

A Tentative Reconstruction of *Togaku* of the Late 12th Century: Focusing on the Temporal Aspect

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Introduction

This paper focuses on a temporal aspect of the *tôgaku* 唐楽 repertoire of *gagaku* 雅楽 (Japanese court music) in the late twelfth century. I here use the term ‘temporal’ as indicating comprehensively and neutrally the dimension of time as opposed to that of pitch or mode. A variety of attempts at reconstruction, such as articles by HAYASHI Kenzo (HAYASHI, 1969, 1973), Lawrence PICKEN (PICKEN et al. 1981, 1985a, 1985b, 1987, 1990), Rembrandt WOLPERT (WOLPERT 1977, 1979, 1981) Elizabeth MARKHAM (MARKHAM 1983), Allan MARETT (1977, 1985, 1988), Steven NELSON (NELSON 1986), and ENDÔ Tôru (ENDÔ 2000) have been undertaken, in which the modal aspects of the Heian period (794-1192) have been greatly clarified. However, temporal aspects are more difficult to clarify than modal aspects because of limitations in the notational system of the old scores. In this article, the temporal aspects of *tôgaku* will be examined at two levels as follows: 1) temporal structure at the macro level, and 2) rhythmic patterns and playing techniques of the long zither *koto* 箏 (or *gaku-sô* 楽箏) at the micro level.

In this study, the *koto* score *Jinchi yôroku* 仁智要録 (hereafter JCYR), which was compiled by FUJIWARA no Moronaga 藤原師長 (1138-1192), will be centrally discussed and analyzed (1). This score has already been examined by many scholars but there are still many aspects of it that need to be studied. As is widely known, it consists of 12 volumes (table 1). Among these, the ‘*ampuhō*’ 案譜法 or explanation of the notational system in volume 1 and the scores for

tôgaku pieces in volumes 4-10 are important for the topic of this article.

In the major part of the *tôgaku* repertoire in volumes from 4-10, two versions are given for each metrical piece, namely an original melody, *genkyoku* 原曲 and an arrangement of this melody, *dôkyoku* 同曲. A comparison of the original melodies and the arranged versions in terms of the distribution or density of tablature signs has brought to light the existence of two major temporal structures in metrical pieces at the macro level.

On the other hand, analysis of the explanation of right-hand techniques and the notation of small introductory pieces in volume 1 has clarified the fact that several techniques for *koto* similar to those of present-day practice were already established in the late 12th century but were used in different contexts from those of today.

table 1 Contents of *Jinchi yôroku* 仁智要録

vol. 1 explanation of the notational system, or *ampu-ho* 案譜法, modal theory,

scores of *chôshi* 調子 and other introductory pieces

vol. 2 scores of *saibara* in ritsu mode 催馬樂律

vol. 3 scores of *saibara* in ryo mode 催馬樂呂

vol. 4,5 scores of *tôgaku* pieces in Ichikotsu-chô mode 唐樂
越調

vol. 6 scores of *tôgaku* pieces in Hyôjô mode 唐樂平調

vol. 7 scores of *tôgaku* pieces in Taishiki-chô mode 唐樂太食調

vol. 8 scores of *tôgaku* pieces in Sôjô and Ôshiki-chô modes
唐樂双調、黄鐘調

vol. 9,10 scores of *tôgaku* pieces in Banshiki-chô mode 唐樂盤
涉調

vol. 11 scores of *komagaku* pieces 高麗樂

vol. 12 scores of *gigaku* pieces, etc. 伎樂、他

Before examining examples of notation in detail, I would like to

show you the notational system of JCYR concisely. It consists of the following elements:

1. primary tablature signs basically indicating string names
 - 1-1. big signs
 - 1-2. small signs
 - 1-3. combinations of big and small signs:
connected with a (a) straight line or (b) curved line, or (c) without a line
2. secondary signs indicating time units
 - 2-1. punctuating dot : divides the melody into smaller phrases of the same length
 - 2-2. measuring dot : indicates bars (measures)
3. tertiary signs concerning time values
 - 3-1. *ka* 火 sign, which indicates reduction in time value of the tablature signs
 - 3-2. *hiki* 引 sign, which indicates prolongation of the time value

It should be noted that one rhythmic or melodic cycle consists of 4, 6 or 8 bars. A *taiko* (big drum) beat is struck on the last bar of the rhythmic cycle. In other words, the bar when the *taiko* beat is struck is counted as the last bar in a rhythmic cycle. The rhythmic cycle doesn't match the melodic cycle (2).

1. temporal structure at the macro level

All the *tôgaku* pieces can be classified into either the metrical category, which consists of certain units of the same number of beats, or the non-metrical category, which does not have such units. They can easily be recognized at the level of the distribution of tablature signs in JCYR.

1-1. non-metrical

Neither fixed units of beats nor regularity in the distribution of tablature signs can be found in non-metrical pieces (example 1).

1-2. metrical

In a metrical piece, the time unit (or a bar), or a fixed length of a phrase is indicated by the punctuating dot or measuring dot (example 2, 3). Usage of the punctuating dot or measuring dot is alternative. In principle, they are not used together.

1-2-1. punctuating dot, *kuten* 句点

In the pieces which don't have measuring dots, the melody is divided into sections of a fixed length by punctuating dots. In example 2, the punctuating dots divide the column of notation into groups of two or three tablature signs. In the case of three tablature signs, they have a *ka* sign between two signs which indicates that these two signs are to be played quickly. As a result, the period punctuated by the dots maintains same time length.

1-2-2. measuring dot, *kobyôshiten* 小拍子点

In example 3, every bar (or measure) is indicated by the measuring dot.

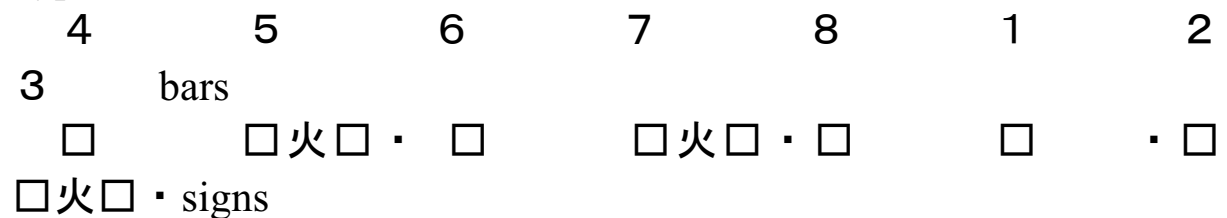
1-3. a comparison of the original piece and its arrangement : interpreting distribution of tablature signs

As I mentioned before, in the major part of the *tôgaku* repertoire in JCYR, two versions are given for each metrical piece, namely an original melody, *genkyoku* 原曲 and an arrangement of this melody, *dôkyoku* 同曲. In most cases, the original melody has punctuating dots and the arranged version, measuring dots. Example 4 is a comparison of the original melody and its arrangement for one phrase from “Manzairaku 万歳楽” in the *hyôjô* 平調 mode. We can easily recognize the relationship between the two versions. One tablature sign or a note of the original is divided into two signs (notes) in the arranged one. Here, let us call the former Type A and the latter Type B. In Type B, the melody shifts from one note to another, not on the first beat but in the middle of the bar within long musical phrases. This melodic movement can be viewed as a type of melodic syncopation.

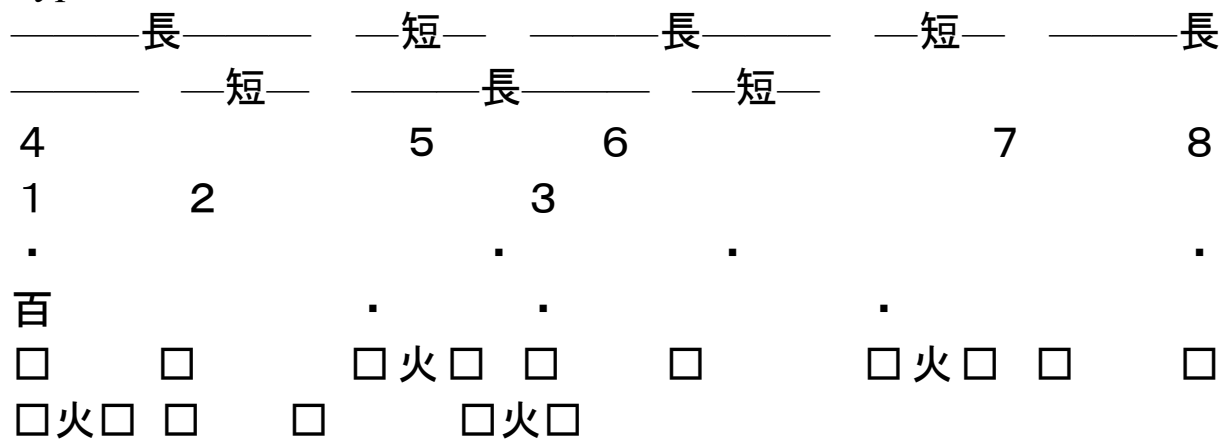
When we examine these signs carefully, a contradictory tendency in the distribution of the *ka* sign can be found. In Type A, the *ka* sign can be found in a bar where two tablature signs are included. The *ka* sign seems to indicate that two neighboring notes are to be played rapidly. In Type B, however, the *ka* signs can be seen only in odd numbered bars, although all the bars contain two signs. If we play the neighboring two notes rapidly only in the odd numbered bars, the length of each bar loses equality. Namely, odd numbered bars become shorter than even numbered ones (example 5-1).

example 5-1 tentative interpretation 1

Type A



Type B



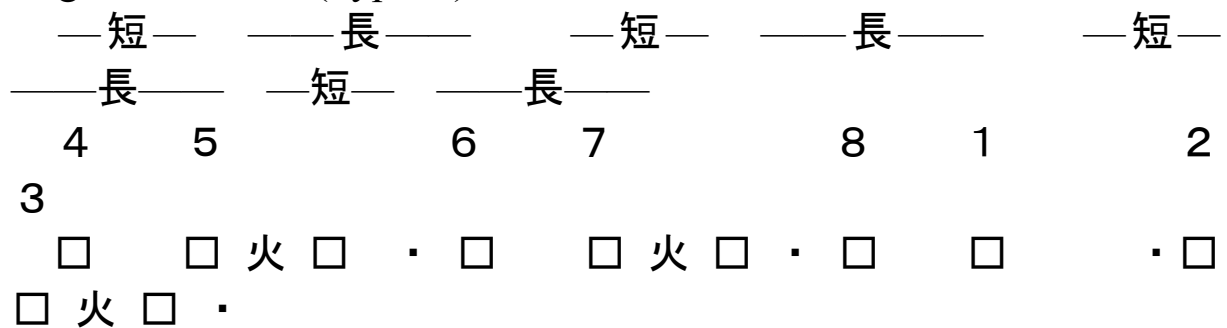
By the way, in *JCYR* and a closely related score for pear-shaped lute *biwa*, *Sango yōroku* 三五要録 (hereafter *SGYR*), which was compiled by the same musician FUJIWARA no Moronaga, Type B with measuring dots is referred to as *gaku byōshi* 楽拍子 which is a temporal structure with equal bar lengths according to the description by the contemporary musician FUJIWARA no Takamichi 藤原孝道 (1166-1237), who was a disciple of Moronaga (TERAUCHI 1993, 1996:269-280). If we accept the interpretation shown in example 5-1,

Type B cannot belong to the category of pieces with equal bar lengths, despite the specification of *gaku byôshi*.

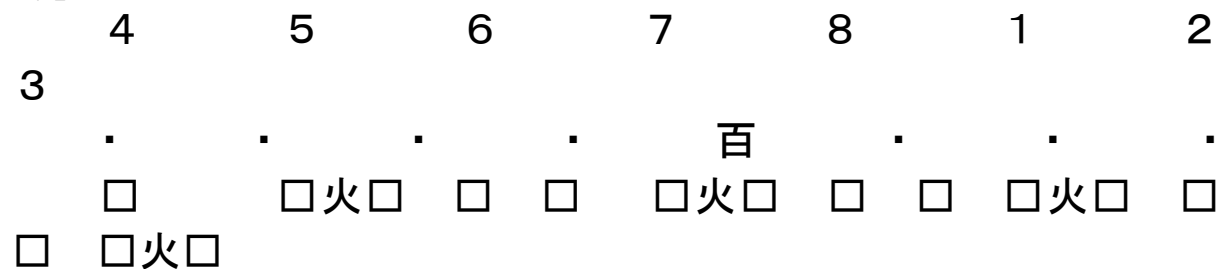
On the other hand, if the odd numbered bars are assumed to be longer originally in the basic temporal structure of Type A with punctuating dots, the *ka* sign in Type B can work effectively. The sign here in Type B has another meaning, that is, to shorten odd numbered bars. As a result, the equality in bar length can be maintained (example 5-2).

example 5-2 tentative interpretation 2

original structure (Type A)



Type B



Again in the description of Takamichi, Type A with punctuating dots are referred to as a structure of alternating short and long bars with a specific name of *tada byôshi* 只拍子 (TERAUCHI 1993, 1996:269-280). From this point of view, interpretation 2 seems more appropriate than interpretation 1. Namely, in Type A with punctuating dots, odd numbered bars are longer than even numbered bars, and in Type B with measuring dots, the length of odd numbered bars is reduced by the insertion of the *ka* sign.

In *JCYR*, the change from Type A with punctuating dots to Type B with measuring dots in the relationship between original melodies and

arranged ones reaches a total of 50 examples out of 86. In SGYR, the total is 53 out of 95 examples as well (TERAUCHI 1996:237, 251).

2. rhythmic patterns and playing techniques of the *koto* at the micro level

2-1. playing techniques of the *koto*

According to the explanation of the notational system or *ampuhô* in vol. 1, each of the strings is indicated by a Chinese character as they are today (example 6).

example 6 names of the strings in *koto*

一	二	三	四	五	六	七	八	九	十		
斗	為	巾									
ichi	ni	san	shi	go	roku	shichi	hachi	ku	jû	to	i
kin											

2-1-1. left-hand techniques concerning ornamental movements

Several left-hand techniques for pressing or pulling the strings, which produce ornamental movements, are explained. I will, however, skip this part today (3).

2-1-2. right-hand techniques making specific rhythmic patterns at the micro level

In playing *koto*, thumb, index finger and middle finger are used. As is shown in example 7, the thumb is indicated by a large tablature sign in the centre of the notational column. The index finger is indicated by a small tablature sign on the left-hand side of the column. The middle finger is indicated by a small sign too, but on the right-hand side of the column. As I mentioned before, combinations of big and small signs can be found in the scores, which can actually be sub-divided into the following three categories:

- (a) connected with a straight line, called *tsumi-awase* 摘合
- (b) connected with a curved line, called *kaki-awase* 區合
- (c) without a line (*kaki-awase* and a note repeated with the thumb)

Let us take a closer look at these three categories.

- (a) *tsumi-awase* 摘合

In the *ampuhô*, it is only explained that this technique uses the thumb and middle finger. It, however, seems to have something to do with the present-day technique called ‘*tsumu*’ etymologically. ‘*Tsumu*’ means ‘to pick’. ‘*Tsumi-awase*’ can be interpreted as ‘to pick up together’. Considering the current practice of ‘*tsumu*’ in which two strings (notes) are plucked simultaneously with the thumb and middle finger with the strings separated by an interval of an octave, perfect 4th or perfect 5th (example 8), *tsumi-awase* in JCYR may be two simultaneous notes in all likelihood. This should be distinguished from the following *kaki-awase*.

(b) *kaki-awase* 區合

Kaki-awase (4) consists of two signs, one large in the centre and the other small to the right, connected with a curved line (example 9). According to the description in the *ampuhô*, it is played first by index finger, second by middle finger and third by the thumb. This fact suggests that the technique of *kaki-awase* would require at least three notes, although only two tablature signs can be recognized in the diagram. E. MARKHAM has interpreted it as a simultaneous octave, the same as *tsumi-awase*, in her book on *saibara* 催馬楽 (MARKHAM 1983:67). However, the difference between *tsumi-awase* and *kaki-awase* in the diagrams are still apparent and *kaki-awase* must be distinguished from *tsumi-awase* in terms of fingering. Further analysis concerning this matter will be made later.

(c) *kaki-awase* and a note repeated with the thumb

There is one more diagram which includes one large and one small signs, but has no line linking them (example 10). According to the *ampuhô*, one note is repeated with the thumb after *kaki-awase*. No name is given to this technique.

2-2. an analysis of an introductory piece “Kaki-awase”

I would like here to show you an analysis of a small introductory piece.

In JCYR, vol. 1, there are some introductory pieces called “Kaki-awase” which were performed before the main pieces in instrumental ensemble in each mode. It should be noticed that the

same term '*kaki-awase*' is used in different meanings, both as the name for the playing technique and the name for this genre of introductory pieces. A musical analysis of one of the "Kaki-awase" pieces gives us a very important clue in deciphering the diagram of the technique *kaki-awase*.

In example 11, a pattern which I have labelled pattern 1 appears several times, as a way of describing notes one by one. It looks very similar to the current technique called '*shizugaki* 閑搔' (example 12). The fingering of *shizugaki* is 'index ▪ middle ▪ middle ▪ and finally middle and thumb together', while the fingering of pattern 1 is 'index ▪ middle ▪ middle ▪ thumb'. In current *shizugaki*, when the last two notes are played together, the note played with the thumb is almost inaudible while the other one is much louder. If, on the contrary, the middle finger played inaudibly and the thumb loudly in *shizugaki*, pattern 1 and *shizugaki* would be almost identical in terms of fingering and realization. In other words, the technique equivalent to the current *shizugaki* seems to have been established already in the late 12th century.

Pattern 1 is, however, only found in introductory pieces like "Kaki-awase" in JCYR, while *shizugaki* is a dominant technique commonly used in many pieces of the ensemble repertoire today.

Pattern 2, or the technique *kaki-awase* is also found in JCYR (example 11). In current practice, this diagram is realized in three ways, *shizugaki*, *hayagaki* 早搔 and *sugagaki* 菅搔, according to context (example 13). *Sugagaki* is used in non-metrical and introductory pieces such as *netori* 音取, while *hayagaki* and *shizugaki* are used in metrical pieces. Differences in context bring about them different rhythmic realizations. The same diagram in JCYR is, however, probably not realized in the *shizugaki* style, for the reason that the *shizugaki*-like pattern (pattern 1) is written in a different way, the literal note-by-note fashion to be seen in example 11.

Here, it should be noticed that both *hayagaki* and *sugagaki* are closer to this technique of *kaki-awase* in terms of fingering. The fingering for

hayagaki and *sugagaki* is both ‘index ▪ middle ▪ thumb’. The first two notes for the index finger are plucked separately and gently in *sugagaki*, while simultaneously but also gently in *hayagaki*. But, essentially these two techniques are very close to each other and also to the fingering of *kaki-awase* as shown in the *ampuhô* of JCYR. *Shizugaki* is exceptional in these terms. Thus, the technique of *kaki-awase* indicated by large and small signs connected with a curved line in JCYR can be interpreted as a *hayagaki* or *sugagaki*-like pattern with a high degree of possibility. Today, four-fifths of the whole repertoire of metrical pieces uses *shizugaki* and only remaining minority uses *hayagaki*. It is, however, postulated that in the complete repertoire of metrical pieces, *hayagaki*-like style was standard in the late 12th century.

Conclusion : a tentative reconstruction of a melody for JCYR

In my conclusion, I would like to show you a tentative reconstruction of the original melody of Type A with punctuating dots and the arranged one of Type B with measuring dots.

In Type A, every even numbered bar is occupied by the diagram of *kaki-awase*. On the other hand, the following 4 patterns of tablature signs can be found in odd numbered bars (example 14):

- ① two notes to be played with the thumb
- ② one note to be played with the thumb
- ③ *kaki-awase* + one note to be played with the thumb
- ④ *kaki-awase* + one note to be played with the thumb

In reality, patterns ③ and ④ are identical in realization. The reason why they are described in different ways is that pattern ④ has an ornamental movement on the second note, but pattern ③ does not. If we suppose that the technique *kaki-awase* is equivalent to *hayagaki*, a phrase of example 14 can be transnotated into western score as shown in example 15. If an odd numbered bar consists of only one note or two notes to be played with the thumb, it can be of equal length with the even numbered bars. However, odd numbered bars sometimes contain the pattern of ‘*kaki-awase* and one note to be played with the thumb’, thus requiring more length in odd numbered bars than in even

numbered bars. It is, therefore, highly possible that odd numbered bars were originally longer than even numbered bars in Type A with punctuating dots. In other words, Type A with punctuating dots may be of ‘alternating short and long bar structure’ also from the micro viewpoint of fingering.

On the other hand, in Type B with measuring dots, every bar contains ‘*kaki-awase* and one note to be played with the thumb’ pattern (example 3). It could be transnotated as shown in example 16.

Today, the ‘alternating short and long bar structure’ called *tada byôshi* is a minor element in the whole temporal structure. Only 10 percent of the complete repertoire of metrical pieces of *tôgaku* are played in *tada byôshi*. However, if we look at the 12th century scores, 47 percent in SGYR and 43 percent in JCYR of the complete repertoire of metrical pieces seems to be of this structure. My other inference is that in metrical pieces, the technique of *kaki-awase* was a *hayagaki*-like pattern rather than *shizugaki* in the late 12th century.

notes

(1) Several handwritten copies are available among which the Kikutei-bon, 菊亭本 preserved in the Library of Kyoto University 京都大学附属図書館 (catalogue number: 菊/卷/80), and the Takatsukasa-bon 鷹司本, preserved in Kunaichô shoryôbu 宮内庁書陵部 (catalogue number: 鷹 593), are in relatively good condition. Although both were copied in the Edo period, they also preserve musically reliable contents (TERAUCHI 1996: 60-66).

(2) Allan Marett and his colleagues of the Cambridge *gagaku* research group count the bar where the melody starts as the first (Marett 1977). As a result, ‘odd’ numbered bar in the traditional way of counting becomes ‘even’ numbered.

4	5	6	7	8	1	2	3	traditional
1	2	3	4	5	6	7	8	Marett
↑							↑	
melody starts				ends				

(3) MITANI Yoko has studied techniques of *koto* (MITANI 1978, 1979). She, however, did not focus on the rhythmic aspect.

(4) The term ‘Kaki-awase’ can be found in literature in the Heian period, such as *The Tale of Genji*. Same term can also be seen in the writings on music such as *Kokin kyôroku* 胡琴教録, *Shichiku kuden* 糸竹口伝 and *Yakaku teikinshô* 夜鶴庭訓抄 which were compiled in the Kamakura period. However, they are sometimes written in different Chinese characters and used in different contexts as indicating a piece or techniques of *biwa* or *koto* (TERAUCHI 1998:151).

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