THE GAME OF ORNAMENTATION: AN ANALYSIS OF A GUQIN PLAYER'S VIBRATO TECHNIQUE

Zeng He [曾河] and Loo Fung Chiat [卢芳洁][1]

Abstract

In the performance of the guqin, the vibrato technique executed by the left hand is a vital component of its playing system. This research utilizes performance footage and corresponding scores of six Guqin pieces by the renowned guqin player Yu Shaoze (喻绍泽, 1903–1988) as its data set, with the performer's physical actions serving as the central observational perspective. The holistic embodied practice of Yu Shaoze's vibrato techniques is investigated by combining the observation and description of Yu Shaoze's bodily movements with a comparative analysis of the differences between the score and the actual performance. Furthermore, this research attempts to analyze the formation of the performer's vibrato techniques through the correspondence between "concept and behavior," aiming to reveal the diversity of individual performers in vibrato practice and to provide a valuable reference case for future studies.

Keywords

guqin; guqin performance; vibrato technique, Yu Shaoze

BACKGROUND OF THE ISSUE AND CURRENT RESEARCH STATUS

The vibrato technique executed by the left hand is an essential component in guqin performance. This action is referred to by guqin players as yinao. Originally, yin (吟) and nao (猱) were two of the most frequently used vibrato techniques. Later, these techniques have come to represent the vibrato action as a whole. Historical records of the vibrato technique date back to the Tang Dynasty (618–907). This subtle vibrato skill, which involves varying amplitudes and frequencies after the initial sound is produced, plays a role in sound embellishment, emotional depiction, and stylistic expression in the guqin tradition. Xu Shangying (徐上瀛, 1582–1662), a renowned guqin master active in the 17th century, once commented: "Half of the lively charm of the tones lies in yinnao. If they are not applied, the artistic conception of the guqin piece would be greatly diminished, losing all its lively and vivid charm." (Xu Shangying [徐上瀛], 2013:129). It can be said that the vibrato technique is a daily skill for every guqin performer.

Compared to the extensive practice by guqin players, there is currently limited specialized research on the vibrato techniques of the guqin. Existing studies can be categorized into three types based on the nature of the research data: literature-based research, sound-based research, and participant-observation-based research. Scholars such as Ding (Ding Chengyun [丁承运], 1984), and Wu Ye (Wu Ye [吴叶], 2016) have adopted a philological approach, tracing the meanings, classifications, and effects of the vibrato techniques from historical texts. On the contrary, Zhang Mengdan (Zhang Mengdan [张梦丹], 2016) and Zhang Xin (Zhang Xin [张欣], 2023) focus their research on sound. Zhang Mengdan (Zhang Mengdan [张梦丹], 2016) compared the differences between the notation of vibrato fingerings in a guqin piece performed by guqin player Wu Jinglue ([吴景略] 1907–1987) and his actual performance, revealing the flexibility of these techniques in practice. Meanwhile, Zhang Xin (Zhang Xin [张欣], 2023) concentrated on visualizing the sounds produced by vibrato actions to discuss the diversity of vibrato techniques among different guqin players. Additionally, in performance studies of guqin players using participant-observation methods, vibrato techniques are occasionally mentioned

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as part of the performance, such as in the works of Xiao Xiao (Xiao Xiao [肖霄], 2019) and Li Juan (Li Juan [李娟], 2012), but they have not been explored in detail.

However, current research on the vibrato technique faces challenges in three main areas: Firstly, the essence of vibrato lies in physical movement, which serves as the origin of sound production. Therefore, the observation and description of behavior should hold a priority position in the study of vibrato techniques. Existing research predominantly focuses on sound and documentation as the object of analysis, and studies explicitly centered on performance behavior as the primary focus have yet to emerge. This limitation restricts the depth of discussion on vibrato techniques. Secondly, due to the confinement of research materials to the dimension of sound, the current literature primarily concentrates on descriptive methods for the acoustic patterns of vibrato techniques. There is a lack of exploration into the holistic performance habits of players regarding vibrato, which hinders a comprehensive understanding of the technique. Thirdly, existing research faces issues in the choice of descriptive language, a problem particularly common among researchers with a professional background in guqin performance. The absence of a clear definition of the relationship between the conceptual framework of vibrato symbols and their practical application has led to a linguistic dilemma where insider perspectives are used to explain insider phenomena. This significantly impacts the academic accessibility and shareability of the research.

Research Objectives, Data, and Methods

In 1980, American ethnomusicologists Bell Yung and Joseph S.C. Lam visited Chengdu and recorded a substantial number of performance videos for a local guqin player named Yu Shaoze (1903–1988). The existence of these recordings made Yu one of the musicians of his era with the most preserved performance footage. As a prominent artist active in the 20th century, Yu Shaoze was integrated into the official music education system after the establishment of the P.R.C. in the 1950s. He became the founding director of the guqin programs at the Sichuan Conservatory of Music and the Xi'an Conservatory of Music, holding a significant position in the field. Unlike contemporary players with professional performance backgrounds, Yu Shaoze's early guqin learning and musical life followed traditional paths, imbuing his performance with a distinctly traditional quality. Additionally, he is widely recognized as the most representative player of the local Shu School (蜀派) of guqin music. Therefore, an examination of Yu Shaoze’s performance practice contributes to a deeper understanding of the diversity of embodied experience in the performance of individual guqin artists.

The objective of this study is to explore Yu Shaoze's holistic vibrato habits through the observation and description of his guqin performance videos, specifically focusing on how he implements these techniques in his playing. The term holistic is based on the hypothesis that a guqin player, through long-term practice across multiple pieces, develops a complete set of vibrato habits and applies them to all pieces. Cheng Gongliang [成公亮] (1940–2015), an eminent guqin player and composer, pointed out that vibrato techniques extend beyond the notated symbols in guqin scores and are widely employed in practice. Therefore, learning vibrato techniques requires both listening to recordings and directly observing the teacher's performance. Additionally, the detailed execution of vibrato techniques is richer than their definitions, and one should not be confined by rigid concepts (Cheng Gongliang [成公亮], 2009). Cheng Gongliang's comments highlight two key points: firstly, performance and notation are not synchronized, as guqin players exhibit interpretative flexibility in practice, a characteristic of the framework of guqin notation, within which the performer's vibrato techniques unfold; secondly, the symbols for vibrato are continually redefined in practice by individual performers. Thus, the fundamental approach of this study is to avoid categorizing the left-hand vibrato movements observed in the performance recordings under existing conventional fingering concepts. Instead, the observations are explicitly divided into two parts: movementsand symbols. Movements refer to the various left-hand finger oscillations observable at the visual level in the performance recordings, while symbols refer to the specialized notational symbols in the original scores that indicate the execution of vibrato techniques. By carefully analyzing the interaction between the two, the study aims to ultimately understand Yu Shaoze's holistic vibrato practice. The specific research questions are of two parts:

1. When the research data enters the visual dimension, are there vibrato movements that are imperceptible at the auditory level but observable visually?
2. How does Yu Shaoze respond to the vibrato symbols in the scores during his performance and why?

Regarding the research data, Yu Shaoze detailed in a late-life manuscript a repertoire of guqin pieces he frequently performed since his youth. Among the recordings made by Bell Yung and Joseph S.C. Lam, six pieces are included in his personal repertoire, which constitute the analytical subjects of this study (Figure 1). All guqin scores referenced in this study are from the Tianwenge Qin Manual (天闻阁琴谱), published in 1876, which was also the score Yu Shaoze used during his guqin studies. These scores were provided by Zeng Chengwei, Yu Shaoze's grandson and student, who is a professor of guqin at the Sichuan Conservatory of Music.

Piece name	Duration	Video format		Frame rate	Resolution	Audio sampling rate
***Taoyuanchunye* (桃园春夜)**	00:04:29	MP4		29.97 fps/s	1280X720	44.100 kHz
***Qiushui* (秋水)**	00:07:43	MP4		30.00 fps/s	720x480	44.100 kHz
***Gaoshan* (高山)**	00:07:01	MP4		30.00 fps/s	720x480	44.100 kHz
***Liushui* (流水)**	00:09:16	MP4		30.00 fps/s	720x480	44.100 kHz
***Zuiyuwanchang* (醉渔晚唱)**	00:04:27	MP4		30.00 fps/s	720x480	44.100 kHz
***Chunshantingdujuan* (春山听杜鹃)**	00:08:53	MP4		30.00 fps/s	720x480	44.100 kHz

Figure 1: List and technical parameters of the six videos. Scheme by the authors.

FINDINGS

SPONTANEOUS SUBTLE VIBRATO (SSV)

In Yu Shaoze's performances, there is a widespread use of a spontaneously formed vibrato technique that does not directly embellish the sound. The specific form of this technique involves the finger making slight side-to-side movements around a fixed fret position as the note is being played. The amplitude of these movements is narrow, sometimes consisting only of the action itself without producing an audible tremolo. The term spontaneous is used because these vibrato actions occur without any indications in the corresponding score. Furthermore, there is no specific term for this phenomenon in the existing terms for vibrato. For convenience, this technique will temporarily be referred to in this section as spontaneous subtle vibrato (SSV). The SSV serves three main purposes:

1. Mitigating the impact force during lateral sliding movements
2. Intonation improvement
3. Adjusting the finger's pressing angle on the string

These three functions often act simultaneously.

MITIGATING IMPACT AT THE END OF LATERAL SLIDING

In Yu Shaoze's performances, SSV is most frequently used to reduce the impact at the end of lateral sliding movements. When Yu Shaoze's left hand moves from one point to another along the string (mostly in a right-to-left direction), he sometimes continues with SSV at the destination point. The goal is to disperse the impact force that occurs when the hand suddenly stops moving. Without this adjustment, Yu Shaoze would have to tense his upper left arm to suppress shaking, which could lead to issues with pitch accuracy.

Observations of Yu Shaoze's performance videos reveal that this form of SSV, aimed at avoiding fatigue and improving physical comfort, is more commonly applied during the technique known as zhuxia (注下). Zhuxia involves the right hand plucking the string, while the left hand slides from right to left. Since the force required for lateral movement increases proportionally with the distance, the occurrence of SSV is closely related to the distance involved in the *zhuxia*. Four examples of Yu Shaoze's handling of zhuxia in *Qiushui* are provided in Figure 3. The data show that SSV appears when the sliding distance exceeds a certain value. However, it is absent when the distance is less than 6 cm.

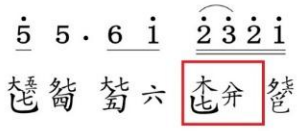
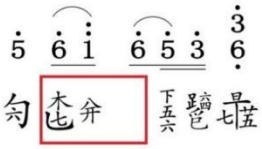
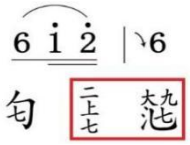
Examples	Moving Distance	The Appearance of SSV
	6 cm	No
	5 cm	No
	18.7 cm	Yes
	12.2 cm	Yes

Figure 2: Tabe of the occurrence of SSV in *Qiushui*.

INTONATION IMPROVEMENT

Next, under specific conditions, improving intonation is the second function of SSV. The trigger for this technique is related to the way notes are connected, and it is more commonly seen in non-sliding connections. Non-sliding connections refer to transitions between two notes that do not involve sliding along the same string with the left hand but instead involve a change in strings and positions on the fretboard. In terms of intonation control, such connections cannot rely on sliding to anticipate or adjust intonation, necessitating the use of vibrato as a transitional technique to mask potential intonation issues. In *Qiushui04'55"*[2] (Example 1), the fingering marked in the box demonstrates the application of SSV. This occurs because, at this point, the transition is made from the sixth string to the fifth string.

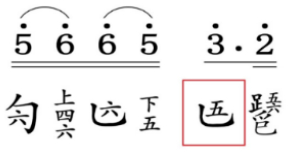


Figure 3: As example 1 named in the text: Qiushui at 04'55"; Notation and recording are in the public domain.

FINGER POSTURE ADJUSTMENT

The third function of subtle vibrato is to adjust finger posture. As shown in *Qiushui 03'23"* (Example 2), subtle vibrato appears again in the red box. This is because, when playing the first two notes (in the green box), Yu employed the one finger for multiple strings technique, which refers to the method

[2] *Qiushui 04'55"* refers to the specific performance segment at the 04'55"of the *Qiushui* performance video.

of using the thumb to press down on two strings simultaneously. However, this compromised hand position made it difficult to smoothly execute the subsequent continuous leftward slide (in the yellow box). Therefore, in the red box, Yu chose to reset the angles of his fingers, allowing him to continue performing the leftward slide smoothly. As a result, the subtle vibrato in this instance serves a dual purpose: adjusting the micro-positioning of the fingers and fine-tuning the intonation.

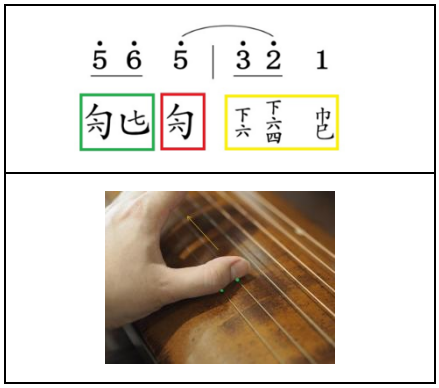


Figure 4: A example 2 named in the text. It shows *Qiushui* at 03'23"; Notation and recording in the public domain.

It is undeniable that the presence of SSV may occasionally cause a slight tremolo. However, the performer's intent is not to embellish these sounds but rather to achieve the aforementioned three functions, with such fluctuations being incidental effects.

Within the guqin community, Yu Shaoze's SSV is often equated with the vibrato technique known as yin because both involve subtle finger movements from a visual perspective. However, the internal mechanisms of SSV and yin are fundamentally different. Apart from the fact that there are no specific notation symbols corresponding to SSV in the score, *yin* itself is not a vibrato technique Yu uses to embellish sound.

A comparison of Yu's performance of *Yangchun* and his handwritten score reveals that in almost every section where the score explicitly marks *yin*, Yu does not execute it in his performance. This suggests that even though he retained these vibrato markings in his handwritten score, possibly due to the influence of canonical texts, he ultimately adhered to his own performance habits during actual play.

Diverse Responses to Vibrato Notations in Performance

This section will explore how Yu Shaoze responds to the vibrato notations in the guqin scores during his performances. Unlike Western classical music, in the realm of guqin music, the performer is not a mere tool to execute the composer's intentions based on the notation. Most ancient guqin pieces that have been preserved since the Northern and Southern Dynasties (420–589) are anonymous. Some pieces even associate the composer with ancient historical figures to lend the music artistic credibility. There is no original, authoritative interpretation of guqin music; each recorded piece represents only the opinion of the person who transcribed it. Other performers, when facing the score, are allowed to interpret the music flexibly based on their own understanding.

In this context, various vibrato techniques appearing in guqin music are not necessarily strictly followed by later performers. And the interpretation of vibrato notations allows the performer to interpret and express them according to their own understanding, which in turn creates space for variation in vibrato techniques. Moreover, *Jianzipu* lacks a systematic time-value notation system. Therefore, the design of rhythm becomes an essential step for guqin players. As a result, the guqin score serves as a framework for interpretation rather than a strict operational procedure. This characteristic—where everyone can equally provide flexible interpretations and record them—has led to the development of multiple related 'families' of guqin scores. For example, *Pingshaluoyan* (Flat Sand and Falling Wild Goose) developed more than 50 documented versions of the score before 1949.

Much like the concept of 'families' in biology or botany, specific vibrato techniques are not single techniques but rather categories encompassing a variety of methods. Within these categories, there

are numerous derived types. Since the Tang Dynasty, guqin scores have documented dozens of derived vibrato techniques under the headings of yin and nao. These derived fingerings are often named using descriptive prefixes, such as feiyin (飞吟 flying vibrato), changyin (长吟 long vibrato), and duanyin (短吟 short vibrato). These variations represent the composers' or performers' efforts to personalize and refine vibrato as a nuanced element of guqin expression.

Yu Shaoze's vibrato techniques also unfold under this flexible musician–score relationship. A guqin player's preference for specific types of vibrato techniques is largely shaped by the version of the score they are using. The six pieces analyzed in this chapter all come from the Tianwenge Qin Manual. The following tables show all five types of vibrato notations, performance instructions (Figure 5), and their derived notations (Figure 6) found in these six pieces. These variations represent the performers' efforts to personalize and refine vibrato as a nuanced element of guqin expression. By comparing the performance videos of these six pieces with the original scores, it can be seen that Yu Shaoze responded to the vibrato notations in four ways: 1) omission, 2) execution, 3) substitution, and 4) addition. The types of responses do not correspond to specific vibrato techniques; in other words, each vibrato technique can appear in different pieces or sections with any of the aforementioned responses. This will be explained in detail subsequently.

Fingerings	**The Performing Instructions in the *Tianwengeqinpu***
Yin (吟)	To produce sound by pressing the string, the finger should move back and forth at the position where it is placed, within a range of three to four *fen*[3](分). Begin with larger movements, gradually becoming smaller. Perform four to five turns with each cycle of motion, and finally return to a steady vibrato to end at the original position. *(*按弦以取音，在指所按之位往来摇动，上下不出三四分，先大而后小。一转一收约四五余转，仍用定吟方收本位而止)。
Nao (猱)	The finger moves back and forth at the pressed position, exceeding the original position by about five to six fen. The motion is more intense and rapid than *yin*. (指于按处往来摇动，约过本位五六分，大于吟而多急烈。)
Zhuang (撞)	To produce sound by pressing and plucking, the finger swiftly pulls above the designated *fen* and quickly returns to the original position to produce a single note, which is called *Zhuang*. Its speed is like lightning—if swift, it results in one sound; if slower, it produces two sounds. （按彈得聲，用指急綽分數之上，疾歸本位取出一聲曰撞。其速如電，速則成一聲，遲則二聲也。）
Dou (逗)	The method of immediately following an upward slide with a downward slide to the designated position is called Dou. (借以上之聲迎而注下以當本位之聲爲逗。)
Huan (唤)	If the *zhuang* is performed more slowly, linking upward and downward movements, the sound should follow the motion of the finger. Achieving a light, smooth, and lively connection is considered ideal. (如撞音放缓，联上联下，音随指走，取轻松联活则佳焉)

Figure 5: Table (in the test named as 3) of the types of vibrato techniques involved in the six pieces and the performance instructions recorded in the Tianwen Qin Manual. Scheme by the authors.

Basic Fingerings	**Derived Fingerings**
Yin (吟)	alternating yin (且吟), small yin (小吟), slow yin (缓吟), micro yin (细吟), flying yin (飞吟), long yin (长吟), double yin (双吟), steady yin (定吟), rapid yin (急吟), large yin (大吟), passing yin (过吟).
Nao 猱	slide down nao (散注猱)、large nao (大猱)、long nao (长猱)、rapid nao (急猱)
Zhuang 撞	next zhuang (次撞)、slow zhuang (缓撞)、large zhuang (大撞)、rapid zhuang (急撞)
Dou 逗	shift dou (换逗)
Huan 唤	No derived fingerings

Figure 6: Table of the types of derived fingerings involved in the six pieces. Scheme by the authors.

[3] Guqin players divide the length between one hui (徽 marker) and the next into ten equal parts, with each part referred to as one fen (分).

Omission of Vibrato Notations

In Yu's performances, numerous *yin* and *nao* records in the score are absent. This omission relates to his approach to rhythm design. As shown on the first page of *Qiushui* (Figure 7), the vertically arranged score contains three categories of notation, distinguished by two font sizes. The larger font size represents Category A notation (marked in red), which corresponds to sounds produced by plucking the strings with the right hand, either combined with left-hand pressing or by right-hand plucking alone. The smaller font size represents Category B (marked in a light grey box) and Category C (marked in a middle grey) notations, which indicate horizontal movements of the left hand along the strings and left-hand vibrato techniques, respectively.

Both Category A and Category B notations have a relatively stable pitch and duration in auditory perception, while Category C does not. This alternation between left-hand and right-hand movements, along with the two-tier font arrangement of *jianzipu*, provides performers with a sense of cyclical rhythm. Yu's habitual sense of rhythm is influenced by this layout. In his performances, Yu tends to complete a Category A notation or an A+B+C sequence within one or two quarter-note durations. Figure 8 compares Yu's performance with the original score, revealing that he often integrates movements into fixed rhythmic patterns. Consequently, a significant number of Category C notations, including *yin* and *nao*, and their derivative forms (marked in red), are excluded from his rhythmic arrangements. This tendency to overlook elements that do not participate in rhythmic structuring is a widespread characteristic of Yu's performances.

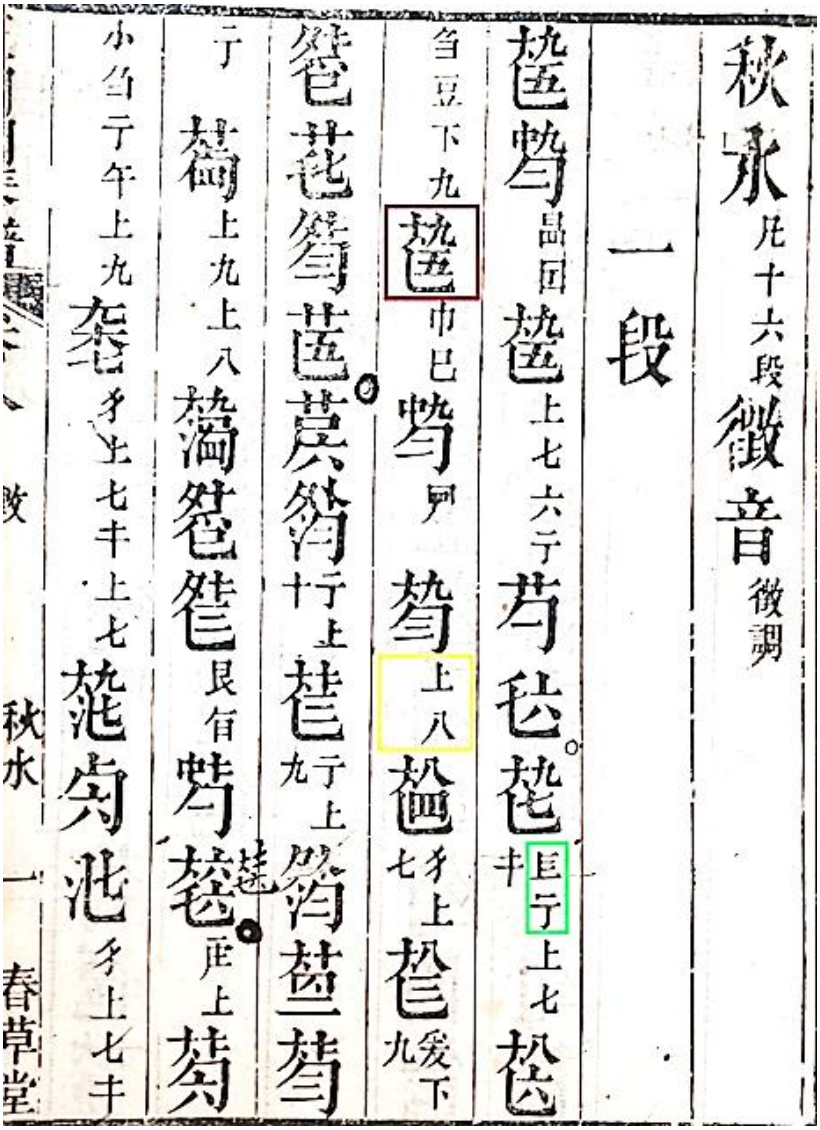


Figure 7: The first page of *Qiushui.* Text and notation in the public domain.

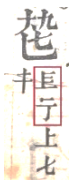
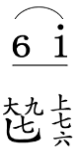
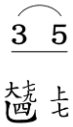
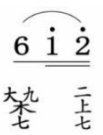
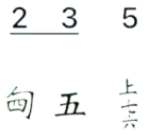
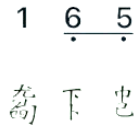
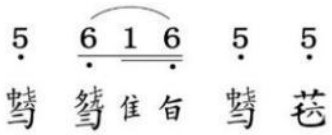
Original score	Yu Shaoze's performance
	
	
	
	
	
	

Figure 8: Table of examples with omission of vibrato notations. Scheme by the authors.

THE EXECUTION, ADDITION, AND SUBSTITUTION OF NAO (猱)

Yu Shaoze' s application of nao demonstrates the greatest diversity. The performing instructions for nao in the Tianwenge Qin Manual are filled with ambiguities and omissions:

The finger moves back and forth at the pressed position, exceeding the original position by about five to six fen. The motion is more intense and rapid than *yin*. [指于按处往来摇动，约过本位五六分，大于

吟而多急烈] (Tang, 1876:46). Additionally, there is considerable flexibility in how users of the score interpret the descriptions of body movements. For example, should the motion be centered around the pressed string or should the pressed string serve as the start and end point of the motion? Should the motion swing left to right or right to left? How many times should the motion be repeated? These unresolved yet critical details compel the performer to redefine the technique through practice.

In Yu's performance, the *nao* he executes is always embedded in a fixed rhythmic pattern and finger connection. The following Yu-style nao example (Example 4) is taken from the first section of *Gaoshan*. The specific execution is as follows: After obtaining the fundamental pitch, he uses it as both the starting and ending point to swing noticeably to the right twice in rhythm. In terms of duration, the *nao* and the preceding action together occupy one and a half quarter notes, aligning with the following yan (掩), resulting in a total of two quarter notes, and each swing takes a half quarter note. This kind of formalized treatment of *nao* appears in all six pieces.

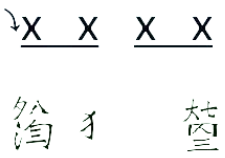
Original Score	Yu's Performance
	

Figure 9: As example 4 appearing in the text; Yu Shaoze-style nao in *Gaoshan*. Scheme, notation and recording in the public domain.

Whenever a *nao* is preceded by a pressed string note and followed by a *yan* (a finger transition from the ring finger to the thumb), Yu will always play the *nao* in this fixed manner and rhythm. This specific finger connection forms the triggering condition for the Yu-style nao." Conversely, in another example (Example 5) from the first section of *Gaoshan*, even though the changnao (长猱 long nao), which theoretically should last longer than the regular nao, follows, Yu Shaoze omits it in actual performance because the subsequent note is not a yan but an open string played by the right hand.

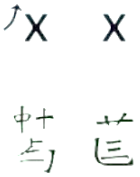
Original Score	Yu's Performance
	

Figure 10: As example 5 appearing in the text; Yu Shaoze-style nao in *Gaoshan*. Scheme, notation and recording in the public domain.

It is worth noting that Yu Shaoze's formalized handling of nao produced a generalization effect in his performances. In some instances (Example 6) where the notation does not indicate *nao* or even lacks vibrato notations, Yu reflexively replaced or added them as "Yu-style *nao*" due to the similarity in finger connections. And he also applied habitual treatment to the rhythm.

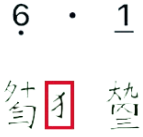
Substitution		
Addition		

Figure 11: As example 6 appearing in the text; Yu Shaoze-style as substitution and addition of nao. Scheme, notation and recording in the public domain.The.

YU SHAOZE'S PERFORMANCE OF ZHUANG (撞) AND HUAN (唤)

In the performance instructions of the Tianwenge Qin Manual, zhuang is described as having two variations: a faster version with two movements and a slower version with one movement:

To produce sound by pressing and plucking, the finger swiftly pulls above the designated fen and quickly returns to the original position to produce a single tone, which is called Zhuang. Its speed is like lightning—if swift, it results in one sound; if slower, it produces two sounds. [按彈得聲，用指急綽分數之上，疾歸本位取出一聲曰撞。其速如電，速則成一聲，遲則二聲也] (Tang, 1876: 48)

However, Yu unified this technique in his performance as a single movement, referred to as a "single-*zhuang*," which, in terms of duration, occupies one quarter note together with the fundamental tone. The technique *huan* only appears in two qin pieces, *Chunshantingdujuan* and *Qiushui*, both of which are excerpted from the *Chuncaotang Qin Manual* (*春草堂琴谱*) published in Hangzhou in 1744. This technique may have been more popular in the *Wu* region. According to the Tianwenge Qin Manual, *huan* is described as a vibrato technique similar to *zhuang* but with a slower speed. However, when comparing the scores of these two pieces with Yu's actual performance, the theoretical speed difference between *huan* and *zhuang* is not reflected in Yu's playing. Therefore, it can be concluded that Yu replaced *huan* with the single-*zhuang* in his performance.

By analyzing the four fingering techniques—nao, zhuang, dou, and huan—aside from *yin*, it becomes clear that these four techniques are essentially variations of the same movement—a single rightward swing of the left thumb or ring finger. While the duration of each swing remains roughly constant, the specific operation details of nao, zhuang, dou, and huan are redefined by adjusting the time of swings and their timing during performance (Figure 12). After obtaining the fundamental tone, a single rightward swing produces zhuang and replaces huan, with the fundamental tone and one swing lasting one quarter note. When the tone is obtained, adding one more rightward swing creates nao, with a total duration of 1.5 quarter notes. A rightward swing simultaneous with the sound results in dou, with a total duration of half a quarter note. In summary, although from a textual perspective the concepts of vibrato techniques are described in a detailed and diverse manner, in Yu Shaoze's practice, it is clear that these techniques are based on a simple principle: all the vibrato are defined and addressed through a particular basic technique. Just as the Chinese saying goes, that all changes adhere to the same root.

Basic movement	**The specific performance procedure**	**The corresponding notation in the original score**
A Single Rightward Rapid Swing	Execute once after obtaining the fundamental tone	zhuang (撞)
	Execute twice after obtaining the fundamental tone	nao（猱）
	Execute once after obtaining the fundamental tone	huan（唤）
	Execute once simultaneously with obtaining the fundamental tone	dou（逗）

Figure 12: Table showing specific performance procedure for four kinds of vibrato techniques, created by both authors.

SUMMARY

In summary, Yu Shaoze's left-hand vibrato techniques can be divided into two parts based on their purpose. The first is the subtle vibrato spontaneously used during performance. This type of vibrato does not create perceptible fluctuations in the sound but instead allows the performer's body to maintain a relatively comfortable playing experience during specific fingering transitions through slight tremors, while also improving pitch accuracy. In the traditional sense of vibrato techniques used to produce sound, Yu Shaoze chose to respond to and redefine the four common vibrato techniques, namely, nao (猱), zhuang (撞), dou (逗), and huan (唤), found in pieces by adjusting the frequency and timing of a fixed "basic motion." However, the prerequisite for the application of Yu's vibrato techniques is that they must conform to the rhythmic structure. A significant number of vibrato notations are selectively ignored by Yu because they cannot be integrated into a fixed rhythmic pattern. Additionally, vibrato fingerings derived from nao, zhuang, and dou do not appear in Yu's performances, indicating his disinterest in handling these complex fingerings. This simplified response to the original vibrato notations in the scores constitutes the uniqueness of Yu Shaoze's vibrato techniques.

THE CAUSES OF YU SHAOZE'S VIBRATO TECHNIQUE

Through the analysis in the previous section, Yu Shaoze presented a case of practical strategy that significantly deviates from texts. However, what are the causes of such a strategy? Unfortunately, Yu did not leave behind any self-technical analysis materials during his lifetime, which has made it challenging to explain the origins of his techniques. Nevertheless, thanks to other types of materials left by Yu, such as notes, interviews, and recollections from his students, this study attempts to provide a reasonable explanation for his performance practice from the perspective of the "concept–behavior" relationship. By analyzing and reconstructing historical materials, Yu's notes, interviews, and peer evaluations from insiders, the conclusion of this study is that Yu's vibrato technique is a technical response to his music school identification based on his apprenticeship and regional background, as well as the stylistic pursuit it represents. Below is a detailed explanation of this conclusion.

Unlike some musicians in music history who were only posthumously recognized as representatives of a particular stylistic school, Yu Shaoze maintained a clear identification with his school throughout his life. This recognition stemmed from two key factors: his regional roots and explicit lineage. In 1984, at the age of 81, Yu Shaoze wrote a personal retrospective of his artistic career:

> My teacher was my uncle, Liao Wenfu, who studied under Ye Wanzhen. Ye Wanzhen was the daughter of Ye Jiefu, a prized disciple of Zhang Kongshan, the founding master of *Shu* school guqin. Thus, the style I play is *Shu* school (Yu Shaoze, personal note, n.d).

In Yu Shaoze's understanding, Shu school guqin originated with Zhang Kongshan, a Taoist who began this tradition in the latter half of the 19th century. However, the guqin had been popular in the Shu region much earlier. Historically, Shu (蜀) refers to a large basin located in southwest China, roughly corresponding to the present-day Sichuan province. The earliest description of Sichuan guqin styles comes from Zhao Yeli (563-639) during the early Tang dynasty. Comparing the styles of Sichuan and Wu regions (modern southern Jiangsu and northern Zhejiang), Zhao Yeli noted:

> Guqin in Wu region is delicate and graceful, like the broad flow of the Yangtze River, continuous and gentle, with the elegance of a nobleman. guqin in Shu region, on the other hand, is urgent and swift, like turbulent waves and roaring thunder, embodying heroic brilliance in the moment (according to Zhu Changwen, 2010:98).

Several centuries later, another notable account came from Yelü Chucai (1190–1244), a highly Sinicized Khitan politician. Serving as Grand Chancellor under Ögedei Khan (1186–1241), Yelü described *Shu* guqin in a preface to a late-life poem:

> In my youth, I was deeply devoted to the guqin, first learning from Mi Dayong, whose style was serene and elegant, forming its own school. I loved the grandeur of nature, as reflected in the abrupt and vigorous style of Shu music, which was a delight to the ear (Yelü Chucai, 1986:240).

By the late 19th century, an 1878 guqin manual, Xishao Pavilion Qin Manual, described Sichuan guqin as embodying a "vigorous and ancient" style. Despite spanning over a millennium, these three accounts consistently portray Sichuan guqin as having dynamic, powerful, and unpretentious qualities

shaped by the region's natural environment and enduring over time. Master Zhang Kongshan, the founder of the Sichuan guqin tradition in the 19th century, remains an enigmatic figure, with only scattered details about his life. He is known to have lived in Qingcheng Mountain, west of Chengdu—a site filled with Taoist temples—where he practiced Taoism while teaching guqin. In 1864, Zhang and his students compiled a guqin manual, Baipingzhai Qin Manual. Its preface features a contemporary gentleman's appraisal:

> During the *Daoguang* and *Xianfeng* reigns, Zhang Kongshan, a Taoist from Qingcheng, emerged in Sichuan with powerful and harmonious techniques and a bold, majestic style, sweeping away the weaknesses of softness, monotony, and triviality. He established his own school, rivaling those of Yushan School and *Guangling* School. Widely esteemed, he attracted many followers, reviving the *Shu* region guqin tradition (Gu Yucheng, 2015:6).

As Zhang's successor, Yu Shaoze inherited his teacher Liao Wenfu's perspectives while aligning with the traditional aesthetics of Sichuan guqin. Yu described the Sichuan style as:

> The Shu style is robust and powerful, lively and smooth, quick yet not chaotic, slow yet not sluggish. There is a mnemonic with twelve characters: steady (稳), strong (健), precise (准), smooth (圆), harmonious (和), fluid (畅), noble (高), antique (古), pure (洁), divine (神), marvelous (妙), and metamorphic (化). These twelve qualities can only be achieved through diligent practice (Yu Shaoze, personal interview, n.d.).

Among these twelve-character mnemonics, the first six, namely, steady (稳), strong (健), precise (准), smooth (圆), harmonious (和), and fluid (畅), pertain to the technical and aesthetic levels. The next three, namely, noble (高), antique (古), and pure (洁), belong to the moral level, while the final three, namely, divine (神), marvelous (妙), and metamorphic (化), represent the transcendent level. Together, they form a comprehensive discourse on skill-art-dao in Chinese art. But, is Yu's self-description of his musical aesthetics faithfully embodied in his performances? Insiders' peer evaluation about him can serve as valuable corroborative evidence. Published in 2013, *Oral History of Qin Players in Shu* is a collective interview compilation featuring senior guqin players from Chengdu, all of whom had some connection with Yu Shaoze (Yang Xiao [杨晓], ed., 2013). In their shared recollections, Yu's performance style can be summarized in three characteristics: steady and dignified, concise and fluid, and vigorous and rustic. This demonstrates that Yu Shaoze was a person who harmonized knowledge and practice.

By synthesizing Yu Shaoze's personal statements and peer evaluations, it is not difficult to see that simplicity, fluidity, and steadiness constitute the core of his stylistic pursuit. His vibrato techniques unfold within this context. Firstly, by adjusting the frequency and timing of the execution of "basic techniques," Yu has redefined in practice several major vibrato techniques involved in the original score nao (猱), zhuang (撞), dou (逗), and huan (唤). In this process, the vibrato techniques zhuang and huan, which have similar playing methods, are unified into a fixed style. At the same time, derivative fingerings derived from these four vibrato techniques, such as long nao, rapid nao, and large nao derived from nao, are not distinguished in Yu Shaoze's performances. This habit of "simplified handling" indicates that Yu Shaoze is not keen on meticulously sculpting individual tones, reflecting his preference for a simple and unadorned style.

Secondly, Yu Shaoze's pursuit of fluidity is reflected in his particular emphasis on the regularity and clarity of rhythm. Therefore, his vibrato movements always unfold within a clear rhythmic framework, striving to avoid disrupting the proportional relationship of the rhythm due to the time consumed by vibrato actions. For example, if he believes that the vibrato symbols in the score cannot be integrated into a fixed rhythmic pattern, he would rather omit them. This approach also explains why Yu chooses to ignore complex derivative fingerings, as their introduction might pose challenges in rhythmic integration, affecting the overall fluidity. This "insertion-style application" of vibrato techniques avoids the appearance of long-duration static sounds within phrases, ensuring that his music remains dynamic at all times.

As another important part of his vibrato technique system, spontaneous micro-vibrato corresponds to the pursuit of steadiness. Steadiness can be understood on two levels: firstly, as the accurate expression of more fundamental musical elements such as pitch, and secondly, as maintaining a composed physical state. The three functions demonstrated by SSV (spontaneous micro-vibrato), namely, dissipating impact, enhancing pitch accuracy, and adjusting finger angles, provide technical support for this "steadiness."

Returning to the Phenomena Themselves and Setting Out Again

Yu Shaoze's vibrato technique practice offers us two significant insights. Firstly, individual Guqin players, even when faced with this art form's rich textual tradition, still need to engage in a form of "embodied experience construction" that maintains a considerable difference from classical textual interpretations, but remains coherent within individual practice. Yu's technique exemplifies this phenomenon. On the other hand, this personalized construction has never been re-conceptualized into new terms but subtly enacted repeatedly in his daily musical life. Secondly, while the recognition of the vibrato technique's importance in contemporary guqin musical life appears to be an unquestioned "common knowledge," Yu Shaoze's practice prompts us to reconsider this assumption. Although the terminological variety and interpretation of vibrato notation in guqin score from the Tang Dynasty onward is vast, this does not imply that all players have devoted equal enthusiasm to it. Even, the emphasis on vibrato's functional importance, as seen in Xu Shangying's argument, primarily represents a localized (late Ming Dynasty Yangtze River Delta) aesthetic experience and artistic declaration. The case of Yu Shaoze serves as a reminder that a performance tradition, which does not intend to expend creativity and aesthetic judgment on elaborate and diverse vibrato techniques, is not nonexistent, which constitutes the second insight Yu Shaoze provides. The phenomenon demonstrated that in the study of guqin performance, even the discussion of micro-level elements such as vibrato techniques can significantly refresh our understanding. Therefore, exploring the boundaries and diversity of more macro-level, holistic guqin performance practices should undoubtedly become a key focus of future research in this field.

In addition, Mantle Hood's theory of bi-musicality remains highly significant in the research process, particularly in the field of guqin performance. Effective discussions must be grounded in the researcher's long-term insider experience. However, this approach also faces challenges: phenomena that are self-evident to players but crucial to academic research may be overlooked, and the conceptual framework bridging ancient terms and living practices might be inadvertently neglected. Therefore, adopting a deliberate "defamiliarization" perspective to step outside conventional thinking and then return to the music-making event itself may yield more exciting research outcomes.

References

Ding Chengyun [丁承运]. 1984. 吟猱指法类解 [Classification and Explanation of *Yinnao* Techniques]. Chinese Music, (03), 50-51.

Gu Yucheng [顾玉成]. 2015. *百瓶斋琴谱* [Baipingzhai Qin Manual]. Beijing: Zhongguo Shudian. (Original work published 1856)

Li Juan [李娟]. 2012. 以 *操缦* 观琴人成公亮[Cheng Gongliang and his music: *Caoman* on the guqin] (Master's thesis). Shanghai Conservatory of Music.

Li Songlan[李松兰]. 2011. 穿越时空的蜀派古琴艺术 [The Art of *Shu* School Guqin Across Time and Space] (Doctoral dissertation). Shanghai Conservatory of Music, Shanghai, China.

Tang Songxian, Ye Zongyu, and Zhang Hexiu [唐松仙，叶宗俣，张合脩]. 1876. 天闻阁琴谱 [Tianwenge Qin Manual]. Personal collection of Professor Zeng Chengwei.

Wu Ye [吴叶]. 2016. 指上问道——清末民初琴家杨宗稷的左手吟猱观解析 [Seeking the Dao through the Fingers: An Analysis of Late Qing and Early Republican Guqin Master Yang Zongji's Perspective on Left-Hand *Yinnao* Techniques]. In Y. Liu (Ed.), *启迪与传承：袁静芳学生论文集* [*Enlightenment and Legacy: A Collection of Essays by Students of Yuan Jingfang*] (pp. 359-388). Beijing: Central Conservatory of Music Press.

Xiao Xiao [肖霄]. 2019. 香江容氏古琴家传乐教叙事研究 [A Narrative Study of the Rong Family's Guqin Teaching Tradition in Hong Kong] (Master's thesis). Guangzhou University, Guangzhou, China.

Xu Shangying [徐上瀛] 2013. *溪山琴况* [Xishan Qin Kuang]. Edited by Xu Liang [徐樑]. Beijing: Zhonghua Book Company. (Original work published in the Ming Dynasty, latest by 1641).

Yang Xiao [杨晓], ed. 2013. *蜀中琴人口述史* [Oral Histories of Qin Players in Sichuan]. Beijing: SDX Joint Publishing Company.

Yelü Chucai [耶律楚材]. 1986. *湛然居士文集* [Collected Works of Zhanran Lay Buddhist]. Edited by Xie Fang. Beijing: Zhonghua Book Company.

Zhang Mengdan [张梦丹]. 2016. 虞山吴氏“吟猱”在《墨子悲丝》中的运用解析 [An Analysis of the Application of the Wu Family's *Yinnao* from Yushan in *Mozibeisi*] (Master's thesis). Central Conservatory of Music, Beijing, China.

Zhang Xin [张欣]. 2023. 《潇湘水云》“吟猱”音响形态可视化描写及研究 [Visualization and Research on the Acoustic Morphology of *Yinnao* in *Xiaoxiangshuiyun*] (Master's thesis). Nanjing University of the Arts, Nanjing, China.

Zhu Changwen [朱长文]. 2010. *琴史* [*History of the Qin*] (L. Chen, Comp.). Beijing: Zhonghua Book Company. (Original work published in Song Dynasty).

Appendix: Photo

Figure 13: Photo of Yu Shaoze (喻绍泽, 1903–1988). This photo was taken in 1982 in Chengdu and was provided by Prof. Zeng Chengwei (born in 1958), the grandson of Yu Shaoze. Reprinted with permission.