melody. Providing we ignore the proportional relationship of ‘one crotchet-beat of the historical melody to one measure of the modern’, the melodic relationship is clear.

Figure 5.8: Box (f) of Musical Example 31 (an adjusted version)

The figure displays two musical staves, 'Modern' and 'Historical', both in treble clef with a key signature of one sharp (F#). Above the notes, the letters 'C - B - B' are written to indicate the pitch sequence. Below the notes, rhythmic symbols are provided: 'L' for a crotchet, 'I' for a quaver, and 'I' with a dot for a quaver rest. In the 'Modern' version, the first B is a crotchet, followed by a shaded quaver rest, and then another crotchet B. In the 'Historical' version, the first B is a crotchet, followed by a quaver B, and then a quaver rest B.

Orally transmitted breaks were probably gradually added to the modern melodies after the standardization. Terauchi Naoko’s research on Frederick

William Gaisberg's (1873-1951) recordings of Japanese music (1903)³⁰ shows that in the early twentieth century the flute melodies of *tôgaku* were performed with significantly fewer orally transmitted breathing points than in present-day practice (Terauchi 2003:31-39). Indeed, Shiba's transcriptions of the double-reed pipe melodies, which were written only about 40 years ago, also include fewer breathing points than in modern practice (Shiba 1969, 1971). This suggests that even in the early twentieth century, the *tôgaku* melodies were performed at a faster tempo and with a slightly different rhythmic structure.

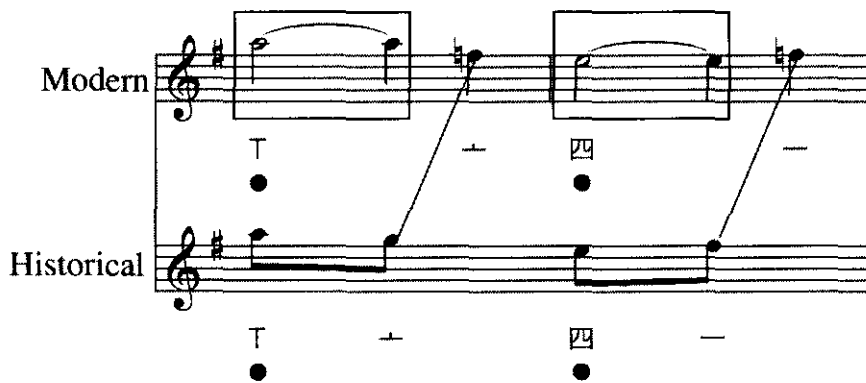
Turning now to case c), discrepancies caused by extension of the note-values of some pitches in modern performance, there is evidence that some of these extensions are modally significant and might be used to emphasize certain pitches in the double-reed pipe melodies. This will be explained more fully in Chapter Six of this thesis.

I will now use Box (v) in the third staff of Musical Example 33 to explain how the structural relationship between the modern and historical melodies is affected by the extensions of note-values. Figure 5.9 shows the melodic fragments marked by Box (v) and their relevant tablature-notations. For the sake of clarity, orally transmitted features such as a rest and an *enbai*³¹ (both circled in Musical Example 33) are eliminated from the figure.

³⁰ Gaisberg's recordings are available in the CD collections *Zenshû nihon fukikomi kotohajime* (Toshiba EMI, TOCF-59061-71, 2001) (Terauchi 2003:31).

³¹ *Enbai* are orally transmitted ornaments added in the modern double-reed pipe melodies. See below for a further discussion.

Figure 5.9: The melodic fragment marked by Box (v) of Musical Example 33



Because the tablature-notations of the two melodies are identical, one would expect that the note-values of melodies realized from the tablature-notation of the modern melody would be proportional to those in the historical melody. That is, that one minim of the modern melody would correspond to one quaver in the historical melody. The fact is, however, that in the modern melody, the note-values of the *tei* T and *shi* 四 tablature-signs are extended so that each occupies a total of three crotchet-beats. In order to accommodate this, the note-values of the *jô* jô and *itsu* itsu tablature-signs are correspondingly shortened to only one crotchet-beat.³²

Finally, with regard to case d), rhythmic discrepancies also result from tablature differences between *Nakahara roseishô* and the modern score. This is probably because the reference source used for the standardization of the double-reed pipe in the Meiji period, although similar to *Nakahara roseishô*, was not identical.³³ I will use Box (2) of Musical Example 33 to demonstrate how the

³² I will explain why the *jô* and *itsu* tablature-signs in the modern melody both represent F natural rather than G and F# respectively in the discussion of formula development below.

³³ This must also be borne in mind throughout the examination of the double-reed pipe formulae

difference in the positions of dots between the two sources affects the structural relationship of the modern and historical melodies.

While the sequences of tablature-signs in the modern and historical notations of this boxed part are identical (*han – kô – han – shi* 儿工儿四), the second dot of the historical notation is aligned with the *shi* 四 whereas the second dot of the modern notation is aligned with the *han* 儿 tablature-signs. If the two melodies are lined up according to the proportional relationship of 'one measure of the modern to one crotchet-beat of the historical melodies', the E crotchet (*shi* 四) of the historical melody will correspond to the C quaver (*han* 儿) rather than the E minim of the modern melody.

Box (u) in the first staff of Musical Example 33 shows that when there is no tablature difference between the two sources, the relationship of the two melodies is clearer. The circled B semiquaver in this box is merely an *enbai* added to the modern melody.

* * *

Gamô Mitsuko and Allan Marett have observed that the modern double-reed pipe and flute melodies are constructed from small unit of fixed melodies (Gamô 1970:145), that is, that the melodies are formulaically organized (Marett 1985:420). In the following discussion, I will seek to clarify differences in pitch

later in this section.

between the modern and historical versions by studying the development of melodic formulae in the modern double-reed pipe melodies.

The term 'formula' derives from the oral-formulaic theory developed by Milman Parry and Albert Lord for the investigation of the Yugoslav singers' performances of *gusle*. Parry defined the term 'formula' as 'a group of words which is regularly employed under the same metrical conditions to express a given essential idea' (Parry 1930, quoted in Lord 2000:30). The concept of formulaic organization has been subsequently developed by many scholars but with looser definitions adapted to suit other genres of music, for example, Marett 1985 (*tôgaku*), Keogh 1990 (Australian aboriginal *nurlu* songs), Lee 1992 (*shakuhachi*) and de Ferranti 1996 (*higo biwa*). For my study of the modern *tôgaku* melodies, formulae are defined simply as 'melodic figurations that recur twice or more in the same piece'. Although formulae may take slightly different rhythmic forms when they recur, these rhythmic variations are not obstacles to recognizing them as the same formula. While all the versions of a formula will be shown later, I focus here only on a limited number of these from "*Sekihaku tôrika*".

In Musical Example 31, the seventeen formulae of "*Sekihaku tôrika*" are labelled (a) to (q). These are summarized in Table A of Appendix IV together with their corresponding historical patterns.³⁴ It can be seen that the rhythmic proportion of formulae is not always identical to that of the historical melodic

³⁴ Formulae (r) to (y) in this table are formulae that appear either in "*Kishunraku*" or "*Kaiseiraku*".

patterns. For instance, the corresponding historical pattern of Formula (d) comprises a total of three quaver-beats but the formula contains only ten crotchet-beats. If the rhythmic proportion between the modern formula and the historical pattern were identical, this formula would include a total of twelve crotchet-beats. The reason for this is because of the application in the modern part of rhythmic adjustments of the type described in the first half of this section. Further discussion of this matter will occur at the end of this section.

Some formulae of “*Sekihaku tôrika*” also appear in the modern double-reed pipe melodies of “*Kishunraku*” and “*Kaiseiraku*”, namely Formulae (a), (b), (c), (g), (h), (j) and (k). These formulae are labelled with the same letters in Musical Examples 31, 32 and 33. Because formulae that are common to pieces of the same modal group have particular significance for the articulation of mode (see below), they will be called ‘modally specific formulae’ in the following discussion. The appearance of modally specific formulae in modern pieces of the same modal group raises questions about how melodic patterns in the historical melodies were developed and transmitted. Allan Marett has suggested that after the Heian period the oral transmission of the flute and double-reed pipe melodies relied increasingly on proto-formulaic patterns (Marett 1985:426). It was this reliance on a limited set of easily remembered melodic patterns in historical scores of the fourteenth century onwards and their reproduction in different pieces of the same modal group that led to the modally specific formulae of modern practice.

The pitch relationship (but not the rhythmic proportion) between Formulae (a), (f), (h) and their corresponding historical patterns are very clear, and therefore

I will not discuss them in detail.

Formula (b) is not difficult to understand either.³⁵ Apart from the A semiquaver marked with a bracketed 'E' letter, the pitches of the modern formula completely correspond to those in the historical melodic pattern. The additional A semiquaver is an *enbai*.³⁶ *Enbai*, which are produced by changing the lip pressure and position rather than by changing fingerings, are important but un-notated ornaments added to the modern double-reed pipe melodies. While *enbai* are transmitted orally, it is a common practice for teachers to add some marks to the modern notation during the lesson in order to indicate the positions of the *enbai*. The *enbai* are signified by a bracketed 'E' letter in the list of formulae shown in Table A.

Three versions of Formula (c) occur in the modern melody of "*Sekihaku tōrika*". It is clear from Table A that the underlying historical melodic pattern is a G mordent.³⁷ The development of Formula (c) is, however, complicated since it involves the application of the full gamut of orally modifications, namely *enbai*, nuances, the technique of *meru* and a special fingering for playing the *jō* ⊥ tablature-sign.

Nuance (marked (N) in the formulae) refers to a type of orally transmitted

³⁵ This formula can be regarded as an elaborated version of the historical pattern that I have discussed in Part I of this chapter (see p. 223).

³⁶ *Enbai* literally means 'salt and plum'. These are two important seasonings of Japanese food.

³⁷ I have already suggested that the '△ ♯' sign indicates a technique for generating a mordent by changing the position of the lip rather than the fingering (see p. 178).

ornament that is produced by changing the lip pressure and position.³⁸ While nuances are not as important as the *enbai* and teachers may not mark them on the notation for the students, experienced and professional performers always include them in the melodies.

Meru refers to a technique of lowering the standard pitch of a tablature-sign by altering breathing and lip position. The pitches produced from this technique are called *meri* (see also p. 171). The circled tablature-signs in Table A are performed as *meri* pitches.

Many *jô* ⊥ tablature-signs of the modern double-reed pipe notation are performed using the *itsu* 一 rather than the normal *jô* fingering. This is particularly common in pieces that are in the *ôshikichô* / *huang zhong diao*, *hyôjô* / *ping diao*, *taishikichô* / *da shi diao* and *ichikotsuchô* / *yi yue diao* modal categories. Furthermore, the pitch produced from this *itsu* fingering is the *meri* pitch F natural rather than the F# normally produced with the *itsu* fingering. Teachers will indicate in the course of lessons which *jô* tablature-signs of a piece are to be performed with this special fingering. The *jô* tablature-signs that are performed with this special fingering are boxed in Table A.

The following figure illustrates the formation of Formula (c) using Version 1 of the formula as an example. It is important to note that this figure is used merely to show how the pitches of Formula (c) are formed. I do not intend to imply that

³⁸ In fact, there is no official name for this type of ornaments in modern double-reed pipe practice. My teacher, Nishihara Yûji, suggested me to use the term 'nuance' to represent this type of ornaments.

the sequence of changes is applied in this order in practice.

Figure 5.10: The development of Formula (c)

The fourteenth-century historical melodic pattern that corresponds to Formula (c)

The *jô* tablature-signs are performed with the *itsu* rather than the *jô* fingering. The pitch produced from this 'special *jô* fingering' is F natural

The *itsu* tablature-sign is performed with the *meru* technique. The pitch produced from this *meru* technique is F natural

The nuances are inserted (the circled E and G notes)

The *embai* is inserted (the circled E note)

The rhythmic structure of the pattern is modified and it is played with the slow tempo of the present-day

If we ignore the added ornaments, the *meru* technique and the special fingering for playing the tablature-signs *jô*, the pitches of Formulae (d), (l), (m), (o), (p) and (q) correspond to those in their historical patterns. I will not, therefore, discuss them in detail. Formula (e), (g), (i), (j), (k) and (n) are, however, worthy of further examination.

As was suggested in the analysis of the rhythmic structures of the modern and historical double-reed pipe melodies, there were clear differences between the

tablature-notations in *Nakahara roseishô* and the as yet unidentified reference score used for standardization. These differences not only yield rhythmic discrepancies but also pitch disagreements between the modern and historical melodies. I would suggest that pitch disagreements between Formulae (e), (g), (i), (j), (k), (n) and their corresponding historical melodic patterns are all caused by tablature differences between *Nakahara roseishô* and the reference score. In the case of Formula (e), the historical pattern does not include the tablature-sign *itsu* ♯ (F#) but includes an additional tablature-sign *kô* 工 (B) that does not appear in the modern formula. Pitch differences that are the result of different tablature-signs being used in the modern and historical notations are indicated by shaded boxes in Table A.

In Versions 1 and 2 of Formula (g), the '*tei - jô - itsu - jô*' (⊥⊥→⊥) sequence of tablature-signs is significantly different from the '*jô - tei - jô*' (⊥⊥⊥) tablature sequence in the historical patterns. Version 3 of this formula, however, uses the same tablature-signs as the historical pattern.

In the case of Formula (i), where the modern formula has an *itsu* ♯ tablature-sign (F#), the historical pattern has *shi* 四 (E).

The modern "*Sekihaku tôrika*" melody includes four slightly different versions of Formula (j). The corresponding historical melodic patterns of this formula are for the most part C mordents. The only exception is Version 4, in which the *kô* 工 and *han* 凡 tablature-signs at the end of the formula do not appear in the corresponding historical melodic pattern.

In the case of Formula (k), the '*han - kô*' (凡工) combination of

tablature-signs in the modern formula corresponds to the 'riku – han' (六几) combination of tablature-signs in the historical pattern.

The difference between Formula (n) and its historical pattern is profound. The historical pattern does not include the run that is generated by the 'kô – go – zetsu – riku' (工五舌六) tablature-sequence of the modern formula.

Discrepancies between the modern and the historical melodies of “*Sekihaku tôrika*” that result from *enbai*, nuances, non-standard fingerings and change in tablature-sign are not, of course, confined to formulae alone. Musical Example 31 indicates all these orally transmitted practices with bracketed capital letters, circled tablature-signs, shadings and boxed *jô* signs.

* * *

The rhythmic discrepancies between the modern and historical double-reed pipe melodies also affect the proportional relationship of the modern formulae one to the other. Because the positions of pitches in a modern formula do not always correspond precisely to those in its historical form of melodic pattern, the beginnings and ends of formulae become staggered in relation to them. Formulae (c) and (d) of Musical Example 31 are typical examples. These two formulae and their corresponding historical melodic patterns are shown in the following figure together with the relevant tablature-notations.

Figure 5.11: Formulae (c) and (d) in Musical Example 31

Because the note-value of the first *jô* ⊥ tablature-sign in Formula (c) is extended to three crotchet-beats in modern practice,³⁹ the pitch of the *itsu* — tablature-sign of the historical melody (F#) does not line up precisely with that of the *itsu* tablature-sign in the modern formula (F natural). Furthermore, the corresponding note of the shaded G semiquaver in the historical melody is the F natural crotchet that appears after the barline. The reason is that the anticipation generated to create syncopation in the historical version is not reproduced in the modern version. Rather, a sense of syncopation is created in the modern part by inserting an orally transmitted rest (circled) after the F natural crotchet in the second measure. Then, the F natural minim and A quaver in Formula (d), which correspond to the shaded G and A quavers of the historical melody, are shifted two crotchet-beats to the right. The result is that Formula (d), which should be twelve crotchet-beats in length in order to correspond to the underlying melodic

³⁹ The dotted E quaver and the G semiquaver of the modern formula (marked with asterisks) are nuances that belong to the *jô* tablature-sign.

pattern that comprises a total of three quaver-beats, is reduced to ten crotchet-beats. The following figure shows what the pitch relationship between the modern and historical melodies would have been had these adjustments not occurred.

Figure 5.12: Formulae (c) and (d) in Musical Example 31 and their corresponding historical melodic patterns (an adjusted version)

The figure shows two columns of musical notation, labeled (c) and (d). Each column has two staves: 'Modern' (top) and 'Historical' (bottom). Below each staff is a box containing symbols representing pitch relationships.

	(c)			(d)		
Modern	[Musical notation for Modern versions of (c) and (d)]					
Historical	[Musical notation for Historical versions of (c) and (d)]					
	+	-	+	T	•	•
	+	-	(+)	(T)	T	T

E. The relationship between the modern and the mid-fourteenth-century melodies for the transverse flute

The modern flute melodies of “*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*” are lined up with their corresponding *Chû ôga ryûteki yôrokufu* versions in Musical Examples 34, 35 and 36 respectively according to the principle of ‘one crotchet-beat of the historical to one measure of the modern melodies’. As was the case with the modern double-reed pipe melodies, while the historical and modern versions of the same piece follow a similar melodic shape, it is hard to see precise rhythmic and pitch relationships between the two versions.

Basically, rhythmic discrepancies between the historical and modern versions are caused by the same factors as for the double-reed pipe. I will now use Formula (g) of Musical Example 34 to illustrate how anticipation is applied in the modern *nobebyôshi* flute melodies. This formula is shown in the following figure together with the tablature-notation.

Figure 5.13: Formula (g) of “*Sekihaku tôrika*”

The figure displays two musical staves. The top staff, labeled 'Modern', is in treble clef with a key signature of one sharp (F#). It shows a sequence of notes: a quarter note on G4, a quarter note on A4, a quarter note on B4, and a quarter note on C5. The A4 note is circled, and an arrow points from it to a solid black dot positioned below the staff. Below the staff are the Japanese characters '夕', '中', and '夕' aligned with the notes. The bottom staff, labeled 'Historical', is also in treble clef with a key signature of one sharp. It shows a sequence of notes: a quarter note on G4, a quarter note on A4, a quarter note on B4, and a quarter note on C5. The A4 note is shaded, and a solid black dot is positioned below the staff. Below the staff are the Japanese characters '夕', '中', '(夕)', and '夕' aligned with the notes.

It is clear from Figure 5.13 that the alignment of the *shaku* 夕 tablature-sign and the dot has been adjusted (as in the case for the double-reed pipe shown in Figure 5.5) in order to generate an A crotchet anticipation (circled) in the modern melody. Anticipation of this type is similar to the shaded A semiquaver in the historical melody, which has been generated by the application of the syncopated rhythmic mode. The proportion of anticipation is not, however, the same.

Since this type of anticipation is not applied to every measure of the modern *nobebyôshi* flute melodies, orally transmitted breathing points are—as was the case in the double-reed pipe—sometimes employed in order to generate a quasi-syncopation. The principles for adding orally transmitted breathing points to

the modern flute melodies are basically the same as those for the double-reed pipe melodies. In short, these breathing points usually fall on the second half of the first crotchet-beat or on the whole second crotchet-beat of a measure. Formula (j) of “*Sekihaku tôrika*” includes a typical example of this type of breathing points (see the circled crotchet rest).

Figure 5.14: Formulae (j) and (k) in Musical Example 34

The figure shows two staves of music, labeled 'Modern' and 'Historical', with two columns of notation labeled '(j)' and '(k)'. The 'Modern' staff uses a treble clef and a key signature of one sharp (F#). The 'Historical' staff uses a treble clef and a key signature of one sharp (F#). In column (j), the 'Modern' staff has a circled crotchet rest in the second measure, and the 'Historical' staff has a shaded D semiquaver in the second measure. In column (k), the 'Modern' staff has a crotchet rest in the second measure, and the 'Historical' staff has a crotchet rest in the second measure. Arrows point from the 'Historical' staff to the 'Modern' staff, indicating the correspondence between the notes and rests. The 'Modern' staff has tablature signs '六', '六', and '二' under the first three notes of the first measure, and 'T由' under the first two notes of the second measure. The 'Historical' staff has tablature signs '六', '六', and '(二)' under the first three notes of the first measure, and '二', 'T由', '(リ)', and 'リ' under the notes of the second measure. A dot is placed under the '二' in the 'Modern' staff and the '二' in the 'Historical' staff.

Because in Formula (j) the alignment between the tablature-sign *ni* 二 and the dot in the modern notation is not adjusted, the modern melody does not include an anticipation that corresponds to the shaded D semiquaver in the historical melody. Nevertheless, in order to reproduce the ‘E – D – D’ melodic sequence of the historical pattern, an orally transmitted rest has been inserted in the second crotchet-beat of the second measure of the modern melody (circled). As was the case in Figure 5.11, this affects the rhythmic proportions between Formula (k) and its corresponding historical pattern. The corresponding notes of

the shaded D quaver in Formula (k) are the D minim and the D crotchet, and the total duration of these two notes is three rather than four crotchet-beats.

Unlike in the modern double-reed pipe melodies, significant extensions of note-value are not common in the modern flute melodies. In fact, the modal practice of the modern flute melodies is significantly different from that of the modern double-reed pipe melodies. This will be discussed in detail in Part II of Chapters Six, Seven and Eight.

On the other hand, there is a common rhythmic characteristic that occurs in the modern flute melodies but not in the double-reed pipe melodies. Some pitches in the modern flute melodies are purposely performed half a beat in advance. These pitches are usually performed together in a quick run (*ren* 連) or in very short note-values that sound like a grace-note-figure.

A quick run that is performed half a beat in advance can be seen at the beginning of Formula (h) of “*Sekihaku tôrika*”.⁴⁰

Figure 5.15: Formula (h) in Musical Example 34

⁴⁰ The technique *ugoki* 動 in this figure represents an inverted mordent. Because the *ren* technique is significantly elaborated in modern performance (see below), the *ugoki* in the modern melody is performed much later than the one in the historical version.

(h)

Modern
夕 T中 T中夕五 + 動 干

Historical
夕 T連 (+動) + リ干 (リ)

The shaded hollow dot represents the dot that is inserted in the middle of the notational column and normally signifies a breathing point of one crotchet-beat. The circled quick run 'B – C – D – C', which is part of the elaborated version of historical *ren* technique, occupies half the duration of the breathing point.

Formula (t) of “*Kishunraku*” includes a grace-note-figure that is also performed half a beat in advance. It is clear from the following figure that the circled ‘G – C#’ grace-note-figure occupies half of the duration of the preceding breathing point.

Figure 5.16: Formula (t) in Musical Example 35

(t)

Modern
干 O+ 六 T 六

Historical
干 六 T(六)

As was the case of the double-reed pipe, tablature differences also occur between the modern and historical flute notations. This suggests that while the reference source of the flute melodies used during the standardization is similar to *Chû ôga ryûteki yôrokufu*, it was not *Chû ôga ryûteki yôrokufu* itself. Undoubtedly, tablature differences also create significant rhythmic discrepancies between the historical and modern flute versions of the same piece. A typical example can be seen in Formulae (x) and (s) that occur in the eighth musical staff of Musical Example 36.

Figure 5.17: Formulae (x) and (s) in Musical Example 36

The figure shows two staves of music, labeled 'Modern' and 'Historical', with two sections marked '(x)' and '(s)'. The Modern staff uses standard Western musical notation. The Historical staff uses a similar notation but includes a shaded C quaver and a circled dot. Below the staves are two rows of Japanese characters and dots representing tablature. The Modern row has characters: 下 二 五 二 夕 二 中 下 中 夕 五 十. The Historical row has characters: 下 十 五 二 夕 下 連 五 十. A circled dot is under the '五' character in the Historical row. An arrow labeled '連' points to the shaded C quaver in the Historical staff.

The shaded C quaver that is played with the *ren* 連 technique in the historical melody in fact corresponds to the shaded 'B – D – B – A' (*chû – ge – chû – shaku* 中下中夕) run in the modern melody. Because the third dot (circled) in the historical melody is aligned with the *go* 五 rather than the combination of the

ge 下 and ren 連 tablature-signs, the parts do not line up.

* * *

As was the case with the double-reed pipe, I will concentrate on the modern melody of “*Sekihaku tôrika*” for my examination of the flute formulae. These formulae (Formulae Special (A) to (q)) and their corresponding historical melodic patterns are summarized in Table B of Appendix IV. Formulae that are in common between the three selected modern flute melodies are labelled with the same bracketed letters. These modally specific formulae are (Special A), (a), (b), (e), (g), (h), (i) and (k).⁴¹

While the terms *fu* フ and *se* セ are occasionally employed in the modern flute notation in order to indicate the register, students learn the register of notes mainly through memorization. There is, however, no evidence that the registers of pitches were the same in the historical versions as they are today. In comparing the historical patterns and modern formulae, I will not, therefore, consider the octave level of the pitches.

Since the tablature-signs and pitches of Formulae (d), (e), (f), (g), (i), (k), (n) and (o) are basically identical to those in their corresponding historical melodic patterns, I will not discuss them in detail.⁴²

⁴¹ See Conclusion for a more detailed discussion of these formulae.

⁴² Formulae (f) and (n) simply include an additional mordent (下由) that does not occur in their corresponding historical patterns.

The first box of Musical Example 34 (Special Formula (A)) is, however, worth discussing in detail. Since the musical phrase in this box appears only once in “*Sekihaku tôrika*”, theoretically it cannot be regarded as a formula in this piece.⁴³ Nonetheless, this phrase also occurs frequently in “*Kishunraku*” and “*Kaiseiraku*” and it is clearly an important formula in *ôshikichô / huang zhong diao* modal group pieces.

Three versions of Formula (a) occur in the modern flute melody of “*Sekihaku tôrika*”. Versions 1 and 2 are nearly identical⁴⁴ and Version 3 is simply a truncated form of Versions 1 and 2.

I will now use Version 2 as an example to explain the formation of Formula (a). In order to facilitate my explanation, Version 2 and its corresponding historical pattern are separated into two sections. In terms of pitches and tablature-signs, section (ii) of the modern formula clearly corresponds to section (ii) of the historical pattern. The pitches in section (i) of the modern formula are, however, significantly different from those in section (i) of the historical pattern. These pitch differences are, moreover, not merely caused by differences in the notation.

In modern practice, the ‘*ge – chû – ge – chû*’ (ㄊ中ㄊ中) combination of tablature-signs in *ôshikichô / huang zhong diao* modal group pieces is not

⁴³ Despite the fact that two G#s are employed in this phrase, one can simply regard this musical phrase as a prolonged A note. In modern performance, it is a common practice for a flute performer to generate a few mordent-like figures at the beginning of a piece.

⁴⁴ This G# in Version 1 is employed in order to generate a mordent-like figure at the beginning of a modern flute melody.

performed in a simple melodic sequence ‘C – B – C – B’ but in a very complicated melodic and rhythmic structure. The first ‘*ge – chû*’ combination is performed by first sliding the *roku* 六 finger-hole from left to right with the index finger of the left hand, and then covering the *roku* finger-hole with the same finger. This sliding produces the glissando ‘B – C – D – C – B’. While the second ‘*ge – chû*’ combination of tablature-signs is performed with the same technique, it is performed faster and for this reason I transcribe it as ‘B – D – B’. This sliding technique is not recorded in the notation but is transmitted orally from the teacher. There is no evidence to suggest that such a technique was applied in the fourteenth-century melodies.

There are four versions of Formula (b) in the modern melody of “*Sekihaku tôrika*”. All of them correspond to a group of three to five Gs in the historical version, in which the first G is decorated with a mordent. The G mordent is signified by adding a *yuri* 由 under the tablature-sign *jô* ⊥ in *Chû ôga ryûteki yôrokufu*. In modern notation, however, *jô* is rarely associated with a *yuri*. Rather, it seems that the ‘*go – jô – go – jô – go*’ (五⊥五⊥五) sequence of tablature-signs in the modern notation corresponds to the combination of *jô* and *yuri* signs in historical flute scores. This ‘*go – jô – go – jô – go*’ sequence produces an oscillation between F# and G in the modern melody. Moreover, it is a common practice at the present-day to initially perform the first *go* tablature-sign of this sequence as an F natural and then raise it to F#. The *go* tablature-signs that correspond to F natural are circled in Table B.

Because there are tablature differences between Version I of Formula (c) and

its corresponding historical pattern (see the shaded part), I will use Version 2 to explain the development of this formula. The tablature-signs in section (ii) of the modern formula basically correspond to those in the historical pattern. The only difference is that the *go* tablature-sign is interpreted as F natural rather than F# in modern performance.

The '*ge – ren*' (丁連) combination of tablature-signs in section (i) of the historical pattern became a '*chû – ge – chû – shaku*' (中丁中夕) tablature-sequence in the modern formula. This tablature-sequence represents a quick 'B – D – B – A' run in modern performance. Furthermore, the '*chû – ge*' part of this sequence is performed using the sliding technique explained in the discussion of Formula (a) above.

Unlike the case of Formula (c), the '*ge – ren*' (丁連) combination of tablature-signs in section (i) of the historical pattern of Formula (h) became a complicated '*ge – chû – ge – chû – shaku – go*' (丁中丁中夕五) tablature-sequence in the modern score. The '*ge – chû – ge – chû*' part of this combination of tablature-signs is also performed using the double sliding technique applied in Formula (a). Perhaps the *ren* technique was developed into various forms of descending run after the fourteenth century and was written out in full in the tablature-notation. If my hypothesis is correct, the reference source of the modern flute score might have been compiled in a relatively late period.

Since the *ugoki* technique in modern practice also represents an inverted mordent, there is no significant pitch difference between the modern formula and the historical pattern in section (ii) of Formula (h).

Formulae (j), (m) and (p) include some additional pitches that do not exist in the historical pattern. These additional pitches, which are marked by shaded boxes, are signified by tablature-signs that are not included in *Chû ôga ryûteki yôrokufu*.

In Formulae (l) and (q), the *go* tablature-signs are performed as F natural rather than F#. I will discuss the reason for using both F naturals and F#s in modern *ôshikichô* / *huang zhong diao* flute melodies in the next chapter.

F. A short summary of the relationship between the modern and historical *tôgaku* melodies

The relationship of the modern and historical *tôgaku* melodies can be summarized as follows:

1. The forms of the late-twelfth-century lute and early-thirteenth-century mouth-organ melodies are well preserved in modern performance. Nevertheless, the lute and mouth-organ melodies are performed with complicated chordal accretions and, therefore, the ancient tunes that underlie these two instrumental parts are not recognizable. These two instruments are, moreover, nowadays simply regarded as supporting instruments. It is commonly said that the mouth-organ is used to execute the harmonic structure (Garfias 1975:63) whereas the lute indicates the metrical structure (or measures) of the modern *tôgaku* melodies (Masumoto 2000:89-90).
2. The modern zither, double-reed pipe and flute melodies are significantly different from their historical versions. While at the present-day the zither

is only used as a supporting instrument that produces an ostinato accompaniment in modern performance (Masumoto 2000:24), the double-reed pipe and flute are employed to play the main melodies. The analyses in Sections D and E clearly demonstrate that the metrical, rhythmic and pitch disagreements between the historical and modern melodies of these two instruments, combined with a much slower tempo, further obscure the relationship between the modern melodies and the historical melodies on which they are based. Indeed, it is probably no exaggeration to say that the ancient tunes of these two instruments have completely disappeared in modern performance, and that they have been replaced with entirely new melodies that have evolved by means of the procedures discussed in Sections D and E of this part.

Chapter Six

The modal practice of the *ôshikichô / huang zhong diao* modal group pieces from the tenth century to the present-day

This chapter is divided into two parts: the first part investigates the modal practice of the selected *ôshikichô / huang zhong diao* modal group pieces over the period from the tenth to the fourteenth century; the second part examines the modal practice of modern performance.

In the first section of Part I, I will explore the structural relationship of the Tang and Heian *ôshikichô / huang zhong diao* modes and examine the modal practice of un-syncopate melodies performed between the tenth and the late twelfth centuries.

In the second section, I will show that from the late twelfth to the end of the thirteenth century, the modal practice of *tôgaku* basically followed that of the late Heian period. I will demonstrate a) that there is no significant modal difference between the un-syncopate and syncopated versions of a melody; and b) that the modal practice of melodies from *Jinchi yôroku*, *Ruisô chiyô*, *Kofu ritsuryokan* and *Shinsen shôtekifu* is basically the same as that of the *Sango yôroku* melodies.

In the third section, I will demonstrate that, by contrast, the modal practice of the mid-fourteenth-century melodies recorded in *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* is different from that of the Heian melodies. I will also suggest

some reasons for such differences.

* * *

I have previously shown that between the fourteenth century and the present-day, the melodies of the *tôgaku* instruments were modified in different ways, for example, whereas chordal accretions were added to the lute and mouth-organ parts, formulaic fingering patterns were added to the zither part. In Part II of this chapter, therefore, the modern melodies of each instrument will be examined separately. I will show that the lute is the only instrument that preserves the Heian modality to the present-day. The melodies of other instruments are performed either using different modes or in an extremely ambiguous tonality.

I. The modal practice of *tôgaku* melodies from the tenth to the mid-fourteenth century

A. The modal practice of the flute and lute melodies from the tenth to the late twelfth century

In examining the development of modal practice between the tenth and late twelfth centuries and explaining its relationship to the Tang modal practice, I will focus on “*Sekihaku tôrika*” (see Musical Example 2 in Appendix III). Before turning to an investigation of the melodies, however, I will review the structural relationship between the Tang and Heian forms of the *ôshikichô* / *huang zhong*

diao mode.

The structure of the Tang form of the *ôshikichô / huang zhong diao* mode is identical to that of the late-Heian form. Even though we have no idea on the exact pitches of the twelve *ritsu / lü* used in the Tang period, we know that the structure of the Chinese *ôshikichô / huang zhong diao* mode, which was formed under the *zheng sheng diao* heptatonic scale, was TSTTTST (*yu / u* or Dorian).¹ According to the *chôshibon ge* section in chapter two of *Sango yôroku*, the late-Heian *ôshikichô / huang zhong diao* mode also had a Dorian (*u / yu*) modal structure on A, namely A B C D E F# G (Ng 1998:107).²

A major theoretical (rather than practical) difference exists, however, between the Chinese and Japanese forms of the *ôshikichô / huang zhong diao* mode, namely that the degree names used by the Japanese of the late-Heian period did not follow Chinese practice. As indicated in *Sango yôroku*, the Japanese simply named the tonic of all the modes as *kyû / gong*, regardless of their modal structures. The following figure shows the differences between the degree names of the *ôshikichô / huang zhong diao* mode according to Tang Chinese and Fujiwara no Moronaga's practices.

¹ See the analysis in Part II of Chapter Two.

² In Chapter Two, I assumed that the pitch of *kôshô / huang zhong* was C in Tang China. This allows me to generate a Tang *ôshikichô / huang zhong diao* with a structure of A B C D E F# G. The use of C as the pitch of *kôshô / huang zhong* coincidentally matches the actual pitch practice in the late-Heian period. While this does not imply that the pitch of *kôshô / huang zhong* was C in Tang China, a difference between the pitch of *kôshô / huang zhong* in China and Japan would only have affected the *keys* of the music but not the melodies.

Figure 6.1: Differences between the degree names of the *ôshikichô / huang zhong diao* mode according to Chinese and Japanese practices

Intervals

Chinese practice:	<i>u</i>	<i>henkyû</i>	<i>kyû</i>	<i>shô</i>	<i>kaku</i>	<i>henchi</i>	<i>chi</i>	<i>u</i>
	<i>yu</i>	<i>biangong</i>	<i>gong</i>	<i>shang</i>	<i>jue</i>	<i>bianzhi</i>	<i>zhi</i>	<i>yu</i>
Fujiwara no Moronaga's system of degree names in <i>Sangô yôroku</i> and <i>Jinchi yôroku</i>	<i>kyû</i>	<i>shô</i>	<i>kaku</i>	<i>henchi</i>	<i>chi</i>	<i>u</i>	<i>henkyû</i>	<i>kyû</i>
	<i>gong</i>	<i>shang</i>	<i>jue</i>	<i>bianzhi</i>	<i>zhi</i>	<i>yu</i>	<i>biangong</i>	<i>gong</i>

The nomenclature used to describe the modes does not, however, influence the *tôgaku* melodies because degree names do not represent pitches. In examining the modal practice of the *tôgaku* melodies, the Chinese rather than Fujiwara no Moronaga's system of degree names is adopted in the following discussion.

Musical Example 2 shows that the pitches of the tenth-century flute and the late-twelfth-century lute melodies of "*Sekihaku tôrika*" exactly realize those of the *ôshikichô / huang zhong diao* mode. Nevertheless, in both cases the melodies cadence on the fifth degree (E) rather than the tonic (A) (circled in Musical Example 2). Indeed, all the six sections of "*Sekihaku tôrika*" cadence on E.³ The use of E as the final of all the cadences significantly affects the tonality of the melodies. Rather than manifesting the Dorian mode on A (A B C D E F# G)—that is the correct form of the *ôshikichô / huang zhong diao* mode—, from the tenth to

³ Although this thesis focuses on the first two sections, I have investigated the notation of all the other sections.

the late twelfth century the *ha* movement of “*Sekihaku tôrika*” was clearly performed as an Aeolian (*kaku / jue*) mode on E (E F# G A B C D). This Aeolian mode is also derived from the *kôshô / huang zhong* key and is called *kôshô shi kaku / huang zhong zhi jue* in the Chinese modal system.⁴

Kyôkunshô also states that this piece⁵ is the *rinshô kaku / lin zhong jue* (Aeolian mode of the *rinshô / lin zhong* key) piece “*Sekihaku tôrika / Chi bai tao li hua*” (of Tang) (Koma 1233:65). The musicians and dancers of the Naikyôbô⁶ in Japan performed this piece. Since the dance was lost, they used the dance of “*Yôgûraku*” instead (Koma 1233:65). This piece was performed in the Kyokusui banquet (held in the early third month of a year) of the Japanese court but on the third day of the third month in the practices of the Chinese (Koma 233:65). The record in *Kyôkunshô* suggests that “*Sekihaku tôrika*” appears to have also been performed in a *kaku / jue* mode in Tang China. This piece might have transposed down a perfect fifth (or up a perfect fourth) from the *rinshô / lin zhong* to the *kôshô / huang zhong* key later in Japan.⁷

The reason why a *kôshô shi kaku / huang zhong zhi jue* piece would be classified in the *ôshikichô / huang zhong diao* modal category in Japan is not

⁴ Endô Tôru agrees that “*Sekihaku tôrika*” was performed in the *kaku / jue* mode of the *kôshô / huang zhong* key in the late-Heian period (Endô 2002:210&212(iii)).

⁵ “*Sekihaku tôrika*” is called “*Tôrika*” in *Kyôkunshô* (Koma 1233:65).

⁶ Naikyôbô was established by the Japanese court in imitation of the Nei Jiao Fang of the Tang court. It was a place where female musicians and dancers learned and performed court music. See Hirano Kenji et al. 1989:175 for details.

⁷ Another less likely possibility is that the mode *rinshô kaku / lin zhong jue* was named according to the *xia zhi diao* theory in China (see Section II C of Chapter Two).

difficult to understand. While in theory a total of eighty-four modes could be generated in China, not all eighty-four modes were regularly employed. The *yan yue er shi ba diao* or ‘twenty-eight modes for banquet music’ represents the modes that were actually used to perform the banquet and entertainment music in Tang China (Ng 1998:29). The edict of *Tang hui yao* further specifies the fourteen modes that were most frequently used during the Tian bao era (742-756).

Sango yôroku for the most part comprises *tôgaku* pieces under ten modal headings, namely *ichikotsuchô / yi yue diao*, *sadachô / sha tuo diao*, *hyôjô / ping diao*, *taishikichô / da shi diao*, *kotsujikichô / qi shi diao*, *seichô / xing diao*, *sôjô / shuang diao*, *ôshikichô / huang zhong diao*, *suichô / shui diao* and *banshikichô / pan she diao*. Of these, eight match modal names recorded in the edict of *Tang hui yao*.⁸ This suggests that most of the *tôgaku* pieces learned and composed by the Japanese reflected the modal practice of the mid-Tang period. Yet, given that a total of twenty-eight modes were used by the Tang Chinese to perform banquet music, it is hard to believe that the Japanese only learned and composed pieces in the modes that correspond to the ten modal headings in *Sango yôroku*. What happened, in fact, was that in Japan pieces performed in modes other than those corresponding to the modal headings were subsumed into one of the ten common modal headings.⁹ In most cases the modes that were subsumed shared the same seven pitches as the modes corresponding to the modal headings and could therefore be performed using the same tuning(s). The seven pitches of the mode of

⁸ *Kotsujikichô / qi shi diao* and *seichô / xing diao* are the exceptions (see pp. 60-1).

⁹ See Endô 2003 for a more comprehensive discussion of this matter.

kôshô shi kaku / huang zhong zhi jue, namely E, F#, G, A, B, C and D, are, of course, identical to those of the *ôshikichô / huang zhong diao* mode because they both belong to the *kôshô / huang zhong* key. As a result, *kôshô shi kaku / huang zhong zhi jue* and *ôshikichô / huang zhong diao* pieces in *Sango yôroku* can be performed using the same *fukôjô* tuning, and this is why “*Sekihaku tôrika*” is included in the *ôshikichô / huang zhong diao* modal group.

The un-syncopate melodies of “*Kishunraku*” and “*Kaiseiraku*”, on the other hand, clearly cadence on A, that is the tonic of the *ôshikichô / huang zhong diao* mode (circled in Musical Examples 3 and 5). The only exception is the first phrase of “*Kaiseiraku*”, in which the melody cadences on E. Because E is the fifth degree of the *ôshikichô / huang zhong diao* mode, a cadence on this degree is not unusual. In the following sections and chapters, I will show, through an examination of the amount of time spent on each pitch of a melody, that in addition to the tonic, the fifth degree is also a frequently used note in historical *tôgaku* melodies.

* * *

In addition to the cadences, ornamental practice also defines mode. The ornaments used in the Heian melodies must therefore be investigated. It has been shown in the previous chapter that while mordents were commonly used in *tôgaku* practice between the tenth and late twelfth centuries, in the later part of this period, appoggiaturas and suspensions were also added. Although both mordents and appoggiaturas are modally significant, suspensions are not. I will first elucidate

the use of mordents in the tenth-century flute and the late-twelfth-century lute melodies, and then proceed to an investigation of appoggiaturas and suspensions.

Hayashi Kenzô (Hayashi 1969d), Allan Marett (Marett 1976, 1977) and Endô Tôru (Endô 2002, 2003) have observed that there is a close relationship between the positions of the mordents in a Heian-period *tôgaku* melody and the structure of its mode. In *Hakuga no fuefu*, mordents most frequently occur on the notes that are separated from their lower neighbours by a semitone (Marett 1977:11). These notes are the *kyû / gong* and *chi / zhi* degrees of the *zheng sheng diao* heptatonic scale (Hayashi 1969d:299). In terms of Chinese modal theory, the use of mordents on the *kyû / gong* and *chi / zhi* degrees is precisely what one would expect.¹⁰

Musical Example 2 shows that the mordents employed in the flute and lute melodies of “*Sekihaku tôrika*” are mainly assigned to the pitches C and G, that is to the *kyû / gong* and *chi / zhi* degrees of the *kôshô shi kaku / huang zhong zhi jue* mode. Because each pitch of the mordent is notated, the lute part shows most clearly that the lower auxiliary notes of these mordents are all played over a semitone. The numbers of mordents used on C and G of the *Hakuga no fuefu* and the un-syncope *Sango yôroku* versions of “*Sekihaku tôrika*” are summarized in Table 6.1. It is clear that the number of mordents on the *chi / zhi* degree (G) is slightly more than the number of mordents on the *kyû / gong* degree (C) in both the *Hakuga no fuefu* and *Sango yôroku* melodies. This agrees with Hayashi’s

¹⁰ See pp. 48-9 for the relationship between these two degrees and their auxiliary degrees.

observation that the number of *chi / zhi* mordents is greater than the number of *kyû / gong* mordents in mid-Heian *ôshikichô / huang zhong diao* modal group pieces (Hayashi 1969d:299).¹¹

Table 6.1: The numbers of C and G mordents used in the *Hakuga no fuefu* and *Sango yôroku* versions of “*Sekihaku tôrika*”

	The <i>Hakuga no fuefu</i> version of “ <i>Sekihaku tôrika</i> ”	The un-syncopate <i>Sango yôroku</i> version of “ <i>Sekihaku tôrika</i> ”
Number of <i>kyû / gong</i> (C) mordents	15	17
Number of <i>chi / zhi</i> (G) mordents	16	23

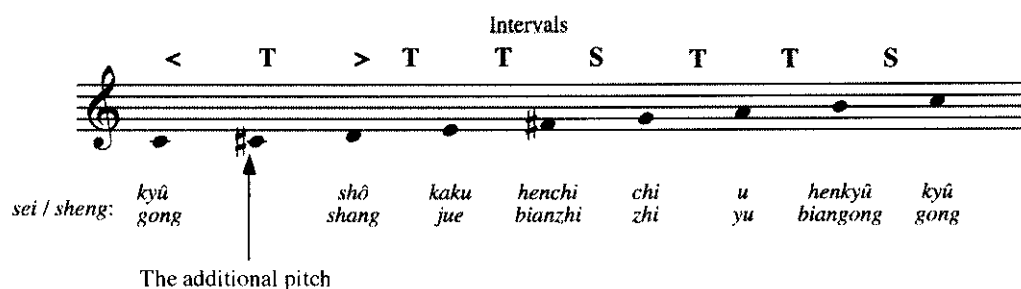
In addition to the *kyû / gong* and *chi / zhi* degrees, the *shô / shang* degree (D) is also occasionally decorated with a mordent. Two ‘*shô / shang*’ mordents occur in the *Hakuga no fuefu* melody and they are marked by Boxes (1) in Musical Example 2.

Hayashi also observed that mordents could be used on the *shô / shang* degree, although they are not as common as the mordents applied to the *chi / zhi* and *kyû / gong* degrees (Hayashi 1969d:299). If the auxiliary note of this *shô / shang*

¹¹ Endô Tôru’s PhD research shows, however, that while the usage and distribution of mordents in the *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modal group pieces in *Sango yôroku* basically match Hayashi’s results, the mordents of other modal categories, for example, *ichikotsuchô / yi yue diao*, may have different characteristics (Endô 2003). Since this thesis only investigates the modal categories of *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao*, the characteristics of the mordents in other modal group pieces will not be discussed further here.

mordent is also to be a semitone below the main note, however, a note outside the theoretical scale of the mode must be introduced. In the case of all the modes derived from the *kôshô / huang zhong* key, this note is C#. The following figure shows the position of C# in the *kôshô / huang zhong* key.

Figure 6.2: The structure of the *kôshô / huang zhong* key with an additional C# note



My analysis of the twenty-eight modes recorded in *Bu bi tan* (see Section II D of Chapter Two) showed that during and immediately after the Tang period an extra note might have been employed between the *kyû / gong* and *shô / shang* degrees of a mode. This note was the sharpened fourth degree of the *xia zhi diao* scale, which was apparently retained at the time when the *zheng sheng diao* scale began to reclaim its popularity (see Figure 2.21 on pp. 75-6). The practice of using C# as a minor ornament or an auxiliary note of a mordent in the *ôshikichô / huang zhong diao* modal group pieces might, therefore, have been transmitted from China. These C#s must not, however, be regarded as pitches that will significantly affect the tonality of a piece.

Endô Tôru suggests that the *shô / shang* mordents in Heian *tôgaku* might result from the transposition of *kin / yun*, and that the *kyû / gong* degree of some Heian melodies might have been a *chi / zhi* degree in the past (Endô 2003:251).¹² While his theory is similar to mine, he has not consulted any Chinese or Japanese sources in order to support his arguments.

The only other mordent in “*Sekihaku tôrika*” is a mordent on A used in the flute melody and marked by Box (2) in Musical Example 2. A is the *u / yu* degree of the *kôshô shi kaku / huang zhong zhi jue* mode and the auxiliary note of this A mordent would, if a semitone figuration were maintained, be a G#. Chinese treatises do not include any explanation of the use of this pitch in the *kôshô / huang zhong* key. This A mordent must, however, be treated with caution. While the melodies of the second half of the first and second sections of “*Sekihaku tôrika*” are supposed to be identical, this A mordent only occurs in the second, and not the first section of the flute melody (see Box (A) in the first section of Musical Example 2).

The mordents in “*Kishunraku*” and “*Kaiseiraku*” also appear mainly on C (*kyû / gong* degree) and G (*chi / zhi* degree) of the *ôshikichô / huang zhong diao* modes. D (*shô / shang*) mordents, however, occur only in the *Sango yôroku* version of “*Kaiseiraku*”.

There are, however, some puzzling mordents and C# pitches in “*Kishunraku*” and “*Kaiseiraku*”. The F# mordent in the lute melody of “*Kishunraku*” (see Box

¹² Endô uses the term *tenkin* (transposition of *kin / yun*) to represent the process of changing the degrees. I, on the other hand, consider this to be a change of modes rather than *kin / yun* (keys).

(1) of Musical Example 3) is probably an error because none of the “*Kishunraku*” melodies in other selected historical scores has an F# mordent in this position.¹³ The A mordent in the lute melody of “*Kaiseiraku*” (see Box (5) of Musical Example 5) is incorporated with a variant.

Although the appearance of C#s in the *ôshikichô / huang zhong diao* modal group pieces might be explained by the change of the theoretical explanation of heptatonic scales between the Sui and early Tang periods, the C#s in “*Kishunraku*” (see Boxes (2) of Musical Example 3) are used as main pitches rather than ornaments. These C#s, which occur only rarely in the selected *ôshikichô / huang zhong diao* modal group pieces, do not significantly affect the tonality of the piece because “*Kishunraku*” clearly cadences on A.¹⁴

* * *

Turning now to the study of the appoggiaturas and suspensions, since these two devices do not appear frequently, I will examine all the three selected pieces together.

¹³ See Musical Examples 8, 12, 15 and 18.

¹⁴ Endô Tôru has investigated all the *ôshikichô / huang zhong diao* modal group pieces recorded in *Sango yôroku*. He indicates that there are two ways of employing C#s in the *ôshikichô / huang zhong diao* modal group pieces: a frequent use of C#s that causes the pieces to demonstrate a modality generated by the *rinshô / lin zhong* key (Endô 2003:173) and a type of ‘temporary’ (臨時 という) (Endô 2003:172) employment that does not affect the tonality of a piece. “*Kishunraku*” belongs to the latter case, in which pieces are classified as Group A in Endô’s research (Endô 2003:194).

Table 6.2 shows the numbers of occurrence and pitches of appoggiatura and suspension in the late-twelfth-century lute melodies of “*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*”. It is clear that the pitches of appoggiatura are confined to C, G and D. This basically follows the same principle as for mordents in the *ôshikichô / huang zhong diao* modal group pieces. Indeed, Endô Tôru also obtained a similar result from his examination of all the *ôshikichô / huang zhong diao* modal group pieces in *Sango yôroku* (Endô 2003:176).

Furthermore, since the number of C appoggiaturas is clearly more than that for G and D, we might assume that the main function of the C appoggiatura was to emphasize the *kyû / gong* degree of the *kôshô shi kaku / huang zhong zhi jue* and *ôshikichô / huang zhong diao* modes.

Suspensions, by contrast, are commonly applied to the pitches A, D, E and G. This ornament probably has no modal significance.

Table 6.2: Appoggiaturas and suspensions in the late-twelfth-century lute melodies of “*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*”

Pitch	The number of appoggiaturas in the late-twelfth-century lute melodies of “ <i>Sekihaku tôrika</i> ”, “ <i>Kishunraku</i> ” and “ <i>Kaiseiraku</i> ”	The number of suspensions in the late-twelfth-century lute melodies of “ <i>Sekihaku tôrika</i> ”, “ <i>Kishunraku</i> ” and “ <i>Kaiseiraku</i> ”
C	9	
D	2	2
E		5
F#		

G	4	1
A		4
B		
Total:	15	12

B. The modal practice of the lute, zither and mouth-organ melodies from the late twelfth to the early fourteenth century

In this section, I will first demonstrate that from the twelfth century onwards the adoption of the syncopated rhythmic mode did not affect the modal structure and the tonality of *tôgaku* pieces. I will demonstrate this by reference to the un-syncopate and syncopated *Sango yôroku* versions of “*Sekihaku tôrika*”.

I will then show: a) that the modal practice of the zither melodies in *Jinchi yôroku* and *Ruisô chiyô* is identical to that of the lute melodies in *Sango yôroku*; and b) that the late-Heian modal practice was basically preserved in the mouth-organ melodies recorded in *Kofu ritsuryokan* and *Shinsen shôtekifu*.

Musical Example 6 shows that, like the un-syncopate version, the syncopated melody of “*Sekihaku tôrika*” cadences on the tonic (E) of the *kôshô shi kaku / huang zhong zhi jue* mode and does not include any pitch that is outside the theoretical scale. Furthermore, the mordents are applied only to C and G, and newly added appoggiaturas in the syncopated melody are all confined to C.

Since the rhythmic structure of the syncopated version is significantly different from the un-syncopate version, I will examine the amount of time spent

on each degree of the scale in these two versions in order to show that the use of rhythmic mode does not significantly affect the modal practice. Table 6.3 summarizes the number of crotchet-beats spent on each degree of the *kôshô shi kaku / huang zhong zhi jue* mode in the two versions.

Table 6.3: The number of crotchet-beats spent on each degree of the *kôshô shi kaku / huang zhong zhi jue* mode in the un-syncopate and syncopated versions of “*Sekihaku tôrika*”

Degree Note	Number of notes spent on each degree (pitch)													
	E (<i>kaku / jue</i>)		F# (<i>henchi / bian zhi</i>)		G (<i>chi / zhi</i>)		A (<i>u / yu</i>)		B (<i>henkyû / bian gong</i>)		C (<i>kyû / gong</i>)		D (<i>shô / shang</i>)	
	U	S	U	S	U	S	U	S	U	S	U	S	U	S
Semibreve	4													
Crotchet	8	6	1		3		9	4	5		5		6	2
Quaver	28	38	6	7	26	29	35	42	11	17	16	22	4	10
Semiquaver			22	11	23	33			11	14	17	34		
Demisemiquaver		2	1	22	1	22			6	18	6	18		2
Total number of crotchet-beats spent on each degree	30	25.25	9.625	9	21.875	25.5	26.5	25	14	14.25	18	21.75	8	7.25
Approximate percentage (%)	23.4	19.7	7.5	7.0	17.1	19.9	20.7	19.6	10.9	11.1	14.1	17.0	6.3	5.7

Index: U = un-syncopate version; S = syncopated version

It is clear from Table 6.3 that the total amount of time spent on the *henchi / bian zhi* (F#), *u / yu* (A), *henkyû / bian gong* (B) and *shô / shang* (D) degrees in the

un-syncopate and syncopated versions of “*Sekihaku tôrika*” is nearly the same. While the amount of time spent on the *chi / zhi* (G) and *kyû / gong* (C) degrees of the syncopated version is more than that of the un-syncopate version, this is not particularly significant. Firstly, the difference of time spent on G and C in the two versions in each case is less than four crotchet-beats. Secondly, G and C, which are pitches of the *chi / zhi* and *kyû / gong* degrees, are important notes of the *kôshô shi kaku / huang zhong zhi jue* mode. It is to be expected that these two pitches would be more influenced by syncopation. On the other hand, the total amount of time spent on E in the syncopated version is slightly less than the un-syncopate version. E is tonic of the mode and commonly appears at the beginning and the end of a musical phrase. I have already shown, however, that syncopation tends not to be applied at the beginning of a phrase (see p. 214).

* * *

Turning now to the study of the historical zither and mouth-organ melodies, I have demonstrated in the previous chapter that the zither melodies in *Jinchi yôroku* and *Ruisô chiyô* are virtually identical to their lute versions in *Sango yôroku*. We might conclude therefore that the modal practice (including the use of mordents and ornaments) of the *Sango yôroku* melodies will be replicated in the historical zither melodies.

Let us consider some of the minor differences between the late-twelfth-century zither and lute melodies. While C#s are clearly employed in

the lute version of “*Kishunraku*” (see Boxes (3) of Musical Example 8), the zither may not follow the lute to use C#s. Since what is idiomatic for the zither may not be idiomatic for the lute and the *oshihanashi* technique of the zither can generate both C natural and C#, it is possible that the zither mordents in Boxes (3) of Musical Example 8 are C natural rather than C# mordent.¹⁵ Theoretically, a C# mordent is also not allowable in the late-Heian way of using mordents. The other two selected *ôshikichô* / *huang zhong diao* modal group pieces include no C# mordents either.

Turning now to the mouth-organ, leaving aside some pitch errors and non-modally significant rhythmic adjustments, the historical mouth-organ melodies are very similar to the late-twelfth-century lute melodies (see Musical Examples 11, 12 and 13).¹⁶

Although many *yuri* signs in *Shinsen shôtekifu* are not applied to the *chi* / *zhi* (G) and *kyû* / *gong* (G) degrees of the *kôshô* / *huang zhong* key (see the circled *yuri* in Musical Examples 12 and 13), this does not suggest that the mid- and late-Heian practices of using mordents were changed in the thirteenth and fourteenth centuries. As has been noted in Chapter Four, the *yuri* of the mouth-organ scores probably represent a re-articulation of a pitch rather than a mordent (see. p. 160). It is possible, therefore, that *yuri* signs are non-modally

¹⁵ This is the reason why the sharps in the zither melodies are bracketed.

¹⁶ Since the historical mouth-organ scores do not indicate phrasing, there is no way to compare the phrase structures of the mouth-organ melodies with those in the late-Heian lute versions. One can assume, however, that the phrases of the historical mouth-organ melodies cadence on the same degrees and pitches as the late-Heian lute melodies.

significant in mouth-organ performance practice.

The small tablature-signs of the *Shinsen shôtekifu* notation are transcribed as small hollow notes in Musical Examples 11, 12 and 13. Many of these hollow notes are joined together to form a run. For example, a ‘B – A – G’ run frequently appears in the “*Sekihaku tôrika*” melodies (Musical Example 11). While these runs chiefly finish on the *chi / zhi* degree (G) of the main melody, similar runs, namely runs that are formed by three descending successive pitches, in other modal group pieces, for example, *banshikichô / pan she diao*, do not necessarily finish on the *chi / zhi* degree (see Chapter Seven). It is, therefore, unlikely that the runs are modally significant since runs that share a similar structure do not always finished at the same degree in a scale.

Indeed, it is uncertain whether or not these small tablature-signs were performed together with the main melodies in the late thirteenth and early fourteenth centuries. Even if they were to be performed with the main melody, Musical Examples 11, 12 and 13 clearly show that the hollow notes do not include any pitch that is outside the theoretical scale of the *kôshô shi kaku / huang zhong zhi jue* and *ôshikichô / huang zhong diao* modes. They cannot, therefore, significantly change the modal practice of the mouth-organ melodies.

C. The modal practice of the double-reed pipe and flute melodies in the mid-fourteenth century

While the pitches of the mid-fourteenth-century double-reed pipe and flute melodies (see Musical Examples 14 to 19) are for the most confined to those of

the theoretical scales of the *ôshikichô* / *huang zhong diao* and *kôshô shi kaku* / *huang zhong zhi jue* modes,¹⁷ and although the melodies cadence correctly on the tonic of their relevant modes,¹⁸ the principles for adding pitches and ornaments are significantly different from those of the Heian practice. These differences significantly alter the modality of *tôgaku* melodies in the mid-fourteenth century.

I will now examine the use of non-standard additional pitches, appoggiaturas and mordents in the selected melodies. As was shown in the previous chapter, the fourteenth-century *tôgaku* melodies include some non-standard additional pitches that are not allowable as ornaments in the pre-fourteenth-century melodies.¹⁹ The non-standard additional pitches of the double-reed pipe melodies are notes that seem to be inserted into leaps in order to facilitate their performance and at the same time to become distinctive element of the recurring melodic patterns (see Figures 5.1 and 5.2 on pp. 223 and 224 respectively). The non-standard additional pitches of the flute melodies are, on the other hand, mainly runs that suggest a decorative function (see Figures 5.3 and 5.4 on p. 227). Some of the filled in leaps on the double-reed pipe and some of the runs on the flute eventually became

¹⁷ The fourteenth-century “*Kishunraku*” melodies may include some C# pitches (see Boxes (3) of Musical Example 15 and Boxes (4) of Musical Example 18). These C#s are bracketed because the *han* 几 tablature-sign of the double-reed pipe notation and the *ge* 丄 tablature-sign of the flute notation represent both C natural and C#. It has been suggested in the previous section, however, that C#s in “*Kishunraku*” do not affect the tonality of the piece (see p. 278).

¹⁸ Even though *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* do not include any sign to indicate musical phrases, there is no evidence that the phrase structures of the selected pieces were altered in the fourteenth century.

¹⁹ See the notes marked with an asterisk in the double-reed pipe melodies and the circled notes of the flute melodies.

formulae in modern performance practice. Even though the non-standard additional notes and runs in the mid-fourteenth-century melodies are all confined to the pitches within the theoretical scale of the *kôshô* / *huang zhong* key, this does not mean that they are insignificant to modal practice. I will now demonstrate, with reference to the “*Sekihaku tôrika*” melodies shown in Musical Examples 37 and 38, how the use of these non-standard additional pitches affects modal practice.

Leaving aside the standard Heian-period ornaments and the octave level of the pitches, the tenth-century version of “*Sekihaku tôrika*” is exactly the same as the late-twelfth-century version (see Musical Example 37). This is, however, not the case with regard to the fourteenth-century version. Musical Example 38 shows that even if all the standard ornaments—that is, *appoggiaturas*, mordents, repetitions and anticipations—are eliminated, numerous pitch discrepancies (marked by the shaded boxes) remain. Most of these differences occur, moreover, at places where non-standard additional pitches are applied in the double-reed pipe or flute melodies.²⁰

This analysis suggests that from the tenth to the late thirteenth century, there was a strong vertical relationship between the versions of melodies carried by different instruments. It is this vertical relationship that helped maintain a stable modal practice throughout all surviving instrumental parts. In the fourteenth century, however, the melodies were beginning to break free from their ancient

²⁰ The additional pitches are marked by asterisks in Musical Example 38.

forms. Now each instrument began to develop versions of the melody that affected modal practice. This accordingly led to the suppression of the ancient melodies and the emergence of the new melodies and modal practice that characterize *tôgaku* today.

* * *

My analysis of appoggiaturas and mordents will also concentrate on the *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* versions of “*Sekihaku tôrika*”. The newly added appoggiaturas in the fourteenth-century “*Sekihaku tôrika*” melodies are shaded in Musical Examples 14 and 17. While in late-Heian practice the pitches of appoggiaturas are confined to C (the *kyû / gong* degree), G (the *chi / zhi* degree) and D (the *shô / shang* degree), in fourteenth-century practice appoggiaturas appear on every degrees of the scale.²¹ This is completely different from the late-Heian way of using appoggiaturas and we may conclude that the modal significance of appoggiatura was lost between the thirteenth and fourteenth centuries.²²

While in the fourteenth-century melodies, mordents were still applied mainly to the *chi / zhi* (G) and *kyû / gong* (C) degrees, this clear and elegant relationship between ornamental practice and modal structure began to be clouded by the

²¹ Even though there is no G appoggiatura in the fourteenth-century version of “*Sekihaku tôrika*”, it can be found in the double-reed pipe melody of “*Kishunraku*”.

²² See the analysis of the *banshikichô / pan she diao* modal group pieces in Chapter Seven for more details.

addition of other ornaments such as inverted mordents, *ren* and *ugoki*.

Let us first consider inverted mordents. Some mordents in the twelfth-century version of the “*Sekihaku tôrika*” melody are replaced by inverted mordents, for example, the G mordent in Box (3) of Musical Example 14. Previously, the main function of the mordents in the mid- and late-Heian periods was to emphasize the *chi / zhi* and *kyû / gong* degrees of a scale and thus to strengthen the tonality of a piece. This use of mordents probably follows Chinese tradition, in that the auxiliary note is always a semitone below the main note. The auxiliary note (A) of the inverted mordent in Box (3) of Musical Example 14, on the other hand, is a tone higher than the main note, and rather than emphasizing the relationship between the *chi / zhi* degree (G) and its auxiliary degree *henchi / bian zhi* (F#), it emphasizes the *u / yu* degree (A) of the scale.

Secondly, while the application of the *ren* and *ugoki* techniques in the flute melodies might seem at first sight to be modally significant, this will prove not to be the case. Musical Example 17 shows that the *ren* 連 technique always begins from C (that is the *kyû / gong* degree) whereas the *ugoki* 動 technique is applied only to G (that is the *chi / zhi* degree). I will show, however, in the following chapters that, irrespective of mode, *ren* is always associated with the same tablature-sign and *ugoki* is applied neither to a fixed pitch nor to a specific degree in other modal group pieces. This suggests that *ren* and *ugoki* are non-modally significant ornaments.

II. The modal practice of present-day performance

A. The modal practice of the modern lute melodies

The comparative analysis in Part II of Chapter Five clearly demonstrated that the forms of the lute melodies performed about 800 years ago are still preserved in the modern lute part of the present-day *tôgaku*. The main reason that the ancient tunes can no longer be heard as melodies is that the modern lute melodies are performed at a very slow tempo and are accompanied by arpeggiated drones, the notes of which are, in the *ôshikichô / huang zhong diao* modal group pieces, A, C and E (Hirano et al. 1989:294). Since these three pitches are prominent in the *ôshikichô / huang zhong diao* mode (see Table 6.3 on p. 281), the insertion of the arpeggiated drones does not significantly affect the modality. The late-twelfth-century modal practice of the lute melodies is thus well preserved in modern lute performance.

It is necessary to note, nevertheless, that the tonality of some modern lute melodies is affected by a modern practice called *tomete* or *tomede* (literally ‘stopping hands’). In modern practice, pieces never cadence on the pitches indicated by the tablature-signs. Rather, those in the same modal category finish with a standard cadence known as *tomete*.²³

Each instrument has a different melody for *tomete*²⁴ and *tomete* is performed

²³ The final cadences of the modern lute melodies in Musical Examples 20, 21 and 22 are, however, transcribed according to the tablature-notation. See below for the reason of doing this.

²⁴ See Shiba’s transcriptions for the structures of the *tomete* for other instruments (Shiba 1969:63-86; 1971:63-98)

diao mode but in the *kôshô shi kaku / huang zhong zhi jue* mode. That is, “*Sekihaku tôrika*” cadenced on E rather than A. The use of the standard *ôshikichô / huang zhong diao tomete*, therefore, changes the tonality of the final cadence of “*Sekihaku tôrika*” from *kôshô shi kaku / huang zhong zhi jue* to *ôshikichô / huang zhong diao*.

It is important to remember that historical scores of *tôgaku* did not include any explanation of *tomete*, and it is therefore almost certain that *tomete* did not exist in historical performance practice. Given that the function of *tomete* is similar to the final cadence used in western music, might it possibly have been developed in the nineteenth century in imitation of the western final cadence?

The employment of *tomete* in modern *tôgaku* shows that most *gagaku* musicians do not understand that pieces that are grouped in the same modal category in historical *tôgaku* scores are not necessarily performed in the same mode.

Because I wish to focus on what is notated in *Meiji senteifu*, and given that the *tomete* only affects the tonality of the final cadence of “*Sekihaku tôrika*” but not the other selected pieces in this thesis,²⁵ I will not show the *tomete* in the transcriptions. Nor will they be further examined in the following analysis.

B. The modal practice of the modern mouth-organ melodies

²⁵ The selected historical *banshikichô / pan she diao* and *hyôjô / ping diao* modal group pieces are clearly performed in the *banshikichô / pan she diao* and *hyôjô / ping diao* modes respectively (see Chapters Seven and Eight).

Despite the fact that the forms of the early thirteenth-century mouth-organ melodies are preserved in modern performance albeit at a very slow tempo, historical modal practice is not well preserved. Unlike the arpeggios of the modern lute melodies, the cluster-chords of the mouth-organ may include pitches from outside the mode, which affect the tonality of pieces.

The circles drawn in Musical Examples 24, 25 and 26 highlight the *ge* 下 (F#) and the *ku* 工 (C#) cluster-chords used in the modern melodies. Both of these two cluster-chords include a G# in their chordal structure. While the *ku* cluster-chord is used only when the historical melody has a C# and therefore appears rarely in the *ôshikichô / huang zhong diao* pieces chosen for analysis, the *ge* cluster-chord is commonly employed. G# does not exist in the *ôshikichô / huang zhong diao* and *kôshô shi kaku / huang zhong zhi jue* modes and its presence therefore significantly influences the tonality of the modern mouth-organ melodies.

Hayashi Kenzô's article "Shôritsu nikô-jûshichikanshō no keitō to wasei nitsuite—" examines the background and the characteristics of the cluster-chords used in modern mouth-organ melodies (Hayashi 1969g).²⁶ Hayashi states that none of the pitches in any of the cluster-chord exceeds the range of seven successive fifths in a cycle of fifth, and that therefore each can be considered as belonging to a single tonal series (Hayashi 1969g:391-4) (Garfias 1975:65). Hayashi further indicates that seven out of the eleven standard modern

²⁶ This article was first published in the journal *Nara gakugei daigaku kiyô* 3 No. 3 (1954). The version that I have consulted is a reprint in *Gagaku-kogakufu no kaidoku* (Hayashi 1969g).

cluster-chords are formed from the pitch series of the *taisô / tai cou* key (D E F# G# A B C#) (Hayashi 1969g:396).²⁷ These include the cluster-chords on *ge* 下, *ku* 工, *bô* 凡, *otsu* 乙, *bi* 美, *gyô* 行 and *ichi* 一, of which five, *ge*, *ku*, *bô*, *otsu* and *ichi*, are commonly used in the *ôshikichô / huang zhong diao* modal group pieces. *Bô*, *otsu* and *ichi* do not affect the tonality of the *ôshikichô / huang zhong diao* pieces because they are formed by using only the first (D), second (E), third (F#), fifth (A) and sixth (B) degrees of the *taisô / tai cou* key (Hayashi 1969g:392). Nevertheless, *ge* and *ku*, as previously stated, include a G# that will affect the tonality of the *ôshikichô / huang zhong diao* pieces.

Another three cluster-chords that are frequently employed in the *ôshikichô / huang zhong diao* modal group pieces are *kotsu* 乞, *hi* 比 and *jû* 十. *Hi* is the only cluster-chord that is formed from the pitches of the *kôshô / huang zhong* key (Hayashi 1969g:396). *Kotsu* and *jû* are, on the other hand, cluster-chords of the *nanryo / nanlü* and *rinshô / lin zhong* keys respectively (Hayashi 1969g:396).²⁸ Since the *kotsu* cluster-chord includes only A, B, E and F#, and the *jû* cluster-chord comprises only G, A, B, D and E, they basically do not affect the tonality of the *ôshikichô / huang zhong diao* modal group pieces.

Because the modern cluster-chords are formed mainly from the pitches of the *taisô / tai cou* key series but are nonetheless used in pieces of all the modal categories, it is to be expected that they will affect the tonality of many

²⁷ See Figure 4.66 on p. 198 for the structures of the eleven standard cluster-chords.

²⁸ Hayashi also notes that *kotsu* may be a cluster-chord of the *taisô / tai cou* key (Hayashi 1969:396).

mouth-organ melodies. In the case of the *ôshikichô* / *huang zhong diao* modal category, the pieces, on the one hand, preserve the thirteenth-century modal practice in the basic melody and on the other, manifest the tonality of the modes generated from the *taisô* / *tai cou* key in the cluster-chords.

C. The modal practice of the modern long zither melodies

The modern tuning for *ôshikichô* / *huang zhong diao* modal group pieces is different from the late-twelfth-century tuning used in *Jinchi yôroku* and *Ruisô chiyô*. Since this difference is modally significant, I have set out the modern and the late-twelfth-century *ôshikichô* tunings in the following two figures.

Figure 6.4: The tuning for performing the *ôshikichô* / *huang zhong diao* modal group pieces in *Jinchi yôroku* and *Ruisô chiyô*

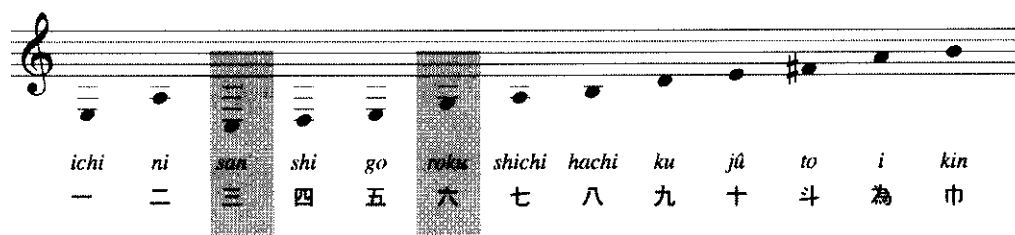
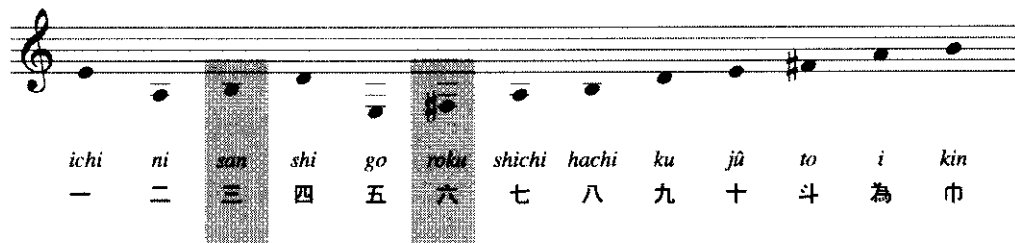


Figure 6.5: The modern *ôshikichô* tuning



In modern practice, the third string is changed from C to B and the sixth string is changed from G to F#. The thirteen strings of the modern *ôshikichô* tuning are, therefore, tuned only to the pitches A, B, D, E and F#. Because the left-hand techniques are completely abandoned in modern practice, the modern zither melodies of the *ôshikichô / huang zhong diao* modal category can only include these pitches (see Musical Examples 28, 29 and 30).

C and G are, however, important pitches that should not be abandoned. They are the *kyû / gong* and *chi / zhi* degrees of the *kôshô / huang zhong* key respectively, and these two degrees frequently appear in the mid- and late-Heian melodies (see Table 6.3 on p. 281). Moreover, C and G were commonly decorated with a mordent in the Heian melodies so as to emphasize their importance to the tonality of a piece. It is no exaggeration to say that the abandonment of C and G is the main factor in the destruction of the historical zither modal practice.

Endô Tôru suggests that there is a close relationship between this modified modern zither tuning and the theoretical *ritsu* scale in *gagaku* (Endô 2003:120).²⁹ As was indicated in the Introduction of this thesis, modern *tôgaku* pieces are generally classified into the *ryo* and *ritsu* groups according to whether they conform to the theoretical *ryo* (TTSTTST) and *ritsu* (TSTTTST) scales (Hirano et al. 1989:140). The *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modes are regarded as conforming to the *ritsu* scale. Although

²⁹ While Endô only investigated the case of the modern *hyôjô* tuning, his arguments also apply to the modern *ôshikichô* and *banshikichô* tunings.

the *ritsu* scale shares an identical structure to the *ôshikichô / huang zhong diao* mode, the method of naming the degrees is different from those recorded in Chinese treatises and *Jinchi yôroku*, and this in turn affects the tunings and the melodies of the modern zither performance. The different methods of naming the degrees of the Tang, late-Heian and modern *ôshikichô / huang zhong diao* mode are shown in the following figure.³⁰

Figure 6.6: The three versions of naming the degrees of the *ôshikichô / huang zhong diao* mode in China and Japan

Intervals

	T	S	T	T	T	#	S	T
Tang:	<i>u</i> <i>yu</i> 羽	<i>henkyû</i> <i>biangong</i> 變宮	<i>kyû</i> <i>gong</i> 宮	<i>shô</i> <i>shang</i> 商	<i>kaku</i> <i>jue</i> 角	<i>henchi</i> <i>bianzhi</i> 變徵	<i>chi</i> <i>zhi</i> 徵	<i>u</i> <i>yu</i> 羽
Fujiwara no Moronaga (in <i>Jinchi</i> <i>yôroku</i>):	<i>kyû</i> <i>gong</i> 宮	<i>shô</i> <i>shang</i> 商	<i>kaku</i> <i>jue</i> 角	<i>henchi</i> <i>bianzhi</i> 變徵	<i>chi</i> <i>zhi</i> 徵	<i>u</i> <i>yu</i> 羽	<i>henkyû</i> <i>biangong</i> 變宮	<i>kyû</i> <i>gong</i> 宮
Modern <i>ritsu</i> :	(<i>kyû</i>) 宮	(<i>shô</i>) 商	<i>eishô</i> 嬰商	(<i>kaku</i>) 角	(<i>chi</i>) 徵	(<i>u</i>) 羽	<i>eiu</i> 嬰羽	<i>kyû</i> 宮

It seems likely that during the Meiji standardization the modern *ôshikichô / huang zhong diao* tuning was modified in order to make it conform to the *ritsu* scale. The strings of the modern *ôshikichô* tuning are tuned to the *kyû* (A), *shô* (B), *kaku* (D), *chi* (E) and *u* (F#) degrees of the modern *ritsu* scale. The musicians seem to have considered C and G to be the auxiliary degrees (*eishô* and *eiu*) and, therefore, to have assigned only the pitches of the *kyû*, *shô*, *kaku*, *chi* and *u*

³⁰ Since the Japanese *ritsu* and *ryo* scales are not part of Chinese theory, only the Japanese reading of degree names will be given.

degrees to the thirteen strings. The musicians did not seem to understand, however, that the *kyû*, *shô*, *kaku*, *chi* and *u* degrees of the modern *ritsu* scale did not agree with the original positions of *kyû* / *gong*, *shô* / *shang*, *kaku* / *jue*, *chi* / *zhi* and *u* / *yu* degrees of the Tang *ôshikichô* / *huang zhong diao* mode. Accordingly, they eliminated the most important pitches (C and G) and preserved more insignificant pitches (B, D and F#) in the zither tuning and hence in the melodies.³¹

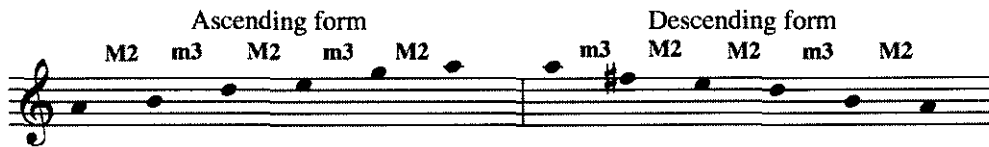
Indeed, in the modern *banshikichô* and *hyôjô* zither tunings, the third and sixth strings are also tuned a semitone lower than in historical practice so that the modern zither melodies only include the pitches that correspond to the *kyû*, *shô*, *kaku*, *chi* and *u* degrees of the modern *ritsu* scale. This will be demonstrated more fully in Chapters Seven and Eight.

The modern zither melodies can be, moreover, interpreted in terms of the Japanese *yô* scale. Uehara Rokushirô (1848-1913) was the first scholar to suggest that Japanese “vernacular music” is mainly performed in two different scales, namely the *in* and *yô* (equivalent of the Chinese philosophical terms *yin* and *yang*) scales (Hirano et al. 1989:141) (Provine, Robert C., Tokumaru Yosihiko & Witzleben, Lawrence J. ed. 2002:568). Each of these two scales has an ascending and a descending form. Tanabe Hisao suggested that it is the descending rather than the ascending form that represents the basic structure of these two scales (Hirano 1989:142). The ascending and descending forms of the *yô* scale are set

³¹ Table 6.3 clearly shows that C and G are more important than B, D and F# in Heian *ôshikichô* / *huang zhong diao* modal group pieces.

out in the following figure.³²

Figure 6.7: The ascending and descending forms of the *yô* scale



Because the intervallic relationship between the *kyû*, *shô*, *kaku*, *chi* and *u* degrees of the modern *ritsu* scale is identical to that of the descending *yô* scale, the modern zither melodies of the *ôshikichô* / *huang zhong diao* modal group also realize the descending *yô* scale in modern practice.

D. The modal practice of the modern double-reed pipe melodies

In the last chapter, I showed that the application of orally transmitted practices such as *enbai*, *nuances*, *meru* and change to the *jô* ⊥ fingering has led to significant pitch alterations in the modern double-reed pipe melodies. I will now show that the technique of *meru* and the change of the *jô* fingering in modern double-reed pipe performance have both come about in order to facilitate the creation of an entirely new modal structure for the modern melodies.

As shown in Table A of Appendix IV, the *itsu* 一 and *riku* 六

³² The terms 'M2', 'm2' and 'm3' represents the intervals of 'major second', 'minor second' and 'minor third' respectively.

tablature-signs of the modern *ôshikichô* / *huang zhong diao* double-reed pipe melodies are frequently performed with the *meru* technique (see the circled tablature-signs) so that what was originally F# becomes F natural and what was D becomes C natural. In addition, *jô* ⊥ is usually performed with the *itsu* fingering in order to generate an F natural rather than the standard pitch G (see the boxed *jô* tablature-signs). Figure 6.8 illustrates how the pitches of the *ôshikichô* / *huang zhong diao* mode are modified in the modern double-reed pipe melody. These modifications allow the modern double-reed pipe melodies of the *ôshikichô* / *huang zhong diao* modal category to be basically performed in a pentatonic scale consisting of the pitches A, B, C, E and F.

Figure 6.8: An illustration of the modification of the pitches in modern *ôshikichô* / *huang zhong diao* double-reed pipe melodies

The theoretical structure of the *ôshikichô* / *huang zhong diao* mode

五 工 几 六 四 一 十(舌) 丁

The pitches that are frequently used in modern *ôshikichô* / *huang zhong diao* double-reed pipe melodies

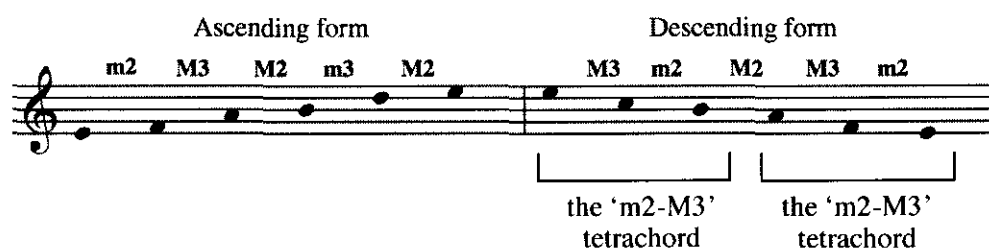
A B C E F A

M2 m2 M3 m2 M3

The intervallic relationship between these five pitches is ‘M2 – m2 – M3 – m2 – M3’. This intervallic sequence consists of two identical ‘m2 – M3’

tetrachords,³³ and it is these tetrachords that in their inverted form (M3 – m2)³⁴ that form the main structure of the descending form of the Japanese *in* scale. The ascending and descending forms of the Japanese *in* scale is shown in the following figure.

Figure 6.9: The ascending and descending forms of the *in* scale



We may conclude that the objective of lowering the standard pitches and the change of the *jô* fingering is to allow the modern *ôshikichô* / *huang zhong diao* double-reed pipe melodies to give a sense of the *in* scale, regardless of the fact that the tonic of this *in* scale is E (see Figure 6.9) rather than A. In the following two chapters, I will show that these orally transmitted practices are also applied in the modern *banshikichô* / *pan she diao* and *hyôjô* / *ping diao* double-reed pipe melodies so as to allow the modern double-reed pipe melodies to be performed

³³ Japanese scholars commonly use tetrachords to analyze Japanese music performed from the sixteenth century on. This method was first introduced by Koizumi Fumio (1927-83) (Provine, Robert C., Tokumaru Yosihiko & Witzleben, Lawrence J. ed. 2002:569). See Koizumi 1958 for details.

³⁴ This tetrachord is frequently referred to as the '*miyakobushi* tetrachord' in Koizumi's research (Hirano et al. 1989:142).

primarily in the *in* scale.

It has been shown in Chapter Five that some rhythmic discrepancies between the modern and historical double-reed pipe melodies are caused by the extension of note-value in the modern melodies (see Figure 5.9 on p. 245). It is likely that some of these extensions came about in order to emphasize certain pitches in the *in* scale. For instance, in Formula (c) of “*Sekihaku tôrika*” (see Figure 5.10 on p. 251), the note-value of the first F natural pitch is extended to three crotchet-beats. While F natural does not occur in the theoretical scale of the diatonic *ôshikichô / huang zhong diao* mode, it is an important degree of the *in* scale that is crucial to its characteristic semitone cadence from F natural to E.

* * *

D, F# and G are not, however, completely abandoned in the *ôshikichô / huang zhong diao* melodies and this leads to a degree of polymodality in modern double-reed pipe melodies.

Table 6.4: The amount of time spent on each pitch in the modern double-reed pipe melody of “*Sekihaku tôrika*”

Pitch	E	F ♮	F#	G	A	B	C ♮	D
Number of crotchet-beats spent on each pitch	189.625	195	36.75	12.125	166.25	83.75	128.5	30.5

Approximate Percentage (%)	22.5	23.2	4.4	1.4	19.7	9.9	15.3	3.6
Ranking	2	1	6	8	3	5	4	7

Table 6.4 shows two important characteristics of the modern double-reed pipe melody of “*Sekihaku tôrika*”. Firstly, the amount of time spent on F# (4.4%), D (3.6%) and G (1.4%) is relatively small. Some of these pitches are, moreover, simply used as nuances in the melody. For instance, 0.6% out of the 3.6% of D and 0.6% out of the 1.4% of G are nuances.³⁵ Moreover, F natural, which is a pitch that occurs in the *in* scale but not in the theoretical scale of the diatonic *ôshikichô / huang zhong diao* mode, now becomes the most frequently used pitch in the modern “*Sekihaku tôrika*” melody.

The cases of “*Kishunraku*” and “*Kaiseiraku*” are similar to that of “*Sekihaku tôrika*”. In “*Kishunraku*” only 1.3%, 2.4% and 3.9% of the melody are devoted to D, F# and G respectively. Similarly, only 1.2%, 2.3% and 2.7% of the “*Kaiseiraku*” melody are devoted to D, F# and G respectively. While F natural is not the most frequently used pitch in “*Kishunraku*” and “*Kaiseiraku*”, the amount of time spent on F natural (15.6% in “*Kishunraku*” and 10.2% in “*Kaiseiraku*”) is significantly more than on F#.

The preservation of D, F# and G in the modern double-reed pipe melodies may testify to the strength of oral transmission. Allan Marett suggests that the

³⁵ Since the pitches of nuances are mainly G and D (see Table A) and these two pitches are not included in the *in* scale, it is unlikely that the nuances are related to the *in* tonality of the modern double-reed pipe melodies.

transmission of *tôgaku* shifted from ‘a high degree of reliance on scores in the Heian period to a greater reliance on oral transmission in the post-Heian periods’, and that ‘oral transmission led to an increasing reliance on formulae’ (Marett 1985:426). It is possible that Ds, F#s and Gs that were central to the proto-formulaic historical melodic patterns survived even though their continued existence resulted in intermittent polymodality. The F# in Formula (o) of “*Sekihaku tôrika*” is a typical example (see Table A in Appendix IV). This F# was inserted into the melody as a non-standard additional pitch in the fourteenth century (see Box (5) of Musical Example 14). It might, therefore, be expected that the musicians would pay particular attention to this pitch during the transmission of this formulae, and that this F# might be better preserved than other F#s in the melody.

In examining the modal practice of the modern double-reed pipe melodies, it is also essential to consider the orally transmitted *enbai*. The following table summarizes the pitches of the *enbai* added in the modern double-reed pipe melody of “*Sekihaku tôrika*”.

Table 6.5: The *enbai* added in the modern double-reed pipe melody of “*Sekihaku tôrika*”

Pitch of the <i>enbai</i>	Total number
E	43
A	27

B	4
F ♮	2

The above table shows that in “*Sekihaku tôrika*”, E and A are more frequently used as the pitch of *enbai* than B and F natural. Since E and A are the tonic and the third degree respectively of the descending *in* scale shown in Figure 6.9, one may consider that *enbai* are modally significant. I will, however, show in the following two chapters that the usage of *enbai* in modern *banshikichô / panshe diao* and *hyôjô / ping diao* double-reed pipe melodies is different from that of the *ôshikichô / huang zhong diao* melodies, and that *enbai* are probably not modally significant.

* * *

In the previous chapter I suggested that some formulae are held in common between the modern *ôshikichô / huang zhong diao* double-reed pipe melodies, and that they therefore contribute to modal definition. These include formulae (a), (b), (c) and (h) as well as three other formulae, Formulae (g), (j) and (k) (see Table A of Appendix IV). While the last three formulae do not appear in “*Kaiseiraku*”, they are frequently used in “*Sekihaku tôrika*”, “*Kishunraku*” and many other modern *ôshikichô / huang zhong diao* modal group pieces, for example “*Yôgûraku*”.³⁶ Later in this thesis, I will compare these formulae with other

³⁶ Although “*Yôgûraku*” is not included in the investigation of this thesis (see Introduction), I have

modally specific formulae used in modern *banshikichô* / *pan she diao* and *hyôjô* / *ping diao* melodies, and discuss their characteristics in detail.

E. The modal practice of the modern transverse flute melodies

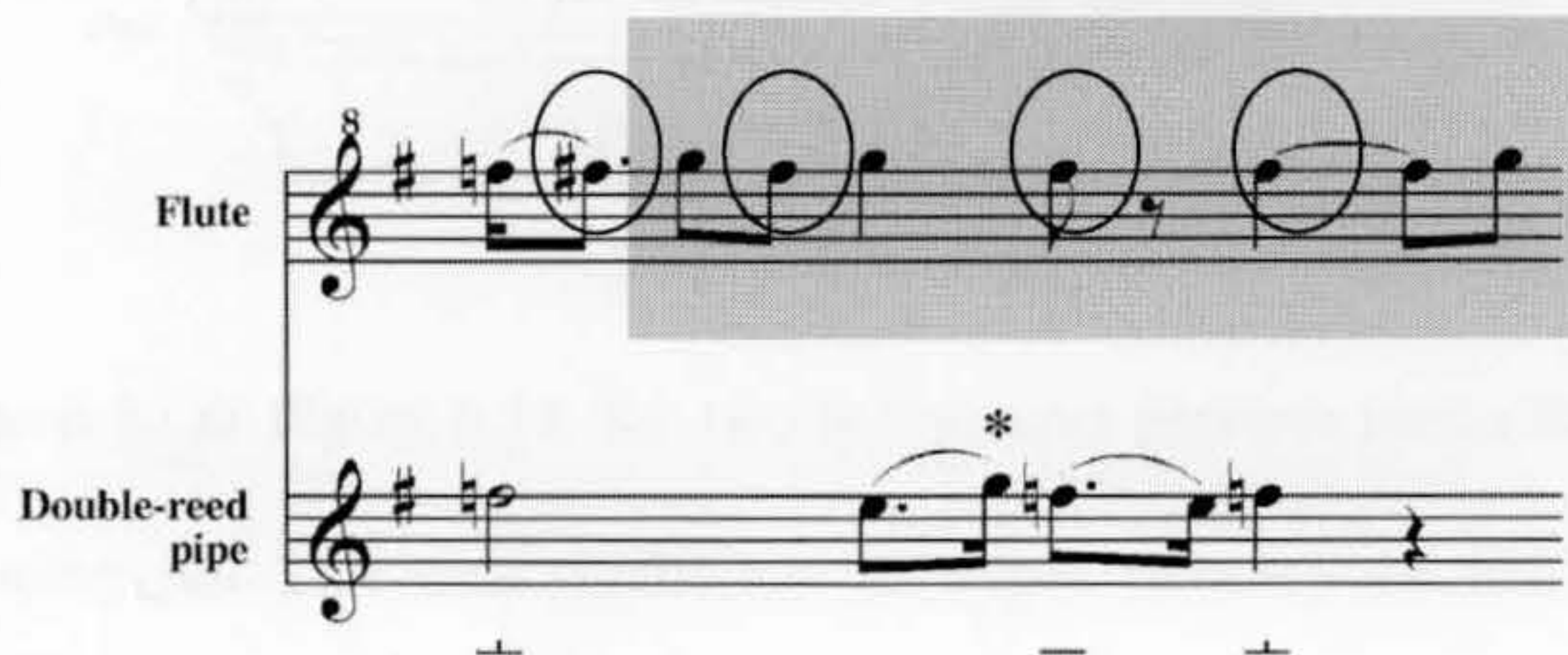
Although there are some clear pitch differences between the modern double-reed pipe and flute parts of the same *tôgaku* piece, it is commonly said that they basically perform the same melody (Masumoto 2000:20). Such statements are, however, misleading because they erase the importance of pitch discrepancies and clashes. These are in fact very important in defining mode.

In Musical Example 39, I line up the modern double-reed pipe and flute versions of the first section of “*Sekihaku tôrika*”. Leaving aside pitch differences that are caused by the use of *enbai* and nuances in the double-reed pipe melody and by the glissandi generated by the sliding techniques of the flute, there are still significant pitch differences between the two melodies. Pitch differences that concern clashes of semitone or tone, for example, F natural and F#, occur mainly between Formulae (b), (h), (k) of the flute melody (marked as Boxes (b), (h) and (k) in Musical Example 39) and Formula (c), (g), (j) of the double-reed pipe melodies respectively. I have compared them and the results are shown in Figures 6.10, 6.11 and 6.12.³⁷

also examined its formulaic structure.

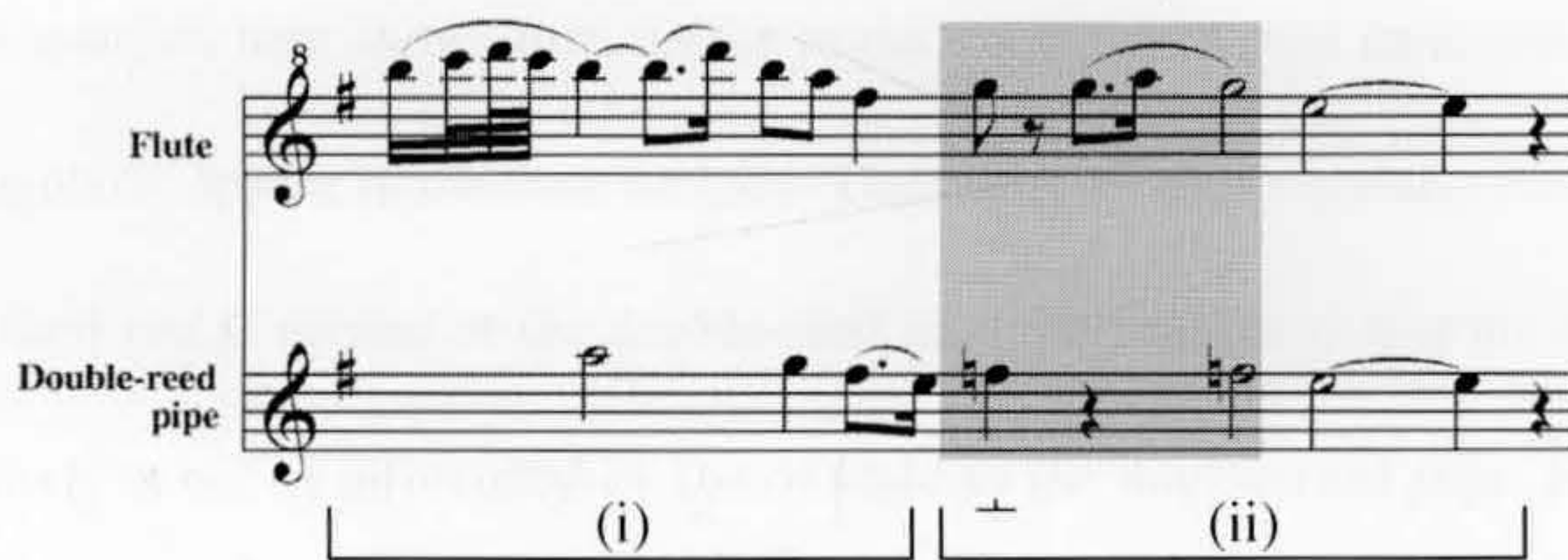
³⁷ I will only line up Version 1 of the formulae in these three figures if variation occurs.

Figure 6.10: A comparison of Formula (b) of the flute melody with Formula (c) of the double-reed pipe melody of “*Sekihaku tôrika*”



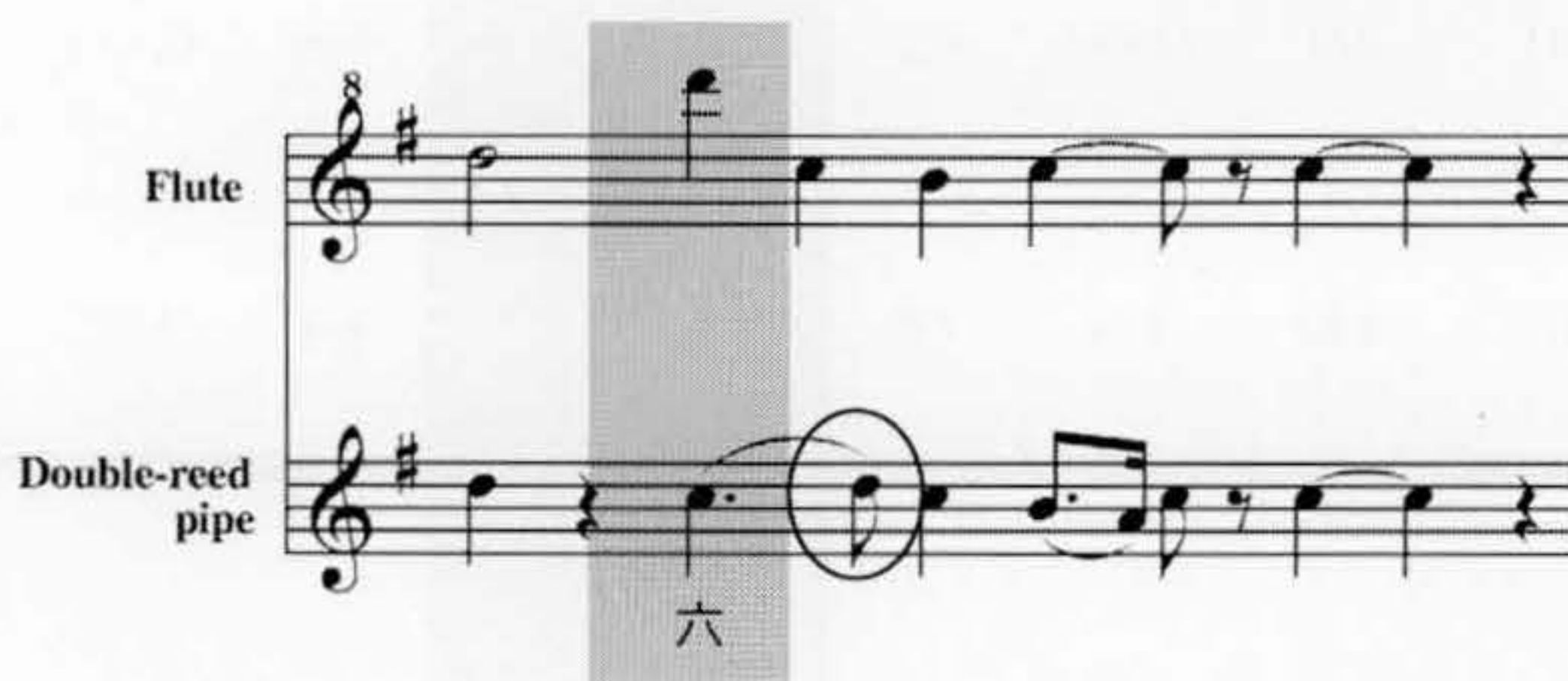
In Figure 6.10, the *itsu* \rightarrow and *jô* \perp tablature-signs of the double-reed pipe melody are consistently performed using the *meri* pitch of F natural. The flute melody does not, however, follow the double-reed pipe in its use of F naturals. Rather, the main pitch of the flute formula is F# (see the circled notes). Furthermore, while G is only used as a nuance in the double-reed pipe formula (see the asterisk), it is an important pitch in the flute formula’s oscillation between F# and G (see the shaded part).

Figure 6.11: A comparison of Formula (h) of the flute melody with Formula (g) of the double-reed pipe melody of “*Sekihaku tôrika*”



In section (i) of Figure 6.11, the two instruments perform their own version of a descending run. The most significant difference between the two formulae occurs in the shaded part of section (ii). While the *jô* ⊥ tablature-sign of the double-reed pipe is performed with the *itsu* fingering in order to generate F naturals, the flute formula clearly preserves G.

Figure 6.12: A comparison of Formula (k) of the flute melody with Formula (j) of the double-reed pipe melody of “Sekihaku tōrika”



In Figure 6.12, the *riku* 六 tablature-sign of the double-reed pipe melody is performed with the *meri* pitch of C natural. The D quaver that is marked with a circled is simply a nuance. The flute melody, on the other hand, clearly employs a D in the shaded part.

The analysis here shows that, unlike in the double-reed pipe melodies, G, F# and D regularly appear in the flute melody. These pitches also regularly clash with the F natural and C natural of the double-reed pipe. This suggests that the modern flute melody is not as influenced by the *in* scale as the double-reed pipe. In order to confirm this view, I will now show the number of crotchet-beats spent on each pitch in the flute melody of “*Sekihaku tôrika*”. It is clear from Table 6.6 that the amount of time spent on G, F# and D in the flute melody of “*Sekihaku tôrika*” is significantly higher than in the double-reed pipe melody.

Table 6.6: The number of crotchet-beats spent on each pitch in the modern flute melody of “*Sekihaku tôrika*”

Pitch	E	F ♮	F#	G	G#	A	B	C ♮	C#	D
Number of crotchet-beats spent on each pitch	177.25	56.5	67.25	96.5	2.5	136.25	166	114	0.375	60.875
Approximate percentage (%)	20.2	6.4	7.7	11.0	0.3	15.5	18.9	13.0	0.04	6.9
Approximate percentage of time spent on each pitch of the double-reed pipe version of “ <i>Sekihaku tôrika</i> ” (after Table 6.4)	22.5	23.2	4.4	1.4	0	19.7	9.9	15.3	0	3.6

In the flute version of “*Sekihaku tôrika*”, F# and D occupy 7.7% and 6.9% of the total number of crotchet-beats respectively. These percentages are about twice

those of the double-reed pipe version (4.4% and 3.6%). The most significant difference concerns, however, the use of G. While G is seldom used in the double-reed pipe version of “*Sekihaku tôrika*” (1.4%), it appears frequently in the flute version (11.0%). The amount of time spent on G in the flute melody is nearly eight times than that of the double-reed pipe melody.

The amount of time spent on F#, D and G in the flute versions of “*Kishunraku*” and “*Kaiseiraku*” is also more than that in the double-reed pipe versions. The relevant percentages are compared in the following table.

Table 6.7: The amount of time spent on F#, D and G in the modern flute and double-reed pipe versions of “*Kishunraku*” and “*Kaiseiraku*”

	“ <i>Kishunraku</i> ”		“ <i>Kaiseiraku</i> ”	
	Double-reed pipe	Flute	Double-reed pipe	Flute
Total amount of time spent on F#	2.4%	< 4.1%	2.3%	< 2.6%
Total amount of time spent on D	1.3%	< 2.8%	1.2%	< 6.1%
Total amount of time spent on G	3.9%	< 8.6%	2.7%	< 4.4%

In order to understand the modal practice of the modern flute melodies, we also need to examine the pitches that lie outside the theoretical scale. In the three selected pieces, these are F naturals, G#s and C#s. G# and C# are clearly insignificant because they are mainly employed as minor ornaments in the

melody³⁸ and the amount of time spent on these two pitches is extremely small. For example, in “*Sekihaku tôrika*” C# and G# occupy only 0.3% and 0.04% of the total number of crotchet-beats respectively (see also Table 6.6).

F natural is, on the other hand, an important pitch. In the modern flute version of “*Sekihaku tôrika*”, the amount of time spent on F natural (6.4%) is close to that of F# (7.7%). In the cases of “*Kishunraku*” and “*Kaiseiraku*”, even more time is spent on F natural than on F#. The amount of time spent on F natural in “*Kishunraku*” and “*Kaiseiraku*” is 9.3% and 8.1% respectively. The amount of time spent on F# in these two pieces is, however, only 4.1% and 2.6% respectively.

While modally specific and frequently used flute formulae³⁹ of the *ôshikichô* / *huang zhong diao* modal category tend to preserve the original pitches of the mode, the non-formulaic musical phrases and the relatively less important formulae are more affected by the *in* scale tonality of the double-reed pipe melodies and hence followed them in using F naturals. Boxes (1) to (7) of Musical Example 39 indicate all the musical phrases where F naturals are employed as main pitches in the flute melody of “*Sekihaku tôrika*”. These musical phrases are mainly non-formulaic phrases (Boxes (2) and (5)) and non-modally specific formulae. For instance, the formulae marked by Boxes (1) (Formula (c)), (4)

³⁸ For instance, in “*Sekihaku tôrika*”, G# is used only as the auxiliary note of the mordents played at the beginning of the melody and C# is produced only when the performer applies the sliding technique on the *roku* 六 finger-hole.

³⁹ See p. 247 for the meaning of ‘formula’ and p. 261 for the modally specific and frequently used flute formulae.

(Formula (c)), (6) (Formula (p)) and (7) (Formula (q)) are not modally specific and none appears more than three times in “*Sekihaku tôrika*”. While the formula marked by Box (3), namely Formula (l), also occurs in “*Kishunraku*”, it is also not a modally specific formula and it is not used in other important *ôshikichô / huang zhong diao* pieces, for example, “*Kaiseiraku*” and “*Yôgûraku*”. On the contrary, Formula (b), which is a modally specific formula that preserves the F#s of the *ôshikichô / huang zhong diao* mode, appears frequently in the three selected pieces.

The cases of “*Kishunraku*” and “*Kaiseiraku*” are similar to that of “*Sekihaku tôrika*”. In Musical Examples 35 and 36, F naturals also tend to appear in non-formulaic musical phrases.⁴⁰ This supports the argument made earlier regarding the role of oral transmission in preserving the original pitches of important formulae.⁴¹

In fact, it is almost impossible for a flute performer not to be influenced by the sustained F naturals of the double-reed pipe during the performance. Firstly, the volume of the double-reed pipe is much louder than that of the transverse flute in the ensemble and its timbre is extremely distinctive. Secondly, the interval between the F natural and the F# produced from the *go* 五 finger-hole of the flute is narrower than a semitone in the tempered scale.⁴² The F natural of the

⁴⁰ While Formulae (u), (w) and (x) also include some F naturals, these formulae are not modally specific formulae.

⁴¹ See the case of the preservation of some Ds, F#s and Gs in the *ôshikichô / huang zhong diao* double-reed pipe melodies in the last section.

⁴² I tested the pitches directly produced from the flute with a tuner during my fieldwork in Japan.

flute is slightly higher than the concert pitch whereas the F# is slightly lower. Confusions of F# with F natural could easily have occurred when the non-formulaic phrases were transmitted.

Unlike in double-reed pipe practice, there is no *meru* technique for the flute and the *jô* ⊥ tablature-sign (G) of the flute is not performed with another fingering. As a result, while there can be little doubt that the non-formulaic musical phrases of the modern *ôshikichô* / *huang zhong diao* flute melodies tend to follow the pitches and the *in* scale of the double-reed pipe part, it is impossible for the flute melodies to completely abandon the Gs and Ds in the non-formulaic musical phrases.⁴³

Turning to the modally specific formulae of the flute melodies, although they tend to preserve the pitches used in the theoretical scales of the *kôshô shi kaku* / *huang zhong zhi jue* and the *ôshikichô* / *huang zhong diao* modes, this does not mean that they reflect Heian modal practice. Firstly, the Heian practice of using mordents and appoggiaturas to decorate certain degrees is not applied in the modern flute melodies. Secondly, adjustments of rhythm and the application of sliding fingering techniques significantly change the amount of time spent on each pitch in the modern flute melodies. In the late-twelfth-century version of “*Sekihaku tôrika*”, B, which is the *henkyû* / *bian gong* degree of the *kôshô shi kaku* / *huang zhong zhi jue* mode, is clearly not an important pitch (see Table 6.3 on p.

The interval was only 60-70 cents rather than the standard 100 cents.

⁴³ For example, there are some Gs in the non-formulaic musical phrases of “*Kishunraku*” (see the eighth staff of Musical Example 35).

281). In the modern version, however, the amount of time spent on B has increased significantly and is only slightly less than E—the most frequently used pitch in the modern melody (see Table 6.6 on p. 308).

On the other hand, G, which is the *chi / zhi* degree of the *kôshô shi kaku / huang zhong zhi jue* mode, does not occur frequently in the modern flute melody. This pitch was, however, regularly used and decorated with a mordent in the late-twelfth-century melodies (see Table 6.3).

To conclude, the modern flute melodies of the *ôshikichô / huang zhong diao* modal category are performed in an ambiguous tonality. The modally specific and frequently used formulae tend to include the correct pitches for the *ôshikichô / huang zhong diao* or the *kôshô shi kaku / huang zhong zhi jue* modes but nonetheless they do not completely preserve the Heian modal practice. The non-formulaic musical phrases and the relatively less important formulae tend to follow the double-reed pipe melody's evocation of the *in* scale in their use of F natural but it is not possible for them to completely avoid G and D. In terms of pitches, it is perhaps appropriate to suggest that the modern flute melodies are bi-modal.

* * *

Like the modern double-reed pipe melodies, the formulae that are in common between the modern *ôshikichô / huang zhong diao* flute melodies also define modes. These modally specific formulae are (A), (a), (b), (e), (g), (h), (i) and (k).

Later in this thesis, I will discuss these formulae again together with the modally specific formulae in other modal groups.

Chapter Seven

The modal practice of the *banshikichô / pan she diao* modal group pieces from the mid-eighth century to the present-day

The main focus of this chapter will be the modal practice of the selected *banshikichô / pan she diao* modal group pieces between the mid-eighth century and the present-day. The two pieces selected for examination are “*Sômeiraku*” and “*Saisôrô*”.¹ In the first part of this chapter, I will discuss the modal practice of the *banshikichô / pan she diao* modal group pieces over the period from the mid-eighth to the mid-fourteenth century. In the second part, I will examine the modal practice of modern performance.

While the historical development of the *tôgaku* melodies performed between the mid-eighth and mid-tenth centuries was not investigated in Chapter Five, I have already compared the *Gogenfu* and the *Hakuga no fuefu* versions of “*Sômeiraku*” in Chapter Four (see Musical Example 1). This analysis showed that the mid-eighth-century melody of “*Sômeiraku*” is very similar to the one performed in the tenth century. Allan Marett has, moreover, demonstrated that the pitch differences that occur between the two melodies (see the boxes in Musical Example 1) are mainly variations of a type that was acceptable at that time (Marett 2006:89). While the melodies of *tôgaku* pieces might have been open to

¹ See Introduction for the rationale for choosing these two pieces.

variation from performance to performance between the mid-eighth and mid-tenth centuries in Japan, such variations do not disturb our ability to recognize the melodies as being essentially the same (Marett 2006:90).

Because the historical development of the *banshikichô* / *pan she diao* modal group pieces from the tenth century to the present-day is basically the same as that of the *ôshikichô* / *huang zhong diao* modal group pieces, I will not give a general overview of historical development again. Where significant and illuminating pitch and rhythmic discrepancies occur, however, they will be discussed.

I. The modal practice of *tôgaku* melodies from the mid-eighth to the mid-fourteenth century

The historical melodies of “*Sômeiraku*” and “*Saisôrô*” are lined up in Musical Examples 40 and 41 respectively. Since both “*Sômeiraku*” and “*Saisôrô*” are nowadays performed in the *nobebyôshi* structure, the historical melodies shown in these two musical examples are mainly the syncopated versions read according to the *kobyôshiten kifuhô* system. The *Gogenfu* and *Hakuga no fuefu* melodies are exceptions, however, because these two scores do not include the syncopated versions. In addition, the un-syncopate *Sango yôroku* melodies are included in order to show the link between the un-syncopate melodies performed before the twelfth century and the syncopated melodies performed after the

twelfth century.²

Since the *Jinchi yôroku* and *Ruisô chiyô* melodies of “*Sômeiraku*” and “*Saisôrô*” are extremely similar, I will show only the *Jinchi yôroku* melodies in the musical examples. The *Jinchi yôroku* melodies are, however, edited versions, in which pitch and fingering errors are corrected according to *Ruisô chiyô*.

While the modern lute melody of “*Sômeiraku*” clearly corresponds to a syncopated historical version (see Section II A below), *Sango yôroku* does not include a syncopated version. I have therefore generated a syncopated lute melody from the un-syncopate lute melody in *Sango yôroku* by reading it with reference to the syncopated zither melody recorded in *Jinchi yôroku*. This syncopated lute melody is shown in Staff No. 4 of Musical Example 40.

A. The modal practice of the five-stringed lute and flute melodies from the mid-eighth to the mid-tenth century

In this section, I will use “*Sômeiraku*” to show that there is no significant difference in the modal practice of *tôgaku* between the mid-eighth and mid-tenth centuries. In Chapter Two, I showed that in the Tang period the *banshikichô / pan she diao* mode was the *u / yu* (Dorian) mode of the *taisô / tai cou* key. *Sango yôroku* also indicates that the *banshikichô / pan she diao* mode used in the late Heian period had a Dorian modal structure, ‘B C# D E F# G# A’ (Ng 1998:108).

Despite the fact that the *banshikichô / pan she diao* pieces in Tang China and

² See Staff No. 3 of Musical Example 40 and Staff No. 2 of Musical Example 41.

Heian Japan might have been performed at a different pitch, the *banshikichô / pan she diao* mode illustrated in *Sango yôroku* clearly preserves the Tang *banshikichô / pan she diao* modal structure.

While *Hakuga no fuefu* includes two versions of “*Sômeiraku*”: the *jo* and the *juha*, Marett has shown that there are only some minor differences between these two versions (Marett 2006:87-8). Since these differences are not modally significant,³ I will compare the *Gogenfu* melody only with the *juha* version.⁴

Musical Example 40 shows that while, at the end of the piece, the *Gogenfu* and *Hakuga no fuefu* melodies both cadence on the tonic (B) of the *banshikichô / pan she diao* mode, this is not true for all musical phrases. Boxes (B), (E) and (J) show a number of cases where pitch discrepancies occur between the two melodies at the end of a musical phrase, but in each case this results from the lute performing an anacrusis to the following phrase. In Box (B), while the circled crotchet pair (C# – D) in the lute melody does not correspond to the B minim in the flute melody, it can be regarded as an anacrusis to the following F# crotchet. The cadence of the lute melody is the ‘B – F# – B’ arpeggio-like figure that occurs at the beginning of this box. The cases in Boxes (E) and (J) are basically the same. The circled crotchet pair (G# – A) can be treated as an anacrusis to the following C# crotchet. The F# crotchets that appear at the beginning of these two

³ These differences affect neither the cadential notes nor the basic melodic structure of the piece.

⁴ The *juha* version is chosen because the system of the *juha* notation was the one in use in the first half of the tenth century (Marett 2006:86). Marett suggests, on the other hand, that the *jo* version falls in time between that in *Gogenfu* and the *Hakuga no fuefu* version contained in the *juha* (Marett 2006:86).

boxes are in fact the cadential points.

The inverted mordents marked by Boxes (C) are puzzling. It has been shown in the previous chapters that inverted mordents began to appear in the fourteenth-century and were rare in the mid- and late-Heian *tôgaku* melodies. None of the *Hakuga no fuefu*, *Sango yôroku*, *Jinchi yôroku*, *Ruisô chiyô*, *Kofu ritsuryokan* or *Shinsen shôtekifu* melodies already examined has included an inverted mordent. Since inverted mordents appear only twice in the *Gogenfu* melody, and in each case on the relatively weak *henkyû* / *bian gong* degree (C#) of the *banshikichô* / *pan she diao* mode, it is unlikely that they have any modal significance.

Other discrepancies between the two melodies are confined mainly to minor rhythmic adjustments that do not affect modal practices. I will now compare the amount of time spent on each degree of the two melodies in order to support this view. The result is summarized in the following table.⁵

Table 7.1: The total number of crotchet-beats spent on each degree in the *Gogenfu* and *Hakuga no fuefu* versions of “*Sômeiraku*”

⁵ Since the lute melody does not include any mordents, the auxiliary notes in the flute melody will be ignored. For example, a D mordent in the flute melody is counted as a single D crotchet.

		Number of notes spent on each degree (pitch)													
Degree Note	B (u / yu)		C# (henkyû / bian gong)		D (kyû / gong)		E (shô / shang)		F# (kaku / jue)		G# (henchi / bian zhi)		A (zhi / chi)		
	G	H	G	H	G	H	G	H	G	H	G	H	G	H	
Crotchet	32	40	12	14	25	24	19	21	27	26	17	9	24	18	
Quaver	1	2	3						1	2		4		8	
Semiquaver			3		3										
Total number of crotchet-beats spent on each degree	32.5	41	14.25	14	25.75	24	19	21	27.5	27	17	11	24	22	
Approximate percentage (%)	20.3	25.6	8.9	8.7	16.1	15.0	11.9	13.1	17.2	16.9	10.6	6.9	15.0	13.8	

Index: G = the *Gogenfu* version; H = the *Hakuga no fuefu* version

It is clear from Table 7.1 that the most frequently used pitches in both the *Hakuga no fuefu* and *Gogenfu* versions of “*Sômeiraku*” are the tonic (B) and the fifth (F#) degree. The amount of time spent on B in the *Hakuga no fuefu* version is more than that of the *Gogenfu* version because while many phrases of the *Hakuga no fuefu* melody cadence on a prolonged B note that lasts for a total of four crotchet-beats (see Box (B) of Musical Example 40), in the *Gogenfu* melody cadences are decorated with arpeggios or followed by an anacrusis (see Boxes (B), (E) and (J) of Musical Example 40).

Since D and A are the *kyû / gong* and *chi / zhi* degrees respectively, it is not surprising that they are the third and fourth most frequently used pitches in the melodies.

On the other hand, G# and C# are used infrequently because they are the auxiliary degrees—that is, the *henchi / bian zhi* and *henkyû / bian gong* degrees

respectively.

B. The modal practice of the flute and lute melodies from the mid-tenth to the late twelfth century

In this section, I will compare the *Hakuga no fuefu* versions of “*Sômeiraku*” and “*Saisôrô*” to the reconstructed syncopated version of “*Sômeiraku*” and the notated syncopated version of “*Saisôrô*” in *Sango yôroku* respectively.⁶ Musical Examples 40 and 41 show that the pitches used in the *Hakuga no fuefu* and *Sango yôroku* versions of “*Sômeiraku*” (see Staff Nos. 2 and 4) and “*Saisôrô*” (see Staff Nos. 1 and 3) are entirely confined to those of the theoretical scale of the *banshikichô / pan she diao* mode. The cadences of the *Hakuga no fuefu* and the syncopated *Sango yôroku* melodies are shaded in Musical Examples 40 and 41. “*Sômeiraku*” and “*Saisôrô*” mainly cadence on the tonic (B) and the fifth (F) degree. The only exception is the E cadence marked by Box (G) in Musical Example 40. Although the use of an E (*shô / shang*) cadence in a *banshikichô / pan she diao* piece is a little unusual, this cadence only appears once in “*Sômeiraku*” and E is never used as the final cadence. This cadence, moreover, does not significantly affect the tonality of the piece.

It has been shown in the previous chapter that in addition to pitches and cadences, mordents and appoggiaturas are also modally significant. The mordents

⁶ As has been shown in the previous chapters, the zither melodies in *Jinchi yôroku* and *Ruisô chi-yô* are virtually identical to the melodies in *Sango yôroku*. I will not, therefore, discuss the zither melodies in detail.

used in the *Hakuga no fuefu* and *Sango yôroku* versions of “*Sômeiraku*” and “*Saisôrô*” are summarized in the following table.

Table 7.2: The mordents used in the *Hakuga no fuefu* and *Sango yôroku* versions of “*Sômeiraku*” and “*Saisôrô*”

	“ <i>Sômeiraku</i> ”			“ <i>Saisôrô</i> ”		
	Number of mordents on the <i>chi</i> / <i>zhi</i> (A) degree	Number of mordents on the <i>kyû</i> / <i>gong</i> (D) degree	Total	Number of mordents on the <i>chi</i> / <i>zhi</i> (A) degree	Number of mordents on the <i>kyû</i> / <i>gong</i> (D) degree	Total
<i>Hakuga no fuefu</i>	24	3	27	9	4	13
<i>Sango yôroku</i>	23	22	45	8	8	16

The use of mordents in mid- and late-Heian *banshikichô* / *pan she diao* modal group pieces follows the same principles as in the *ôshikichô* / *huang zhong diao* modal group pieces. Firstly, mordents are mainly applied to the *chi* / *zhi* and *kyû* / *gong* degrees of the scale. Secondly, the twelfth-century melodies have more mordents. Thirdly, the *chi* / *zhi* degree is in general more frequently decorated than the *kyû* / *gong* degree.

While a mordent on *shô* / *shang* (E) does not occur in “*Sômeiraku*” and “*Saisôrô*”, it is used in other *banshikichô* / *pan she diao* modal group pieces, for example “*Rindai*” and “*Hakuchû*”. In the case of the *banshikichô* / *pan she diao* modal group pieces, the auxiliary note of the *shô* / *shang* mordent is D#. Since this

pitch probably derived from the sharpened fourth degree of the *xia zhi diao* scale at the time when the theory of the *zheng sheng diao* scale began to reclaim its popularity, the use of D# as an ornament or auxiliary note in *banshikichô / pan she diao* modal group pieces is not treated as a significant alteration in modal practice.

Like the mordents, the pitches of appoggiaturas (marked (a) in the musical examples)—decorative device used only in the late-twelfth-century melodies—are mainly confined to D (the *kyû / gong* degree) and A (the *chi / zhi* degree). The appoggiaturas used in the syncopated *Sango yôroku* versions of “*Sômeiraku*” and “*Saisôrô*” are summarized in the following table.

Table 7.3: The appoggiaturas used in the syncopated *Sango yôroku* versions of “*Sômeiraku*” and “*Saisôrô*”

	The number of <i>kyû / gong</i> (D) appoggiaturas	The number of <i>chi / zhi</i> (A) appoggiaturas	The number of <i>henchi / bian zhi</i> (G#) appoggiaturas
“ <i>Sômeiraku</i> ”	9	11	4
“ <i>Saisôrô</i> ”	14	9	-

The G# appoggiaturas in “*Sômeiraku*” should not be overlooked, but they are not particularly significant. According to Endô’s research, G# appoggiatura appears only in two out of the seventeen *banshikichô / pan she diao* modal group pieces in *Sango yôroku*, namely “*Sômeiraku*” and “*Sokô*” (Endô 2003:Appendix 36). The number of G# appoggiaturas in these two pieces is, moreover, very

small.⁷

The analysis in this section shows that “*Sômeiraku*” and “*Saisôrô*” exhibit precisely the modal features that one would, on the basis of our earlier examination of the *ôshikichô / huang zhong diao* modal group pieces, expect for the *banshikichô / pan she diao* modal group pieces performed between the middle and late Heian periods.

C. The modal practice of the mouth-organ melodies from the early thirteenth to the early fourteenth century

In this section, I will examine the modal practice of the *Kofu ritsuryokan* and *Shinsen shôtekifu* versions of “*Sômeiraku*” (see Staff Nos. 6 and 7 of Musical Example 40) and “*Saisôrô*” (see Staff Nos. 5 and 6 of Musical Example 41). Apart from differences caused by the use of standard decorative devices, the mouth-organ melodies are very similar to the syncopated lute and zither melodies of the late-Heian period. Like the lute and zither melodies, the mouth-organ melodies cadence on the tonic (B) of the *banshikichô / pan she diao* mode at the end of the piece.

Like the *Shinsen shôtekifu* melodies of the *ôshikichô / huang zhong diao* modal category, the pitches of the small tablature-signs of the *banshikichô / pan she diao* modal group pieces mainly signify descending runs. Unlike the case of the *ôshikichô / huang zhong diao* modal group pieces, however, these runs do not

⁷ Endô's research shows that “*Sôkô*” includes a total of eight G# appoggiaturas. Because “*Sôkô*” is a fairly long piece, this is not a large number.

necessarily finish on the *chi / zhi* degree (see p. 284). Rather, many of them finish on the *kyû / gong* (D) degree. There can be little doubt, therefore, that these runs are not modally significant—and this was probably the case in the *ôshikichô / huang zhong diao* modal group pieces as well.

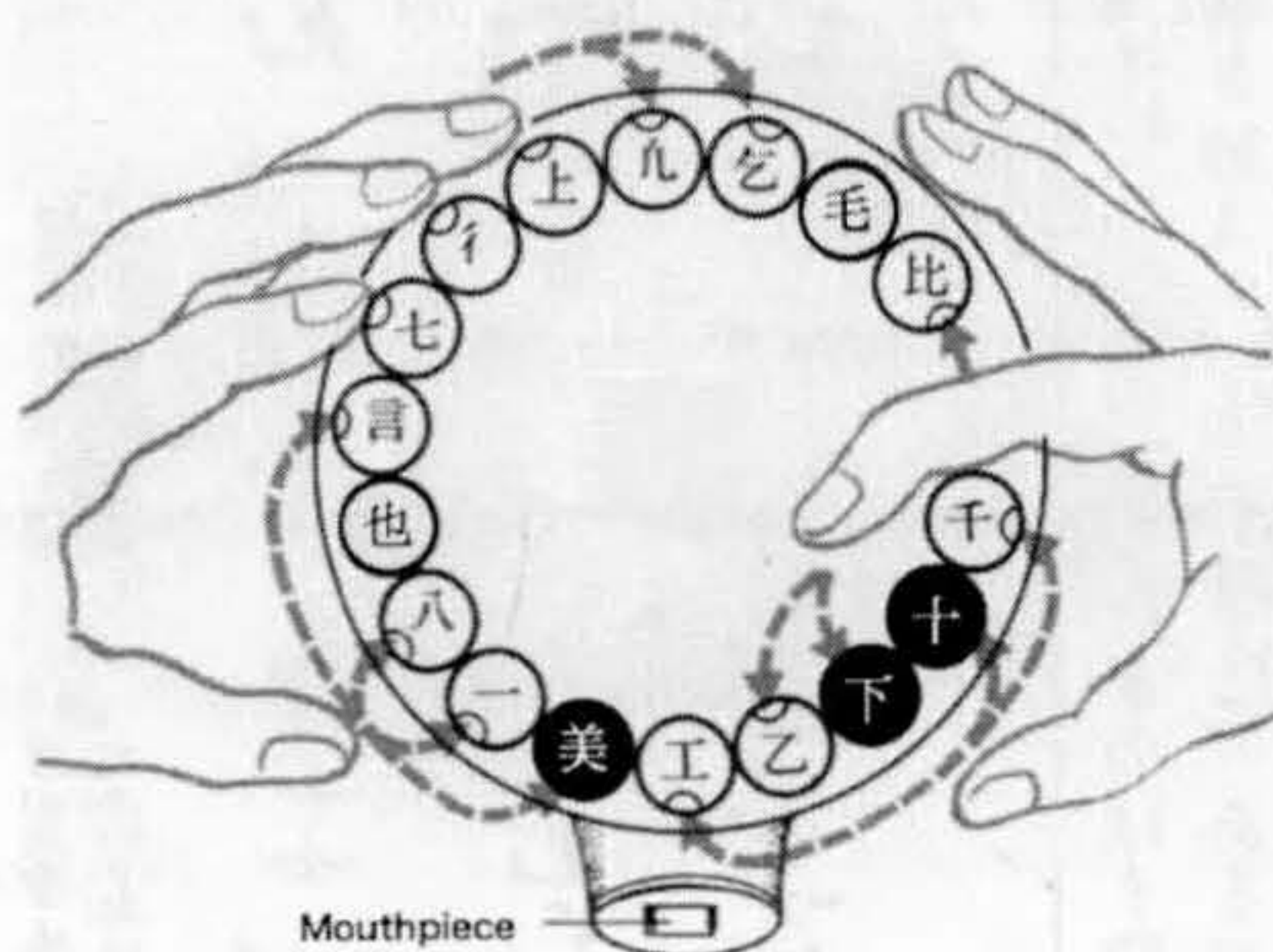
Furthermore, since these small tablature-signs do not signify pitches that are outside the theoretical scale of the *banshikichô / pan she diao* mode, we may conclude that they will not significantly affect the tonality of the *Shinsen shôtekifu* melodies.

The G naturals in Boxes (H) and (I) of Musical Example 40 are worth commenting on because G natural does not occur in the theoretical scale of the *banshikichô / pan she diao* mode. Two other *banshikichô / pan she diao* modal group pieces in *Kofu ritsuryokan* and *Shinsen shôtekifu*, namely “*Somakusha*” and “*Kenki kotatsu*”, also include some G naturals. It is unlikely, therefore, that these G naturals are simply scribal errors. These G naturals are, however, mainly used as an appoggiatura to F#. According to the mouth-organ diagram shown in Figure 7.1 below,⁸ the pipes that are used to produce G natural (*jû* 十) and F# (*ge* 下) are positioned next to each other. These two pipes can easily be controlled by the thumb and the index finger of the right hand. The pipe that is used to produce G# (*bi* 美), on the other hand, has to be played by the thumb of the left-hand, and this is awkward. It seems that G natural may have been introduced simply in order to facilitate easier performance. The musical phrase of the *Shinsen shôtekifu* melody

⁸ This diagram is an edited version of the *shô* diagram in *Nihon ongaku daijiten* (Hirano et al. 1989:341).

marked by Box (I) in Musical Example 40 is a typical example. If the appoggiaturas of the F#s are G naturals, the performer can play the whole marked musical phrase by simply using the thumb and the index finger of the right hand.

Figure 7.1: The fingerings of the mouth-organ



The use of G naturals as appoggiaturas on F#s suggests that the appoggiatura was the first modally significant ornament to break free from its Heian practice, and that this might have happened as early as the thirteenth century. This view is supported by reference to appoggiaturas on another pitch that lies outside the Heian practice. The circles in Box (F) of Musical Example 40 mark some F# appoggiaturas that resolve on E. These are not part of normal Heian practice.⁹

⁹ While one of the examiners of this thesis queries whether the suspension in Heian-period syncopated version could be regarded as appoggiaturas. The answer is that it is only the appearance of a descending melodic movement in the un-syncopate version that can generate appoggiatura-like notes, for example, from 'G – F# – E' to 'G – F# – F# (the syncopated and appoggiatura-like note) – E'.

They are, moreover, clearly not *ad hoc* or peculiar to the mouth-organ since they are retained in other mid-fourteenth-century sources for other instruments (see the shaded F# appoggiaturas in the *Nakahara roseishô* and the *Chû ôga ryûteki yôrokufu* melodies below Box (F)).

D. The modal practice of the double-reed pipe and flute melodies in the mid-fourteenth century

As was the case with the *ôshikichô / huang zhong diao* modal group pieces, significant rhythmic and pitch discrepancies appear between the late-Heian and the mid-fourteenth-century *tôgaku* melodies. Box (A) of Musical Example 40 indicates an example where a rhythmic adjustment has occurred in the fourteenth-century double-reed pipe melody. Box (D) of Musical Example 40, on the other hand, shows a pitch modification. In this box, what were As in the late-Heian melodies become F#s in the fourteenth-century double-reed pipe melody. These rhythmic and pitch adjustments do not, however, affect the basic tonality of a melody. The most significant alteration in the modality of the mid-fourteenth-century *banshikichô / pan she diao* melodies is caused by the use of non-standard additional pitches and appoggiaturas.

I will first investigate the addition of non-standard pitches in the *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* melodies and then proceed to the examination of ornaments.

Non-standard additional pitches in the two selected double-reed pipe melodies are mainly confined to F# (Boxes (2), (4), (8), (11), (13), (16) and (18)),

G# (Boxes (3) and (7)) and D (Box (5)), and are marked with asterisks in Musical Examples 40 and 41. As in the double-reed pipe melodies of the *ôshikichô / huang zhong diao* modal category, many of these are added within melodic leaps in order to allow the performer to play the leaps more easily. Furthermore, some of these non-standard additional pitches occur as part of the frequently recurring melodic patterns that form the basis for formulae in modern practice. The melodic patterns marked by Boxes (2), (4) and (5) are typical examples. They appear frequently in the double-reed pipe melodies of both “*Sômeiraku*” and “*Saisôrô*”. The pattern marked by Box (2), for example, was further developed and became one of the modally specific *banshikichô / pan she diao* formulae used in modern practice. The following figure shows the pattern marked by Box (2) and its corresponding modern formula (see also Formula (g) of Table C in Section II D below).

Figure 7.2: The historical melodic pattern marked by Box (2) and its corresponding modern formula

The historical melodic pattern



The corresponding modern formula



Furthermore, the F# added to the melodic pattern of the double-reed pipe melody became an important pitch in the modern formula. The note-value of this pitch is extended to two crotchet-beats (including the E quaver *enbai* after this F#)

in the modern formula.

Turning now to the additional pitches of the flute, while the non-standard additional pitches of the *ôshikichô* / *huang zhong diao* melodies are used mainly to form descending runs (see pp. 226-7), in the case of the *banshikichô* / *pan she diao* melodies, some non-standard additional pitches are used to form descending runs and some are employed to form melodic patterns. The additional C# demisemiquaver in Box (6) is added to the flute melody in order to form a run. This run was subsequently further developed and became one of the modally specific formulae in modern practice (see also Formula (m) of Table D in Section II E below).

Figure 7.3: The historical melodic pattern marked by Box (6) and its corresponding modern formula

The historical melodic pattern



The corresponding modern formula

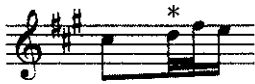


The D demisemiquaver in Box (15), on the other hand, was added to form a distinctive melodic pattern. This pattern also becomes a formula in the modern flute version of “*Saisôrô*” (see also Formula (v) in Table D below).

Figure 7.4: The historical melodic pattern marked by Box (15) and its

corresponding modern formula

The historical melodic pattern



The corresponding modern formula



The application of non-standard additional pitches in the melodies reveals a break down of the vertical relationship between the *tôgaku* melodies performed in the pre-fourteenth-century period and their historical antecedent. I will now demonstrate this with reference to “*Sômeiraku*”. In Musical Example 42, the tenth-century (*Hakuga no fuefu*) version of “*Sômeiraku*” is lined up with its un-syncopate late-twelfth-century (*Sango yôroku*) version. After the elimination of all the ornaments, the tenth-century version is virtually identical to the late-twelfth-century version.

The case of the mid-fourteenth-century melodies is, however, quite different. Musical Example 43 shows that even if the repeating notes, appoggiaturas, mordents and anticipations in these two melodies are completely eliminated, there are still many pitch differences between the *Nakahara roseishô* version of “*Sômeiraku*” and that of the *Chû ôga ryûteki yôrokufu* version (see the shaded boxes). Most of these pitch differences are, moreover, caused by the use of non-standard additional pitches.

* * *

Turning now to an examination of the ornaments in the double-reed pipe and flute melodies, let us return to Musical Examples 40 and 41. The shaded notes in the *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* versions of “*Sômeiraku*” and “*Saisôrô*” are appoggiaturas. Apparently, by the mid-fourteenth century all seven degrees of the *banshikichô / pan she diao* mode—that is, B, C#, D, E, F#, G# and A—were freely used as the pitch of appoggiaturas. This is completely different from the principle whereby appoggiaturas were applied in the late Heian period.

The techniques *ren* 連 and *ugoki* 動 are only occasionally employed in the fourteenth-century *banshikichô / pan she diao* flute melodies.¹⁰ Box (9) of Musical Example 40 marks the only *ren* technique used in the two selected pieces. Like the *ôshikichô / huang zhong diao* modal group melodies, *ren* signifies a descending run that moves from the *ge* ㄗ (C#) to the *go* 五 (F#) finger-holes in *banshikichô / pan she diao* modal group melodies. This suggests that *ren* is not a modally significant technique since it is always associated with the pitches C (or C#) and F# irrespective of which modal group the pieces belong to.¹¹

Ugoki does not occur in the two selected pieces but it is occasionally used in “*Manjûraku*”. In this piece, *ugoki* is usually applied on the *u / yu* degree (B) of the *banshikichô / pan she diao* mode. The fact that *ugoki* is mainly applied on the *chi / zhi* degree (G) in *ôshikichô / huang zhong diao* modal group pieces suggests that

¹⁰ I have examined all the notations of the *banshikichô / pan she diao* melodies in *Chû ôga ryûteki yôrokufu*.

¹¹ *Ren* is also associated with C# in *hyôjô / ping diao* modal group pieces (see Chapter Eight).

this technique is associated neither with a particular pitch nor a particular degree of a mode.¹² The technique appears therefore not to be modally significant.

II. The modal practice of present-day performance

I will first investigate the modern lute and mouth-organ melodies. As in the *ôshikichô / huang zhong diao* modal category, the forms and modal practice of the *banshikichô / pan she diao* historical lute melodies are preserved in modern performance. One might expect that the Heian tonality would also be preserved in the modern practice of the mouth-organ since most of the standard cluster-chords are generated from the *taisô / tai cou* key—that is, the same key from which the *banshikichô / pan she diao* mode is derived. I will show, however, that this is not the case. The tonality becomes ambiguous because of the special structure of the *bi* 美 cluster-chord used in the modern *banshikichô / pan she diao* mouth-organ melodies.

Also, as I will show in the third section, the modal practice of the modern zither melodies is very different from that of the Heian melodies. As in the modern *ôshikichô / huang zhong diao* melodies, this results from a misunderstanding of the important pitches in the modern *ritsu* scale, and this in turn affects the pitches of the modern tuning.

In the last two sections, which provide the main focus of this part, I will

¹² See also the cases of the *hyôjô / ping diao* modal group pieces in the next chapter.

examine the formulae and the pitches of the modern double-reed pipe and flute melodies, and demonstrate that the modern double-reed pipe melodies of the *banshikichô / pan she diao* modal category are basically performed using the *in* scale tonality whereas the modern flute melodies are not. Furthermore, I will demonstrate that the modal practice of the modern *banshikichô / pan she diao* flute melodies is not identical to that of the *ôshikichô / huang zhong diao* melodies. The type of bi-modal structure that we saw in previous analysis of the *ôshikichô / huang zhong diao* flute melodies (see p. 313) does not occur in the *banshikichô / pan she diao* melodies.

A. The modal practice of the modern lute melodies

Even though the late-twelfth-century syncopated lute melody of “*Sômeiraku*” in Musical Example 40 has been reconstructed in the light of the zither melody, Musical Example 44 shows that there is no significant difference between this form of the historical melody and the uppermost notes of the modern version. The differences, which are marked by boxes, are mainly confined to the use of additional ornaments in the uppermost notes of the modern version and these do not affect the tonality of the melodies. For example, in the first box of bar 5, the additional note in the modern melody is simply an *A* appoggiatura.

The shape of late-twelfth-century lute melody of “*Saisôrô*” (which is notated rather than reconstructed) is also well preserved in modern practice. Musical Example 45 shows that the late-Heian syncopated lute melody matches the uppermost notes of its modern version.

The added arpeggiated drones of the modern *banshikichô / pan she diao* lute melodies include only F#, B and E. Because F# (the fifth degree) and B (the tonic) are prominent in the *banshikichô / pan she diao* mode (see Table 7.1 on p. 320), the insertion of these two pitches in the modern lute melody does not affect the tonality. While E (the fourth degree) is not as important as F# and B in the *banshikichô / pan she diao* mode, this pitch is only occasionally employed in the arpeggiated drones.

B. The modal practice of the modern mouth-organ melodies

Musical Examples 46 and 47 show that the early-thirteenth-century (*Kofu ritsuryokan*) mouth-organ melodies of “*Sômeiraku*” and “*Saisôrô*” form the basis of their modern versions, despite the fact that they can no longer be heard as melodies. This is because they are performed at a very slow tempo and are obscured by the cluster-chords.

While some pitch disagreements occur between the historical and modern melodies, they are not significant. Many are caused by the use of ornaments in either the historical or the modern melody. These ornaments are marked by asterisks in the musical examples.

Some pitch disagreements are, however, caused by rhythmic adjustments (Box (1) of Musical Example 46) and tablature differences (Box (2) of Musical Example 46). Since these disagreements occur only rarely and do not generate pitches that are outside the theoretical scale of the mode, we may conclude that the modal practice of the modern melodies is not affected by these disagreements.

As was the case with the modern mouth-organ melodies of the *ôshikichô / huang zhong diao* modal category, the use of cluster-chords is the main cause of ambiguities in the tonality.

The modern mouth-organ melodies of “*Sômeiraku*” and “*Saisôrô*” comprise cluster-chords on *kotsu* 乙, *ichi* 一, *ku* 工, *bô* 几, *otsu* 乙, *ge* 下, *bi* 美 and *gyô* 行. All but *bi* are formed entirely from the pitches of the *banshikichô / pan she diao* mode. I will now demonstrate with reference to Musical Examples 46 and 47 how the use of the *bi* cluster-chord affects the tonality of the modern *banshikichô / pan she diao* mouth-organ melodies.

The circles in Musical Examples 46 and 47 mark all the *bi* cluster-chords used in the modern “*Sômeiraku*” and “*Saisôrô*” melodies. The *bi* cluster-chord includes a C natural and this pitch is not allowable in the *banshikichô / pan she diao* mode. Hayashi Kenzô suggests that the *bi* cluster-chord might originally have comprised only five pitches, namely G# (*bi* 美), A (*gyô* 行), B (*shichi* 七), D (*jô* 上) and F# (*sen* 千) (Hayashi 1960g:393), and that because the thumbs of the right and left hands were already being used to cover the air-holes of the *sen* 千 (F#) and *bi* 美 (G) pipes, they could not cover the two pipes that can be used to produce the modally correct pitch of C#. ¹³ Because the index finger of the right hand was free, Hayashi suggests that it came to be used to cover the air-hole of the *hi* 比 pipe, which produces C natural (Hayashi 1960g:395). This C natural, which lies outside the mode, was thus substituted for C# (Hayashi 1960g:395).

¹³ The pipes that produce C# are *ku* 工 and *gon* 言, and both are controlled by the thumb (see Figure 7.1 on p. 326).

Whatever the reason for its inclusion, the tonality of the modern mouth-organ melodies of the *banshikichô / pan she diao* modal category is clearly affected by the use of C natural in the *bi* cluster-chord. The modal structure it implies, ‘STTTTST’ (B C D E F# G# A), is one that was never used in Tang or Heian music.

C. The modal practice of the modern long zither melodies

The modern *banshikichô* tuning of the long zither is also different from the one used in the late-Heian period. In modern practice, the pitches of the third (*san*) and sixth (*roku*) strings are tuned a semitone tone lower so that the modern melodies can be performed using only five pitches, namely B, C#, E, F# and G# (see Musical Examples 48 and 49).

Figure 7.5: The practical tuning for playing the *banshikichô / pan she diao* modal group pieces in the late-Heian period



Figure 7.6: The modern *banshikichô* tuning



The reason of eliminating D and A in the modern zither melodies is probably because at the time of the standardization, the musicians forgot that these two pitches were significant degrees in the *banshikichô / pan she diao* mode. While these two pitches are regarded as the auxiliary degrees, *eishô* and *eiu*, in the theoretical *ritsu* scale, they were the *kyû / gong* and *chi / zhi* degrees of the *banshikichô / pan she diao* mode in Tang China. These two degrees were, moreover, frequently decorated with a mordent in mid- and late-Heian *tôgaku* so as to emphasize their importance in the *banshikichô / pan she diao* mode. The following figure shows the degrees names of the *banshikichô / pan she diao* mode used in Tang China, late-Heian and modern Japan.

Figure 7.7: The three versions of degree names of the *banshikichô / pan she diao* mode in China and Japan

Intervals

	T	S	T	T	T	S	T	
	u	henkyū	kyū	shō	kaku	henchi	chi	u
Tang:	yu	biangong	gong	shang	jue	bianzhi	zhi	yu
	羽	變宮	宮	商	角	變徵	徵	羽
Fujiwara no Moronaga (in <i>Jinchi yōroku</i>):	kyū	shō	kaku	henchi	chi	u	henkyū	kyū
	gong	shang	jue	bianzhi	zhi	yu	biangong	gong
	宮	商	角	變徵	徵	羽	變宮	宮
Modern <i>ritsu</i> :	(kyū)	(shō)	eishō	(kaku)	(chi)	(u)	eiu	kyū
	宮	商	嬰商	角	徵	羽	嬰羽	宮

Since the intervallic relationship of the *kyū*, *shō*, *kaku*, *chi* and *u* degrees of the modern *ritsu* scale is identical to that of the descending Japanese *yō* scale (M2 – m3 – M2 – M2 – m3), the modern zither melodies of the *banshikichō* / *pan she diao* modal category realize the *yō* scale with a structure of ‘B C# E F# G#’.

D. The modal practice of the modern double-reed pipe melodies

In this section, I will investigate the modal practice of the modern double-reed pipe melodies of the *banshikichō* / *pan she diao* modal category by studying the formulae of “*Sōmeiraku*” and “*Saisōrō*”. Rhythmic discrepancies between the historical and modern melodies were investigated in detail in the previous chapter and will not be discussed again here. Extensions of note-values that are modally significant will, however, be noted during the course of my analysis.

The double-reed pipe melodies of “*Sōmeiraku*” and “*Saisōrō*” are shown in Musical Examples 50 and 51 respectively, and the formulae of these two pieces

are summarized in Table C of Appendix IV. Formulae that are common to both “*Sômeiraku*” and “*Saisôrô*” are labelled with the same letters. These are Formulae (a), (d), (e), (g), (h), (i), (k) and (l). These formulae can be regarded as modally specific formulae since they appear mainly in modern *banshikichô / pan she diao* double-reed pipe melodies. Later in this thesis, I will examine these formulae again together with the modally specific formulae for other modal groups.

The symbols and bracketed letters added in the formulae of Table C have the same meanings as in Table A: circled tablature-signs are performed with the *meru* technique; boxed *jô* ⊥ tablature-signs are performed with the *itsu* — fingering; bracketed N indicates nuances; and bracketed E signifies *enbai*. We must note, however, that in the *banshikichô / pan she diao* double-reed pipe melodies, the *jô* tablature-sign is rarely performed with the *itsu* fingering. The only case where this happens is in Formula (n) of “*Sômeiraku*”. I will discuss this formula in detail below.

It is clear from Table C that the tablature-signs *tei* ⊥, *riku* 六 and *go* 五 are frequently performed with the *meru* technique. While the standard pitches of these three tablature-signs are A, D and A respectively, they usually produce G natural, C natural and G natural in the modern double-reed pipe melodies. The *meru* technique thus allows performers to avoid A and D.

In addition, the *jô* ⊥ and *han* 凡 tablature-signs usually signify G natural and C natural respectively in the modern *banshikichô / pan she diao* double-reed pipe melodies, despite the fact that neither of these two pitches is included in the theoretical scale of the *banshikichô / pan she diao* mode.

As a result of these adjustments, the modern *banshikichô / pan she diao* melodies are largely performed in a pentatonic scale consisting the pitches of B, C, E, F# and G.

Figure 7.8: An illustration of the modification of the pitches in the modern *banshikichô / pan she diao* double-reed pipe melodies

The theoretical structure of the *banshikichô / pan she diao* mode

The pitches that are frequently used in modern *banshikichô / pan she diao* double-reed pipe melodies

工 几 六 四 一 (舌) 丁(五)

B C E F# G B

m2 M3 M2 m2 M3

the 'm2 - M3' tetrachord the 'm2 - M3' tetrachord

Like the pentatonic scale used in the modern *ôshikichô / huang zhong diao* double-reed pipe melodies, this pentatonic scale includes two 'm2 - M3' tetrachords and hence articulates the descending form of the Japanese *in* scale. The only difference is that in the case of the modern *banshikichô / pan she diao* melodies, the tonic of this *in* scale (B) is identical to the tonic of the *banshikichô / pan she diao* mode.¹⁴

It is likely that some extensions of note-value in the modern *banshikichô /*

¹⁴ In the case of the modern *ôshikichô / huang zhong diao* melodies, the tonic of the *in* scale is E whereas the tonic of the *ôshikichô / huang zhong diao* mode is A (see p. 300).

pan she diao double-reed pipe melodies also come about in order to emphasize certain pitches in the *in* scale. For instance, in Formula (a), the duration of the first note is extended in order to emphasize that the *tei* ⊥ tablature-sign of the *banshikichô / pan she diao* modal group melodies is performed in the *meri* pitch G natural rather than the standard pitch A. While G natural is the fifth degree of the *in* scale shown in Figure 7.8, it does not occur in the theoretical scale of the *banshikichô / pan she diao* mode.

Although A and D are not completely abandoned in the modern double-reed pipe melodies of the *banshikichô / pan she diao* modal category, and although “*Sômeiraku*” includes some F naturals that are not allowable even in the *in* scale, these pitches are merely used as ornaments or associated with formulae that are *borrowed* from other modal group pieces (see below). I will now show the total amount of time spent on each pitch in the two selected melodies and examine their characteristics in the light of the formulae summarized in Table C.

Table 7.4: The total number of crotchet-beats spent on each pitch of the modern double-reed pipe versions of “*Sômeiraku*” and “*Saisôrô*”

Pitch	The amount of time spent on each pitch of the two selected melodies															
	B		C		D		E		F ♮		F#		G		A	
Piece	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa
Total number of crotchet-beats spent on each pitch	256	237.25	85.75	74.25	113.5	4	135.5	26.5	26	0	275.375	213.75	125.75	61.75	32.875	8.5
Approximate Percentage (%)	24.4	37.9	8.2	11.9	10.8	0.6	12.9	4.2	2.5	0	26.2	34.1	11.9	9.9	3.1	1.4

Index: So = “*Sômeiraku*”; Sa = “*Saisôrô*”

Table 7.4 shows that F natural does not appear at all in “*Saisôrô*” and occupies only 2.5% of the total number of crotchet-beats in “*Sômeiraku*”. This pitch is, therefore, clearly an insignificant pitch in the modern *banshikichô / pan she diao* double-reed pipe melodies. In fact, F natural only occurs in Formula (n) of “*Sômeiraku*” (see Table C) and this formula must be regarded with caution. Here, the *itsu* — tablature-sign yields the *meri* pitch F natural and the *jô* ⊥ tablature-sign is performed with the *itsu* — fingering. This is uncommon in *banshikichô / pan she diao* double-reed pipe melodies. Since Formula (n) also appears in double-reed pipe melodies of other modal categories, for example, the *hyôjô / ping diao* modal group piece “*Manzairaku*” (see Formula (n) of “*Manzairaku*” in Chapter Eight), it is not impossible that Formula (n) of “*Sômeiraku*” has been borrowed from another modal group. This might come about when a similar tablature-sequence commonly appears in different modal groups. Perhaps the tablature-sequence of this formula ‘*jô – itsu – shi*’ (⊥—四), which is more frequently used in *hyôjô / ping diao* modal group pieces, was performed according to *hyôjô / ping diao* practice even when it appeared in the *banshikichô / pan she diao* melodies.

A is also not an important pitch in the modern *banshikichô / pan she diao* double-reed pipe melodies. It occupies only 3.1% and 1.4% of the total number of crotchet-beats in “*Sômeiraku*” and “*Saisôrô*” respectively. Furthermore, most As are employed as *enbai* and nuances. For instance, the A semiquavers and demisemiquavers in Formulae (a), (b) and (g) are nuances and the first A

semiquaver in Formula (k) is an *enbai*. The A crotchet in Formula (d) (marked with an asterisk in Table C) is the only A pitch that is not used as ornament. It is, however, significant that this note is sung in the *shôga* as B rather than A.¹⁵ Perhaps this note was originally performed as a B produced by raising the standard pitch (A) of the *tei* fingering. In modern performance, students are told, however, never to perform pitches that are higher than the standard pitch of each fingering. As a result, while this crotchet is still sung as B in modern practice of *shôga*, it is played as A in actual performance.

The amount of time spent on D in “*Sômeiraku*” is very different from that in “*Saisôrô*”. While the amount of time spent on D (0.6%) in “*Saisôrô*” is less than A (1.4%), in “*Sômeiraku*” the amount of time spent on D (10.8%) is significantly more than A (3.1%) and even slightly more than C (8.2%). In the case of “*Saisôrô*”, D is merely used in nuances, for example, the D semiquavers in Formulae (e), (i) and (w). In “*Sômeiraku*”, on the other hand, D is sometimes used as main pitches. For instance, Formulae (c), (f) and (s) both include a prolongation of D. Since these three formulae do not appear in “*Saisôrô*”, the amount of time spent on D in “*Saisôrô*” is significantly less than that in “*Sômeiraku*”.

It is not true to say, however, that D is more important than C in “*Sômeiraku*” because D is almost always preceded by C natural in *banshikichô / pan she diao* double-reed pipe melodies.¹⁶ In the cases of Formulae (c) and (f), the teacher will

¹⁵ Inconsistency between the pitches in the *shôga* and the actual melodies is rare in modern practice of *tôgaku*. This was the only case that I encountered during my lessons in Japan.

¹⁶ Formula (s) is the only instance where a prolonged D is retained without it being preceded by C natural.

ask the student to first play a *meri* C natural with the *riku* 六 fingering before moving to D by changing the position of the lips (see the circled *riku* 六 tablature-sign of Formulae (c) and (f) in Table C). The Ds in these two formulae were important pitches in the proto-formulaic historical melodic patterns and for this reason have been preserved in the course of transmission, but in order to strengthen the sense of the *in* scale, the musicians always precede it with a C natural. In fact, this orally transmitted practice is also applied in the modern double-reed pipe melodies of the *hyôjô* / *ping diao* modal group so as to emphasize the *in* scale tonality (see Chapter Eight).

Although in the previous chapter we saw that *enbai* in modern *ôshikichô* / *huang zhong diao* double-reed pipe melodies occur mainly on the first (E) and third (A) degrees of the *in* scale or the fifth (E) and first (A) degrees of the original *ôshikichô* / *huang zhong diao* mode, I will now show that this is not the case in the *banshikichô* / *pan she diao* melodies. The following table summarizes the numbers and the pitches of the *enbai* used in “*Sômeiraku*” and “*Saisôrô*”.

Table 7.5: A summary of the *enbai* used in the modern double-reed pipe melodies of “*Sômeiraku*” and “*Saisôrô*”

Pitch	Number of <i>enbai</i> in “ <i>Sômeiraku</i> ”	Number of <i>enbai</i> in “ <i>Saisôrô</i> ”
F#	24	11
E	24	15
A	7	6
B	6	0

Unlike the case of the modern double-reed pipe melodies in the *ôshikichô / huang zhong diao* modal group, where the pitches of *enbai* are mainly the pitches of the first (E) and the third degrees (A) of the *in* scale, in the *banshikichô / pan she diao* melodies *enbai* are frequently applied to the third (E) and fourth (F#) degrees of the *in* scale. Furthermore, A, which is a pitch that is not even included in the *in* scale, is also occasionally employed as an *enbai*. As has been shown in previous chapters, modally-specific ornaments such as mordents, are ornaments that are always applied to the same degrees in the scale, regardless of the modes or modal category of the melodies. Hence, there can be little doubt that the *enbai* in modern double-reed pipe melodies are not modally specific to the *in* scale. I will present further evidence to support this in the discussion of the *hyôjô / ping diao* modal group pieces below.

E. The modal practice of the modern transverse flute melodies

The modern transverse flute melodies of “*Sômeiraku*” and “*Saisôrô*” are shown together with the *Chû ôga ryûteki yôrokufu* versions in Musical Examples 52 and 53 respectively. Again, I will not discuss rhythmic discrepancies here since they have been examined in detail in Chapter Five (see Section II E of Chapter Five).

The formulae and their corresponding historical melodic patterns are summarized in Table D of Appendix IV. Formulae that are common to both “*Sômeiraku*” and “*Saisôrô*” are labelled with the same letters in the musical

examples. These formulae are (c), (d), (f), (h), (i), (k), (l), (m) and (n).

In the previous chapter, I demonstrated that the modern *ôshikichô / huang zhong diao* flute melodies are bi-modal. While the pitches of modally specific and important formulae are performed in the *ôshikichô / huang zhong diao* mode, the non-formulaic phrases and the relatively insignificant formulae are influenced by the *in* scale tonality of the double-reed pipe. The case of *banshikichô / pan she diao* melodies is, however, different from that of the *ôshikichô / huang zhong diao* melodies. The type of bi-modal tonality that occurs in *ôshikichô / huang zhong diao* melodies cannot be seen in *banshikichô / pan she diao* melodies. By comparing the modern double-reed pipe and flute versions of “*Sômeiraku*”, I will first show that the modern flute melodies of the *banshikichô / pan she diao* modal category are not performed in the *in* scale. Then I will explain why the *banshikichô / pan she diao* flute melodies are not bi-modal.

The modern flute and double-reed pipe versions of “*Sômeiraku*” are lined up in Musical Example 54. Since most significant pitch clashes occur between Formulae (d), (f), (l) of the flute and their corresponding double-reed pipe melodies, in the following analysis I will focus on these three formulae, which are shown in Figures 7.9, 7.10 and 7.11 below. I will show that while A, D and C# are intentionally avoided in the modern *banshikichô / pan she diao* double-reed pipe melodies, they are regularly used in the modern flute melodies.

In Figure 7.9, the *tei* ⊥ tablature-sign of the double-reed pipe mainly produces the *meri* pitch G natural rather than the standard pitch A. In the flute part, however, A is at least equal, if not the main pitch, in this formula’s oscillation

between A and G.

Figure 7.9: Formula (d) of the flute version of “*Sômeiraku*” and its corresponding modern double-reed pipe melody

The musical score for Figure 7.9 consists of two staves. The top staff is labeled 'Flute' and the bottom staff is labeled 'Double-reed pipe'. Both staves are in the key of D major (two sharps) and 8/8 time. The flute part features a melody with several notes highlighted in grey shaded boxes. Below the flute staff, there are rhythmic notations: a '+' sign followed by 'タ' (Ta), another '+' followed by 'タ', a '+' followed by 'タ', and a '+' followed by 'タ'. The double-reed pipe part has a similar melody with a '+' sign and a 'T' sign below it.

In the two shaded sections of Figure 7.10, the flute does not follow the double-reed pipe in using C natural. Rather, in the first shaded section, the flute melody employs a D and in the second shaded section, the flute melody includes a C#.

Figure 7.10: Formula (f) of the flute version of “*Sômeiraku*” and its corresponding modern double-reed pipe melody

The musical score for Figure 7.10 consists of two staves. The top staff is labeled 'Flute' and the bottom staff is labeled 'Double-reed pipe'. Both staves are in the key of D major (two sharps) and 8/8 time. The flute part has two sections shaded in grey. Below the flute staff, there are Japanese characters: a '+' sign followed by '六' (Roku) under the first shaded section, and a 'T' sign under the second shaded section. The double-reed pipe part has a similar melody with a '+' sign followed by '六' (Roku) under the first shaded section, and a '几' (Kai) sign under the second shaded section.

The case of Figure 7.11 is similar to that of Figure 7.10. While the *riku* 六 and *han* 凡 tablature-signs mainly represent C natural in the double-reed pipe melody, C natural is never used in the flute part. On the other hand, D, which is only employed as a nuance in the double-reed pipe melody, is the main pitch of the flute formula.

Figure 7.11: Formula (I) of the flute version of “*Sômeiraku*” and its corresponding modern double-reed pipe melody

The figure displays two musical staves. The top staff is labeled 'Flute' and the bottom staff is labeled 'Double-reed pipe'. Both staves are in a key signature of two sharps (F# and C#) and a 2/4 time signature. The Flute staff contains a sequence of notes: a quarter note on G4, a quarter note on A4, a half note on B4, a quarter note on C5, a quarter rest, a quarter note on D5, a quarter note on C5, a quarter note on B4, a quarter note on A4, and a quarter note on G4. Below these notes are the tablature signs: 六, 六, 六, セ, フ, and T. The Double-reed pipe staff contains a sequence of notes: a quarter note on G4, a quarter note on A4, a quarter note on B4, a quarter note on C5, a quarter note on B4, a quarter note on A4, a quarter note on G4, a quarter note on F#4, a quarter note on E4, a quarter note on D4, a quarter note on C4, a quarter note on B3, a quarter note on A3, and a quarter note on G3. Below these notes are the tablature signs: —, 六, 四, 六, and 凡. The notes 六, 四, 六, and 凡 in the Double-reed pipe staff are highlighted with grey boxes.

The analysis of these three significant flute formulae shows that D and A, which are pitches that are theoretically not allowable in the *in* scale of the double-reed pipe melodies, are regularly used in the modern flute version of “*Sômeiraku*”. On the other hand, C natural, which is always emphasized in the *banshikichô* / *pan she diao* double-reed pipe melodies, is rarely employed in the flute melodies. I will now show the total amount of time spent on each pitch of the modern flute versions of “*Sômeiraku*” and “*Saisôrô*” in order to confirm this view.

Table 7.6: The total number of crotchet-beats spent on each pitch of the modern flute versions of “*Sômeiraku*” and “*Saisôrô*”

The amount of time spent on each pitch of the two selected melodies																				
Pitch	B		C ♮		C#		D		E		F ♮		F#		G		A		A#	
Piece	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa	So	Sa
Total number of crotchet-beats spent on each pitch	295.25	245	1.8125	0.9375	38	37	200.6875	93.1875	136.5	31	0	18.5	209.5	124.5	123.25	56.625	77.5	45.75	0	2
Approximate Percentage (%)	27.3	37.4	0.2	0.1	3.5	5.7	18.5	14.2	12.6	4.8	0	2.8	19.3	19.0	11.4	8.7	7.2	7.0	0	0.3
Total amount of time (in percentage) spent on C natural, D and A of the double-reed pipe versions (after Table 7.4)			8.2	11.9			10.8	0.6									3.1	1.4		

Index: So = “*Sômeiraku*”; Sa = “*Saisôrô*”

The amount of time spent on A and D in the modern flute versions of “*Sômeiraku*” and “*Saisôrô*” is significantly higher than that in the double-reed pipe versions. By contrast, the amount of time spent on C natural in the flute melodies is significantly less than that of the double-reed pipe melodies. In fact, C natural is only touched briefly in the flute melodies, when the performer applies the sliding technique on the *roku* 六 finger-hole. These differences clearly reveals that the modern flute melodies of the *banshikichô / pan she diao* modal category are not performed in the *in* scale tonality.

In order to understand the tonality of the modern flute melodies, it is necessary to study other pitches that are not allowable in the theoretical scale of the *banshikichô / pan she diao* mode. These are A#, F natural and G natural. Table 7.6 shows that A# and F natural occur only in “*Saisôrô*” and not in “*Sômeiraku*”. These two pitches are not significant and should not be regarded as regular pitches in modern *banshikichô / pan she diao* melodies. The A# in “*Saisôrô*” is merely used as an ornament at the beginning of the piece (see the first Box (i) in Musical Example 53). The function of this ornament is to allow the performer to produce a B mordent.¹⁷

F natural is used only in Formula (v) of “*Saisôrô*”. This formula is not a common flute formula in the *banshikichô / pan she diao* modal category and has to be regarded with caution. As was with the case of Formula (n) in the double-reed pipe version of “*Sômeiraku*”, it is possible that the performer might

¹⁷ As has been indicated in Chapter Five, in modern performance it is common for flute performer to play some mordent-like figures at the very beginning of a piece (see p. 262).

have followed the pitches of a formula from another modal group during the transmission of “*Saisôrô*”. For instance, a formula in the *hyôjô / ping diao* modal group melody, “*Keitoku*”, is very similar to the combined form of Formulae (f) and (v) in “*Saisôrô*”. In this formula of “*Keitoku*”, the Fs are not sharpened. The following figure shows this “*Keitoku*” formula together with Formulae (f) and (v) of “*Saisôrô*”.¹⁸

Figure 7.12: A comparison of Formulae (f) and (v) of “*Saisôrô*” to a formula in “*Keitoku*”

The figure consists of two musical staves. The top staff is labeled "Saisôrô" (banshikichô / pan she diao) and contains two formulae: "Formula (f)" and "Formula (v)". The bottom staff is labeled "Keitoku" (hyôjô / ping diao) and contains a single formula. A shaded vertical area highlights the difference in the G# pitch between the two pieces.

Unlike in historical practice, the *jô* ⊥ fingering of the flute is never used in modern performance to produce G#. Indeed, this is the reason why the type of bi-modal structure typical of the *ôshikichô / huang zhong diao* flute melodies does not occur in the *banshikichô / pan she diao* melodies. Regardless of whether it is an important formula or a non-formulaic musical phrase, the Gs of the modern *banshikichô / pan she diao* flute melodies, like those in the double-reed pipe

¹⁸ The rhythmic proportions of these two melodic fragments are not identical because “*Saisôrô*” is a *nobebyôshi* whereas “*Keitoku*” is a *hayabyôshi* pieces.

melodies, will always be performed as G natural rather than G#. Since the modern flute melodies are not performed in the *in* scale and the pitches C#, D and A are basically preserved in the transmission of the flute melodies, we may conclude that the modern flute melodies of the *banshikichô / pan she diao* modal category are performed in an Aeolian mode on B (B C# D E F# G A), which is neither the *in* scale nor the original *banshikichô / pan she diao* mode. This is further supported by the data shown in Table 7.6, in which the tonic (B) and the fifth degree (F#) of this Aeolian mode are clearly the first and second frequently used degrees in the modern flute melodies of “*Sômeiraku*” and “*Saisôrô*”.

Chapter Eight

The modal practice of the *hyôjô / ping diao* modal group pieces from the twelfth century to the present-day

The two pieces selected for detailed examination in this chapter are “*Manzairaku*” and “*Kyôunraku*”. In the first part, I will investigate the modal practice of the historical versions of these two pieces, and in the second part I will examine the modal practice of modern performance. Although I will not discuss the historical development of the *hyôjô / ping diao* modal group pieces in this chapter, attention will be drawn to the most significant and illuminating differences between the historical melodies.

I. The modal practice of *tôgaku* melodies from the twelfth to the mid-fourteenth century

While no *hyôjô / ping diao* pieces appear in the surviving manuscript copies of *Hakuga no fuefu*, there is no doubt that the original compiled by Minamoto no Hiromasa included a section for the *hyôjô / ping diao* modal group pieces. Both *Sango yôroku* and *Jinchi yôroku* include glosses consisting of fragments of *hyôjô / ping diao* modal group pieces from *Chôshûkyô no take no fu*, which is another name of *Hakuga no fuefu* (see p. 82). For instance, the *hyôjô / ping diao* piece

“Ôjô” in *Sango yôroku* includes some glosses that contain flute tablature-notation from *Chôshûkyô no take no fu*. This suggests that the bulk, if not all, of *Hakuga no fuefu* survived into the late twelfth century (Marett 1976:4-5).

Since the comparative analysis between the *Hakuga no fuefu* and *Sango yôroku* versions of “*Sekihaku tôrika*” (Musical Example 37) and “*Sômeiraku*” (Musical Example 42) in the previous chapters clearly demonstrated that, providing that the *Sango yôroku* melody is an un-syncopate version read according to the *kuten kifuhô* mensural system, there is a strong relationship between the melodies recorded in *Hakuga no fuefu* and *Sango yôroku*, we can assume that the un-syncopate late-twelfth-century lute versions of “*Manzairaku*” and “*Kyôunraku*” would have been very similar to the tenth-century flute versions.

Furthermore, because there is no significant modal difference between the un-syncopate and the syncopated lute versions of a *Sango yôroku* melody, a study of the syncopated melodies of “*Manzairaku*” and “*Kyôunraku*” will allow us to draw conclusions about the modal practice not only of that of the late twelfth century but also that of the tenth century.

The historical melodies of “*Manzairaku*” and “*Kyôunraku*” are lined up together in Musical Examples 55 and 56 respectively. Staff No. 1 in each of these two musical examples shows the un-syncopate *Sango yôroku* melody. Because “*Manzairaku*” and “*Kyôunraku*” are *nobebyôshi* pieces in modern practice, I show only the syncopated versions of the historical melodies in the remaining staves.

A. The modal practice of the lute melodies in the late twelfth century

In Chapter two of this thesis, I showed that the *hyôjô / ping diao* mode was the *u / yu* (Dorian) mode of the *rinshô / lin zhong* key in Tang China. This matches the structure of the *hyôjô / ping diao* mode illustrated in *Sango yôroku*, namely E F# G A B C# D (Ng 1998:107). In this section, I will show, through studying the cadences, mordents, appoggiaturas and the amount of time spent on each degree of the syncopated *Sango yôroku* melodies, that the late-twelfth-century versions of “*Manzairaku*” and “*Kyôunraku*” have the correct characteristics of the *hyôjô / ping diao* mode.¹

The cadences of the syncopated *Sango yôroku* melodies of “*Manzairaku*” and “*Kyôunraku*” are shaded in Musical Examples 55 and 56. These two melodies clearly cadence on E, which is the tonic the *hyôjô / ping diao* mode, at the end of the piece. Other musical phrases of the lute melodies mainly cadence on B, which is the fifth degree of the *hyôjô / ping diao* mode. The musical phrase that finishes at the *D.S. al fine* sign of “*Manzairaku*” cadences on G. Cadences on G are also acceptable in *hyôjô / ping diao* modal group pieces since G is the *kyû / gong* degree of this mode.

Table 8.1 shows the positions and number of mordents used in the syncopated *Sango yôroku* melodies of “*Manzairaku*” and “*Kyôunraku*”. The use of mordents in these two melodies basically follows the patterns of the Heian-period *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal

¹ Since the late-twelfth-century zither melodies are virtually identical to the late-twelfth-century lute melodies, I will not examine the zither melodies in detail.

group pieces. In short, mordents are frequently applied on the *chi / zhi* (D) and *kyû / gong* (G) degrees but only occasionally on the *shô / shang* degree (A) of the mode. The *shô / shang* mordent of the *hyôjô / ping diao* modal group pieces produces a G# auxiliary note that is outside the theoretical scale of the *hyôjô / ping diao* mode. This G# was possibly introduced in China when the musicians re-emphasized the importance of the *zheng sheng diao* scale between the sixth and seventh centuries (see Section II D of Chapter Two). Apart from this G#, the syncopated *Sango yôroku* versions of “*Manzairaku*” and “*Kyôunraku*” do not include any pitches that are outside the theoretical scale of the *hyôjô / ping diao* mode.

Table 8.1: The mordents used in the syncopated *Sango yôroku* melodies of “*Manzairaku*” and “*Kyôunraku*”

	Number of the <i>chi / zhi</i> (D) mordents	Number of the <i>kyû / gong</i> (G) mordents	Number of the <i>shô / shang</i> (A) mordents
“ <i>Manzairaku</i> ”	24	23	7
“ <i>Kyôunraku</i> ”	10	12	4

While the number of the *chi / zhi* mordents is usually more than that of the *kyû / gong* mordents in mid- and late-Heian *tôgaku* pieces, in “*Kyôunraku*” the number of the *kyû / gong* mordents (12) is slightly more than that of the *chi / zhi* mordents (10). Because the difference is not significant and such usage does not occur in other selected *Sango yôroku* melodies, this can be regarded as a special

case that is not particularly significant to our discussion of modal practice.

Table 8.2 summarizes the appoggiaturas employed in the syncopated *Sango yôroku* melodies of “*Manzairaku*” and “*Kyôunraku*” (marked (a) in the musical examples). The way of using appoggiaturas in late-Heian-period *hyôjô / ping diao* modal group pieces is identical to that of the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal group pieces.

Table 8.2: The appoggiaturas used in the syncopated *Sango yôroku* melodies of “*Manzairaku*” and “*Kyôunraku*”

	Number of <i>chi / zhi</i> (D) appoggiaturas	Number of <i>kyû / gong</i> (G) appoggiaturas	Number of <i>shô / shang</i> (A) appoggiaturas
“ <i>Manzairaku</i> ”	12	18	0
“ <i>Kyôunraku</i> ”	2	8	1

Like the mordents, the appoggiaturas are mainly the *chi / zhi* (D) and *kyû / gong* (G) degrees of the mode. Since the *shô / shang* (A) degree is also occasionally decorated with a mordent in mid- and late-Heian *hyôjô / ping diao* melodies, the occurrence of a *shô / shang* appoggiatura in “*Kyôunraku*” is not unusual.

I will now show with reference to the total amount of time spent on each degree in the syncopated lute melodies of “*Manzairaku*” and “*Kyôunraku*” (Table 8.3) that, unlike the case of “*Sekihaku tôrika*” in the *ôshikichô / huang zhong diao* modal group, these two *hyôjô / ping diao* modal group pieces correctly manifest

the characteristics of the *hyôjô / ping diao* mode.

Table 8.3: The total number of crotchet-beats spent on each degree in the syncopated *Sango yôroku* versions of “*Manzairaku*” and “*Kyôunraku*”

		Number of notes spent on each degree (pitch)														
Degree Note	E (u / yu)		F# (henkyû / bian gong)		G ♯ (kyû / gong)		G#		A (shô / shang)		B (kaku / jue)		C# (henchi / bian zhi)		D (chi / zhi)	
	M	K	M	K	M	K	M	K	M	K	M	K	M	K	M	K
Crotchet	8	8				3			2	1	9	8				
Quaver	50	20	25	5	28	15			12	6	51	23	6	1	24	13
Semi-quaver			23	14	43	20		1	7	4		1	12	5	36	22
Demisemi-quaver			20	6	20	7	7	3	7	4			24	7	24	7
Total number of crotchet-beats spent on each degree	33	18	20.75	6.75	27.25	16.375	0.875	0.625	10.625	5.5	34.5	19.75	9	2.625	24	10.375
Approximate percentage (%)	20.6	22.5	13.0	8.4	17.0	20.4	0.6	0.8	6.6	6.9	21.6	24.7	5.6	3.3	15.0	13.0

Index: M = “*Manzairaku*”; K = “*Kyôunraku*”

The above table clearly shows that in both “*Manzairaku*” and “*Kyôunraku*”, the most frequently used pitches are E and B. This is what one would expect since they are the tonic (E) and the fifth degree (B) of the *hyôjô / ping diao* mode. The amount of time spent on the fifth degree is slightly more than that on the tonic because the musical phrases of these two pieces cadence mainly on B rather than

E. Some of these B cadences, moreover, last for a total of three to four crotchet-beats (see the shaded B cadences in Musical Example 56).

The amount of time spent on G natural and D in “*Manzairaku*” and “*Kyôunraku*” is more than that on F#, A and C#. G natural and D are the *kyû / gong* and *chi / zhi* degrees of the scale respectively. They are unquestionably more important and may be expected to occur more frequently than the *henkyû / bian gong* (F#), *shô / shang* (A) and *henchi / bian zhi* (C#) degrees in a *hyôjô / ping diao* piece.

B. The modal practice of the mouth-organ melodies from the early thirteenth to the early fourteenth century

Leaving aside rhythmic adjustments and the use of anticipations and standard ornaments in the *Kofu ritsuryokan* and *Shinsen shôtekifu* melodies, the mouth-organ melodies of “*Manzairaku*” and “*Kyôunraku*” are very similar to their late-Heian versions. The only significant pitch difference occurs in Box (B) of Musical Example 55, in which the *Kofu ritsuryokan* melody uses two G#s. Because the *Shinsen shôtekifu* melody in this box clearly employs G naturals rather than G#s, the G#s in the *Kofu ritsuryokan* version are possibly errors.

The small hollow notes in the *Shinsen shôtekifu* melodies represent the pitches of the small tablature-signs. Like the hollow notes used in the *Shinsen shôtekifu* melodies of the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal categories, they mainly form a run. Because these runs do not necessarily begin or finish on the same degrees, it is unlikely that they are modally

significant. For instance, the run marked by Box (A) moves from F# (*henchi / bian zhi*) to E (*u / yu*) whereas the run in Box (C) moves from B (*kaku / jue*) to G (*kyû / gong*).

Since the appoggiaturas of the mouth-organ melodies occur only on the *chi / zhi* (D) and *kyû / gong* (G) degrees and the modality of the mouth-organ melodies is not affected by the presence or absence of *yuri* signs, we may conclude that in general the *hyôjô / ping diao* modal practice of the late-Heian period was preserved in the mouth-organ pieces performed between the early thirteenth and the beginning of the fourteenth centuries.

C. The modal practice of the double-reed pipe and flute melodies in the mid-fourteenth century

The mid-fourteenth-century double-reed pipe and flute melodies of “*Manzairaku*” and “*Kyôunraku*” are highly elaborated versions of the late-Heian melodies. In addition to the use of numerous non-standard additional pitches, the melodies also include various new ornaments. In this section, I will first investigate the non-standard additional pitches and then proceed to a discussion of the ornaments.

The numbers of non-standard additional pitches in the fourteenth-century double-reed pipe and flute versions of “*Manzairaku*” and “*Kyôunraku*” are significantly more than those for pieces from other modal groups. These additional pitches are marked with asterisks and boxed in Musical Examples 55 and 56. I will first concentrate on the two double-reed pipe melodies.

“*Manzairaku*” (see also Formula (s) in Table F of Appendix IV).

Figure 8.3: The historical melodic pattern marked by Box (12) and its corresponding modern formula

The historical melodic pattern



The corresponding modern formula



As was the case with the mid-fourteenth-century *ôshikichô* / *huang zhong diao* and *banshikichô* / *pan she diao* melodies, the use of non-standard additional pitches is the main cause of modal alterations. While there was a clear vertical relationship between the *tôgaku* melodies performed in the mid- and late-Heian periods, this vertical relationship was not preserved in the mid-fourteenth century. I will now demonstrate this with reference to Musical Example 57.

Even if all standard ornaments of the *Nakahara roseishô* and *Chû ôga ryûteki yôrokufu* versions of “*Manzairaku*” are completely eliminated, there are still numerous pitch disagreements between the two melodies (shaded). Most of these disagreements occur, moreover, as a result of the use of non-standard additional pitches (see the asterisks). The use of additional pitches, therefore, creates a break down of the vertical relationship between the *tôgaku* melodies performed in the pre-fourteenth-century period and their historical antecedent.

Let us return to the use of ornaments in Musical Examples 55 and 56. The shaded notes of the *Nakahara roseishô* and *Chû ôga ryûteki yôroku* melodies are B, C#, E and F# appoggiaturas. While these appoggiaturas occur frequently in the fourteenth-century melodies, they do not appear in the Heian versions of “*Manzairaku*” and “*Kyôunraku*” (see Staff Nos. 1, 2 & 3 of Musical Examples 55 and 56). Apparently, appoggiaturas changed from being modally significant ornaments to being non-modally significant ornaments between the late twelfth and mid-fourteenth centuries.³

Ren is used more frequently than *ugoki* in the fourteenth-century *hyôjô / ping diao* flute melodies. Boxes (5), (7) and (24) of Musical Examples 55 and 56 show that all the descending runs that are generated by the *ren* technique begin from the *ge* ㄗ (C#) and finish either on the *jô* 丄 (G) or *go* 五 (F#) finger-holes of the transverse flute. This is identical to the *ren* technique applied to the flute melodies of the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal categories (see pp. 288 and 331). Since *ren* is always associated with the same finger-holes and pitches in different modal group pieces, it is unlikely that this technique has any modal implication.

As was the case with the *banshikichô / pan she diao* melodies, *ugoki* is not a common technique in *hyôjô / ping diao* flute melodies. Indeed, this technique does

³ The analysis in Chapter Seven shows that the practice of using appoggiaturas might have been changed as early as the beginning of the thirteenth century (see p. 326).

not occur in “*Manzairaku*” and “*Kyôunraku*”. Although some *ugoki* are employed in the *hyôjô* / *ping diao* modal group pieces “*Sandaien*”, “*Ôjô*”, “*Sôfuren*”, “*Katôraku*”, “*Korôji*” and “*Ringa*”, the number is relatively small. While in most cases *ugoki* is applied on the *jô* 丌 finger-hole (G), there are also cases where *ugoki* is applied to the *shaku* 夕 (A), *ge* 丅 (C#) and *chû* 中 (B) finger-holes. This supports the arguments set up in the last chapter that *ugoki* is associated neither with a particular pitch nor a particular degree of a mode, and hence it appears not to be modally significant (see pp. 331-2).

Box (D) in Musical Example 55 and Box (E) in Musical Example 56 mark two types of ornament that we have not encountered in the previous chapters. The crotchet-beat marked by Box (D) is shown in the following figure together with its relevant tablature-notation.

Figure 8.4: The crotchet-beat marked by Box (D) in Musical Example 55



This crotchet-beat is the first beat of the second (*hanchô*) section. Because the *ge* 丅, *chû* 中 and *shaku* 夕 tablature-signs are written smaller and separated by a *ka* 火 sign in the “*Manzairaku*” notation, we might expect them to have been played in a fast ‘C# – B – A’ descending run. Moreover, since the dot (the first dot of this section) is aligned with the *jô* 丌 rather than the *ge* 丅 tablature-sign, we may

assume that this descending run was performed in the form of a grace-note-figure. However, the use of a quick descending run at the beginning of a piece or a section occurs rarely in *Chû ôga ryûteki yôrokufu*. This technique is, therefore, probably not related to modal practice.

Box (E) of Musical Example 56 marks a *suri* 摺 technique used in “*Kyôunraku*”. While *suri* literally means ‘rub’ or ‘grind’, the detail of this technique is uncertain. Since it appears only once in all the selected flute melodies, it is unlikely that it is an important and modally significant ornament.

* * *

The analysis in this part clearly demonstrates that, as was the case with the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal group pieces, the modality of the Heian *hyôjô / ping diao* modal group pieces is defined by the uses of pitches, cadences, mordents and appoggiaturas. The use of non-standard additional pitches and the application of appoggiaturas on all the degrees of a mode in the fourteenth century, however, led to the modification of Heian modal practice.

II. The modal practice of present-day performance

Despite the fact that the forms of the historical melodies of “*Manzairaku*” and “*Kyôunraku*” remain the basis for the modern lute and mouth-organ parts, it is

the lute part that best preserves historical modal practice. Once the standard cluster-chords are taken into account, the tonality of the modern mouth-organ melodies becomes somewhat unclear.

As was the case in the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* modal groups, the modern zither, double-reed pipe and transverse flute melodies are very different from their historical versions. The modern zither melodies of the *hyôjô / ping diao* modal group are performed using only five pitches and the tuning is changed.

As already indicated, the modern double-reed pipe melodies of the *hyôjô / ping diao* modal group are strongly influenced by *in* scale tonality. The modern flute melodies, on the other hand, are performed in a tonality that is similar to that used in the *ôshikichô / huang zhong diao* melodies but different from that used in the *banshikichô / pan she diao* melodies. Furthermore, it seems likely that the *hyôjô / ping diao* flute melodies are more influenced by the *in* scale tonality of the double-reed pipe part than in the *ôshikichô / huang zhong diao* modal category.

A. The modal practice of the modern lute melodies

The late-twelfth-century and modern lute melodies of “*Manzairaku*” and “*Kyôunraku*” are lined up in Musical Examples 58 and 59 respectively. The form of the historical melodies is clearly preserved in the uppermost notes of the modern versions. While there are a few pitch disagreements between the historical and the modern versions of “*Manzairaku*” (boxed in Musical Example 58), these disagreements are not modally significant since they do not involve the use of any

pitch that is outside the theoretical scale of the *hyôjô / ping diao* mode.

The disagreements between the historical and the modern versions of “*Kyôunraku*” are mainly rhythmic rather than melodic. Boxes in Musical Example 59 mark all disagreements that are caused simply by the application of syncopation in the modern melody. Pitch disagreement occurs only twice in the piece and these are highlighted by the shaded boxes. These minor pitch disagreements do not significantly influence the modality of the piece.

The pitches of the added arpeggiated drones in the modern lute melodies of both “*Manzairaku*” and “*Kyôunraku*” are confined to E and B. These two pitches are prominent in the *hyôjô / ping diao* mode since they are the tonic and the fifth degree. The use of E and B as the pitches of the arpeggiated drone serve only to strengthen the tonality of the *hyôjô / ping diao* mode in the modern lute part.

B. The modal practice of the modern mouth-organ melodies

The early thirteenth-century and modern mouth-organ versions of “*Manzairaku*” and “*Kyôunraku*” are lined up in Musical Examples 60 and 61 respectively. While the form of the thirteenth-century melodies is clearly preserved in the modern versions,⁴ they can no longer be heard as melodies because of the insertion of the standard cluster-chords. As was the case with the *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* melodies, these cluster-chords significantly affect the tonality of the modern mouth-organ

⁴ In Box (1), the G#s of the *Kofu ritsuryokan* version of “*Manzairaku*” are preserved in the modern melody, even though they are probably errors (see p. 360).

melodies.

Hyôjô / ping diao is the *u / yu* mode of the *rinshô / lin zhong* key. Because the set of standard cluster-chords used in modern *hyôjô / ping diao* mouth-organ melodies is generated from the pitches of the *taisô / tai cou* key, they must affect the tonality. The modern mouth-organ melodies of “*Manzairaku*” and “*Kyôunraku*” are performed with cluster-chords on *kotsu* 𠂔, *ichi* 一, *ku* 工, *bô* 几, *otsu* 乙, *ge* 下 and *jû* 十. Although the pitches of the *kotsu*, *ichi*, *bô*, *otsu* and *jû* cluster-chords all belong to the theoretical scale of the *hyôjô / ping diao* mode, *ku* and *ge* contain a G#. Even though this pitch occasionally occurred in *hyôjô / ping diao* modal group pieces of the Heian period, it was mainly used as an auxiliary note in the mordent on *shô / shang* (A). While G# appeared only occasionally and occupied only a small amount of time in the Heian melodies (see Table 8.3 on p. 359), in the modern melodies the *ku* and *ge* cluster-chords are frequently employed and result in a large number of G#s appearing in the cluster-chords (circled). As Musical Examples 60 and 61 show, on the one hand the modern *hyôjô / ping diao* mouth-organ melodies preserve the historical melodies and the *hyôjô / ping diao* modal practice in their notated notes, and on the other, they tend to manifest the tonality of the modes generated from the *taisô / tai cou* key in their cluster-chords.

C. The modal practice of the modern long zither melodies

Because the *san* (third) and *roku* (sixth) strings of the modern *hyôjô* tuning are tuned a semitone lower than in the Heian-period tuning, the modern zither

melodies contain only the pitches E, F#, A, B and C# (see Musical Examples 62 and 63).

Figure 8.5: The practical tuning for playing the *hyôjô* / *ping diao* modal group pieces in the late-Heian period

ichi ni san shi go roku shichi hachi ku jû to i kin
 一 二 三 四 五 六 七 八 九 十 斗 為 巾

Figure 8.6: The modern *hyôjô* / *ping diao* tuning

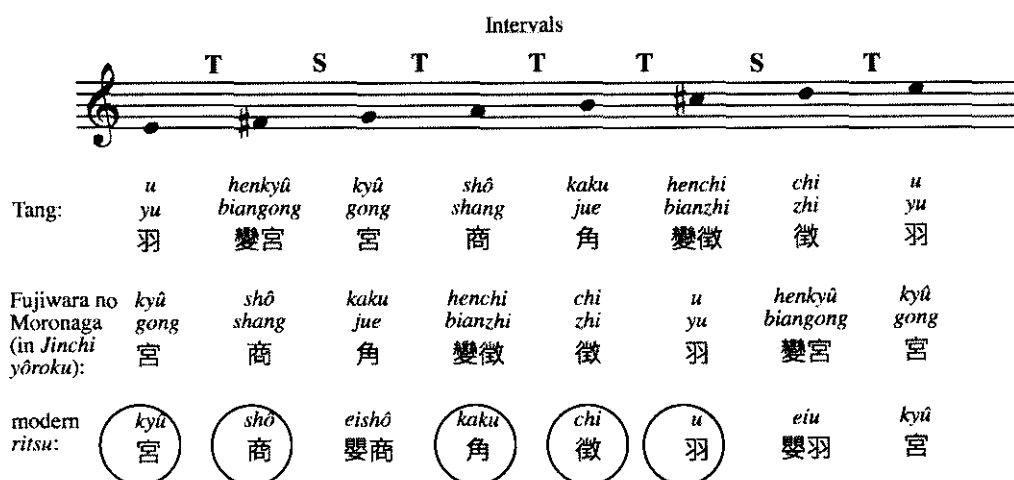
ichi ni san shi go roku shichi hachi ku jû to i kin
 一 二 三 四 五 六 七 八 九 十 斗 為 巾

These five pitches represent the pitches of the *kyû*, *shô*, *kaku*, *chi* and *u* degrees of the modern *ritsu* theoretical scale. The musicians possibly mistook these five pitches as the most important pitches of the *hyôjô* / *ping diao* mode during the standardization in the Meiji period and therefore tuned the zither to these five pitches. Nonetheless, as noted in Section II C of Chapter Six, the degree names of the modern *ritsu* scale do not correspond to those used in the Tang-period. The abandoned pitches, namely G and D, are in fact prominent

itches-*kyû* / *gong* and *chi* / *zhi* degrees—in the original *hyôjô* / *ping diao* mode.

The following figure compares the degree names of the *hyôjô* / *ping diao* mode used in the Tang, late-Heian and modern periods.

Figure 8.7: The three versions of degree names of the *hyôjô* / *ping diao* mode in China and Japan



Since the intervallic relationship between the *kyû*, *shô*, *kaku*, *chi* and *u* degrees of the modern *ritsu* scale (M2 – m3 – M2 – M2 – m3) is identical to that of the descending Japanese *yô* scale, the modern zither melodies of the *hyôjô* / *ping diao* modal group, like those in the *ôshikichô* / *huang zhong diao* and *banshikichô* / *pan she diao* modal categories, also realize the *yô* scale in modern practice.

D. The modal practice of the modern double-reed pipe melodies

The historical and modern double-reed pipe melodies of “*Manzairaku*” and

“*Kyôunraku*” are shown in Musical Examples 64 and 65 respectively. I will focus on the formulae of “*Manzairaku*” in order to show that, as was the case in modern *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* melodies, the modern double-reed pipe melodies of the *hyôjô / ping diao* modal category tend towards *in scale* tonality. The modern “*Manzairaku*” melody includes a total of twenty-one formulae (see Formulae (a) to (u) in Table E of Appendix IV), of which Formulae (c), (d), (g), (k), (l), (m), (t) and (u) are designated modally specific formulae, since they also appear in “*Kyôunraku*” (see Musical Example 65).

As shown in Table E, in the modern double-reed pipe melody of “*Manzairaku*”, the *itsu* 一 and *riku* 六 tablature-signs mainly signify the *meri* pitches F natural and C natural rather than the standard pitches F# and D.⁵ Furthermore, because in the performance of modern *hyôjô / ping diao* pieces the *han* 凡 finger-hole is not used to generate C#, the modern version of “*Manzairaku*” includes no C#s but only C naturals.

As was the case with the modern *ôshikichô / huang zhong diao* double-reed pipe melodies, the *jô* ⊥ tablature-sign is frequently performed with the *itsu* fingering so as to generate an F natural.⁶ Figure 8.8 illustrates how the pitches of the *hyôjô / ping diao* mode are modified in the modern double-reed pipe melodies. These changes allow the modern *hyôjô / ping diao* double-reed pipe melodies to be basically performed in a pentatonic scale consisting of pitches E, F, A, B and C.

⁵ Tablature-signs that signify *meri* pitches are marked by a circle in the table.

⁶ These *jô* tablature-signs are boxed in the table.

This pentatonic scale is identical to the one used in the modern *ôshikichô* / *huang zhong diao* melodies (see Figure 6.8 on p. 299), and the ‘m2 – M3’ tetrachord of the Japanese *in* scale is clearly manifested in this scale.

Figure 8.8: An illustration of the modification of the pitches in the modern *hyôjô* / *ping diao* double-reed pipe melodies

The figure consists of two staves of music. The top staff is labeled 'The theoretical structure of the *hyôjô* / *ping diao* mode' and shows a pentatonic scale with notes E, F#, A, B, and C. The bottom staff is labeled 'The pitches that are frequently used in modern *hyôjô* / *ping diao* double-reed pipe melodies' and shows the same scale with notes E, F, A, B, C, and E. The notes F and C in the bottom staff are marked with a flat sign. Below the bottom staff, the intervals between notes are labeled: m2 between E and F, M3 between F and A, M2 between A and B, m2 between B and C, and M3 between C and E. Two brackets below the bottom staff indicate 'the 'm2 – M3' tetrachord' for the F-A-B-C sequence and another for the B-C-E sequence. Above the bottom staff, the notes are labeled with Chinese characters: (一) for F, 舌(一) for A, 五(一) for B, 工 for C, 几 for E, 六 for F, and 四 for A.

In addition, some F naturals and C naturals in the modern “*Manzairaku*” melody are extended in order to emphasize their importance in the *in* scale. For instance, while the note-value of the corresponding historical pattern of Formula (e) is only a quaver-beat (see Table E), the modern formula, which includes mainly C naturals, occupies a total of six crotchet-beats rather than the four beats that one would normally expect.

In Versions 1 and 4 of Formula (k), the note-value of the first F natural is also likely to be extended. This type of extension is similar to the one applied in

Formula (c) of “*Sekihaku tôrika*” (see Table A).

While G, D and F# are not completely abandoned in the modern *hyôjô / ping diao* double-reed pipe melodies, I will now show, with reference to the amount of time spent on each pitch in the modern “*Manzairaku*” and “*Kyôunraku*” melodies, that they are relatively insignificant in the modern melodies. The most frequently used pitches in these two pieces are in fact the first (E), second (F natural) and fourth (B) degrees of the *in* scale shown in Figure 8.8.

Table 8.4: The total number of crotchet-beats spent on each pitch of the modern double-reed pipe versions of “*Manzairaku*” and “*Kyôunraku*”

		The amount of time spent on each pitch of the two selected melodies														
Pitch	E		F ♯		F#		G		A		B		C ♯		D	
Piece	M	K	M	K	M	K	M	K	M	K	M	K	M	K	M	K
Total number of crotchet-beats spent on each pitch	240.25	118.75	265.5	107.5	58.5	42.125	12.25	16	90.5	47.875	213.5	135.5	77.5	22.25	92	35.5
Approximate Percentage (%)	22.9	22.6	25.3	20.5	5.6	8.0	1.2	3.0	8.6	9.1	20.3	25.8	7.4	4.2	8.7	6.8

Index: M = “*Manzairaku*”; K = “*Kyôunraku*”

Despite the fact that F natural does not occur in the historical *hyôjô / ping diao* mode and therefore does not appear in the Heian versions of “*Manzairaku*” and “*Kyôunraku*” (see Table 8.3 on p. 359), it occupies more than 20% of time in each of the two modern melodies.

The amount of time spent on G, on the other hand, is extremely small in the modern double-reed pipe melodies of “*Manzairaku*” (1.2%) and “*Kyôunraku*” (3.0%). Indeed, G is employed mainly as an ornament, for example, the G nuances in Formulae (c), (j), (k), (l), (p) and (s) and the G auxiliary note in Formula (b). While Formula (v) of “*Kyôunraku*” includes some Gs in the descending run generated by the ‘*kô – go – zetsu*’ (工五舌) tablature-sequence, this tablature-sequence is also sometimes performed as a descending run of ‘B – A – F#’ rather than ‘B – A – G’ in *hyôjô / ping diao* modal group pieces, for example, the descending run in “*Funan*”.

F#, which occurs mainly in Formulae (c), (d), (p) and (t), also occupies only a small amount of time in the two melodies (5.6% in “*Manzairaku*” and 8.0% in “*Kyôunraku*”). The F#s in Formulae (c), (d) and (p) were originally the non-standard additional pitches that were inserted in the fourteenth-century melodies (see Figures 8.1 and 8.2 on pp. 362-3). And as was the case in *ôshikichô / huang zhong diao* and *banshikichô / pan she diao* melodies, we can assume that when non-standard additional pitches are central to the proto-formulaic historical patterns, they tend to survive even though their existence resulted in clashes with the *in* scale tonality.

D occupies only a total of 8.7% and 6.8% of time in “*Manzairaku*” and

“*Kyôunraku*” respectively. The use of Ds in the modern *hyôjô / ping diao* double-reed pipe melodies is similar to that of the *banshikichô / pan she diao* melodies. While it is possible that some Ds were important in the proto-formulaic historical patterns and were therefore preserved in the course of transmission, in modern practice it is common to first generate a C natural before performing a prolonged D pitch. Typical examples can be seen in Formulae (f) and (m). In the case of Formula (t), C natural is not emphasized before but after the D in the form of an *enbai*. Formula (x) shows an exceptional case, where the Ds are not accompanied with any C natural. This formula is, however, not a common formula and it occurs only twice in “*Kyôunraku*”.

The *enbai* used in the modern double-reed pipe melodies of “*Manzairaku*” and “*Kyôunraku*” are summarized in Table 8.5. While the modern *hyôjô / ping diao* and *ôshikichô / huang zhong diao* melodies are basically performed in the same *in scale* tonality, the use of *enbai* in the pieces of these two modal categories is different. In the case of the *ôshikichô / huang zhong diao* pieces, the *enbai* regularly fall on E and A (see Table 6.5 on pp. 303-4) whereas in the case of the *hyôjô / ping diao* pieces, the *enbai* fall frequently only on E (see Table 8.5 below). This suggests that the use of *enbai* in modern double-reed pipe melodies is not specific to the *in scale*.

Table 8.5: A summary of the *enbai* used in the modern double-reed pipe melodies of “*Manzairaku*” and “*Kyôunraku*”

Pitch	Number of <i>enbai</i> in “ <i>Manzairaku</i> ”	Number of <i>enbai</i> in “ <i>Kyôunraku</i> ”
E	46	29
F#	0	5
A	4	5
B	5	1
C	2	2

E. The modal practice of the modern transverse flute melodies

Musical Examples 66 and 67 shows the modern and historical flute melodies of “*Manzairaku*” and “*Kyôunraku*” respectively. The formulae of the flute melodies are summarized in Table F of Appendix IV. Formulae (c), (h), (j), (l), (m), (n), (v) and (w) are designated as modally specific formulae since they are used in both “*Manzairaku*” and “*Kyôunraku*”.

In the previous section, I demonstrated that the modern *ôshikichô / Huang zhong diao* and *hyôjô / ping diao* double-reed pipe melodies are performed in the same *in* scale tonality. The modal practice of the modern *hyôjô / ping diao* flute melodies is also similar to that of the *ôshikichô / Huang zhong diao* flute melodies, in that while the flute melodies are affected by the *in* scale tonality of the double-reed pipe, they also regularly use F#, G and D, which are pitches that lie outside the theoretical *in* scale shown in Figure 8.8. In addition, as was the case with *ôshikichô / Huang zhong diao* melodies, the modern *hyôjô / ping diao* flute melodies manifest a bi-modal structure that results from the use of both F natural and F#. The main difference is, however, that modern *hyôjô / ping diao* flute melodies tended to employ more F naturals than the *ôshikichô / Huang zhong diao*

melodies. Furthermore, some F naturals even appear in important modally specific formulae. I will first show, with reference to Formulae (f), (l) and (p) of “*Manzairaku*” (marked as Boxes (f), (l) and (p) in Musical Example 68), how the use of pitches is different between the modern flute and double-reed pipe *hyôjô / ping diao* melodies, and will then proceed to a study of the amount of time spent on F naturals and F#s in the flute melodies.

Figure 8.9 shows Formula (f) of the modern flute version of “*Manzairaku*” together with its relevant double-reed pipe part.⁷ While D is employed only as a nuance in the double-reed pipe melody, it is clearly used as a main pitch in the flute formula. Furthermore, C#, which is a pitch that is never used in the modern *hyôjô / ping diao* double-reed pipe melodies, appears as a main pitch in this flute formula.

Figure 8.9: Formula (f) of the flute version of “*Manzairaku*” and its corresponding modern double-reed pipe melody

The image shows two staves of musical notation. The top staff is labeled 'Flute' and the bottom staff is labeled 'Double-reed pipe'. Both staves are in a key signature of one sharp (F#) and a 4/4 time signature. The Flute staff begins with a treble clef and a sharp sign. The Double-reed pipe staff begins with a treble clef and a sharp sign. The Flute staff has a sequence of notes: a quarter note (F#), an eighth note (G), a quarter note (A), a half note (B), a quarter note (C#), a quarter note (D), a quarter note (E), and a quarter note (F#). The notes B, C#, and D are grouped under a shaded box, and the notes E and F# are grouped under another shaded box. Below the first shaded box is the character '六' (Ryû), and below the second is '几' (Kai). The Double-reed pipe staff has a sequence of notes: a quarter note (F#), a quarter note (G), a quarter note (A), a quarter note (B), a quarter note (C#), a quarter note (D), a quarter note (E), and a quarter note (F#). Below the first note is the character '六' (Ryû), and below the fifth note is '几' (Kai).

⁷ In the analysis of Figures 8.9, 8.10 and 8.11, I will compare only one version of the flute formula to the double-reed pipe melody.

In Figure 8.10, the double-reed pipe melody includes mainly F naturals (shaded) while the oscillation that occurs in the flute melody contains mostly G and F#. This formula is a typical example that shows how the G and F# of the diatonic *hyôjô / ping diao* mode are preserved in the modern flute melodies and how they clash with the F naturals in the double-reed pipe part.

Figure 8.10: Formula (I) of the flute version of “Manzairaku” and its corresponding modern double-reed pipe melody

The figure displays two staves of music in G major (one sharp). The top staff is labeled 'Flute' and contains a melodic line with notes G4, A4, B4, C5, B4, A4, G4, F#4, G4, A4, B4, C5. The bottom staff is labeled 'Double-reed pipe' and contains a melodic line with notes F4, G4, A4, B4, C5, B4, A4, G4, F4, G4, A4, B4, C5. Vertical grey bars connect the two staves, highlighting the notes F4 in the double-reed pipe part and G4 and F#4 in the flute part. Between the staves, there are tablature signs: '五' (5) under the first G4 of the flute, and '五' (5) under the first F4 of the double-reed pipe. There are also small horizontal lines between the staves corresponding to the other notes.

In Figure 8.11, the *riku* 六 tablature-sign of the double-reed pipe is performed in the *meri* pitch, C natural. The corresponding pitch in the flute formula is, however, D. In addition, at the end of this flute formula the C# of the diatonic *hyôjô / ping diao* mode is preserved. In this case, the clashes between the flute and double-reed pipe parts occur between D (or C#) and C natural rather than F# and F natural.

Figure 8.11: Formula (p) of the flute version of “*Manzairaku*” and its corresponding modern double-reed pipe melody

The image shows two staves of music. The top staff is labeled 'Flute' and the bottom staff is labeled 'Double-reed pipe'. Both are in treble clef with a key signature of two sharps (F# and C#). The flute melody starts with a treble clef and a '4' above it. The double-reed pipe melody starts with a treble clef. Both melodies consist of a sequence of notes with various rhythmic values and rests. The flute melody has a bar line after the first two notes. The double-reed pipe melody has a bar line after the first two notes. There are two shaded vertical bars highlighting the final two notes of each melody. Below the flute staff, there are four Chinese characters: 四, 六, 六, 几. Below the double-reed pipe staff, there are four Chinese characters: 四, 六, 六, 几. The first two characters are aligned with the first two notes, and the last two are aligned with the last two notes of each melody.

Table 8.6 shows the total amount of time spent on each pitch of the modern “*Manzairaku*” and “*Kyôunraku*” flute melodies. The amount of time spent on G and D in the flute melodies is significantly more than that in the double-reed pipe melodies. Furthermore, while C# is never used in the double-reed pipe melodies, it occasionally appear in the flute melodies, although the amount of time spent on it is relatively small. This is perhaps an influence from the original *hyôjô / ping diao* mode where C# is only an auxiliary (*henchi / bian zhi*) degree.

Table 8.6: The total number of crotchet-beats spent on each pitch of the modern flute versions of “Manzairaku” and “Kyôunraku”

	The amount of time spent on each pitch of the two selected melodies																	
Pitch	E		F ♮		F#		G		A		B		C ♮		C#		D	
Piece	M	K	M	K	M	K	M	K	M	K	M	K	M	K	M	K	M	K
Total number of crotchet-beats spent on each pitch	241.25	119	175.5	59.25	18	14.75	98.875	40	85.25	53.5	266.5	167	3.5625	2.75	30.25	4.875	175.3125	78.375
Approximate Percentage (%)	22.0	22.1	16.0	11.0	1.7	2.7	9.0	7.4	7.8	9.9	24.4	31.0	0.3	0.5	2.8	0.9	16.0	14.5
Total amount of time (in percentage) spent on D, G and C# of the double-reed pipe versions (after Table 8.4)							1.2	3.0							0	0	8.7	6.8

Index: M = “Manzairaku”; K = “Kyôunraku”

The time spent on F natural and F# is also noteworthy. Significantly more time is spent on F natural than that of F# in the modern flute melodies of “*Manzairaku*” and “*Kyôunraku*”. This suggests that the modern *hyôjô / ping diao* flute melodies are more influenced by the F naturals of the double-reed pipe than was the case with the *ôshikichô / huang zhong diao* melodies. Indeed, as already noted, F natural even appears in some important and modally specific formulae of the modern *hyôjô / ping diao* flute melodies, for example, the F natural minim in Formula (v) (see Table F). While Formula (v) is not a frequently used formula in “*Manzairaku*” and “*Kyôunraku*”, it appears in many other modern *hyôjô / ping diao* flute melodies, such as the *ha* movement of “*Gojôroku*”, “*Kanshû*”, “*Sandaien no kyû*”, “*Shun'yôryû*”, “*Bairo*”, “*Katôroku*”, “*Sôfuren*” and “*Yahanraku*”. Box (v) in Musical Example 68 clearly shows that the note corresponding to this F natural minim in the double-reed pipe formula (see Formula (t) in Table E) is also an F natural (marked with an asterisk). Because the second half of these flute and double-reed pipe formulae share a nearly identical melodic and rhythmic structure, we may assume that the F natural in the flute formula results from the influence of the F natural in the double-reed pipe part.

It is to be expected that the *hyôjô / ping diao* modal group pieces will be affected more by the pitches of the double-reed pipe than in the cases of other modal group pieces. The modern *hyôjô / ping diao* modal group, which contains a total of nineteen instrumental pieces,⁸ is the largest modal group among the six

⁸ See the ‘*Meiji senteifu*’ column in Appendix II.

common modal groups in modern *tôgaku*. The first pieces given to beginners on double-reed pipe and flute are “*Etenraku*” and the *kyû* movement of “*Gojôraku*”, both of which are in the *hyôjô / ping diao* modal group. These two pieces are said to be the most frequently performed pieces in modern *tôgaku* performance.⁹ According to my experience in the Ono Gagakukai (see Introduction), in addition to “*Etenraku*” and “*Gojôraku*”, the *hyôjô / ping diao* pieces “*Ôjô*”, “*Keitoku*”, “*Bairo*”, “*Ringa*” and “*Ôshôkun*” are also frequently performed. On the other hand, the only *ôshikichô / huang zhong diao* pieces that are frequently performed were “*Kaiseiraku*”, “*Jusuiraku*” and the *ha* movement of “*Saiôraku*”. Since the *hyôjô / ping diao* pieces are so frequently performed, my hypothesis is that over time performers have chosen to follow the F naturals of the double-reed pipe in order to avoid frequent clashes between the F natural of the double-reed pipe and the F# of the flute. This hypothesis is supported by my study in Japan with Nishihara Takako. When Nishihara performed the *hyôjô / ping diao* piece “*Keitoku*” for me in Japan, she told me that she was going to follow the melody taught by her teacher. While she was taught to perform most of the *go* 五 tablature-signs in the “*Keitoku*” notation as F natural, she knew of some teachers and performers who prefer to perform some of these *go* tablature-signs as F#. While there can be little doubt that Nishihara’s melodies represent the most common versions today since she follows the tradition carried by the Imperial Palace,¹⁰ there seems to be

⁹ Personal communication with my teachers in Japan.

¹⁰ Nishihara Takako’s teacher, Ue Akihiko, is a professional performer of the Imperial Palace (see Introduction).

a minority that continues to preserve an older practice.¹¹ In order to avoid pitch clashes within the flute part, it is common for all players to follow the pitches and the rhythm played by the *ôndô* (principal) of the ensemble (Ono 1989:37).

Even though the modern *hyôjô / ping diao* flute melodies are performed with more F naturals than the *ôshikichô / huang zhong diao* melodies, the F#s are not completely abandoned. For example, Formula (1), which is a modally specific formulae of the *hyôjô / ping diao* modal group, clearly preserves the F# employed in the diatonic *hyôjô / ping diao* mode. As a result, the type of bi-modality that occurs in the modern *ôshikichô / huang zhong diao* flute melodies can also be seen, albeit to a lesser extent, in the modern *hyôjô / ping diao* melodies.

¹¹ A similar case might also have occurred in the modal categories of the *ryo* group. In modern practice, the double-reed pipe melodies of the *ichikotsuchô / yi yue diao* modal group include mainly F naturals rather than F#s in order to generate the *in* scale tonality. As is the case with the *hyôjô / ping diao*, the flute part is also significantly affected by the *in* scale tonality of the double-reed pipe and tends to follow the F naturals in the double-reed pipe part. Masumoto Kikuko indicates, however, that some F naturals of the modern *ichikotsuchô / yi yue diao* flute melodies were in fact performed as the modally correct F# pitches in the Meiji and Taishô (1912-1926) periods (Masumoto 2000:206-7). This suggests that while the flute part of the *tôgaku* ensemble tended to preserve the correct pitches of the original modes soon after the standardization, it was increasingly influenced by the *in* scale tonality of the double-reed pipe and accordingly used more F naturals.

Conclusion

This thesis focuses upon two principle issues: the relationship between the *yan yue* modes used in Tang China and the *tôgaku* modes used in Heian Japan; and the transformation of the *ristu* modal group pieces of *tôgaku* in Japan from the Heian period to the present-day.

In Chapter One, I show that while many Japanese, Chinese and western scholars have carried out research on Tang or *tôgaku* modes, most research has focused on either the modal system of Tang China or the use of modes in the modern practice of *tôgaku*. This thesis, by contrast, has sought not only to elucidate the Tang modal system but also to trace the ways it has been modified from the time that it first entered Japan to the present.

In Chapter Two, I elucidate, with reference to *Song shu*, *Jin shu*, *Sui shu*, *Tang hui yao*, *Yue fu za lu*, *Xin tang shu* and *Bu bi tan*, how the *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modes used in Tang China had a Dorian (*u / yu*) modal structure. Furthermore, I show that while the theoretical scale of the *yan yue er shi ba diao* was the *zheng sheng diao* scale, there is evidence that the *xia zhi diao* scale was more popular in China between the sixth and seventh centuries. I suggest that it is possible therefore that in the period immediately prior to the Tang period, entertainment music in China was performed using modes derived from the *xia zhi diao* scale. As I showed in Chapter Six, it is possible that some ornamental practices relating to the Chinese *xia zhi diao* scale survived in the

Japanese *tôgaku* performed in the Heian period. This suggests that what was preserved in Heian *tôgaku* was not simply the theoretical modal structures but also the actual musical practices of the Tang period and the period immediately preceding it.

Chapters Three and Four examine the sources and notational systems of the historical *tôgaku* scores and *Meiji senteifu*. In Chapter Three, I focus on the condition of the surviving manuscript copies of scores and indicate which manuscript copies are chosen as the reference sources for this thesis and why. I then explain in Chapter Four the various systems of tablature-notation found in historical *tôgaku* scores. In most cases these sources are reliable and the notations clear, but where uncertainties occur, they can, in general, be clarified through a comparative study of the same piece from different sources. For example, a comparison between the *Gogenfu* and *Hakuga no fuefu* versions of “*Sômeiraku*” shows that the dots used in the notation of *Gogenfu*, unlike those employed in late-twelfth-century scores, are not metrical signs. Rather, each large tablature-sign in *Gogenfu* basically represents a single beat and it is the *tei* 丁 sign that signifies the end of a musical phrase. This examination of the tablature-signs and notational systems of the historical scores and *Meiji senteifu* lays the foundation for the transcriptions of the historical and modern *tôgaku* melodies in later chapters.

The main work of this thesis is the analysis undertaken in Chapters Five to Eight. In these four chapters, I examine the *tôgaku* melodies selected from the *ôshikichô / huang zhong diao* (“*Sekihaku tôrika*”, “*Kishunraku*” and “*Kaiseiraku*”),

banshikichô / pan she diao (“*Sômeiraku*” and “*Saisôrô*”) and *hyôjô / ping diao* (“*Manzairaku*” and “*Kyôunraku*”) modal categories that are performed in five different periods—the early to mid-Heian period, the mid- to late Heian period, the thirteenth century, the mid-fourteenth century and the present-day. In Chapter Five, I concentrate on the historical development of the *tôgaku* melodies. Even though some scholars and musicians have suggested that *tôgaku* was a static and unchanging repertory and that the music performed in the Heian period was very similar to that performed today (Ôno 1942:6), I show in Chapter Five that *tôgaku* was never a static and unchanging tradition, even in the Heian period. In the early to mid-Heian period, a degree of variability was tolerated,¹ and by the late-Heian period, many ornaments such as appoggiaturas and mordents had been added.

From the fourteenth century on, the *tôgaku* melodies started to break free from the conventions that regulated the vertical relationship between instruments in Heian performance, and consequently each instrumental part began to evolve in unique ways through the addition of pitches, ornaments and other orally transmitted practices that would not have been permissible in the Heian period. Furthermore, a growing reliance on oral transmission in the fourteenth century led the musicians to create distinctive and easily remembered melodic patterns, and this in turn led to the development of the melodic formulae that dominate modern practice.

The analysis in Chapter Six to Eight shows that two major changes in the modal practice of *tôgaku* have occurred during the course of its transmission over

¹ See, for example, the analysis of the cadences in the *Gogenfu* and *Hakuga no fuefu* versions of “*Sômeiraku*” in Section I A of Chapter Seven.

the past 1200 years. Firstly, between the Heian period and the present-day, *tôgaku* evolved from being a collection of unique and individualistic tunes, which for the most part were transmitted from Sui and Tang China and which also included examples of the many types of “foreign” music performed at the Sui and Tang courts, to a genre whose texture is dominated by musical patterns and formulae. Secondly, *tôgaku* was transformed from a heterophonic musical genre, in which all the melodic instruments performed an idiomatic form of melody within the same modality, to a poly-modal musical genre in which heterophonic relationships are more difficult to discern.

I will now focus in more detail on the first type of change. Between the early and mid-Heian periods the mode of a *tôgaku* melody was—regardless of modal group—mainly defined by its pitches and cadences. In the case of the *ôshikichô / huang zhong diao* modal group, the pitches are A, B, C, D, E, F# and G; in the case of the *banshikichô / pan she diao*, they are B, C#, D, E, F#, G# and A; and in the case of the *hyôjô / ping diao*, they are E, F#, G, A, B, C# and D. While some Heian pieces clearly cadenced on the tonic of their relevant modal group, that is A in the *ôshikichô / huang zhong diao*; B in the *banshikichô / pan she diao*; and E in the *hyôjô / ping diao*, some did not. For example, even though “*Sekihaku tôrika*” was classified within the modal category of *ôshikichô / huang zhong diao* in *Hakuga no fuefu* and included mainly the pitches of the *ôshikichô / huang zhong diao* mode, this piece cadenced on the fifth degree (E) of the mode and therefore manifested a *kaku / jue* rather than an *u / yu* modal structure. This suggests that in Heian *tôgaku*

practice, pieces that were performed in different modes but in the same key (for the string parts using the same tuning) were commonly grouped together under the same modal heading.

Indeed, it is pitches and cadences that primarily define Chinese *yan yue* modes. In Chinese treatises, the structure of *yan yue* modes are usually elucidated with reference to the twelve *ritsu / lü* (named pitches) and the *sha sheng* (final).² A principal difference between Japanese and Chinese practices seems to be that Chinese *yan yue* pieces that were performed in different modal structure were not grouped together under the same modal heading. For instance, the pieces recorded in the edict of *Tang hui yao* are clearly categorized according to their modal structures. “*Sekihaku tôrika*”, for example, is classified as a *kaku / jue* rather than an *u / yu* modal group piece in *Tang hui yao* (Wang c. 961:617).

From the mid- to the late Heian period, the *tôgaku* melodies were increasingly decorated with two modally significant ornaments, namely mordents and appoggiaturas. The practice of using mordents seems also to have been transmitted from China, since the mordents on the *chi / zhi* and *kyû / gong* degrees of the *tôgaku* melodies clearly conform to the structure of the Chinese *zheng sheng diao* scale. The use of *shô / shang* mordents was, moreover, possibly a modal practice that resulted from the employment of the *xia zhi diao* scale in Chinese *yan yue* performance prior to the Tang period.

Appoggiaturas were frequently used in *tôgaku* melodies performed in the late

² See, for example, the illustration of the *yan yue er shi ba diao* in *Bu bi tan* (pp. 68-74).

Heian period. There can be little doubt that the function of these appoggiaturas was to emphasize the *chi / zhi* and *kyû / gong* degrees of the scale since the pitches of the appoggiaturas are confined chiefly to these degrees.

While pitches and cadences continued to be the main features that defined modes in thirteenth- and fourteenth-century *tôgaku*, by this time appoggiaturas and mordents were gradually losing their modal significance. The analysis of the mouth-organ melodies in Chapter Seven (see pp. 325-7) shows that the appoggiatura was possibly the first ornament to lose the modal significance that it had in Heian practice. Rather than being confined mainly to the *kyû / gong* and *chi / zhi* degrees, by the fourteenth century all degrees of a mode could be used as an appoggiatura.

Although mordents were still applied mainly on the *kyû / gong* and *chi / zhi* degrees of the mid-fourteenth-century double-reed pipe and flute melodies, there is evidence that the musicians might not have understood the relationship between the mordents and the structure of the scale. By the mid-fourteenth century, the *kyû / gong* and *chi / zhi* degrees were being decorated by other ornaments, for example, the inverted mordent and the *ren* and *ugoki* techniques of the flute. Unlike the mordents, however, these ornaments were also applied to other degrees and, therefore, they are not modally significant.

Tôgaku 'formularization', particularly with regard to the double-reed pipe and flute melodies, started when the melodies began to include non-standard additional pitches. I have suggested that it was the creation of proto-formulaic patterns in the

mid-fourteenth century that led to the introduction of non-standard additional pitches. It is these proto-formulaic patterns that developed into significant modern formulae, for example, Formulae (c) and (d) of the modern double-reed pipe melodies and Formula (j) of the modern flute melodies of “*Manzairaku*” (see Tables E and F of Appendix IV). I have argued that one of the objectives in adding these non-standard additional pitches to the existing melodies was to create distinctive patterns. It was, moreover, these patterns that would form clear reference points for the memorisation and oral transmission of pieces in the same modal group. The corresponding historical melodic pattern of Formula (b) of the *ôshikichô / huang zhong diao* double-reed pipe melodies, which was created by inserting the non-standard pitch C between B and A, is a typical example (see the Figure 5.1 on p. 223). This pattern appears not only in the three selected pieces but also in other historical *ôshikichô / huang zhong diao* melodies, for example, “*Yôgûraku*”. The use of unique patterns in the historical melodies of a particular modal group led to an important aspect of modality in modern practice, namely that some modern formulae are held in common by pieces of the same modal group and that modality itself is also defined by these modally specific formulae. The modally specific double-reed pipe and flute formulae of the selected pieces are summarized in Tables G and H of Appendix IV respectively.³

The shaded formulae in Tables G and H are ‘cross-modal formulae’ that appear frequently in pieces from two different modal groups.⁴ There are two

³ I will show only one version of each formula in Tables G and H.

⁴ Please note that while Formula (g) of the *banshikichô / pan she diao* modal group is very similar to

reasons that led to the occurrence of ‘cross-modal formulae’ in modern double-reed pipe and flute melodies. Firstly, historical melodies from two different modal groups shared identical prominent pitches and modally significant features, which were subsequently developed in the same way in the course of transmission. For instance, double-reed pipe Formula (c) of the *ôshikichô / huang zhong diao* modal group and double-reed pipe Formula (k) of the *hyôjô / ping diao* modal group (see Table G) are identical because they are both an elaborated form of the G mordent used in the historical melodies.

Secondly, ‘cross-modal formulae’ were developed from ‘cross-modal patterns’ created in the fourteenth century. Double-reed pipe Formula (i) of the *banshikichô / pan she diao* modal group and double-reed pipe Formula (d) of the *hyôjô / ping diao* modal group are such examples (see Table G). Tables C and E of Appendix IV clearly show that the corresponding fourteenth-century proto-formulaic patterns of these two formulae are identical.⁵ This proto-formulaic pattern was formed by inserting a non-standard F# pitch (signified by the *itsu* – tablature-sign) in the existing melodies (see Figure 8.2 on p. 363). It is possible that for easier memorization, the fourteenth-century musicians created a limited number of ‘cross-modal patterns’ for pieces in different modal groups, on the ground that they were signified by the same tablature-notation. These ‘cross-modal patterns’ were

Formula (c) of the *hyôjô / ping diao* modal group (see Table G), they are clearly two different formulae. The most important feature in Formula (g) of the *hyôjô / ping diao* modal group is that it includes some F naturals. F natural is, however, not a pitch that is frequently used in *banshikichô / pan she diao* double-reed pipe melodies (see Table 7.4 on p. 342).

⁵ The only exception is Version B of the historical melodic pattern of Formula (d) in Table E.

developed and elaborated in similar ways and hence became identical formulae in different modern modal group pieces as well. In addition, it seems likely that these 'cross-modal patterns' were preserved better than other patterns since some prominent features of these patterns, such as the additional F# pitch, survive to the present. The occurrences of 'cross-modal patterns' and 'cross-modal formulae' further reinforce the view that the fourteenth-century proto-formulaic patterns were developed primarily for easy memorization within oral transmission.

While the modern zither, lute and mouth-organ melodies are not constructed from melodic formulae in the same way as the double-reed pipe and the flute, they are clearly 'formularized' in modern performance. The modern zither part is dominated by two patterns, namely the *shizugaki* and the *hayagaki* fingering patterns which are simply transposed to various pitches in order to create the zither melody. The modern lute and mouth-organ melodies are, on the other hand, both decorated with standard chordal accretions in ways that obscure their relationship to the historical melodies on which they are based. The lute melodies are played with arpeggiated drones generated from the pitches of open strings and the mouth-organ melodies are accompanied by a set of standard cluster-chords *aitake* that are mainly formed from the pitches of the *taisô / tai cou* key.

Turning now to the second significant change—the transformation from a heterophonic genre to a poly-modal musical genre, comparative analysis of the mid- and late-Heian versions of “*Sekihaku tôrika*” (see Musical Example 37) and “*Sômeiraku*” (see Musical Example 42) clearly shows that there was a strong

vertical relationship between different melodic instrumental parts of the same piece in the Heian period. This arrangement probably continued through to the end of the thirteenth century. The introduction of non-standard additional pitches in the fourteenth-century *tôgaku* melodies can be viewed as the starting point for change. The analysis of Musical Examples 38 (p. 286) and 43 (p. 330) demonstrates that the vertical relationship that dominated Heian-period *tôgaku* began to collapse in the mid-fourteenth century. Pitch clashes began to occur in places where the melody of one instrument added new non-standard additional pitches and another did not. For instance, in the first staff of Musical Example 43, the non-standard additional pitch B of the flute melody of “*Sômeiraku*” clashes with the A of the double-reed pipe melody. Clashes and dissonances undoubtedly increased as each instrumental part began to develop its own modal practice. In modern performance the number of clashes has increased further, so that dissonance has become a defining feature of the *tôgaku* style. Because each of the melodic instrumental parts is performed with its own modal practice, modern *tôgaku* pieces have a very complicated poly-modal structure. The modal practices of the five melodic instruments in the performance of the *ritsu* group pieces may be summarized as follows:

I. The four-stringed lute

Despite the fact that the ancient tunes can no longer be heard, the Heian modal practice tends to be retained in the modern lute melodies.

II. The seventeen-piped mouth-organ

The performance of modern mouth-organ melodies gives a sense of bi-modality. In the cases of the *ôshikichô / huang zhong diao* and *hyôjô / ping diao* melodies, the notated melodies preserve Heian modal practice while the added cluster-chords pull the mouth-organ part in the direction of the *taisô / tai cou* key. In the case of the *banshikichô / pan she diao* melodies, both C# and C natural occur regularly and is therefore hard to judge whether the melodies are performed in the original *banshikichô / pan she diao* mode or in the mode with a structure 'B C D E F# G# A'.

III. The thirteen-stringed long zither

The melodies include only pitches that correspond to the *kyû, shô, kaku, chi* and *u* degrees of the modern theoretical *ritsu* scale (the degree names of which are not identical to the original Tang scale). Because the intervallic relationship of these five degrees is identical to that of the Japanese *yô* scale, the modern zither melodies invoke a sense of the pentatonic *yô* scale.

IV. The double-reed pipe

Double-reed pipe melodies clearly articulate *in* scale tonality. Nevertheless, since non-*in*-scale pitches that were prominent in historical proto-formulaic patterns tend to be preserved in key formulae, these pitches occasionally produce a sense of polymodality in the modern double-reed pipe melodies. For example, while the Fs

in most of the formulae of the *hyôjô / ping diao* pieces are not sharpened in order to generate the *in* scale tonality, the Fs in the ‘cross-modal’ Formula (d) retain their sharpened form.

V. The transverse flute

The modern transverse flute melodies are not as significantly affected by the *in* scale tonality as the double-reed pipe. As a result, performance of the two melodies together creates an ambiguous tonality. In the case of the *ôshikichô / huang zhong diao* flute melodies, modally specific formulae tend to preserve the pitches of the historical *ôshikichô / huang zhong diao* mode whereas non-formulaic phrases and the relatively less important formulae are affected by the *in* scale tonality of the double-reed pipe. This bi-modal structure also causes pitch clashes and dissonances between the flute and double-reed pipe melodies. For instance, the Gs and F#s of the *ôshikichô / huang zhong diao* flute melodies frequently clash with the F naturals of the *ôshikichô / huang zhong diao* double-reed pipe melodies (see Figures 6.10 and 6.11 on pp. 306-7).

While this type of bi-modal structure also occurs in the *hyôjô / ping diao* melodies, it is not as pronounced as in the *ôshikichô / huang zhong diao* melodies since in *hyôjô / ping diao*, flute melodies tend to be more influenced by the *in* scale tonality of the double-reed pipe. By contrast, this type of bi-modal structure does not occur at all in the *banshikichô / pan she diao* melodies. The reason is that the Gs in *banshikichô / pan she diao* melodies are performed as G natural rather than G#.

The *banshikichô / pan she diao* melodies, therefore, tend to manifest an Aeolian modal structure ‘B C# D E F# G A’.

* * *

The approach and results of this thesis provide a platform for the investigation of *tôgaku* pieces in the *ryo* group. While I have shown in this thesis that the structures of the Tang *ôshikichô / huang zhong diao*, *banshikichô / pan she diao* and *hyôjô / ping diao* modes were preserved in Heian-period Japan, my Masters thesis (Ng 1998) and Endô Tôru’s research (Endô 2003) suggest that during the Heian period, the modes of the *ryo* group were affected by more changes than those of the *ritsu* group. I intend in future to use the methodology established in this thesis to investigate how these changes affect the vertical relationships between instruments and the modal practice of *ryo* group pieces performed between the Heian period and the fourteenth century.

In addition, I hope in future to be able to examine the relationship between the historical and modern *ryo* melodies, particularly with regard to the ‘formularization’ of the modern double-reed pipe and flute melodies. A study of the formulae of the *ryo* group melodies will test the arguments set out in this thesis concerning the use of modally specific and cross-modal formulae in modern *tôgaku* pieces. My hope is that the work on the *ritsu* group pieces in this thesis and the work on the *ryo* group pieces in my post-doctoral research will lay the foundations to a thorough

understanding of the development of *tôgaku* from Tang China to modern Japan, and to a reassessment of the view that *tôgaku*, which represents perhaps the oldest continuous tradition of instrumental music in the world (Marett 1986:29), was a static and unchanging repertory throughout the course of its transmission. As this thesis shows, nothing could be further from the truth.

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