



Tuhu: Chinese Folk Musical Instrument in Guangxi Zhuang Autonomous Region

Tengteng Yu

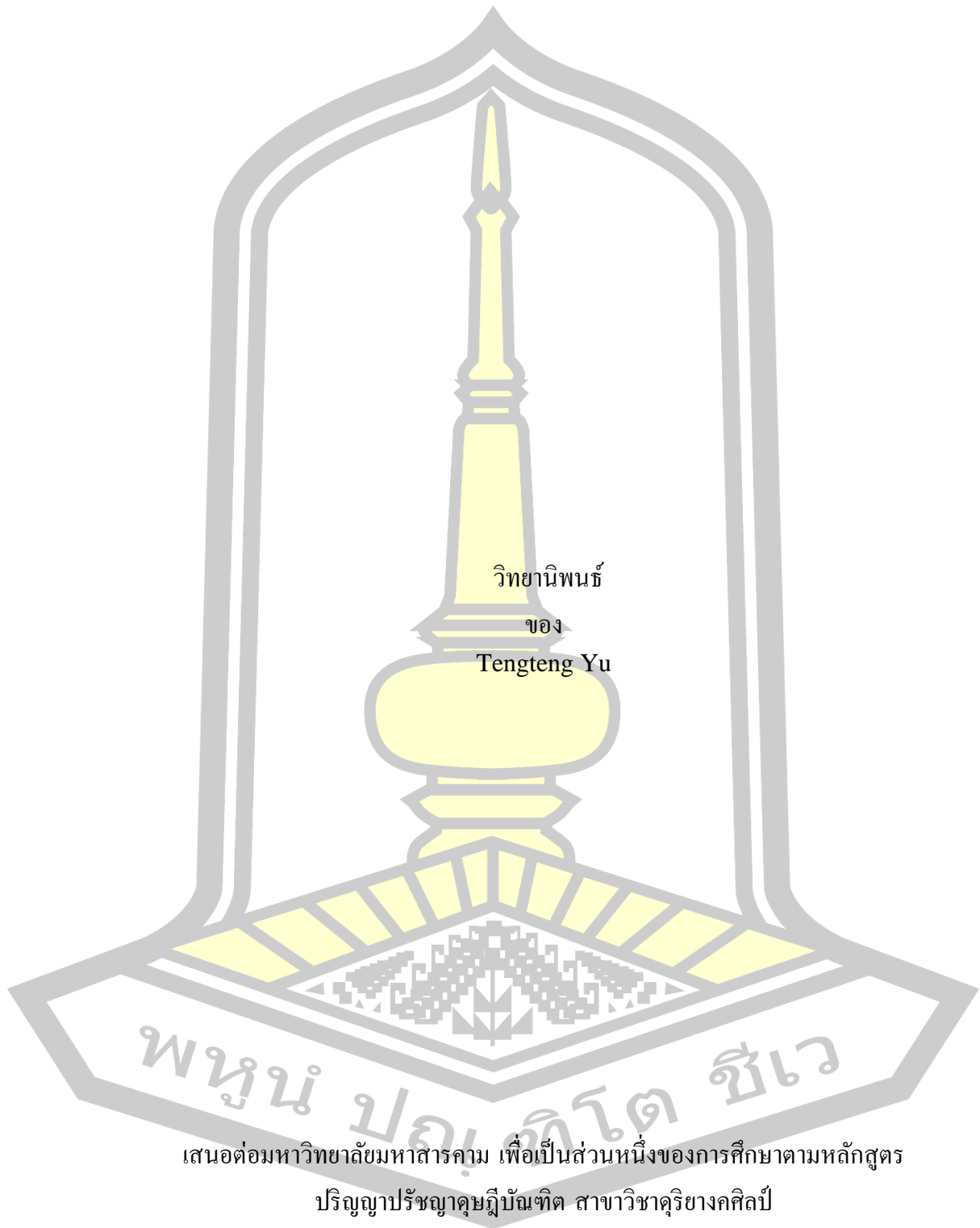
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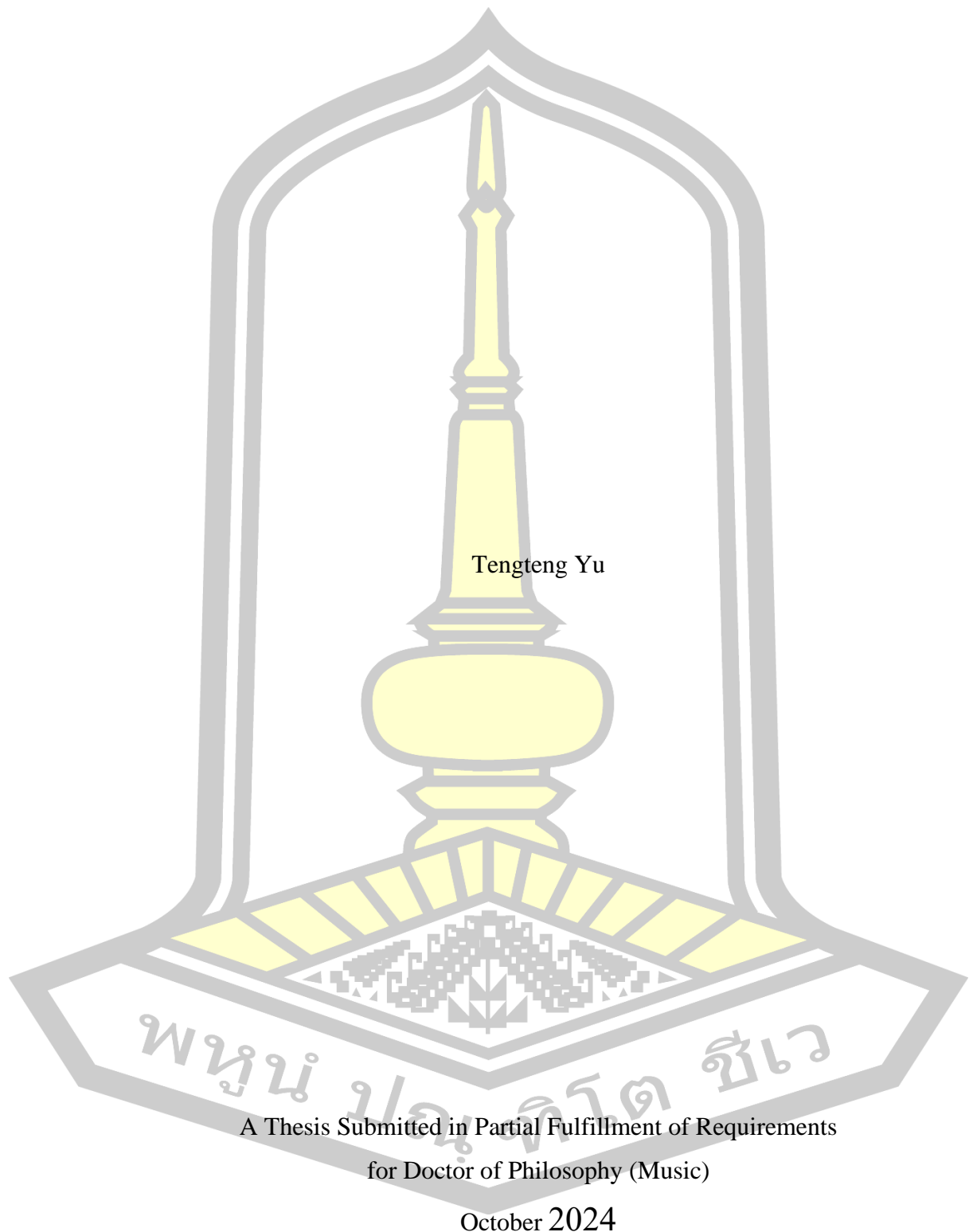
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Tuhu: Chinese Folk Musical Instrument in Guangxi Zhuang Autonomous Region



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ABSTRACT

Tuhu is a traditional bowed string instrument played by the Zhuang ethnic group in the Guangxi Zhuang Autonomous of China. The objectives of this research were to: 1) Investigate the playing techniques of Tuhu in the Guangxi Zhuang Autonomous of China. 2) Explore the transmission process of Tuhu in the Guangxi Zhuang Autonomous of China. 3) Propose guidelines for the preservation of Tuhu in school curricula in the Guangxi Zhuang Autonomous of China. Qualitative research methods with interview and observation forms are adopted as research tools. Collect data on-site through interviews with five informants in the field and classify and analyze the collected data. The results indicate that:

1. The playing techniques of the traditional bowed Tuhu, a Zhuang people's bowed string instrument, in Guangxi, China. It focuses on elementary knowledge, right-hand bowing, and left-hand fingering techniques. The instrument is primarily used in Zhuang Opera and folk ensembles, typically tuning in perfect fifths. Understanding Tuhu's traditional methods is crucial for proper transmission for future generations.

2. The transmission process of Tuhu discusses foundational skills like tuning, open string exercises, string-changing techniques, finger pressing techniques, advanced techniques like legato, fast bowing, and tremolo, and representative practices like portamento, Ti-gong, and Cuo-gong bowing. It also explores the improvisational practice of Jia-hua, which incorporates decorative notes to reflect Zhuang speech tonal patterns.

3. The preservation and integration into school curricula need more professional attention and more educational resources. Strategies include government support, developing teaching materials, building a trained workforce, and incorporating Tuhu into school curricula. Cultural practices and online education platforms can enhance student interest and ensure Tuhu's survival and cultural relevance.

Keyword : Tuhu, Zhuang ethnic group, Bowed string instrument, Cultural preservation, Musical transmission

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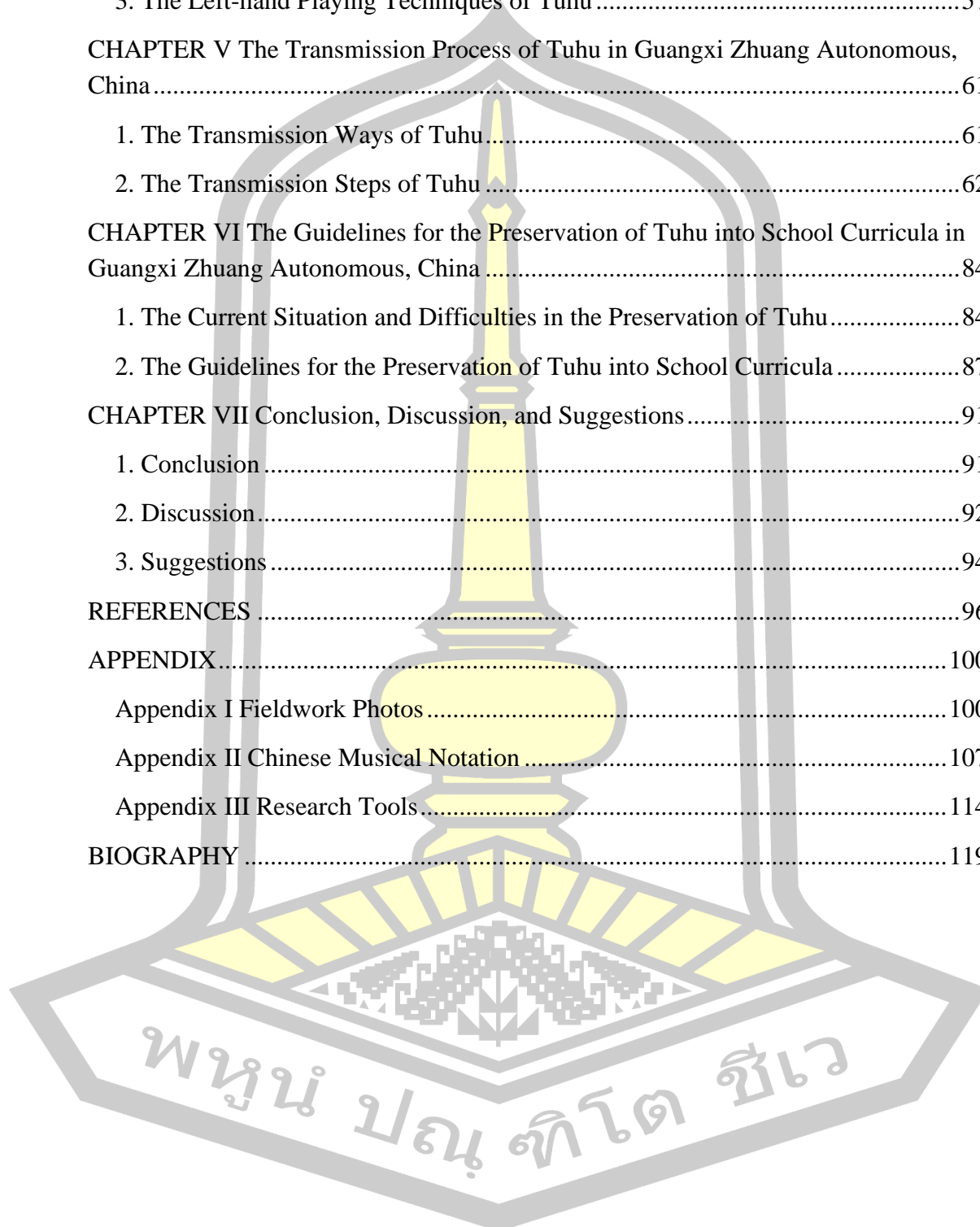
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Tengteng Yu

TABLE OF CONTENTS

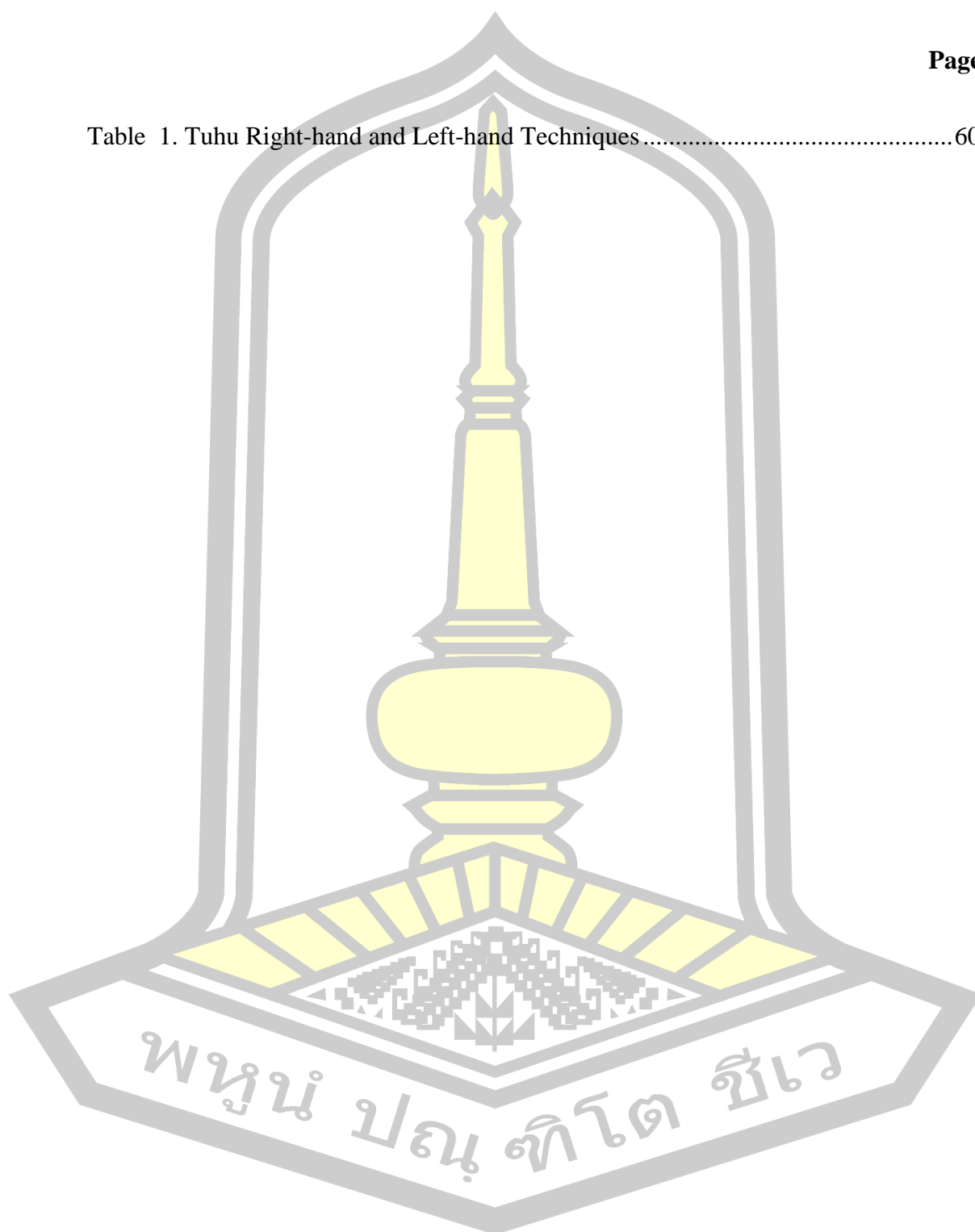
	Page
ABSTRACT.....	D
ACKNOWLEDGEMENTS.....	E
TABLE OF CONTENTS.....	F
LIST OF TABLES.....	H
LIST OF FIGURES.....	I
CHAPTER I Introduction	1
1. Research Background	1
2. Research Objectives.....	2
3. Research Questions.....	2
4. Research Benefits	3
5. Research Definition	3
6. Conceptual Framework.....	4
CHAPTER II Literature Review.....	6
1. General Knowledge of Tuhu	6
2. General Knowledge of the Transmission in Musical Traditions	12
3. General Knowledge of Musical Education in China	13
4. General Knowledge of the Preservation of Musical Traditions	15
5. General Knowledge of the Role of Schools in Cultural Preservation	17
6. Research Theory	18
7. Research Related	24
CHAPTER III Research Methodology	29
1. Research Scope	29
2. Research Process	30
CHAPTER IV The Playing Techniques of Tuhu in Guangxi Zhuang Autonomous, China.....	38
1. The Elementary Knowledge of Tuhu	38

2. The Right-hand Playing Techniques of Tuhu.....	49
3. The Left-hand Playing Techniques of Tuhu	57
CHAPTER V The Transmission Process of Tuhu in Guangxi Zhuang Autonomous, China.....	61
1. The Transmission Ways of Tuhu.....	61
2. The Transmission Steps of Tuhu	62
CHAPTER VI The Guidelines for the Preservation of Tuhu into School Curricula in Guangxi Zhuang Autonomous, China	84
1. The Current Situation and Difficulties in the Preservation of Tuhu.....	84
2. The Guidelines for the Preservation of Tuhu into School Curricula	87
CHAPTER VII Conclusion, Discussion, and Suggestions.....	91
1. Conclusion	91
2. Discussion.....	92
3. Suggestions	94
REFERENCES	96
APPENDIX.....	100
Appendix I Fieldwork Photos	100
Appendix II Chinese Musical Notation	107
Appendix III Research Tools.....	114
BIOGRAPHY	119



LIST OF TABLES

	Page
Table 1. Tuhu Right-hand and Left-hand Techniques	60



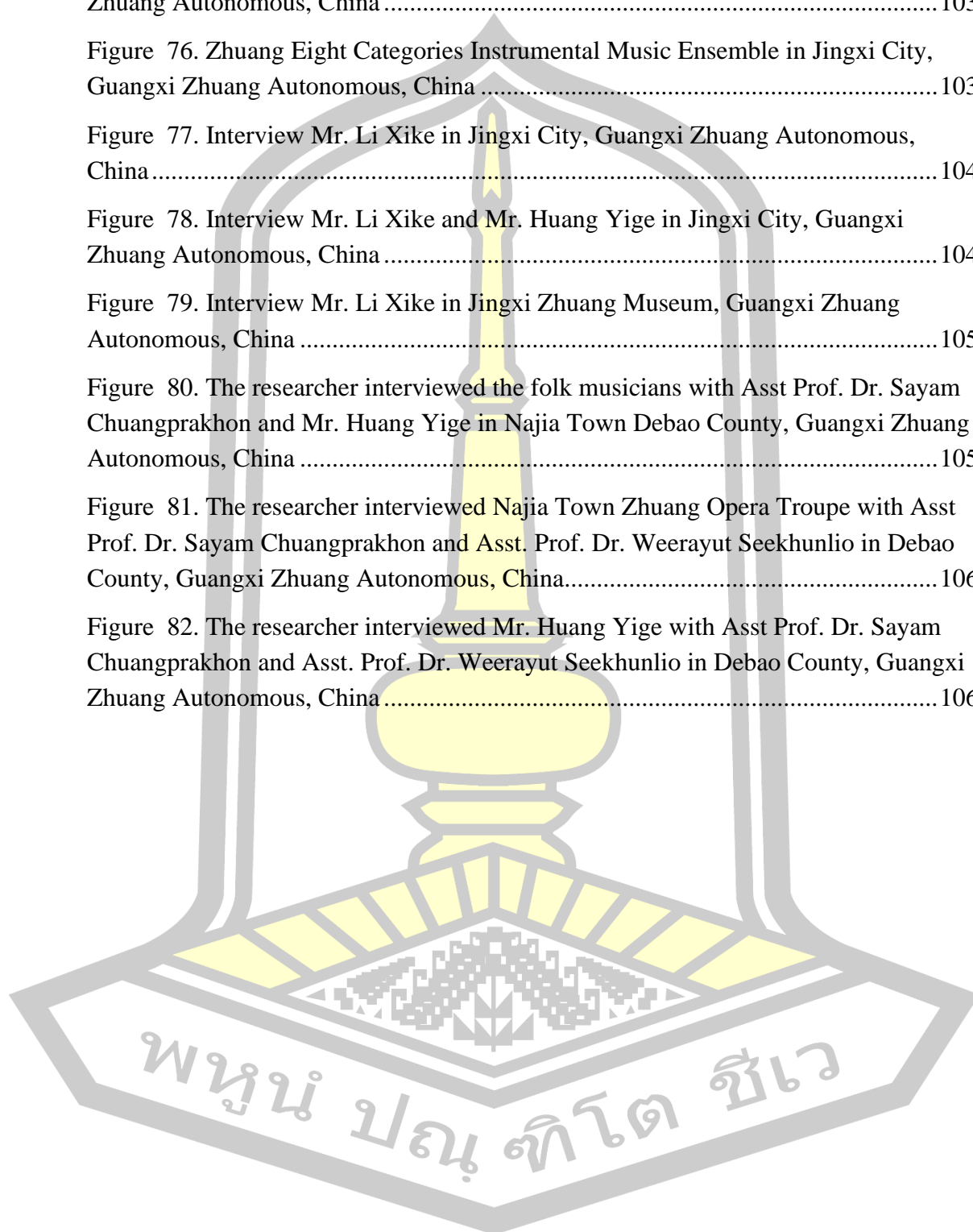
LIST OF FIGURES

	Page
Figure 1. Research Conceptual Framework.....	5
Figure 2. " Basic Scales "	22
Figure 3. " Notes Groups "	23
Figure 4. The Map of Guangxi Zhuang Autonomous, China	30
Figure 5. The Map of Baise City in Guangxi Zhuang Autonomous, China	31
Figure 6. The Map of Debao and Jingxi in Guangxi Zhuang Autonomous, China	31
Figure 7. Huang Yige.....	32
Figure 8. Li Xike.....	33
Figure 9. Chen Kunpeng	34
Figure 10. Qin Dachuan.....	34
Figure 11. Wang Guangguo.....	35
Figure 12. The Structure of Tuhu	39
Figure 13. Comparison of Different Pitch Names Positions on Staff and Piano Keyboard.....	41
Figure 14. Tuning d-a	42
Figure 15. Tuning e-b	42
Figure 16. Tuning f-c ¹	42
Figure 17. Tuning g-d ¹	43
Figure 18. Tuning a-e ¹	43
Figure 19. Tuning b- [#] f.....	43
Figure 20. Tuning c ¹ -g ¹	43
Figure 21. The Fingers Position on "do-sol" Strings	44
Figure 22. The Fingers Position on "fa-do" Strings.....	45
Figure 23. The Fingers Position on "sol-re " Strings	45
Figure 24. The Fingers Position on "la-mi " Strings.....	46
Figure 25. The Fingers Position on "mi-si " Strings.....	46

Figure 26. The Fingers Position on "re-la " Strings.....	47
Figure 27. Front View of Tuhu Playing Posture.....	47
Figure 28. Side View of Tuhu Playing Posture	48
Figure 29. Correct Posture for Holding the Bow	48
Figure 30. Bow Segments Distribution for Tuhu.....	49
Figure 31. Pull Bowing	50
Figure 32. Push Bowing.....	50
Figure 33. Long Bowing	51
Figure 34. Legato Bowing	51
Figure 35. Detache Bowing	52
Figure 36. Fast Bowing.....	52
Figure 37. Staccato Bowing.....	53
Figure 38. Tremolo Bowing.....	53
Figure 39. Ti-gong (ㄗ) Bowing Technique.....	54
Figure 40. The Video of Ti-gong (ㄗ) Bowing Technique	54
Figure 41. Cuo-gong Bowing Technique 1.....	55
Figure 42. The Video of Cuo-gong Bowing Technique 1	55
Figure 43. Cuo-gong Bowing Technique 2.....	56
Figure 44. The Video of Cuo-gong Bowing Technique 2	56
Figure 45. Tuning Method	62
Figure 46. Open Strings and String Changing Practice	63
Figure 47. First Finger Pressing Practice.....	64
Figure 48. Second Finger Pressing Practice	65
Figure 49. Third Finger Pressing Practice	66
Figure 50. Fourth Finger Pressing Practice.....	67
Figure 51. Legato Bowing Practice	68
Figure 52. Fast Bowing Practice.....	68
Figure 53. Tremolo Bowing Practice.....	69
Figure 54. Trill Practice	70

Figure 55. Vibrato and Rolling Finger Practice	70
Figure 56. Position Shifting Practice	71
Figure 57. Portamento and Ti-gong Bowing Practice	72
Figure 58. The Video of Portamento and Ti-gong Bowing Practice	72
Figure 59. Cuo-gong Bowing Practice.....	73
Figure 60. The Video of Cuo-gong Bowing Practice	74
Figure 61. Dian-zhi Portamento Practice.....	75
Figure 62. The Video of Dian-zhi Portamento Practice	75
Figure 63. Quarter Note Practice	77
Figure 64. The Video of Quarter Note Practice.....	77
Figure 65. "Nalu Zhuang Opera Guo Chang Diao"	79
Figure 66. The Video of Contrast Practice in "Nalu Zhuang Opera Guo Chang Diao"	80
Figure 67. Jia-hua Practice "Jingxi Zhuang Eight Categories Instrumental Music Xian Ban Diao"	81
Figure 68. The Video of Jia-hua Practice in "Jingxi Zhuang Eight Categories Instrumental Music Xian Ban Diao"	82
Figure 69. Collecting Zhuang Oper3257a Accompaniment Music with Asst Prof. Dr. Sayam Chuangprakhon at Jiuqu Bridge in Debao County, Guangxi Zhuang Autonomous, China	100
Figure 70. Collecting Zhuang Opera Music with Asst Prof. Dr. Sayam Chuangprakhon and Asst. Prof. Dr. Weerayut Seekhunlio at Jiuqu Bridge in Debao County, Guangxi Zhuang Autonomous, China.....	100
Figure 71. Zhuang Opera Accompaniment Orchestra is Accompanying in Najia Town Debao County, Guangxi Zhuang Autonomous, China.....	101
Figure 72. Zhuang Opera Accompaniment Orchestra in Najia Town Debao County, Guangxi Zhuang Autonomous, China	101
Figure 73. Mr. Huang Yige is explaining Zhuang Opera Accompaniment Techniques in Najia Town Debao County, Guangxi Zhuang Autonomous, China.....	102
Figure 74. Mr. Huang Yige is accompaniment for the Zhuang Opera in Najia Town Debao County, Guangxi Zhuang Autonomous, China	102

Figure 75. Folk Zhuang Opera Troupe in Najia Town Debao County, Guangxi Zhuang Autonomous, China	103
Figure 76. Zhuang Eight Categories Instrumental Music Ensemble in Jingxi City, Guangxi Zhuang Autonomous, China	103
Figure 77. Interview Mr. Li Xike in Jingxi City, Guangxi Zhuang Autonomous, China	104
Figure 78. Interview Mr. Li Xike and Mr. Huang Yige in Jingxi City, Guangxi Zhuang Autonomous, China	104
Figure 79. Interview Mr. Li Xike in Jingxi Zhuang Museum, Guangxi Zhuang Autonomous, China	105
Figure 80. The researcher interviewed the folk musicians with Asst Prof. Dr. Sayam Chuangprakhon and Mr. Huang Yige in Najia Town Debao County, Guangxi Zhuang Autonomous, China	105
Figure 81. The researcher interviewed Najia Town Zhuang Opera Troupe with Asst Prof. Dr. Sayam Chuangprakhon and Asst. Prof. Dr. Weerayut Seekhunlio in Debao County, Guangxi Zhuang Autonomous, China.....	106
Figure 82. The researcher interviewed Mr. Huang Yige with Asst Prof. Dr. Sayam Chuangprakhon and Asst. Prof. Dr. Weerayut Seekhunlio in Debao County, Guangxi Zhuang Autonomous, China.....	106



CHAPTER I

Introduction

1. Research Background

The Tuhu is a traditional bowed string instrument of the Zhuang people with great cultural and musical importance. Its name originates from the self-identified name of the Zhuang ethnic group, the Tu people, who have used locally sourced materials to craft the instrument for generations. The Tuhu is primarily found in Guangxi Zhuang Autonomous, particularly in Nanning, Baise, Debao, and Jingxi, as well as in Funing County in Yunnan Province (Yang Xiuzhao et al., 1989). It is one of the main accompaniment instruments in the South Zhuang Opera and plays a crucial role in the Zhuang Eight Categories Instrumental Music Ensemble, a core part of Zhuang folk music. Despite its cultural significance, the Tuhu remains under-researched, and there is a lack of comprehensive studies on its playing techniques, styles, and transmission processes, creating a pressing need for further investigation.

One of the key features of the Tuhu is its distinctive timbre, which is described as low, thick, and powerful. It is classified as a middle-to-low-range instrument, complementing higher-pitched instruments like the Maguhu in ensemble performances (Yue Sheng, 2015). This blend of high and low voices produces a harmonious sound, enriching the music with expressive and dynamic interpretations. Although the Tuhu is featured in Chinese Minzu traditional festivals and folk celebrations, it lacks an exclusive repertoire, often relying on Zhuang opera compositions, particularly in collaboration with the Maguhu. The instrument shares some physical similarities with the Erhu. Still, its body is made of paulownia wood, and its unique setup, including steel strings and a bamboo bow strung with horsehair, creates a soft, thick, and vibrant tone (Miao Tianrui et al., 1984; Wei Wei & Xiang Fan, 1990).

The decline in skilled Tuhu performers is a growing concern, as most current players are elderly, and their numbers steadily decrease due to age-related health issues. This has created a significant challenge for the instrument's continuity, as many older musicians cannot pass on their knowledge. Compounding this issue is the lack of institutional support for Tuhu education. No schools in Guangxi offer professional

courses on Tuhu performance, leaving the younger generation without formal avenues to learn the instrument. This situation has led to a decline in the transmission of Tuhu performance traditions, making it urgent to intervene to preserve this vital aspect of Zhuang musical culture (Yue Sheng, 2015). Without proper preservation and transmission efforts, the Tuhu and its associated techniques could be lost forever.

Considering these challenges, this research aims to investigate the playing techniques of the Tuhu, explore its transmission process, and propose guidelines for its preservation in school curricula in Guangxi Zhuang Autonomous. The study will explore effective methods and strategies for teaching the Tuhu to revitalize interest in the instrument among younger generations. By integrating Tuhu education into school curricula, this research seeks to safeguard the cultural heritage of the Zhuang people while ensuring that the Tuhu remains a living tradition. The research will also focus on systematizing and institutionalizing the transmission of Tuhu knowledge, creating sustainable models for its preservation. Fieldwork in Debao and Jingxi will provide valuable insights into broader efforts to protect endangered musical traditions in rapid modernization and cultural change. Ultimately, this research aims to ensure the Tuhu's survival and contribute to preserving Zhuang cultural heritage for future generations.

2. Research Objectives

2.1 To investigate the playing techniques of Tuhu in Guangxi Zhuang Autonomous of China.

2.2 To explore the transmission process of Tuhu in Guangxi Zhuang Autonomous of China.

2.3 To propose guidelines for the preservation of Tuhu in school curricula in Guangxi Zhuang Autonomous of China.

3. Research Questions

3.1 What playing techniques are used to perform Tuhu in Guangxi Zhuang Autonomous of China?

3.2 How has the transmission process of Tuhu knowledge and skills been carried out in Guangxi Zhuang Autonomous?

3.3 What guidelines can be developed to integrate Tuhu into school curricula to support its preservation and promote its cultural significance in Guangxi Zhuang Autonomous?

4. Research Benefits

4.1 By investigating the playing techniques of Tuhu, this research will contribute to documenting and preserving the unique musical traditions of the Zhuang people, ensuring that future generations can access and learn these traditional techniques.

4.2 Examining the transmission process of Tuhu will provide valuable insights into current challenges and opportunities, helping to develop more effective methods for passing on Tuhu knowledge and skills, particularly to younger generations, thereby supporting its continuity.

4.3 The proposed guidelines for incorporating Tuhu into school curricula will promote the preservation and revitalization of this important cultural artifact within formal education systems, fostering a deeper cultural appreciation and encouraging active participation in traditional Zhuang music.

5. Research Definition

5.1 Tuhu refers to a traditional Chinese folk musical two-stringed bowed instrument that holds cultural significance in Guangxi Zhuang Autonomous. This unique instrument plays an essential role in the region's musical heritage and is characterized by its distinct sound and cultural associations.

5.2 Playing techniques refer to three key aspects: elementary knowledge, right-hand bowing techniques, and left-hand fingering techniques. Such as long bowing, legato, staccato, trills, and portamento, to document the unique performance style of Tuhu.

5.3 The transmission process refers to the transmission of knowledge on playing Tuhu, such as opening strings, changing strings, and practicing finger plucking, along with advanced techniques such as portamento, Ti-gong, and Cuo-gong.

5.4 The guidelines for preservation refer to the importance of policy support, teacher training, curriculum reform, and digital education platforms. These measures

will ensure systematic learning, promote cultural awareness, and foster the sustainable transmission of Tuhu within educational institutions.

6. Conceptual Framework

The framework for studying the Tuhu in Guangxi's Zhuang community's musical culture focuses on three main objectives: investigating Tuhu playing techniques, examining transmission processes, and proposing guidelines for integrating Tuhu preservation into school curricula. The research uses observation, interviews, document analysis, and music analysis, supported by ethnomusicology, musicology, and Chinese music theory. The aim is to provide comprehensive results to ensure the Tuhu's continuity in Zhuang cultural practices and education.



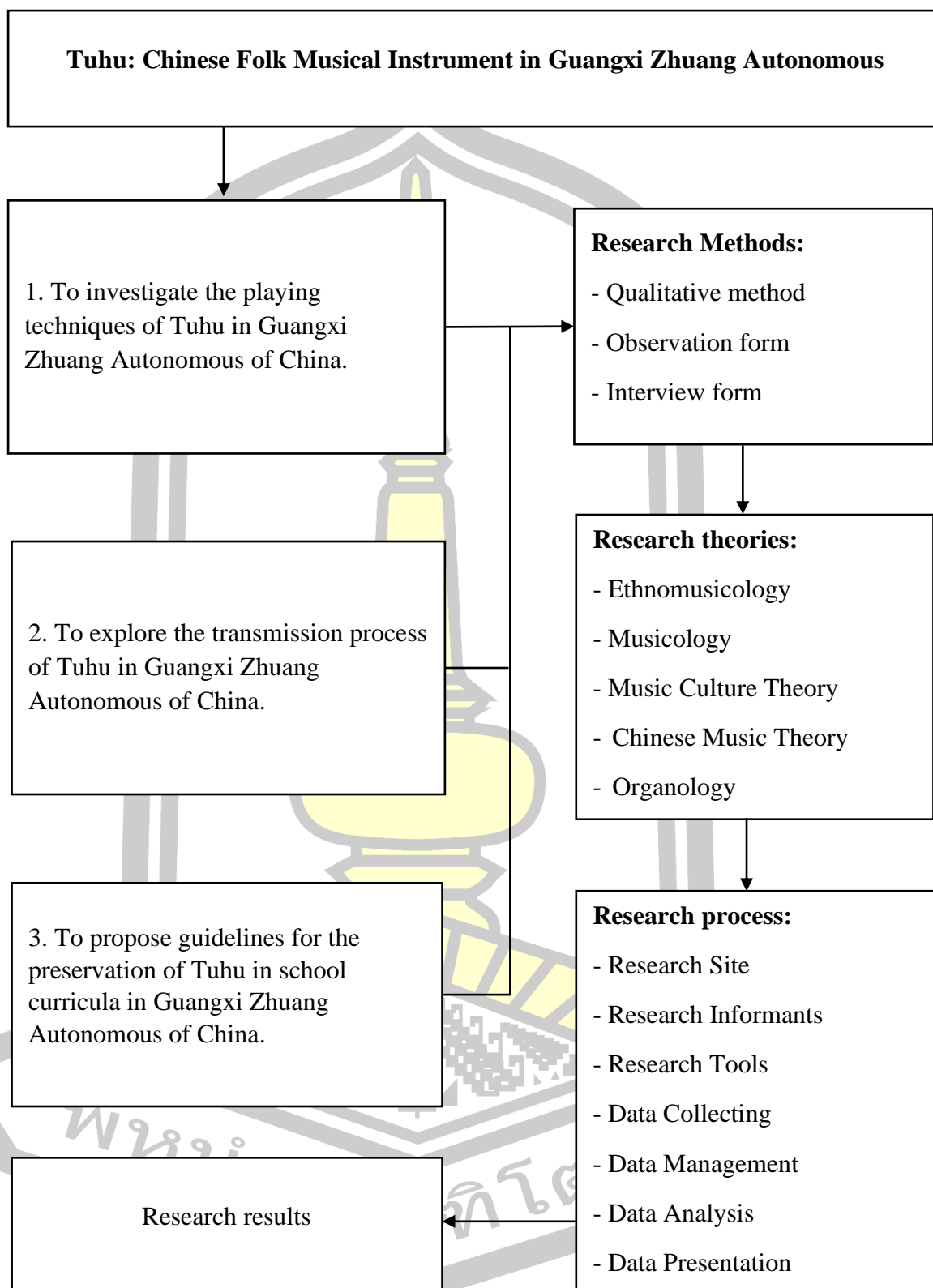


Figure 1. Research Conceptual Framework

CHAPTER II

Literature Review

The researcher conducted a comprehensive literature review in this study to gather relevant information for this dissertation. Various documents were reviewed, focusing on the following topics:

1. General Knowledge of Tuhu
2. General Knowledge of the Transmission in Musical Traditions
3. General Knowledge of Musical Education in China
4. General Knowledge of the Preservation of Musical Traditions
5. General Knowledge of the Role of Schools in Cultural Preservation
6. Research Theory
7. Research Related

1. General Knowledge of Tuhu

This section will cover literature about the history, shape, distinctive characteristics, and role of the Tuhu in Chinese culture, particularly in the context of Zhuang culture. Additionally, it will cover the literature review on the techniques and styles of Tuhu performance.

1.1 History of Tuhu

No references give a specific date for the history of Tuhu instruments but in Xiang Yang's History of Chinese Bowstring Instruments. It is estimated that the bowed string Huqin originated from the Xiqin of the Tang Dynasty, and the Song Dynasty established the status of the bowstring instrument of the Huqin class. According to the playing style and shape, Xiang Yang classified Tuhu instruments into type A, shaped like a Xian Tao, the type of bow played between the strings. It is characterized by a small round or bowl-shaped resonator with a slender rod and a bow played between two strings.

The literature on Tuhu musical instruments, such as the etymology of the instrument's name, its shape characteristics, the materials making musical instruments, the tuning system employed, the instrument's tonal range, its function of the

instruments, the geographical regions where it is spread, the methods of playing, the stylistic approaches to performance, the repertoire of music associated with it, and any improvement made to the instrument. According to the different materials of the tone resonator Quintong, the overview of Tuhu literature can be divided into three types: the first is made of wood, such as sycamore wood or Paotong wood; the second is made of gourd, and the third is made of bamboo.

1.2 Literature on Tuhu using wood to make tone resonator Quintong

The author points out that the Tuhu tone resonator Quintong is large and made of Tong wood, with a diameter of 14cm. The Quintong exhibits a wooden panel covering on one of its sides. The dimensions of the shafts of Tuhu musical instruments range from approximately 70 to 82cm, with each instrument featuring two shafts. The strings employed in these instruments are made of steel. The fixed tone pitch of strings is G¹ D²; the range is G¹-D³. With a soft timbre. Tuhu is used in the Zhuang Opera Orchestra, which cooperates with the main instrument, Maguhu. It is spread in Debao, Jingxi, Nanning, and other places in Guangxi Zhuang Autonomous. After the reformation of the Tuhu, the top of the Tuhu is decorated with a phoenix head, the bow rod is made of Xian wood, the Qinma is the same as that of Zhonghu, and the strings are made of metal (Miao Tianrui et al., 1984).

The author points out that the tone resonator Quintong of Tuhu is made of a hollowed Paotong tree trunk, one side of the Quintong is covered with a thin wood panel, and the strings are metal. The tone timbre is thick and steady. The two strings are named Do and Sol. Tuhu is played with Maguhu (Zhong Zeqi et al., 1985).

The tone resonator Quintong is made of a Phoenix tree hollowed out. The length of the Tuhu tone resonator Quintong is about 15-17cm, and the diameter is about 13cm. It is thicker than the tone resonator Quintong of Zhonghu. The vibrating membrane of Tuhu is made of a thin wood panel. The Tuhu tone timbre is similar to Zhonghu's. The rod of the Tuhu musical instrument is about 70-82cm, with two shafts and silk strings. The two strings are Sol and Re, and they have an effective range of major twelfth. The tone timbre is soft, thick, and expressive. The tone timbre is soft, thick, and expressive. When being played, the glissandi of the second half of the beat are highlighted, and the intensity is raised, making it vibrant and interesting. Tuhu is played with Maguhu in the accompaniment Orchestra of South Zhuang Opera. After the reformation of the Tuhu,

at the top of the Tuhu is decorated with a phoenix head, the rod of the Tuhu musical instrument is made of Xian wood, the Qinma is the same as that of Zhonghu, and the strings are made of metal (Wei Wei & Xiang Fan, 1990).

In the related literature of Tuhu using wood-made tone resonator Quintong, there is no representative repertoire of music associated with it and historical records of Tuhu.

1.3 Literature on Tuhu using gourd to make tone resonator Quintong

There are four works of literature on Tuhu using a gourd to make tone resonator Quintong, and the literature recorded the shape of Tuhu:

The shape of the Tuhu is special. Cut a section of gourd melon shell that is slightly smaller at both ends and larger in the middle, choosing its bottom section to make of the tone resonator Quintong. The incision is covered with snakeskin, and the end is carved with pentagonal petals sound window. The length of the tone resonator Quintong is about 7.5cm, the diameter of the largest part of the tone resonator Quintong is about 12cm, the diameter of the vibrating membrane is about 8.5cm, the wooden rod of the Tuhu musical instrument is cylindrical, the length is about 32cm and the diameter is about 1.8cm, at the top of the Tuhu rod is Quintou, the rod and Quintou share making of the same wood, connect as a whole. The length of the Quintou is 12cm, its shape is flat and wide, the top of the Quintou is bent backward, and the rectangular Groove below is 4cm long and 0.9cm in width. Two wooden shafts are inserted on the left and right sides of the rectangular Groove. Steel strings and metal strings are stretched. The instrument Qinma is made of wood and placed on the upper part of the vibrating membrane of Tuhu. There is no Qianjin. The string pillow, about 2cm in height, is set between the Quintou and the Qingan. The thin bamboo tied with the horse tail mane is a bow; its length is about 60cm, and the horse tail mane of the bow is played between the two strings. There is a holder under the tone resonator Quintong; the length is 5.5cm, the width is 2.8cm, and the shape is similar to the moon. (Yang Xiuzhao et al., 1989).

The rod of the Tuhu musical instrument is made of wood; the length is 80cm. The Tuhu tone resonator Quintong is made of gourd, and its length is 10cm. The front of the incision is covered with snakeskin, and the diameter is 8cm. The shape of the Quintou is similar to a flat shovel. There is a groove named mountain notch at the upper end of the rod of the Tuhu musical instrument. There is no Qianjin. The two strings are stretched. The length of the horse tail mane bow is 70cm (Yue Sheng, 2005).

Tuhu is a bowed string instrument in Zhuang. Tuhu is different from Gourd Hu, made using the round part in the middle of the gourd. Tuhu is mainly spread in the Zhuang residential area in western Guangxi. The shape of the tone resonator Quintong is different from Huqin in general. Its shape is long and round. The tone resonator Quintong is selected from the middle part of the gourd, cutting off both sides; the front of the incision is covered with snakeskin, and the end side is hollow as the sound window. The tone resonator Quintong of Tuhu is shorter than Huluhu, with a length of 7.5cm and a diameter of 8.5cm. The length of the tone resonator Quintong of Huluhu is 15cm, and the diameter is 13cm. The rod of the Tuhu musical instrument is made of wood, and the shape is cylindrical; the length is 32cm. The unique feature of Tuhu is that it has no Qianjin. There is a string pillow on the Quintou to prop up the strings (Gao Min,2009).

Tuhu has a unique appearance; the Quintou's shape is like the Sanxian's instrument. The rod of the Tuhu musical instrument is cylindrical. The shape of the tone resonator Quintong is similar to Tianqin. Folk performers make Tuhu using native natural materials and traditional methods. The tone resonator Quintong is selected from the middle part of the gourd with enough drying, cutting off the thin side or cutting from the middle of two knots of gourd, using the bottom section of the gourd; the incision is regarded at the front of the tone resonator Quintong. The incision is covered with snakeskin, forming a hemispherical tone resonator Quintong with slightly smaller ends and a slightly larger middle. The length of the tone resonator Quintong is 8-10cm, the largest diameter of the tone resonator Quintong is 12-16cm, and the covering with snakeskin is 8-10cm. The gourd bottom is usually carved with a pentagonal or the shape of a petals sound window. Quintou and the rod of the Tuhu musical instrument are made of a whole piece of Hongchun wood, mulberry wood, and pine wood; the whole length is 80-90cm. The shape of the Quintou is rectangular and columnar; the top of the Quintou is bent backward, and the rectangular Groove below the Quintou. Two shafts are inserted on the left and right sides. The shafts are made of wood; the shape is round and conical, and the length is 10cm. The surface of the shafts is carved with straight petal-shaped stripes. The rod of the Tuhu musical instrument is cylindrical, setting a mountain notch at the upper end between the Quintou and the rod of the Tuhu musical instrument. There is no Qianjin. The lower end of the rod of the Tuhu musical instrument is inserted into

the tone resonator Quintong, and the strings are exposed. In recent years, the Quintuo was added under the tone resonator Quintong. The bow rod is made of thin bamboo, Xian wood, and HuoGuo wood. Both ends of the bow are tied with horse tail mane, and the length of the horse tail mane bow is 70cm (Yue Sheng, 2015).

In summary, the four researchers' record of the fieldwork music ethnographic on Tuhu is different, which shows that there are individual differences in the shape of Tuhu made by different musical instrument producers.

The author thinks it is more reasonable to classify the instrument that makes the tone resonator with the gourd in the gourd Hu, which belongs to the same instrument with different names. Compared with the Tuhu of the wooden tone resonator in the Jingxi area of Debao, it is a different instrument with the same name.

1.4 Literature on Tuhu using bamboo to make tone resonator Quintong

Two kinds of literature on Tuhu use bamboo to make a tone resonator, Quintong.

The first literature: The stringed instrument Tuhu, the tone resonator Quintong is made of wood or bamboo, and the instrument Qinma is made of a conch shell, and the tone timbre is similar to Zhonghu's, thick and charming. Maguhu and Tuhu octave play "Guai Hai Lie," the tone timbre is integrated, full and thick, with a certain expressive force. They are the two indispensable instruments in the Zhuang Opera Orchestra (Zhang Xingrong, 1990).

The second literature: Tuhu is the Zhuang stringed instrument, namely Ranbai; Ran refers to Huqin in Zhuang, Bai is a bamboo tube, and Ranbai means bamboo tube Huqin. Also known as bamboo tube Hu. Because the locals themselves made it, so it's called Tuhu. It is spread in the western Guangxi Zhuang Autonomous.

The tone resonator Quintong is made of bamboo, about 15cm long and 8cm in diameter. One end with the bamboo knot is carved with a plum blossom-shaped sound window; the other is covered with thin paulownia wood or bamboo shell panel. The rod of the Tuhu musical instrument is made of bamboo or wood and is 70cm long. Tuhu musical instrument shafts are made of solid wood with a length of 14-15cm. Two silk strings or two metal strings are stretched. The instrument Qinma is made of wood or bamboo. The windline is Qianjin. Small bamboo tied with a horse tail mane is the bow, which is 55-60cm long. When playing, the tone resonator Quintong rests on the player's left leg, the left hand holding the rod of the Tuhu musical instrument, and the fingers

pressing the strings, including the index finger, middle finger, ring finger, and little finger. The right-hand holds the bow and rubs the strings. Ranbai is a common instrument in Zhuang Opera and Zhuang Eight Categories Instrumental Music Ensemble (Yuan Bingchang & Mao Jizeng, 1986).

1.5 Playing Techniques of Tuhu

There is no special literature on Tuhu's playing techniques, but there are two books on the playing techniques of Maguhu. The first is Su Shaning's "Guhu Art" in November 2006, and the second is "Maguhu Basic Course" written by Deng Rujin, Huang Yige, and Pan Qixu in May 2015. Su Shaning proposed four parts of the Guhu playing techniques and technical principles. First, the strings, timpani, and string form. Second, the basic playing posture and method. The third is left-hand techniques and principles. The fourth is the right-hand techniques and principles. Su Shaning introduced each Guhu playing technique and did not add music scores for comparison when introducing the techniques. Still, in the chapter on learning and improvement, he specially listed the folk Eight Categories Instrumental Music, and Zhuang opera labeled pieces, etudes, and musical compositions for learners to do comprehensive techniques training. In Su Shaning's introduction to the Guhu playing technique, it is proposed that the Cuo-gong bowing is a unique bow method of the Guhu. It is also one of the most characteristic bow methods of the Guhu, and there is no mention of the lifting bow technique; it is also called Ti-gong bowing (Su Shaning,2006).

Deng Rujin, Huang Yige, and Pan Qixu proposed that Maguhu's playing techniques mainly include four parts. First, playing posture, including sitting and standing. Second, holding the Maguhu. Third, holding the bow. Fourth, the right-hand bow method, including bow segments distribution, move bow method, long bowing, detached bowing, legato bowing, fast bowing, staccato bowing, tremolo bowing, throw bowing, Ti-gong and Cuo-gong. Fifth, the right fingering method includes vibrato and rolling fingers, portamento, Dian-zhi portamento, trill, and finger retention. The lifting bow technique is mentioned, and the representative performance techniques of the bow lifting and Cuo-gong bowing are specifically explained. The application scenarios of Tuhu and Maguhu are almost the same, and Maguhu's playing techniques provide a reference for Tuhu's playing techniques (Deng Rujin & Huang Yige,2015).

In conclusion, the literature currently available for retrieval of Tuhu is mainly in the introduction of the basic form of Tuhu musical instruments, which can enable researchers to understand the characteristics, performance, timbre characteristics, vocal range, circulation area and function of Tuhu's musical instruments, and help to sort out the development and changes of Tuhu in form. There are relatively few historical traceability documents of Tuhu. The types of Tuhu's characteristic performance techniques, the practical application of characteristic performance techniques in Tuhu's music repertoire, the playing style, and the role of Tuhu in the South Zhuang Opera Orchestra and the Zhuang Eight Categories Instrumental Music Ensemble are the directions of this study in terms of the ontology of Tuhu musical instruments.

2. General Knowledge of the Transmission in Musical Traditions

This section will review the body of research on the transmission of traditional music, focusing on the various methods employed in different cultures. Particular attention should be paid to the literature discussing the transmission of Tuhu in the Zhuang community.

Traditional Chinese music transmission mainly includes family transmission, folk master and apprentice transmission, school transmission, new media transmission, etc.

Chinese traditional music transmission methods include teaching oral and attentive understanding, using music scores as the medium of transmission, using paper media, and sound transmission (Wang Yueying, 2015).

The effective way to promote the transmission of Chinese traditional art and traditional culture is as follows: First, increase the state's support for the transmission and development of traditional art. Second, strengthen the training of teachers. Third, enterprises should be encouraged to subsidize the transmission of traditional music. Fourth, it strengthens the social publicity of traditional culture (Hu Jun et al., 2023).

Pan Guiqing studied the traditional music of the Yao nationality and the traditional Yao nationality festival culture. He combed out the main problems faced by the Yao nationality's traditional festivals, the significance of Ruyuan Yaoge to the traditional festival culture, and how to play to the leading advantages of Yao Ge to promote the traditions and development of festival culture. He proposed that the festival

culture originated from the people, lived in the people, developed in the people, and ultimately benefited the people. Therefore, it is necessary to protect traditional culture through the active investment of the government, closely rely on the masses as the main body to develop festival culture, and give full play to the charm of folk art to highlight festival culture (Pan Guiqing, 2014).

In conclusion, there are no documents on the traditional Tuhu in Zhuang communities. However, regarding the Transmission of Musical Traditions, different cultures have adopted various transmission methods, which provide a reference for the transmission of Tuhu. We can draw on the previous research path to absorb and inherit the experience better.

3. General Knowledge of Musical Education in China

Review studies on musical education in China, particularly those discussing traditional music education. Analyze how the Tuhu and other traditional musical forms are integrated into school curricula.

The acceleration of cultural globalization has a profound impact on the culture of developing countries, which makes the living space of Chinese traditional music culture face severe challenges. How to break the situation rebirth on the road of modern globalization has become an important issue of Chinese traditional music education. Chinese traditional music culture is as valuable as Western music culture. We must turn our vision from European music to national traditional music and, at the same time, treat the music culture of all nationalities and regions in the world equally with an open eye to achieve the beauty of self-beauty and beauty of beauty. Traditional music education is an important way to realize the development of a pluralistic music culture and the ecological balance of music culture by respecting the different characteristics of different nationalities and regions (Tan Jinghui, 2002).

The historical transmission and contemporary development of traditional music culture is an important part of the construction of the value system of Chinese culture. As an important platform for transmitting and developing traditional music culture, the independent discipline system, academic system, and discourse system of Chinese traditional music have not yet been fully established. The proportion of traditional music courses is inadequate, from basic music theory to harmony, musical form

analysis, and other courses using European teaching concepts and systems. The subjectivity of traditional music education is lacking, and the cultural barrier between young students and traditional music is becoming increasingly obvious. The important task for Chinese music educators is to clarify the development logic and law of traditional music culture teaching and improve students' national identity consciousness. By comprehensively promoting the construction of a knowledge framework and teaching system with Chinese traditional music as the core, highlighting the open and interactive teaching mode, and paying attention to the characteristics of the times of teaching materials, especially the application and practice of online wisdom teaching methods represented by Mu Course, we can make deep adjustments from point to line, from surface to body. To promote the development of traditional music education in Chinese colleges and universities (Chen Jing, 2022).

This paper analyses the gains and losses of the development of the professional teaching mode of music education in China, analyses the needs and demands of professional education posts, clarifies the advantages and disadvantages of the current education mode, and clarifies the direction and purpose of reform and development, to gradually promote the transformation of Chinese music education mode. This process will be the basis and guarantee for the healthy development of Chinese music education to grasp the significance of the reform of music education mode from various aspects and levels and to explore the internal relationship between Chinese music education and the overall strategic development of contemporary Chinese culture. Therefore, the author puts forward four transformations: the transformation of education type, the transformation of teaching connotation, the transformation of educator's role and the transformation of characteristic teaching content (Bai Xiaowei, 2022).

In conclusion, researchers have put forward their views on the sound development of Music in China education, especially the important position of Chinese traditional music culture. These views provide a reference for researchers to understand the basic situation and development of music education in China and provide basic information and more possibilities for developing music education in China in the future. However, the severe challenges faced in Music of China education are also close at hand. We need to improve all staff in multiple dimensions, deeply integrate the cultural connotation of excellent Chinese traditional music, tap the elements of

excellent Chinese traditional music, and integrate into the traditional music education system of various stages to promote the development of Chinese traditional music education. At present, Tuhu has not yet entered schools and classrooms. The education and teaching reform of Chinese traditional music can further integrate national policies to bring Chinese excellent traditional music culture Tuhu instruments into schools and classrooms, encourage young students to learn and love Chinese excellent traditional music culture, such as Tuhu, and dare to take on the mission to be the successor of Chinese excellent music culture.

4. General Knowledge of the Preservation of Musical Traditions

Explore literature about the preservation of traditional musical forms in China. Discuss the strategies employed, the challenges faced, and the effectiveness of different approaches.

4.1. The preservation of traditional Chinese music

This thesis analyses the one-sidedness of people's understanding of "original ecological" folk songs and the inadequacies in the preservation measures, points out that we should make rational use of the positive effects of "original ecological" folk songs and endow them with a vivid development mechanism, and puts forward some views on the preservation and development of the whole traditional music: First, build a database of traditional music. Second, sort out the correct concept of cultural transmission. Third, the use of traditional materials for cultural innovation. Fourth, the competition mechanism should be replaced with cultural performances. Fifth, combine the tourism industry to transform the "ecological museum." Tradition is developing in the continuous accumulation, and the collation and preservation of traditional music will be endless (Mi Yongying, 2006).

Socialized preservation refers to the active transmission through certain social groups and organizations. The diversification of social preservation: the first is the preservation of art schools, the second is the preservation of song and dance troupes, the third is the preservation of singers, the fourth is the preservation of ecological museums, and the fifth is the preservation of folk customs (Lan Xuefei, 2005).

The first is the preservation of existing traditional music. It is very important to record, videotape, and study the traditional music culture mastered by the existing folk

artists on the spot, which is of far-reaching significance in preserving and developing Chinese traditional music. The second is the reform of the courses offered by music colleges. The third is the reform of performance forms, attaching importance to the improvisation of traditional Chinese music (Wang Bing, 1999).

4.2 The traditional music of various ethnic minorities and regions in China

There are also some relevant studies and discussions on the preservation of traditional music in various ethnic minorities and regions in China

The purpose of preserving traditional music is to inherit and develop the excellent traditional music of Koreans in China. If it cannot be saved, it cannot be inherited; Without transmission, one cannot develop. In the 21st century, the traditional music of the Koreans in China is facing a severe survival crisis and challenge. The quantity and quality of traditional music circulated among the people have significantly decreased or declined. The state should recommend preserving and revitalizing laws related to traditional music and the corresponding administrative institutions. Government departments should pay more attention to the preservation and revitalization of traditional music and provide support in terms of administration and finance. Actively excavate and carry out traditional folk activities, provide traditional music with Lebensraum and soil, and open up rural traditional music bases. Television, newspapers, radio, and other communication media responsible for social media should develop and increase traditional music programs that cater to refined and popular tastes and shoulder social education and popularization responsibility. We will strengthen cultural exchanges, including traditional music exchanges, between the Korean people worldwide, including North and South Korea (Jin Juncheng, 2003).

The rescue work of Tibetan traditional music is urgent, and there are currently three aspects that should be given full attention: the first is the attention of the leadership department. The rescue of Tibetan music heritage should be included in the work schedule and track of the cultural department as an urgent task. The second is the cultivation of talents. The rescue, preservation, and editing of business work rely entirely on talent. The cultivation of talents proficient in music, Tibetan language, and Chinese should have a long-term strategic perspective. The third is to pay attention to the scientific nature of rescue methods and improve efficiency (Feng Guangyu, 1986).

Integration is a positive measure to protect the Tibetan music heritage. The collection of national folk music spread around the country through recording, sorting, and selection and can be edited into readable monographs by category. The synthesis of these integrated monographs is the "encyclopedia" of Tibetan music. The means and methods are as follows: The first step is to establish the original database of Folk music through sound recording and partial video recording. The second step is to record. Both words and notation should be truthful and accurate. The third step is to select the best ones for editing, prioritizing the inclusion of a portion of representative tracks into the volume. Different regions should compile and save separate materials for those that cannot be integrated (Feng Guangyu, 1986).

The music of the Western region holds an important position in both ancient and modern Chinese music history. It is an urgent task for Chinese music circles to protect the traditional music of all ethnic groups in the western region. To solve this problem, the author proposes four suggestions: First, preserve some important traditional music varieties in a museum-style. Second, Write and publish music chronicles of various ethnic groups and regions in the western region. Third, audio and video materials should be published in their native form. Fourth, compile local textbooks for primary and secondary schools. The preservation of traditional Western music is not something that one or two musicians can achieve, and it is difficult for the music industry alone to achieve. It requires consensus and concerted efforts from all citizens (Li Yanrong, 2002).

In conclusion, the preservation of traditional music covers the preservation of traditional methods and the use of modern technology, the preservation of conventional traditional Chinese music, and the preservation of traditional music with the characteristics of various regions and ethnic groups in China. Its diverse methods provide a wide reference for the preservation of Tuhu music.

5. General Knowledge of the Role of Schools in Cultural Preservation

This section could review studies discussing how schools can play a role in preserving traditional music and culture. It would provide a basis for your objective of formulating guidelines for integrating Tuhu into school curricula.

As a place of teaching and educating people, school is the main body of national education, the main channel of Ideological and moral education for the majority of young people, and an important carrier of cultural transmission and innovation (The Central People's Government of the People's Republic of China,2011).

Education plays an irreplaceable fundamental and foundational role in transmitting excellent traditional Chinese culture. One must take the initiative to undertake the sacred mission of "inheriting excellent traditional culture and casting the soul of national rejuvenation." Main measures: First, establish the system and mechanism and implement the top-level design system. Second. Grasp classroom teaching and integrate morality, intelligence, physical fitness, and beauty. Third, create the carrier of practice and infiltrate the campus culture with classics. Resource sharing and multi-party participation should be promoted to form a joint force (Liu Yuhui,2017).

School education plays an important role in the preservation of intangible cultural heritage. The author puts forward the idea of setting up folklore courses in school education to carry forward the traditional culture and make our modernization have more Chinese characteristics. This paper analyses the present situation of the lack of investigation, status, system, and norms in domestic folklore education and discusses the necessity and feasibility of setting up folklore courses in school education from the aspects of inheriting culture, cultivating national spirit and cohesion, accepting folklore knowledge and protecting folk culture. It also puts forward the conception of a folklore curriculum based on curriculum objectives, content, implementation process, and evaluation system (Ke Ling, 2006).

In conclusion, schools play a key role in cultural preservation. And schools are important for cultural preservation. The role of schools in cultural preservation and the practices and measures of schools in cultural preservation provide clear ideas for this study, and it is very necessary to inherit better and protect Tuhu, introduce Tuhu into schools, and inherit and promote it among young people to preserve Tuhu music culture better.

6. Research Theory

6.1 Ethnomusicology theory

6.1.1 Definition of Ethnomusicology

Ethnomusicology is an interdisciplinary discipline combining musicology and anthropology. It has the attributes of musicology in the traditional sense, dominated by exploring music ontology. At the same time, it has the humanistic characteristics of focusing on studying social and cultural relations related to music from the perspective of anthropology. As a branch of Musicology, Ethnomusicology aims to explore the interaction among people, behaviors, and musical manifestations from the perspective of the relationship between music and culture. In other words, Ethnomusicology studies the thoughts and concepts of musical phenomena and the behaviors they promote. Music is a culture that reveals its value and significance in human existence, production, and life (Luo Qin, 2011).

6.1.2 Theories and Methods of Ethnomusicology

Theories and Methods of Ethnomusicology cover the Fieldwork of Musical Ethnography, Participant, Transcription, and Analytical and Organology.

6.1.3 The application of Ethnomusicological methods in this study

Ethnomusicology is the study of music in its cultural context. It can provide a framework for understanding the unique performance techniques and styles of Tuhu, the processes of musical transmission and education, and the role of music in cultural preservation. Ethnomusicology can also guide the investigation of the pedagogical strategies used in Tuhu instruction and their effectiveness.

6.2 Musicology theory

6.2.1 Definition of Musicology

Musicology is a discipline theory originating from the West, mainly based on the Western music culture system as the framework, and was first developed by German musicology G. Adler proposed in his article The Scope, Method, and Aim of Musicology. The research object of musicology is everything related to music, including all musical products and musical behavior in human history and today.

(1) It includes all the music created by humans of all ages, from primitive times to the present, not just the music called art.

(2) All national, racial, and personal music-related activities in history and present are musical behavior.

6.2.2 Theories and Methods of Musicology

(1) Positive method

Through the means and instruments of natural science, the production, dissemination, and acceptance of music products are quantitatively measured, and the results are accurate and can be repeatedly checked. It is an empirical method to acquire knowledge and knowledge indirectly through direct observation, feeling, and investigation of relevant objects or through relevant documents and objects.

(2) Speculative

Using rational and logical methods to synthesize, compare, think, and summarize the data obtained by the technical means or the materials investigated intuitively to explore the general law of the existence and development of music.

6.2.3 The application of Musicology methods in this study

Musicology can provide music morphological analysis, music notation analysis, law science, instrument sound, and other related data analysis for Tuhu research.

6.3 Music Culture Theory

6.3.1 Definition of Music Culture

Music culture can be called the aggregation of cultural tradition, which connects society and music and becomes a fact of music culture. For example, people's learning of tradition in the process of social practice or a specific teaching system, as well as the cultivation, practice, and creation of tradition by members of society in different roles, including music creators, instrument makers, and audiences in different production structures. Therefore, the meaning of musical culture is not only "the tones contained in the musical items within a society or social unit." The combination of the two words "music" and "culture" seems to have a change of perspective from studying the understanding of music according to music experience to studying the understanding of music according to the general picture of culture. Still, in fact the two are interrelated, not mutually exclusive.

6.3.2 Theories and Methods of Music Culture

(1) Approach to cultural themes

The research goal of the cultural thematic approach seems to be to expand our understanding of human behavior, society, and culture in general through the analysis of the "birthplace" or to clarify the relationship between music and musical parameters belonging to a certain culture in general and other aspects of that culture. The research should not only be rich in anthropology, linguistics, and folklore but also consider the

reference to music and demonstrate the analysis of cultural phenomena and patterns revealed by acoustics (Guana Jianhua, 2013).

(2) The causal approach

In applying causality, the main purpose of social anthropology is to pay attention to the relationship between cultural forms and social structures. It is mainly explained in terms of mutual relations, and we often describe them in terms of the juxtaposition of culture and society and terms of causality. Still, the process of both may produce epiphenomena, and there is no necessary causal connection between them (Guana Jianhua, 2013).

(3) Methods of organization structure

The organizational approach focuses on the holistic analysis of musical activities or musical occasions through different levels of analysis. For example, sound, structure, and context levels (Guana Jianhua, 2013).

(4) The Method of Cultural Gene

The method of the meme combines the skills of description and interpretation to study not only the expression basis of music but also the state of the interrelationship between society and music in musical activities or occasions, as well as all things related to music because music itself is a culture (Guana Jianhua, 2013).

6.3.3 The application of Music Culture methods in this study

Music Culture theory can help to understand how Tuhu is deeply embedded within the social and cultural fabric of the Zhuang community. It can guide exploring how Tuhu contributes to cultural identity, social cohesion, and the transmission of cultural values and practices. This theoretical perspective can also inform to analysis of the challenges and opportunities for the preservation of Tuhu within the Zhuang community and in schools.

6.4 Chinese Music Theory

Chinese music theory is a rich and complex field encompassing various aspects of traditional Chinese music, including its scales, tonal systems, and philosophical underpinnings.

There are 88 different pitches on the piano, but the names of these are basically only seven: C, D, E, F, G, A, and B. These notes, which are named with 7 letters, are called "basic scales". Their position on the piano keyboard is shown in Figure 2.

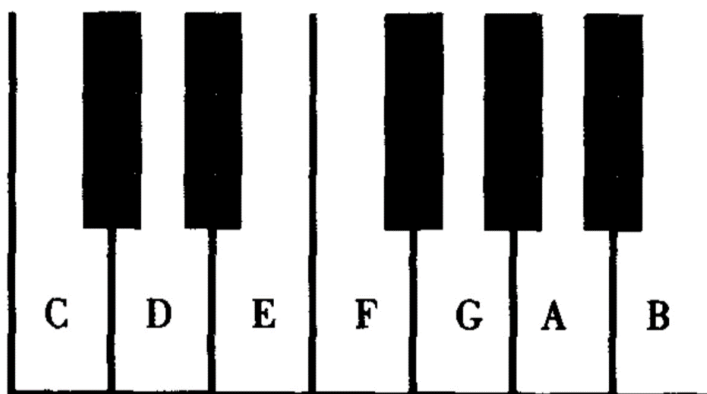


Figure 2. " Basic Scales "

Source: Li Chongguang (2005)

The 53 white keys on the piano are repeated with these 7 letters in their respective positions, resulting in many notes with duplicate names.

To distinguish between notes with the same name but different pitches, there are different groups of notes, which is called "notes group".

The group of notes in the middle of the pitch range is named " Xiao-zi Yi-zu ". It means the first group marked with lowercase letters. It is marked as "c¹, d¹, e¹, f¹, g¹, a¹, b¹".

The group of notes in the left of the " Xiao-zi Yi-zu ", is named " Xiaozi Zu ". It means the group marked with lowercase letters. It is marked as "c, d, e, f, g, a, b".

The group of notes in the left of the " Xiao-zi Zu ", is named " Da-zi Zu ". It means the group marked with uppercase letters. It is marked as "C, D, E, F, G, A, B".

The group of notes in the left of the " Da-zi Zu ", is named " Da-zi Yi-zu ". It means the first group marked with uppercase letters. It is marked as "C₁, D₁, E₁, F₁, G₁, A₁, B₁".

The group of notes in the left of the " Da-zi Yi-zu ", is named " Da-zi Er-zu ". It means the second group marked with uppercase letters. It is marked as "A₂, B₂". The "B₂" is the lowest note on the piano keyboard.

The group of notes in the right of the " Xiao-zi Yi-zu ", is named " Xiao-zi Er-zu ". It means the second group marked with lowercase letters. It is marked as "c², d², e², f², g², a², b²".

The group of notes in the right of the "Xiao-zi Er-zu", is named "Xiao-zi San-zu". It means the third group marked with lowercase letters. It is marked as " $c^3, d^3, e^3, f^3, g^3, a^3, b^3$ ".

The group of notes in the right of the "Xiao-zi San-zu", is named "Xiao-zi Si-zu". It means the fourth group marked with lowercase letters. It is marked as " $c^4, d^4, e^4, f^4, g^4, a^4, b^4$ ".

The group of notes in the right of the "Xiao-zi Si-zu", is named "Xiao-zi Wu-zu". It means the fifth group marked with lowercase letters. It is marked as " c^5 ". The " c^5 " is the highest note on the piano keyboard (Li Chongguang, 2005).

The notes groups are shown in Figure 3.

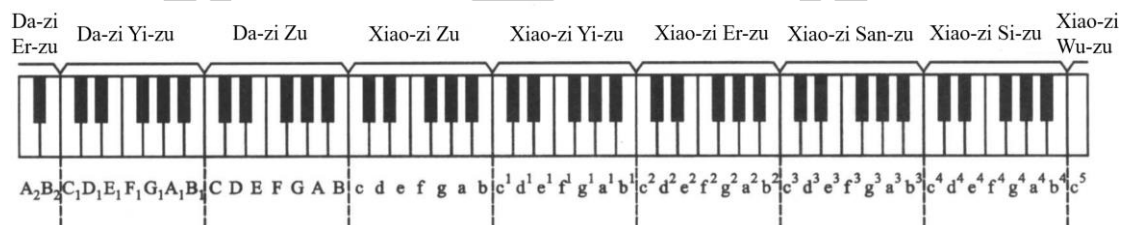


Figure 3. "Notes Groups"

Source: Li Chongguang(2005)

6.5 Organology Theory

Organology refers to the learning of musical instruments. "organology" originated from Michael Praetorius's work "Syntagma Musicum" Vol. II, specifically the section "De Organographia," published in 1618. Since then, a field of study dedicated to musical instruments has emerged. The modern term "organology" is derived from "organ" + "ology."

There have been many significant works in the history of organology. For instance, Sebastien Virdung's "Musica Getutscht und Ausgezogen," published in 1511, proposed a method for classifying musical instruments. Praetorius's "Syntagma Musicum," published in 1618, was an influential early work in organology. Later, in the late 19th century, researchers like C. Engel, G. Chouquet, and Victor-Charles Mahillon made significant contributions, mainly in cataloging and classifying instruments. However, the most notable contributions came from Curt Sachs, whose "Real-Lexikon der Musikinstrumente" (1913) and "The History of Musical Instruments" (1940) are considered foundational works in organology.

Theoretically, organology as a field of study encompasses a wide range of topics, including the origins and history of instruments, cataloging and classifying instruments in collections, studying the materials, decorations, shapes, and vibration parameters in instrument making, and examining the tuning, timbre, sound, techniques, posture, and positioning in performance and playing. It also includes social and cultural aspects such as concepts, aesthetics, and symbolism. (Cao Benye, 2019)

7. Research Related

Wang, G., Chuangprakhon, S., & Theerapan, S. (2023) conducted a study on an investigation of teaching how to create string instruments of the Zhuang nationality in Guangxi, China. The research result is the teaching of how to create it is the production methods and improvement ideas of Zhuang stringed instruments are all derived from the basic concepts of musical instrument production, and these concepts are also the core concepts gradually summarized in the long history of musical instrument development. When these circumstances change, the core philosophy of instrument-making is bound to change with it. In the part of the role and function from different angles, the cultural and entertainment functions, folk ritual functions, stage art functions, and ethnic cultural exchanges of Zhuang stringed instruments are also a tool for the performer to entertain. Musical instruments have become the medium of communication between people and gods and have the function of folk rituals. These functions and roles of Zhuang stringed instruments do not exist in isolation in many cases but coexist.

Qiao Jianzhong (2013) conducted a study on the Huqin Music Culture of "Diversity and Integration" in a speech at the Huqin Art Festival of the Central Conservatory of Music in 2012. The study analyzes the historical connotation and development of the "Huqin" family, but the concern for the "Huqin" family in real music life is somewhat biased. In the past few decades, more attention has been paid to the survival and development of Erhu, Gaohu, Banhu, and Jinghu. Because of their wide distribution, widespread use, and strong expressive force, they have been highly valued by the professional field and society. However, other Huqin, popular in remote areas, have been ignored or neglected for quite a long time. Each member of the Huqin family has survived and grown to meet the aesthetic needs of people of all nationalities and regions and has experienced long-term performance practice. They have satisfied the spiritual life of the people of all nationalities and regions

with their specific cultural values. They are fully qualified to represent the historical traditions of their nationalities and regions. Therefore, they deserve the same evaluation and respect (Qiao Jianzhong, 2013).

Yang Chen (2022) conducted a study on Research on Digital Collection, Preservation, and Promotion of Minority Musical Instruments in Southwest China. The study explores the problems and solutions in the digital preservation, promotion, and academic research of minority musical instruments in Southwest China. Through comprehensive and in-depth field investigation, the digital collection of musical instrument selection, production skills, and performance are carried out, and the urgency of transmission of minority musical instruments in Southwest China is summarized. It is pointed out that digital preservation is one of the important measures for transmitting minority musical instruments in Southwest China. The digital presentation can not only show the internal structure, pronunciation principle, sound, and performance practice of musical instruments in an all-round way but also promote the academic research of the history and geographical distribution of musical instruments, the comparison of similar instruments in different regions or different instruments in the same region. Digital presentation is an important collection and collation of the endangered traditional music culture and an important supplement to the physical display of musical instruments in museums (Yang Chen, 2022).

Yang Chen (2020) studied the transformation and innovation of ethnic minority music transmission and transmission modes in Yunnan Province. The study summarizes six representative new modes and defects in the transmission and dissemination of minority music in Yunnan. Six modes, namely, new family transmission mode, cultural feeding transmission and dissemination mode, Yuanshengfang communication mode, Lianghe communication mode, professional group communication mode, and campus communication mode, are deeply discussed. It is an inevitable trend that the transmission and dissemination of minority music gradually eliminate the single mode in which family transmission is the main body in the past. Under the comprehensive effect of multiple new modes of transmission and dissemination, the treasure house of minority music will realize accumulation and change through the mutual influence of individuals and society. We should have an inclusive and open mind for the national music wealth that is likely to die out, try our best to give it comprehensive "specimen" preservation, and promote its interaction with other cultural resources at home and abroad to create better conditions for the hybridization and

evolution of "musical form genes," and avoid "regional preservation" or even "painting the land" (Yang Chen, 2020).

Zhou Yifan and Wang Liang (2022) conducted a study on Research on the correlation between college music education and the cultural transmission of folk music. The study analyses the basic relationship between college music education and national music culture transmission and deeply analyses the necessity of college music education to carry out national music culture transmission and the relationship between college music education and national music culture transmission. It is believed that school music education and the transmission of folk music culture are the basis of each other, and the two complement each other and are indispensable. Therefore, based on inheriting traditional advantages, we should constantly improve the status of folk music in the development of local music, promote the integration and development of folk music and modern music education, and promote the development and transmission of folk music from the educational level (Zhou Yifan & Wang Liang, 2022).

Liu Mingxing and Lu Chenyang (2023) conducted a study on Research on the Status Quo and development trend of music education in ethnic areas. The study summarizes the connotation and significance of ethnic music education from three aspects: the connotation of ethnic music education, the practical significance of music education in ethnic colleges and universities, and the value of carrying out ethnic music education in colleges and universities. This paper analyses the existing problems of music education in colleges and universities in minority areas and the future development trend of music education in schools in minority areas. It is also pointed out that universities in minority areas are important places for the actual and practical activities of music culture communication. They play a leading role in the transmission, dissemination, and development of music culture (Liu Mingxing & Lu Chenyang, 2023).

Wang Yingying (2017) conducted a study on the transmission and development of ethnic minority music culture in college music education. The study expounds on the connotation of ethnic minority music culture, analyses the status quo and existing problems of the transmission of ethnic minority music culture in college music education, and further explores the transmission and development of ethnic minority music culture in college music education. It is believed that the transmission of minority music culture in the former college

music education is only the transmission of transmission, and the development of minority music culture is rarely carried out.

Bao Qifeng (2016) conducted a study on the transmission of Zhuang Music in Guangxi University Music Education. The study analyses the transmission of Zhuang music in Guangxi University music education. This paper discusses the significance of the transmission of Zhuang music in Guangxi college music education. It holds that as an important platform for cultivating comprehensive talents, colleges and universities undertake to disseminate traditional national culture. Introducing Zhuang music into Guangxi college music education not only plays an important role in transmitting Zhuang music but also promotes the comprehensive development of college music education (Bao Qifeng, 2016).

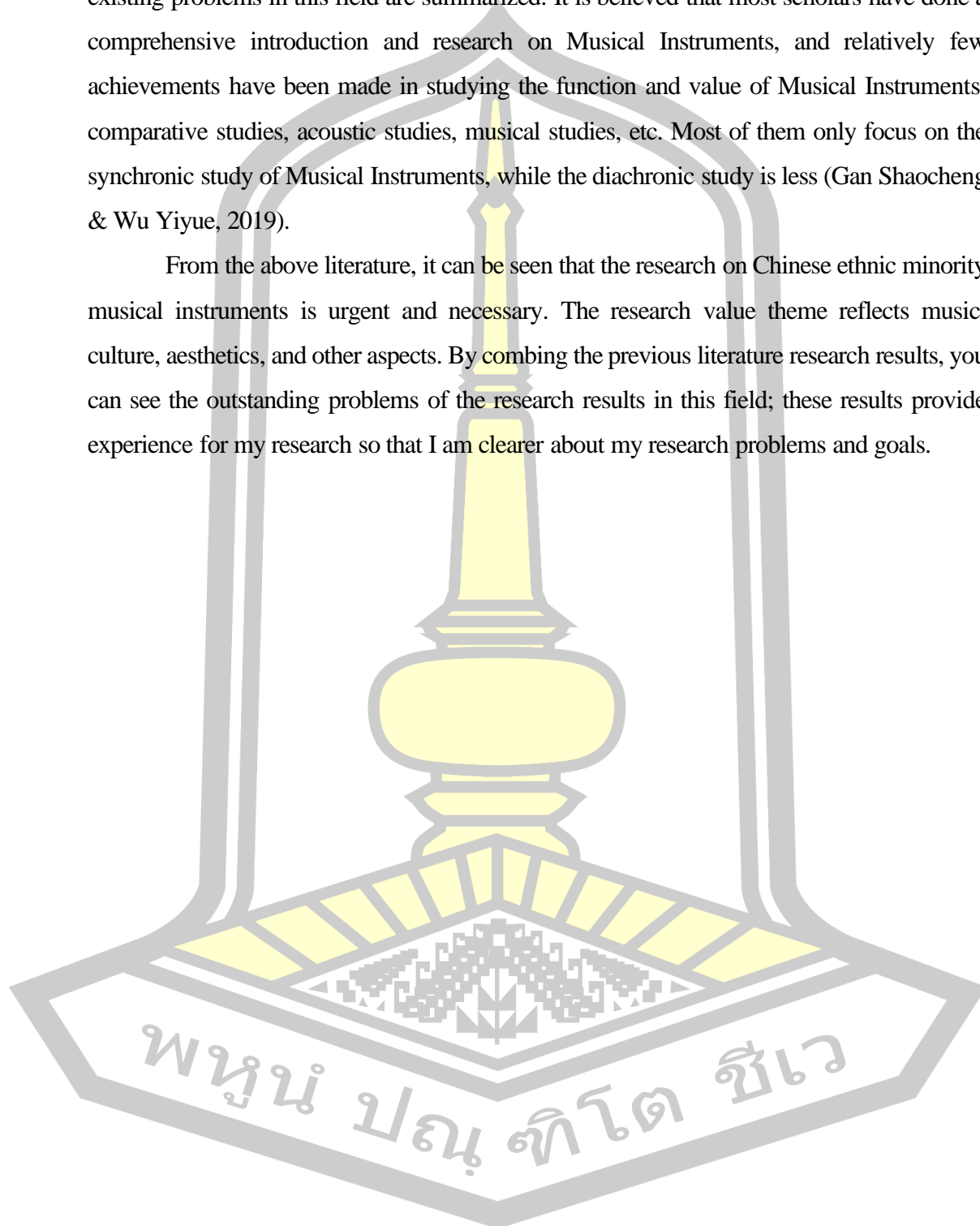
Li Xiaoyi and Qin Xian (2022) studied the realization path of Zhuang Nationality Music Culture to cultivate Socialist Core Values. The study opens up the socialist core values of the multiple communication of effective channels, from the expansion of Zhuang music culture and modern media docking ways, Optimize Zhuang song culture to lead the spiritual civilization of The Times, build a practice platform of socialist core values; Combining Zhuang music culture with national education and consolidating the foundation of cultivating socialist core values, this paper explains the connotation and realization path of Zhuang music culture cultivating socialist core values (Li Xiaoyi & Qin Xian, 2022).

Xu Liang (2019) studied the important role of college music education in transmitting national traditional music culture. The study analyses the necessity of college music education to inherit national traditional music culture and the important role of college music education in the transmission of national traditional music culture. It is believed that the long traditional national music culture has been endangered and urgently needs to be saved and inherited. As the place where the new generation is the most concentrated, it is imperative and imperative for college music education to inherit traditional national music to reverse the declining trend of the development of traditional national music (Xu Liang, 2019).

Gan Shaocheng and Wu Yiyue (2019) conducted a study on the review and reflection of musical instruments for ethnic minorities in Southwest China. The study analyses and combs the papers and works published by the academic circle in the study of Southwest minority Musical Instruments since the 1950s and tries to focus on the comprehensive introduction and research, production and improvement research, history and current situation research, cultural research, transmission and preservation research, function and

value research, comparative research and other aspects in this field. The achievements and existing problems in this field are summarized. It is believed that most scholars have done a comprehensive introduction and research on Musical Instruments, and relatively few achievements have been made in studying the function and value of Musical Instruments, comparative studies, acoustic studies, musical studies, etc. Most of them only focus on the synchronic study of Musical Instruments, while the diachronic study is less (Gan Shaocheng & Wu Yiyue, 2019).

From the above literature, it can be seen that the research on Chinese ethnic minority musical instruments is urgent and necessary. The research value theme reflects music, culture, aesthetics, and other aspects. By combing the previous literature research results, you can see the outstanding problems of the research results in this field; these results provide experience for my research so that I am clearer about my research problems and goals.



CHAPTER III

Research Methodology

In this study, the researcher utilizes qualitative research methods and adopts a research design based on case study and ethnography. This research design enables a profound understanding of the unique characteristics and processes. Therefore, the study is conducted following the steps outlined below.

1. Research Scope

1.1 Scope of Content

1.2 Scope of Time

2. Research Process

2.1 Selection of the Research Site

2.2 Selection of the Research Informants

2.3 Research Tools

2.4 Data Collecting

2.5 Data Management

2.6 Data Analysis

2.7 Data Presenting

1. Research Scope

1.1 Scope of Content

The research investigates the playing techniques of Tuhu as practiced in the region, explores the current transmission processes of Tuhu skills and knowledge within local communities, and proposes strategies for integrating Tuhu education into school curricula to ensure its preservation. The study will be conducted in key areas where Tuhu is prevalent, including Nanning, Baise, Debao, and Jingxi, focusing on historical and contemporary practices.

1.2 Scope of Time

February 2023 to June 2024.

2. Research Process

2.1 Selection of the Research Site

The research site for this study is focused on the Guangxi Zhuang Autonomous in southern China, particularly the areas where Tuhu, a traditional Zhuang string instrument, is prevalent. Guangxi is well-positioned, borders neighboring provinces and Vietnam, and is a significant trade and cultural exchange hub. The region covers an expansive area of 237,600 square kilometers and is home to a multi-ethnic population, with the Zhuang people making up a significant portion. Specific research will be conducted in Baise City, including Debao County and Jingxi City, known for their rich Zhuang cultural heritage and strong traditions of Tuhu performance. These areas are essential to understanding Tuhu's role in local folk culture, particularly within the South Zhuang Opera and the Zhuang Eight Categories Instrumental Music Ensemble. The unique geographic, cultural, and ethnic characteristics of Guangxi make it an ideal location to explore the preservation and transmission of Tuhu music.



Figure 4. The Map of Guangxi Zhuang Autonomous, China

Source: <http://4sp.dl100.cc/TLgJBd> (2024)

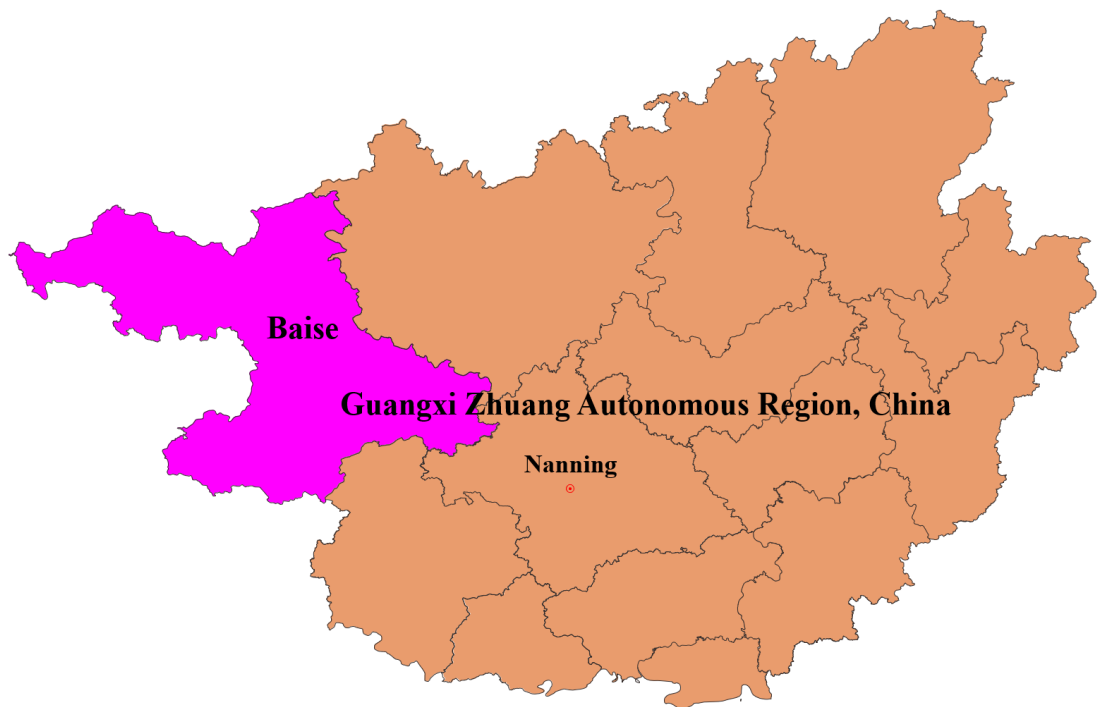


Figure 5. The Map of Baise City in Guangxi Zhuang Autonomous, China

Source: <http://4sp.dl100.cc/TLgJBd> (2024)

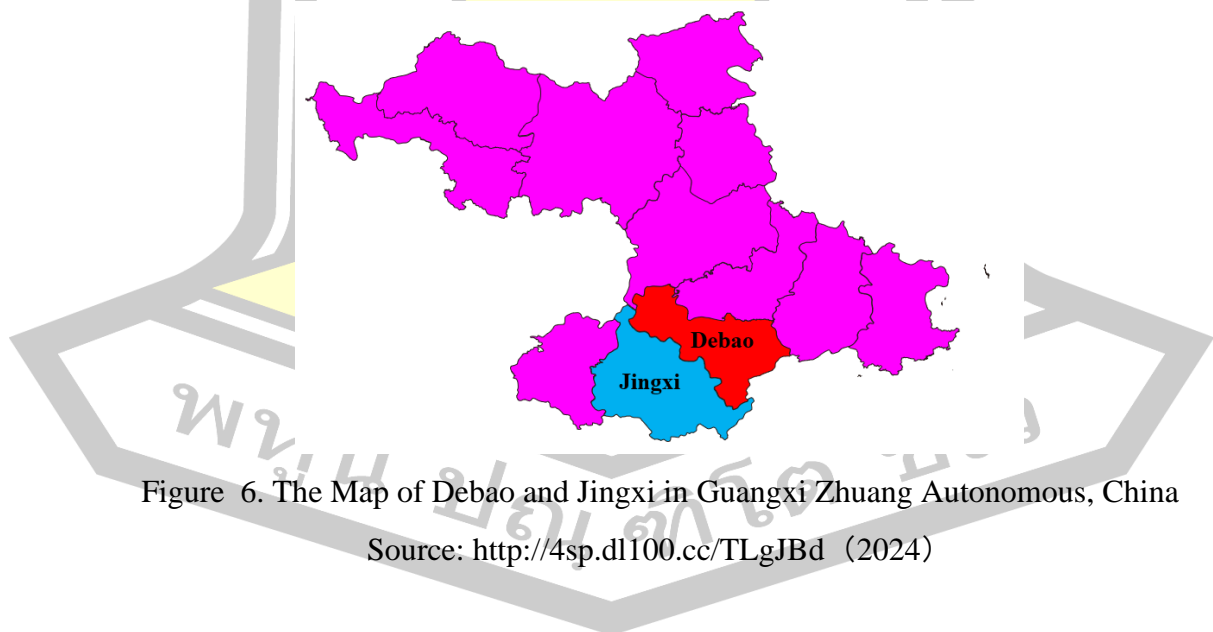


Figure 6. The Map of Debao and Jingxi in Guangxi Zhuang Autonomous, China

Source: <http://4sp.dl100.cc/TLgJBd> (2024)

2.2 Selection of the Research Informants

Based on the research objectives, the researcher selected three groups of people as the interviewees in the field research. They are: key informants, general informants,

and casual informants. The following selected criteria and selected personnel will be presented.

2.1.1 Key informants

The criteria for selecting key informants are:

- (1) He or she was a local born and raised in the Zhuang area.
- (2) He or she knows about the cultural development of Tuhu.
- (3) He or she has many years of experience in playing the Tuhu.

Two key informants were selected based on the above selection criteria, including Mr. Huang Yige from Debao County and Mr. Li Xike from Jingxi City.

1) Mr. Huang Yige is playing Tuhu. Huang Yige and the Maguhu performer are playing the music of the South Zhuang Opera, "South Zhuang Opera Flat Tune." At the rehearsal site, Huang Yige gave a demonstration performance for the learners accompanied by the South Zhuang Opera Orchestra. See Figure 7.



Figure 7. Huang Yige

Source: Yu Tengting, from fieldwork (2017)

2) Mr. Li Xike is playing Tuhu instrument, and he comes from Jingxi City, Guangxi Zhuang Autonomous. He is the representative inheritor of the intangible cultural heritage project of Guangxi Zhuang Autonomous at Jingxi Zhuang Eight Categories Instrumental Music. See Figure 8.



Figure 8. Li Xike

Source: Yu Tengpeng, from fieldwork in April 2024

2.1.2 General informants

The criteria for selecting general informants are:

- (1) He or she is a teacher in Guangxi Zhuang Autonomous.
- (2) He or she teaches the musical two-stringed bowed instrument in schools and has many years of experience in teaching.
- (3) He or she is interested in the characteristic stringed instruments of the Zhuang and knows the music culture of the Tuhu.

Based on the above selection criteria, three general informants were selected, including Chen Kunpeng from Guangxi Arts University, Qin Dachuan from Guangxi Minzu University, and Wang Guangguo from Wuzhou University in Guangxi. (See Figure 9-11)

1) Chen Kunpeng, Professor of Guangxi Arts University, Postgraduate Tutor, ethnic music theorist, performer, and educator. He mainly teaches Erhu and is the only tutor of Erhu master's degree students in Guangxi Zhuang Autonomous. He graduated from Guangxi Art University in 1983 with a major in erhu performance. He stayed on to teach, engaged in ethnic music research and ethnic instrumental music teaching, and is now the vice president of the Chinese Ethnic Minority Music Society, a member of the Chinese Musicians Association, and a director of the China Erhu Society. For a long time, he has focused on Guangxi minority characteristic musical

instruments, Southeast Asian national musical instruments, erhu performance and teaching, and paid attention to the research of minority musical instruments. He has published many theoretical works and performance albums.



Figure 9. Chen Kunpeng

Source: Chen Kunpeng (2023)

2) Qin Dachuan plays Maguhu of the Zhuang instrument. The photo recorded the performance of playing the Maguhu music "The Feeling of Watching the Flower Mountain" in 1983. Qin Dachuan, an Erhu teacher at Guangxi Minzu University, a national first-class performer, Guangxi famous Erhu player, and Zhuang Maguhu player, once served as the Erhu principal of the Guangxi Song and Dance Troupe, he was invited to Guangxi University for the Nationalities as an Erhu teacher at 2002, cultivated a group of excellent erhu performance students. He has composed several ethnic minority instrumental music pieces and won several awards.



Figure 10. Qin Dachuan

Source: Qin Dachuan (2023)

3) Wang Guangguo, associate professor of Wuzhou University before 2024, now he is working at Yancheng Techers University in Jiangsu province China, master tutor of Guangxi University, member of China Musicians Association, director of Guangxi Musicians Association, chairman of Wuzhou Musicians Association, standing director of Guangxi Nationalities Orchestra Society, vice president of Guangxi Huqin Professional Committee. He has been teaching Chinese stringed instruments at Wuzhou University since 2011.



Figure 11. Wang Guangguo
Source: Wang Guangguo (2023)

2.2 Research Tools

The research tools used in this dissertation are mainly interview form and observation form. To obtain the research data, the researcher designed the questionnaire and the corresponding interview and observation forms according to different research objects.

The process of making the research tools is based on the research objective.

- 1) Bring it to the advisor to explore.
- 2) Be altered by advisor editing.
- 3) Before using, have it inspected by an expert.
- 4) Modified by expert advice before being used in the fieldwork.

2.3 Data Collecting Methods

1) Investigate the playing techniques collected through in-depth interviews and observations, including interviews with two key informants and three general informants. Video recordings of performances will be conducted to document specific playing techniques, styles, and variations in performance.

2) Explore the transmission process, including interviews with two key informants and three general informants involved in passing down Tuhu traditions. Archival research and analysis of historical documents related to Tuhu will also be used to understand past and present transmission methods.

3) Propose guidelines for preserving Tuhu in school curricula through surveys and interviews, including interviews with two key informants and three general informants on how traditional instruments like the Tuhu can be integrated into their curriculum. Additionally, relevant policy documents on educational frameworks in Guangxi will be reviewed.

2.4 Data Management

1) To investigate the playing techniques, interviews with key and general informants were transcribed and organized into a digital database, categorized by themes such as specific playing techniques and styles. Video recordings of Tuhu performances are archived with detailed notes and timestamps highlighting important techniques and variations. The video and audio files have performer and date labels to make retrieval and comparison easier.

2) To explore the transmission process, interviews, and archival research materials systematically organized by themes such as historical and current transmission practices. Transcribed interviews are stored with relevant historical documents and notes, while physical and digital archival materials are cataloged for reference. A digital folder system tracks each informant's contribution and historical sources related to Tuhu's transmission.

3) To propose guidelines for preserving Tuhu in school curricula: Data from surveys and interviews regarding curriculum integration compiled and organized by topics like educational strategies, policy suggestions, and cultural preservation. Survey results are digitized and stored in spreadsheets for statistical analysis, while interview

transcripts are categorized according to key themes in educational policy. Policy documents are archived for easy reference during the guideline development process.

2.5 Data analysis

1) To investigate Tuhu's playing techniques, thematic analysis identifies common patterns in the interview data and video recordings. Transcripts of interviews and field notes coded based on recurring themes related to specific playing techniques, styles, and variations.

2) To explore the transmission process of Tuhu: Content analysis used to explore the interview transcripts and archival documents. The data was coded to identify key themes related to how Tuhu traditions have been transmitted across generations, including family traditions, formal education, and community-based transmission.

3) To propose guidelines for preserving Tuhu in school curricula, data from surveys, interviews, and policy documents analyzed using qualitative and quantitative methods. The qualitative data from interviews coded to extract themes related to educational integration strategies and challenges.

2.6 Data Presenting

The dissertation will be presented in seven chapters.

- 1) Chapter I: Introduction
- 2) Chapter II: Literature Review
- 3) Chapter III: Research Methodology
- 4) Chapter IV: The Playing Techniques of Tuhu in Guangxi Zhuang Autonomous, China
- 5) Chapter V: The Transmission Process of Tuhu in Guangxi Zhuang Autonomous, China
- 6) Chapter VI: The Guidelines for the Preservation of Tuhu into School Curricula in Guangxi Zhuang Autonomous, China
- 7) Chapter VII: Conclusion, Discussion, and Suggestions

CHAPTER IV

The Playing Techniques of Tuhu in Guangxi Zhuang Autonomous, China

Based on fieldwork and interviews with two key informants, analyzes the Tuhu playing techniques from the following three aspects:

1. The elementary knowledge of the Tuhu
2. The right-hand playing techniques of the Tuhu
3. The left-hand playing techniques of the Tuhu

In response to the above problems, the researcher collected 10 pieces of Zhuang Opera Accompaniments and Zhuang Eight Categories Instrumental Music Ensemble music through fieldwork, extracted and analyzed Tuhu playing techniques. In addition, the research interviewed two key informants: one is Mr. Li Xike, the representative inheritor of Jingxi Zhuang Bayin, and the other is Mr. Huang Yige, who once served as the band leader of the Debao Zhuang Opera Troupe, a famous Tuhu performer, and a representative inheritor of the Zhuang Maguhu art, to understand the performance techniques of Tuhu fully. In this way, it can further provide a scientific theoretical basis for the performance and inheritance of Tuhu.

1. The Elementary Knowledge of Tuhu

Tuhu, also known as Thick Hu or Female Hu, is a bowed string instrument of the Zhuang. It produces sound through the friction of the bow on the strings. It is mainly distributed in Debao County, Jingxi City, Nanning City in Guangxi Zhuang Autonomous and Funing County in Yunnan Province. Tuhu is commonly used to accompany Zhuang Opera Orchestras and the Zhuang Eight Categories Instrumental Music Ensemble. It can also be played as a solo, duet, or ensemble instrument. It is often paired with the Zhuang Maguhu, producing a rich and deep sound, and is classified as a mid-range instrument. Tuhu is usually tuned in perfect fifths. This means that the relationship between the inner and outer strings is a perfect fifth.

1.1 The structure of Tuhu

The structure of the Tuhu is composed of Qintou, Qinzhou, Weitiao, Qianjin, Qinxian, Qinma, Qingan, Qingong, Qintong, Qintuo, Zhendongban. See the Figure 12.

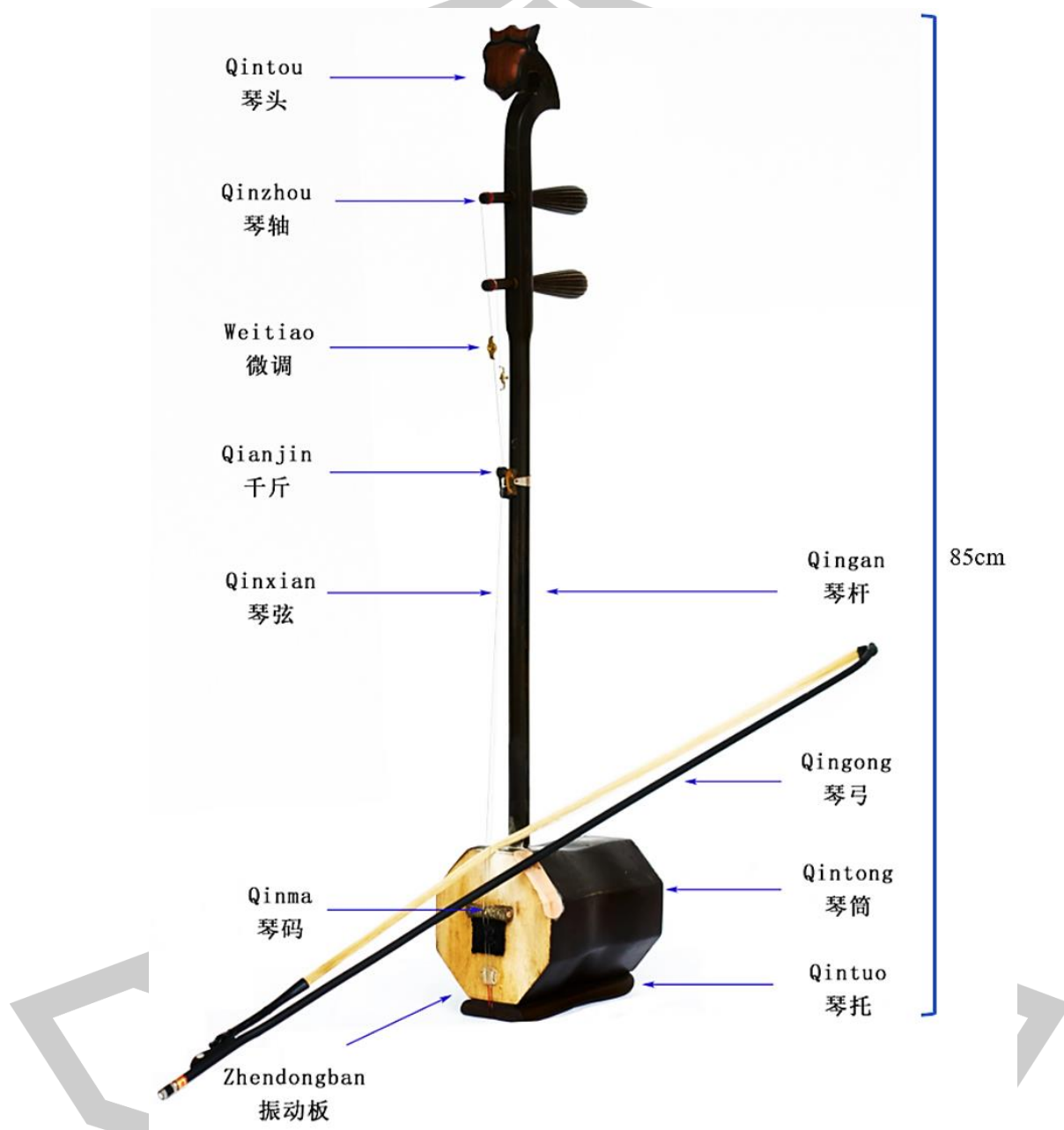


Figure 12. The Structure of Tuhu

Source: Yu Tengting, from fieldwork in Oct. 2023

Qintou means the Head.

Qin Zhou means Tuning Pegs.

Weitiao means Fine Tuning.

Qianjin means Nut or String Holder.

Qinxian means Strings.

Qinma means Bridge.

Qingan means Neck or Rod.

Qingong means Bow.

Qintong means Resonator or Soundbox.

Qintuo means Endpin.

Zhendongban means Vibration Plate.

In Debao County and Jingxi City of Guangxi Zhuang Autonomous, the Tuhu instrument is approximately 85cm in length. The soundbox is made by hollowing out local paulownia wood logs, forming a cylindrical shape. Alternatively, it can be made by joining eight pieces of solid wood into an octagonal soundbox, six pieces into a hexagonal soundbox, or by joining solid wood into a cylindrical soundbox. The cylindrical soundbox has a diameter of about 13cm and a length of about 15-17cm, making it larger than the Zhonghu. The Sound Vibration Plate of the Tuhu is made from thin paulownia wood, which provides good resonance and high sensitivity, resulting in a bright and rich tone. The bridge is cylindrical, enhancing the purity and richness of the sound. The head of the Tuhu is decorated with a phoenix head. The Tuhu has two strings. Traditionally, the strings were made of silk, but after 1949, they were replaced with steel strings. The neck is made from local ironwood or xian wood. Ironwood has high density and hardness, making it resistant to deformation and cracking. It grows for many years and is mostly red. Xian wood is not as hard as ironwood. (Interview, Huang Yige, 2024.03.27)

1.2 Tuning of Tuhu

Tuhu is usually tuned in perfect fifths between the inner string and the outer string. The common tuning of Tuhu between the inner string and the outer string is as follows: d-a, e-b, f-c¹, g-d¹, a-e¹, b-[#]f¹, c¹-g¹. The tuning d-a is the lowest tunes. The tuning c¹-g¹ is the highest tunes. As shown above, the position of the inner and outer strings of Tuhu on the piano keyboard is shown in the Figure 13.

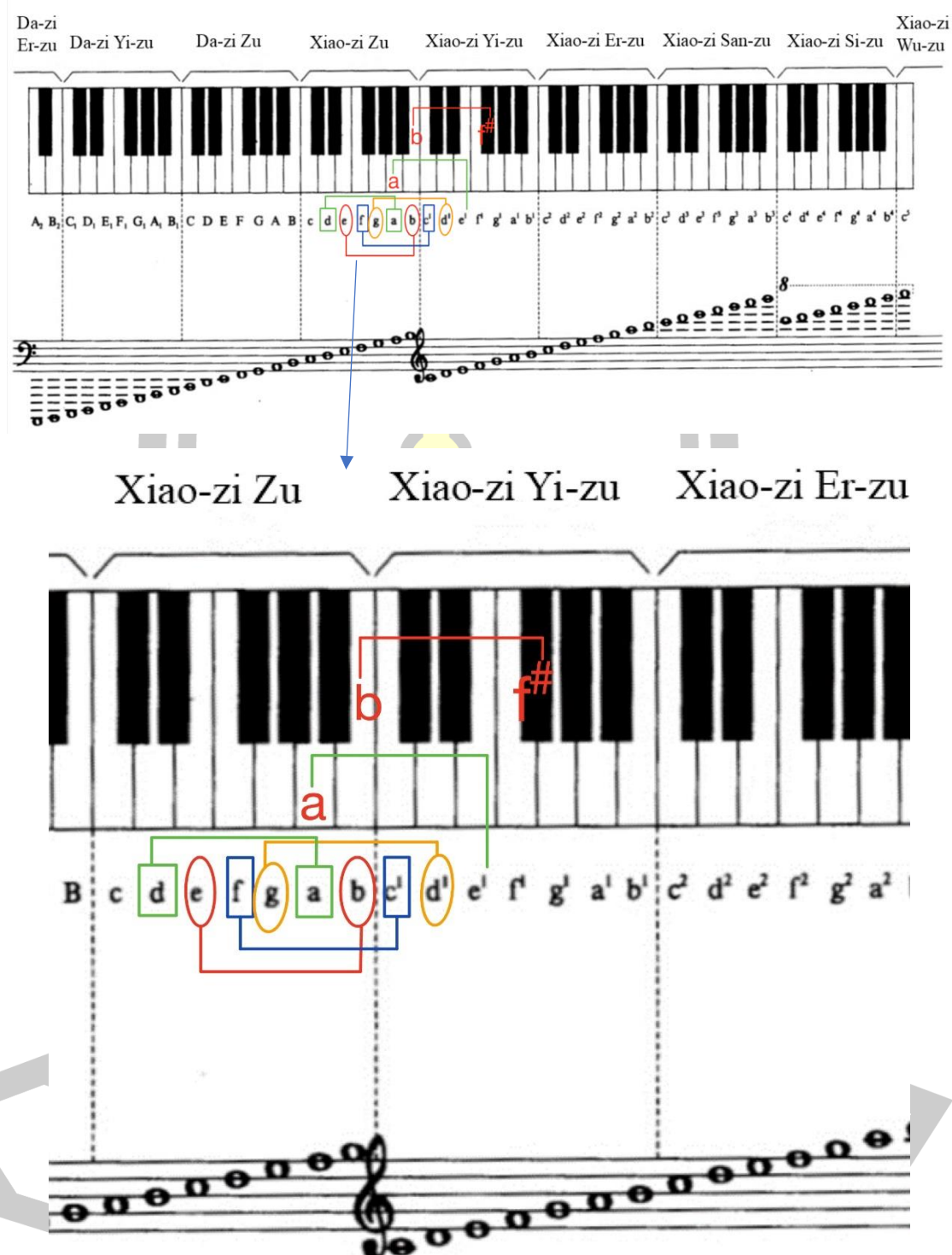


Figure 13. Comparison of Different Pitch Names Positions on Staff and Piano Keyboard

Source: Peng Shuzhi & Ji Ying (1999)

Marked by Yu Tengpeng(2024)

1) d-a

When the inner string is tuning d, and the outer string is tuning a, the range is d to f^2 . See the Figure 14.

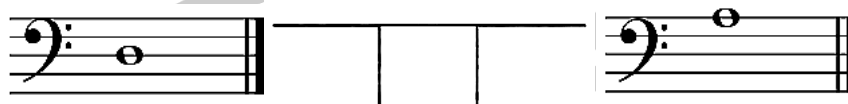


Figure 14. Tuning d-a

Source: Yu Tengteng, from fieldwork in July 2024

2) e-b

When the inner string is tuning e, and the outer string is tuning b, the range is e to g^2 . See the Figure 15.



Figure 15. Tuning e-b

Source: Yu Tengteng, from fieldwork in July 2024

3) f-c¹

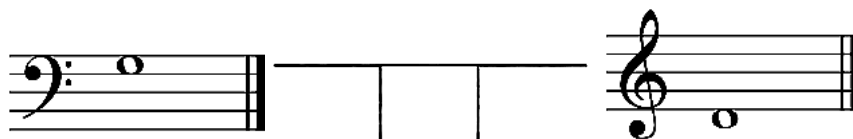
When the inner string is tuning f, and the outer string is tuning c^1 , the range is f to a^2 . See the Figure 16.

Figure 16. Tuning f-c¹

Source: Yu Tengteng, from fieldwork in July 2024

4) g-d¹

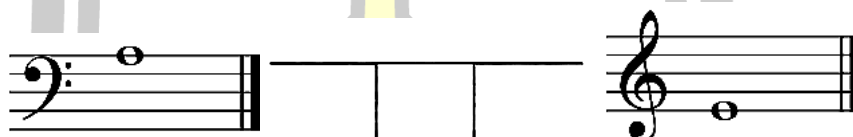
When the inner string is tuning g, and the outer string is tuning d^1 , the range is g to c^3 . See the Figure 17.

Figure 17. Tuning g-d¹

Source: Yu Tengteng, from fieldwork in July 2024

5) a-e¹

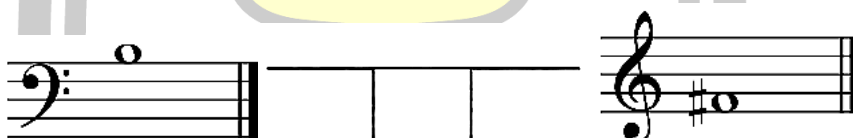
When the inner string is tuning a, and the outer string is tuning e¹, the range is a to c³. See the Figure 18.

Figure 18. Tuning a-e¹

Source: Yu Tengteng, from fieldwork in July 2024

6) b-[#]f

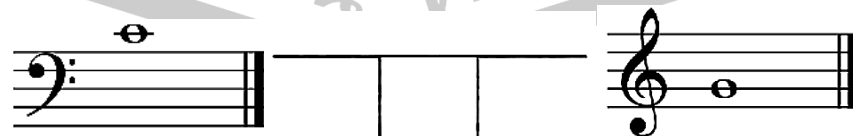
When the inner string is tuning b, and the outer string is tuning [#]f, the range is b to d³. See the Figure 19.

Figure 19. Tuning b-[#]f

Source: Yu Tengteng, from fieldwork in July 2024

7) c¹-g¹

When the inner string is tuning c¹, and the outer string is tuning g¹, the range is c¹ to e³. See the Figure 20.

Figure 20. Tuning c¹-g¹

Source: Yu Tengteng, from fieldwork in July 2024

1.3 The first fingers position

Tuhu is usually played with nine or ten notes in the first position distributed on the inner and outer strings. The fingering of the first position, the index finger, middle finger, ring finger and little finger on Tuhu is marked by " 1 ", " 2 ", " 3 ", " 4 ". The open string is marked by " 0 ".

In Chinese Movable-do System, the strings named "do-sol" mean the open inner string is named " do ", and the open outer string is named " sol ". Take c^1 - g^1 strings tuning as an example, when the four fingers are pressed on the strings, each finger corresponds to notes on staff with the inner and outer strings. As shown in Figure 21.

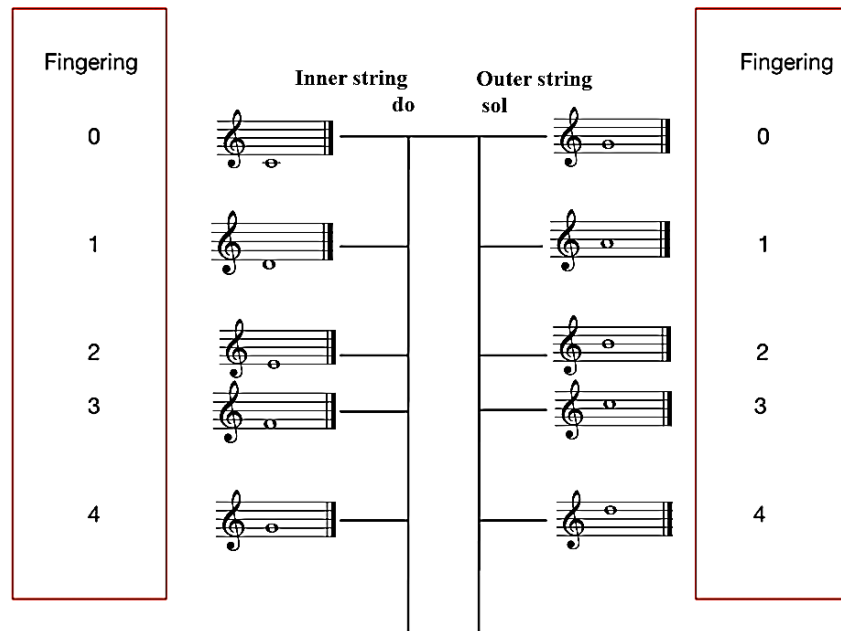


Figure 21. The Fingers Position on "do-sol" Strings

Source: Yu Tengting, from fieldwork in July 2024

In the Chinese Movable-do System, the string named "fa-do" means the open inner string is named " fa, "and the open outer string is named " do ". Take c^1 - g^1 strings tuning as an example, when the four fingers are pressed on the strings, each finger corresponds to notes on staff with the inner and outer strings. As shown in Figure 22.

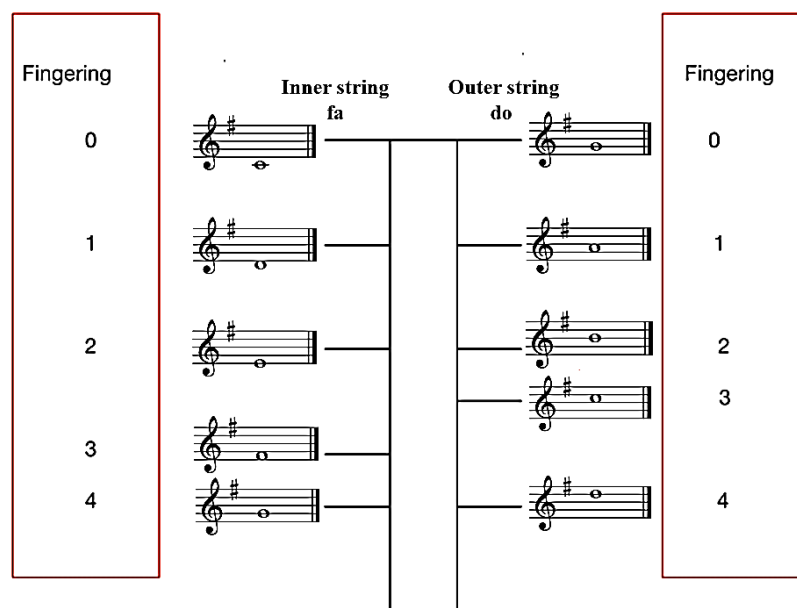


Figure 22. The Fingers Position on "fa-do" Strings

Source: Yu Tengteng, from fieldwork in July 2024

In Chinese Movable-do System, the strings named "sol-re", means the open inner string is named "sol", and the open outer string is named "re". Take c^1 - g^1 strings tuning as an example, when the four fingers are pressed on the strings, each finger corresponds to notes on staff with the inner and outer strings. As shown in Figure 23.

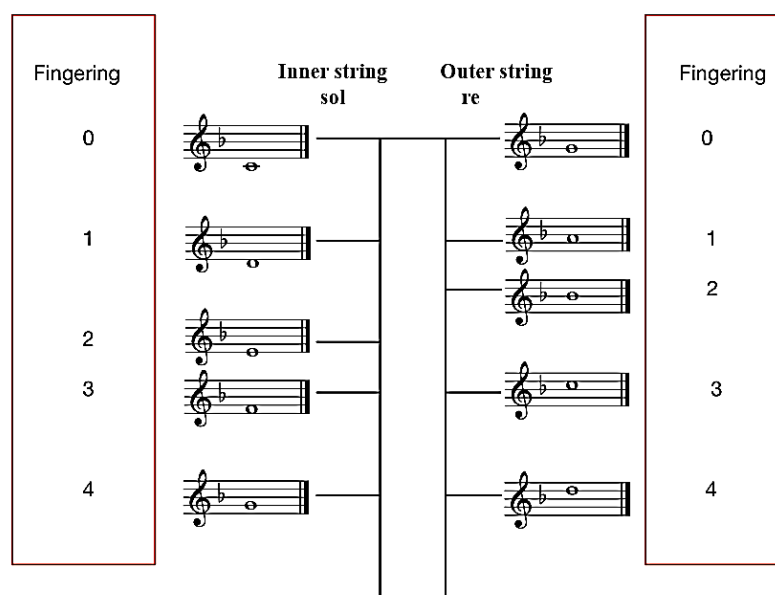


Figure 23. The Fingers Position on "sol-re" Strings

Source: Yu Tengteng, from fieldwork in July 2024

In Chinese Movable-do System, the strings named " la-mi ", means the open inner string is named " la ", and the open outer string is named " mi ". The fingering of the first position and the solfege syllables names on the inner and outer strings, as shown in Figure 24.

Fingering	Inner string	Outer string	Fingering
0	la	mi	0
1			1
1			1
2			2
3			3
4			4

Figure 24. The Fingers Position on "la-mi " Strings

Source: Yu Tengteng, from fieldwork in July 2024

In Chinese Movable-do System, the strings named " mi-si ", means the open inner string is named " mi ", and the open outer string is named " si ". The fingering of the first position and the solfege syllables names on the inner and outer strings, as shown in Figure 25.

Fingering	Inner string	Outer string	Fingering
0	mi	si	0
1			1
1			1
2			2
3			3
4			4

Figure 25. The Fingers Position on "mi-si " Strings

Source: Yu Tengteng, from fieldwork in July 2024

In Chinese Movable-do System, the strings named " re-la ", means the open inner string is named " re ", and the open outer string is named " la ". The fingering of the first position and the solfege syllables names on the inner and outer strings, as shown in Figure 26.

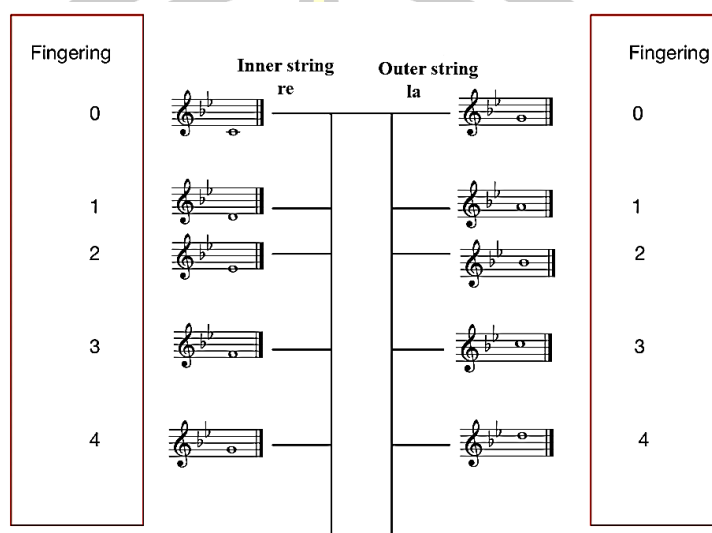


Figure 26. The Fingers Position on "re-la " Strings

Source: Yu Tengteng, from fieldwork in July 2024

1.4 Playing Posture

When playing the Tuhu, the performer usually adopts a seated position. See the Figure 27-28.



Figure 27. Front View of Tuhu Playing Posture

Source: Yu Tengteng, from fieldwork in March 2024



Figure 28. Side View of Tuhu Playing Posture

Source: Yu Tengting, from fieldwork in March 2024

The body should be naturally relaxed, with shoulders level. The soundbox rests on the root of the left leg thigh. The left hand holds the Qingan of the Tuhu, with the thumb positioned below the nut. The right hand holds the bow, with the thumb and index finger gripping the bow stick. The middle and ring fingers are placed between the bow stick and the bow hair, with the pads of the middle and ring fingers resting on the bow hair. See the Figure 29.



Figure 29. Correct Posture for Holding the Bow

Source: Yu Tengting, from fieldwork in March 2024

1.5 Bow Segments Distribution for Tuhu

The Tuhu bow is approximately 86cm in length and is primarily composed of bow hair and a bow stick. The bow segments are divided into full bow (Quan gong), left half bow (Zuo ban gong), right half bow (You ban gong), bow tip (Gong jian), middle bow (Zhong gong), and bow root (Gong gen). See the Figure 30.

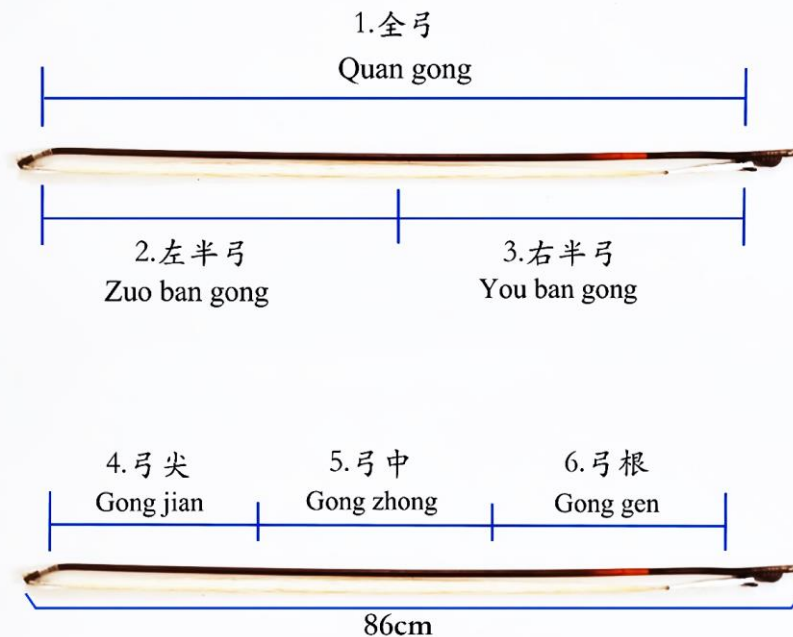


Figure 30. Bow Segments Distribution for Tuhu

Source: Yu Tengteng, from fieldwork in July 2024

From the Figure 30 :

1. 全弓 Quan gong means the whole bow
2. 左半弓 Zuo ban gong means the left half of the bow
3. 右半弓 You ban gong means the right half of the bow
4. 弓尖 Gong jian means the tip of the bow
5. 弓中 Gong zhong means the middle of the bow
6. 弓根 Gong gen means the root of the bow

2. The Right-hand Playing Techniques of Tuhu

The right-hand playing techniques of the Tuhu are also called Tuhu bowing techniques. The player holds the bow with his right hand, and the right arm work

together to push and pull the bow. When moving the bow, the shoulder joint is the core, with the upper arm driving the forearm, wrist, and fingers.

When pulling the bow, the bow is from left to right. The symbol " \sqcap or \rightarrow ". The upper arm lifts to the upper right, while the wrist pulls the bow outward until the fingers gradually straighten. The upper arm drives the forearm and wrist to pull the bow to the right at a constant speed. See the Figure 31.



Figure 31. Pull Bowing

Source: Yu Tengteng, from fieldwork in July 2024

When pushing the bow, the bow is from right to left. The symbol " $\text{Vor} \leftarrow$ ". The upper arm retracts, with the elbow moving slightly forward to the left in parallel. The upper arm drives the forearm and wrist to push the bow to the left at a constant speed. The wrist and fingers return to their original positions. See the Figure 32.



Figure 32. Push Bowing

Source: Yu Tengteng, from fieldwork in July 2024

During bowing, the arm needs to be relaxed, maintaining a 90-degree friction angle between the bow hair and the strings, with the bow hair parallel to the soundbox. The bowing process should adhere to the principles of smoothness, straightness, and evenness.

The right-hand playing techniques of the Tuhu mainly include Long Bowing, Legato Bowing, Detache Bowing, Fast Bowing, Staccato Bowing, Tremolo Bowing, Ti-gong and Cuo-gong.

2.1 Long Bowing

The long bow, also known as the full bow, is commonly used to play quarter notes and longer note values. When pulling the bow, it moves from the root to the middle and then to the tip. When pushing the bow, it moves from the tip to the middle and then to the root. During practice, the speed should not be fast. Maintain a consistent and close friction between the bow hair and the strings to produce a pure and clear tone. See the Figure 33.



Figure 33. Long Bowing

Source: Yu Tengteng, from fieldwork in July 2024

2.2 Legato Bowing

Legato bowing connects two or more notes with a slur, playing them in one bow, marked by " \frown ". See the Figure 34.

When performing, it is important to maintain the continuity of these notes. In addition, it is necessary to pay attention to the coordination of the bow segment distribution and the speed of the bow movement.



Figure 34. Legato Bowing

Source: Yu Tengteng, from fieldwork in July 2024

2.3 Detache Bowing

Detache bowing is a technique where each bow plays a single note. See the Figure35.



Figure 35. Detache Bowing

Source: Yu Tengteng, from fieldwork in July 2024

When playing, the player needs to pay attention that each note should be played clearly. When the bow is pushed and pulled, and when the inner and outer strings are switched, the bow movement is as few traces as possible, for getting better tone quality.

2.4 Fast Bowing

Fast bowing refers to a rapid detache bowing technique, with a speed exceeding 120 beats per minute, primarily used for playing sixteenth notes. During fast bowing, the coordination between the left and right hands is crucial. The right hand moves the bow quickly, while the left hand presses the strings rapidly. Each note must be played clearly and with a crisp, articulated sound. See the Figure36.



Figure 36. Fast Bowing

Source: Yu Tengteng, from fieldwork in July 2024

2.5 Staccato Bowing

Staccato Bowing is a bowing technique where there is a pause between notes. In sheet music, it is marked with the symbol "▼" above the note head. Staccato Bowing playing requires the right-hand fingers to alternately tighten and loosen their grip on the bow hair, causing it to produce a short and elastic sound on the strings. There are two types of Staccato Bowing: detache Staccato Bowing, where each bow stroke plays one note, and legato Staccato Bowing, where one bow stroke plays multiple short notes in succession. See the Figure 37.

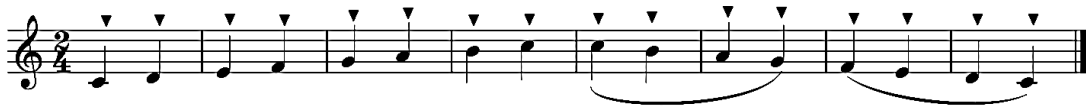


Figure 37. Staccato Bowing

Source: Yu Tengteng, from fieldwork in July 2024

2.6 Tremolo Bowing

Tremolo Bowing also known as shaking bow. It produces a short, fragmented sound effect through the rapid back-and-forth movement of the bow. The actual performance effect is the repetition of the same note as thirty-second notes. See the Figure 38.



Figure 38. Tremolo Bowing

Source: Yu Tengteng, from fieldwork in July 2024

2.7 Ti-gong (提弓)

Ti-gong is a bow technique in which the bow is gently lifted to play. It is marked by "ㄗ". When playing, the bow is lifted upward in the direction in which the bow runs, and at the same time, a light and short sound is played. After falling, the bow plays the next strong sound in the opposite direction, generating a sound effect of weak before and strong after.

As in spectrum example Figure 39, it is an excerpt from the music of "Zhuang Shan Yun", 2/4 beat, the first, fifth and ninth bars all use Ti-gong playing techniques.

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Figure 39. Ti-gong (ㄗ) Bowing Technique

Source: Yu Tengteng, from fieldwork in July 2024

See the Figure 39, in the 1st, 5th and 9th bars, the first beat all are marked with "ㄗ". When pulling the bow, the bow is suddenly lifted upward and at the same time, a light and short sound "do" by the Movable-do System is played. After falling, using the pushing bow to play the next strong sound "sol" by Movable-do System, generating a sound effect of weak before and strong after. It is in contrast to the conventional rule of strong front and weak back of 2/4 beats. This kind of playing performance effect is the characteristic style of Zhuang music. For details on how to play the Ti-gong bow technique, please refer to Figure 40.

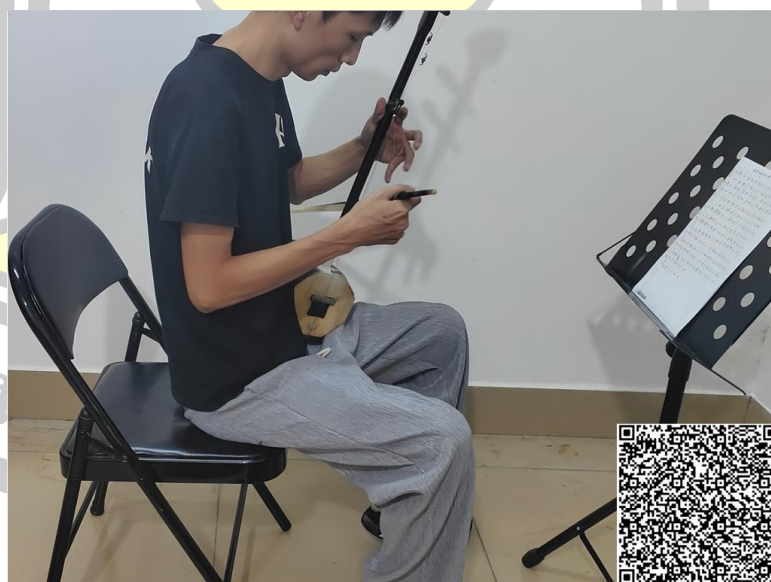


Figure 40. The Video of Ti-gong (ㄗ) Bowing Technique

Source: Yu Tengteng, from fieldwork in Sept. 2024

2.8 Cuo-gong (挫弓)

Cuo-gong is also known as the "rocking beat bowing", it is a kind of bow playing method of "tight pulling and slow singing", which is widely used in Chinese Opera music. When playing, right hand pushes and pulls bow alternately, the front is light and weak, the behind is heavy and strong. When the left hand presses the strings, it usually adds a second or third acciaccatura before the note.

As in spectrum example Figure 41 and Figure 43. For details on how to play the Cuo-gong bow technique, please refer to Figure 42 and Figure 44.



Figure 41. Cuo-gong Bowing Technique 1

Source: Yu Tengteng, from fieldwork in July 2024



Figure 42. The Video of Cuo-gong Bowing Technique 1

Source: Yu Tengteng, from fieldwork in Sept. 2024



Figure 43. Cuo-gong Bowing Technique 2

Source: Yu Tengteng, from fieldwork in July 2024

In the sheet music score Figure 41 and Figure 43 are selected from " Zhuang Shan Yun ", in which the 35-38 bars are played with the technique of Cuo-gong. It starts with a push bow, in the first half beat the pushing bow is played weakly, and in the second half beat the pulling bow is played strongly. The bow is pushed and pulled alternately. When the left hand presses the strings, the notes in the second half beat are increased by Major Second acciaccatura. When playing, the music rhythm is strong. The continuous front beat is light and weak, the back beat is heavy and strong. Its musical image is similar to the state of lifting and falling when carrying a shoulder pole in the field.



Figure 44. The Video of Cuo-gong Bowing Technique 2

Source: Yu Tengteng, from fieldwork in Sept. 2024

In the sheet music score Figure 43 the bars 81-82 and 88-89, when the right hand plays the Cuo-gong bowing, the left hand is playing acciaccatura notes and the second half of the beat notes with the same finger without lifting it from the string. The interval between acciaccatura note and the second half of the beat note is smaller than a minor second. This is also a characteristic playing way in Tuhu playing technique. In the bars 84-85 and 92-93, when the right hand plays the Cuo-gong bowing, the left hand is playing acciaccatura notes and the second half of the beat notes with the index finger and middle finger. The index finger remains on the strings, while the middle finger slightly lifts and presses the strings.

3. The Left-hand Playing Techniques of Tuhu

The left-hand playing techniques of the Tuhu are also called Tuhu fingering techniques. The player holds the Qingan with his left hand, with the thumb positioned below the nut. The left hand's thumb is placed near the position of the Qianjin (a small loop or string knot on the neck of the instrument). When playing, the left hand forms a semi-circular shape, with the palm joints arched, the palm facing down, and the finger joints arched. The fingertips press the strings. The index finger is referred to as the first finger, the middle finger as the second finger, the ring finger as the third finger, and the little finger as the fourth finger. In the staff notation, these are marked as "1 2 3 4" respectively, with open strings marked as "0".

The left-hand playing techniques of the Tuhu include pressing strings at various tones, fingers pressing, fingers retention, trill, vibrato and rolling fingers, portamento, and position shifting.

3.1 Pressing Strings at Various Tones

In different tunings and modes, the open string notes of the Tuhu vary. Common tunings include do-sol strings, fa-do strings, sol-re strings, la-mi strings, and mi-si strings. In these different tunings, the note names for open strings and for the first to fourth fingers differ, as do the finger distances. Continuous practice is required to master the accurate finger positions and distances for multiple positions in various keys, ensuring pitch accuracy.

3.2 Retained Fingers

When pressing the strings with the left hand, it is common to use the technique of finger retention. For example, when the little finger is used to press the string, it is relatively shorter and weaker compared to the other fingers. Therefore, another finger is usually retained on the string to assist. This technique is also used to stabilize the hand position during performance or to facilitate the playing of grace notes and other rapid alternating notes, avoiding unnecessary movements of a single finger. This optimizes the performance to achieve the desired musical effect.

3.3 Trill

Trill is an ornamental effect produced by the rapid and continuous lifting and pressing of the string by a higher-positioned finger while holding the main note. It is usually marked with "tr". During the performance of trill, the speed and amplitude can vary according to the melody and the emotions expressed by the music.

3.4 Vibrato and Rolling Fingers

Vibrato and Rolling Finger is a playing technique that involves the left hand's shaking motion, causing changes in the pressing position and pressure on the string, resulting in a continuous vibrating sound wave. Types of vibrato and Rolling Finger include rolling vibrato, pressing vibrato, sliding vibrato, and plucking vibrato. The use of Vibrato and Rolling Finger can enhance the imitative and expressive qualities of the music, making it more rounded and emotionally rich.

3.5 Portamento

Portamento is an ornamental effect produced by sliding the finger on the string either before or after the main note. The intensity, pressure, and range of the portamento can be adjusted according to the musical requirements.

Portamento can be categorized into ascending portamento, descending portamento, return portamento and Dian-zhi portamento (垫指滑音).

Ascending portamento means sliding from a lower note to the main note or from the main note to a higher note.

Descending portamento means sliding from a higher note to the main note or from the main note to a lower note.

Return portamento means sliding from the main note to a lower note and back to the main note, or from the main note to a higher note and back to the main note.

Dian-zhi portamento is called pressing and padding fingers portamento. It is a commonly used technique in Tuhu performance. It requires three fingers to play portamento together, and it needs to be accompanied by string pressing. In particular, this technique is often used in minor third melodic progressions from the second finger to the fourth finger or from the fourth finger to the second finger. Three fingers are brought together in a semi-circular shape. The finger pressing the high note is the high position finger, the finger pressing the low note is the low position finger, and the middle finger is the support and pad finger.

3.6 Position Shifting

Position shifting is a technique used to change hand positions during performance. The hand position refers to the placement of the left hand's thumb on the neck of the instrument. Traditional Tuhu positions mainly include five positions, with the most commonly used being the first and second positions below the qianjin (a small loop or string knot on the neck of the instrument), also known as the upper and middle positions. The purpose of position shifting includes expanding the range, unifying the tone, enriching the timbre, and facilitating performance.

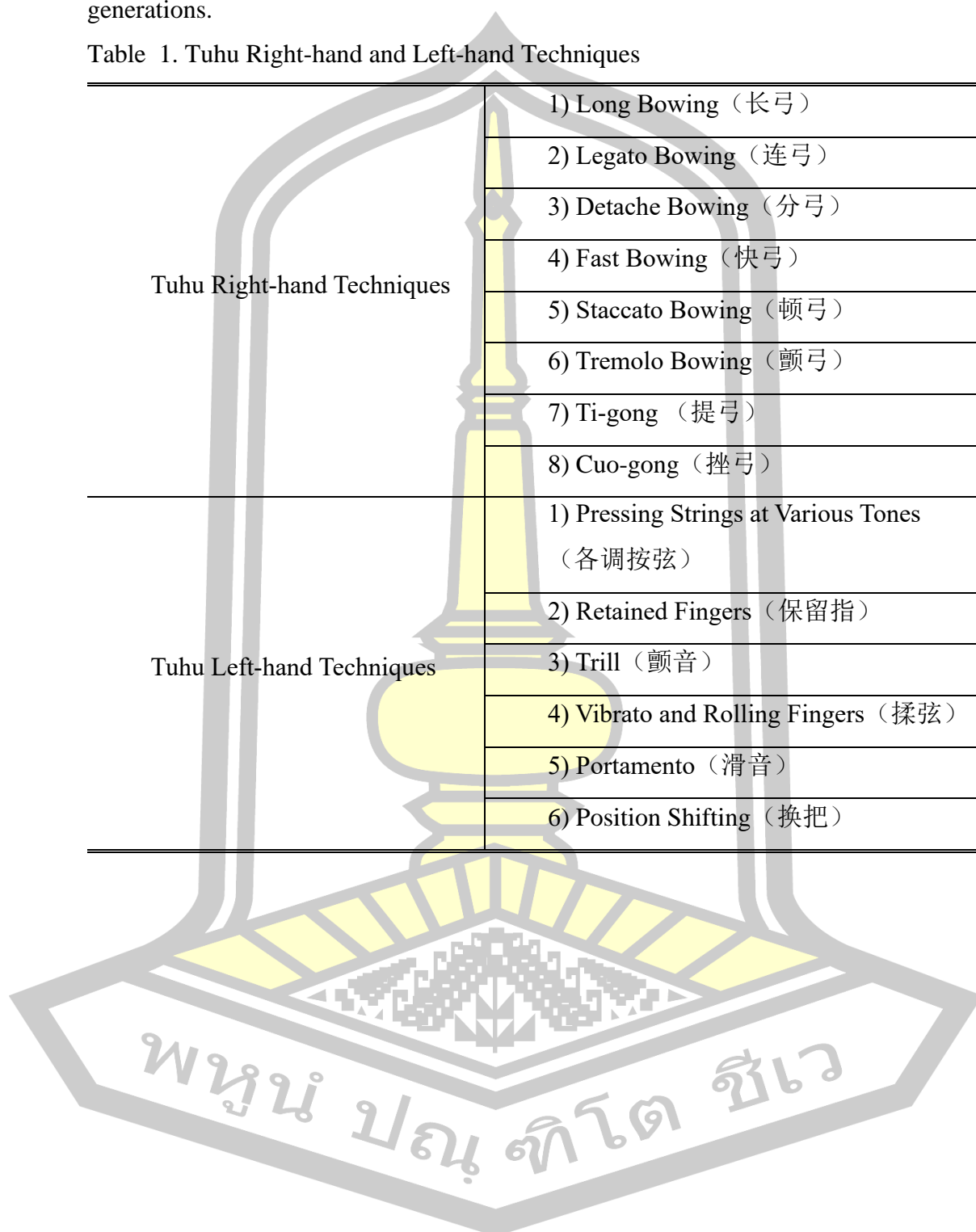
Summary

This chapter delves into the playing techniques of Tuhu, a traditional bowed string instrument of the Zhuang people in Guangxi, China. Through fieldwork, the researcher explored three key aspects: the elementary knowledge of Tuhu, right-hand bowing techniques, and left-hand fingering techniques. The study collected and analyzed 10 Zhuang Opera accompaniments and instrumental pieces from the Zhuang Eight Categories Music Ensemble, alongside interviews with Tuhu experts such as Mr. Li Xike and Mr. Huang Yige. Tuhu, also known as Thick Hu, is primarily used in Zhuang Opera and folk ensembles, with its tuning typically in perfect fifths. The chapter explores the structure of Tuhu, which features components like the soundbox and bow, and details its tuning and fingering techniques, utilizing the Chinese Movable-do system. Right-hand techniques include long, legato, staccato, and tremolo bowing, while left-hand techniques emphasize string pressing, trills, vibrato, portamento, and position shifting. These techniques are vital for maintaining pitch accuracy, enhancing the expressive qualities of the instrument, and ensuring a smooth, consistent tone during performance. This study highlights the significance of understanding Tuhu's traditional

methods, ensuring the proper transmission of its performance practices for future generations.

Table 1. Tuhu Right-hand and Left-hand Techniques

Tuhu Right-hand Techniques	1) Long Bowing (长弓)
	2) Legato Bowing (连弓)
	3) Detache Bowing (分弓)
	4) Fast Bowing (快弓)
	5) Staccato Bowing (顿弓)
	6) Tremolo Bowing (颤弓)
	7) Ti-gong (提弓)
	8) Cuo-gong (挫弓)
Tuhu Left-hand Techniques	1) Pressing Strings at Various Tones (各调按弦)
	2) Retained Fingers (保留指)
	3) Trill (颤音)
	4) Vibrato and Rolling Fingers (揉弦)
	5) Portamento (滑音)
	6) Position Shifting (换把)



CHAPTER V

The Transmission Process of Tuhu in Guangxi Zhuang Autonomous, China

According to the topic of this chapter, the researcher interviewed three general informants, including Huang Yige, Li Xike, and Qin Dachuan. According to the interview results and survey data, this thesis analyzes the transmission process of Tuhu in Guangxi Zhuang Autonomous of China from the following two aspects:

1. The transmission ways of Tuhu
2. The transmission steps of Tuhu

1. The Transmission Ways of Tuhu

The transmission ways of Tuhu mainly include self-taught performance, master-apprentice transmission and family transmission. They are all through orally to transmission.

1.1 Self-taught performance

The group of self-taught Tuhu playing techniques is divided into two categories. One of them is the group of people who have mastered the skills of playing tuhu. This kind of people have mastered the methods and skills of Tuhu musical instruments through self-study decades ago, and can reach the level of Tuhu performance in the accompaniment of the folk Zhuang Opera Band and the Tuhu performance level in the Zhuang Eight Categories Instrumental Music Ensemble. Nowadays, the traditional music culture of China's ethnic minorities is once again revived, and they are playing the role of leading a new group of Zhuang music lovers to play and transmission the Tuhu. The other group is the people who are learning to play Tuhu on their own at this stage, because they have lived in the Zhuang area of Guangxi for a long time and have a strong interest in Zhuang opera, Zhuang Eight Categories Instrumental Music Ensemble and Tuhu performance, and they can learn and practice Tuhu by observing the orchestra performance, so that they can play Tuhu in the Zhuang Opera Accompaniment Band or Zhuang Eight Categories Instrumental Music Ensemble.

1.2 Master-apprentice transmission

In the Zhuang folk, there are some people who have mastered the skills of playing the Tuhu, playing the role of teachers, teaching others to play the Tuhu, and the people who learn to play the Tuhu are not entirely school students, but mostly social groups living in the Zhuang folk who have a hobby for Zhuang opera or Zhuang Bayin. Through oral teaching, the teaching and learning process of teachers and students is completed.

1.3 Family transmission

The family transmission is mostly concentrated in the Zhuang folk family, there are one or more generations of people who have a strong interest in Zhuang opera music, the Zhuang Eight Categories Instrumental Music Ensemble, and the Zhuang stringed instruments, and they pass on the Tuhu performance skills to other members of the family through family transmission.

The above three transmission ways are all passed on orally through oral transmission, and the basic performance practice of Tuhu, performance principles, and accompaniment styles of Tuhu performance are passed on orally, and the specific transmission content can be presented through the following transmission steps.

2. The Transmission Steps of Tuhu

The transmission steps of Tuhu are mainly divided into two parts, the basic performance practice of Tuhu and the representative performance practice of Tuhu.

2.1 The Basic Performance Practice of Tuhu

2.1.1 Open Strings and String Changing Practice

The open inner string is tuning g, and the open outer string is tuning d¹. See the Figure 45.

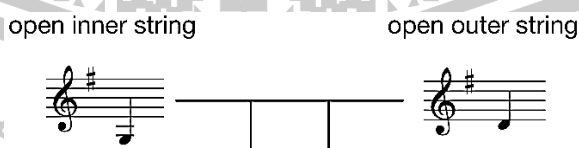


Figure 45. Tuning Method

Source: Yu Tengting, from fieldwork in July 2024

Open Strings and String Changing Practice is in Figure 46; this piece practice is played with the strings (do-sol) in the Movable-do System.

Through open string and string changing exercises, it is first necessary to master the correct methods of holding the instrument, holding the bow, pulling the bow, and pushing the bow. Secondly, it is important to minimize bowing marks to ensure a smooth tone when alternating between pushing and pulling the bow. Thirdly, master the bowing techniques for switching between inner and outer strings.



Figure 46. Open Strings and String Changing Practice

Source: Yu Tengteng, from fieldwork in July 2024

2.1.2 First Finger Pressing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 47, the first finger pressing exercises, it is important to maintain the correct left-hand posture for holding the instrument. To train the accuracy and independence of the first finger pressing the string, it needs the player to raise his index finger and presses the strings. Additionally, when the first finger on the inner string is adjacent to the first finger on the outer string, you can keep the first finger on the string and only change the bow from inner string to outer string or from outer to inner string. See the Figure 47 in the bars 17th -20th.

Moreover, during the first finger pressing exercises, pay attention to practicing right-hand bowing techniques such as long bow, separate bow, and string changing bow.



Figure 47. First Finger Pressing Practice

Source: Yu Tengteng, from fieldwork in July 2024

2.1.3 Second Finger Pressing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 48, the second Finger Pressing Practice, to pay attention to the hand shape and independence training of the second finger. When the second finger presses the string, the first finger can act as a retaining finger to stabilize the hand position and ensure pitch accuracy.

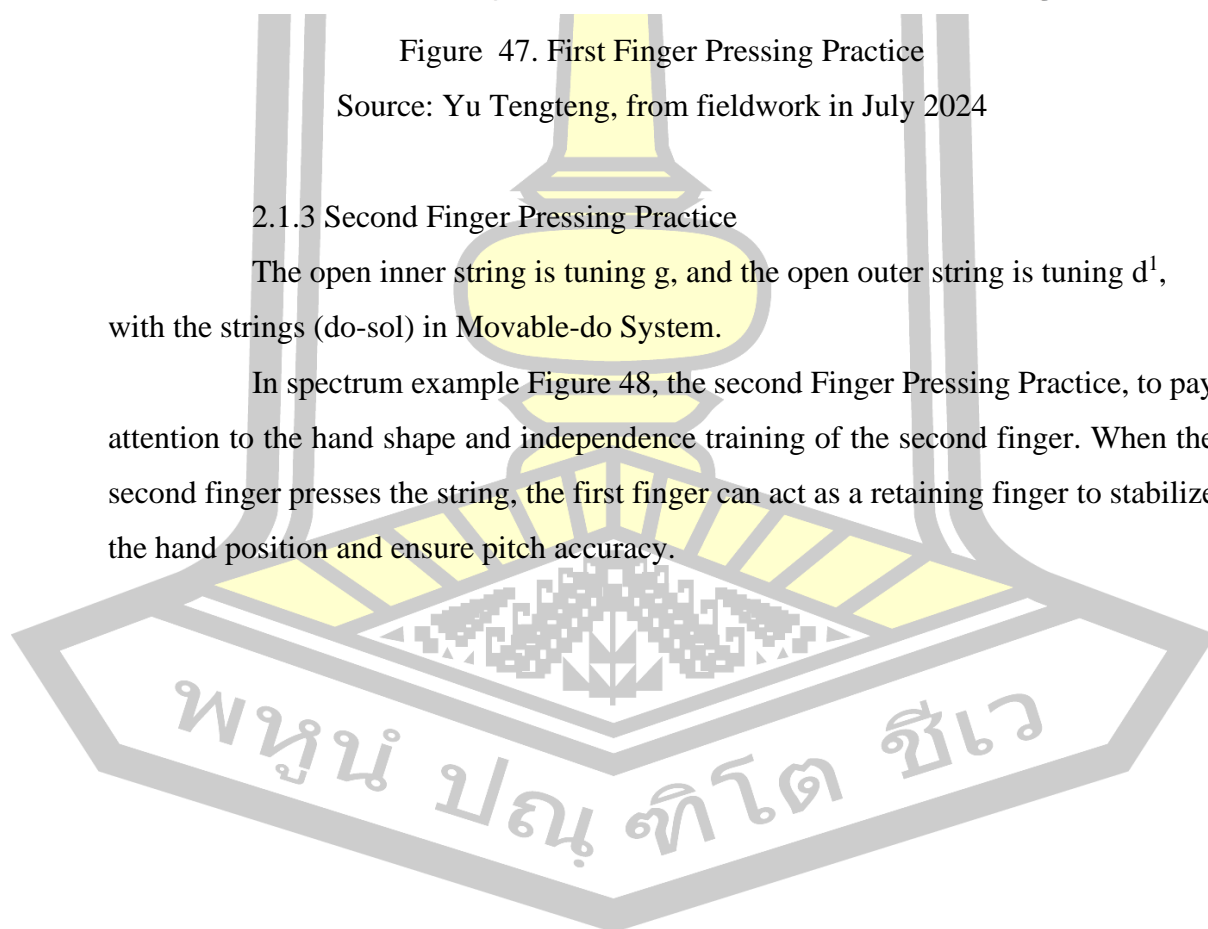




Figure 48. Second Finger Pressing Practice
Source: Yu Tengteng, from fieldwork in July 2024

2.1.4 Third Finger Pressing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 49, when practicing third finger pressing, pay attention to the finger distances between the first, second, and third fingers. On the inner string, the notes for the second and third fingers are mi and fa, while on the outer string, the notes for the second and third fingers are si and do. The notes pressed by the second and third fingers are in a semitone relationship, so the finger spacing is short, and the two fingers are close together.

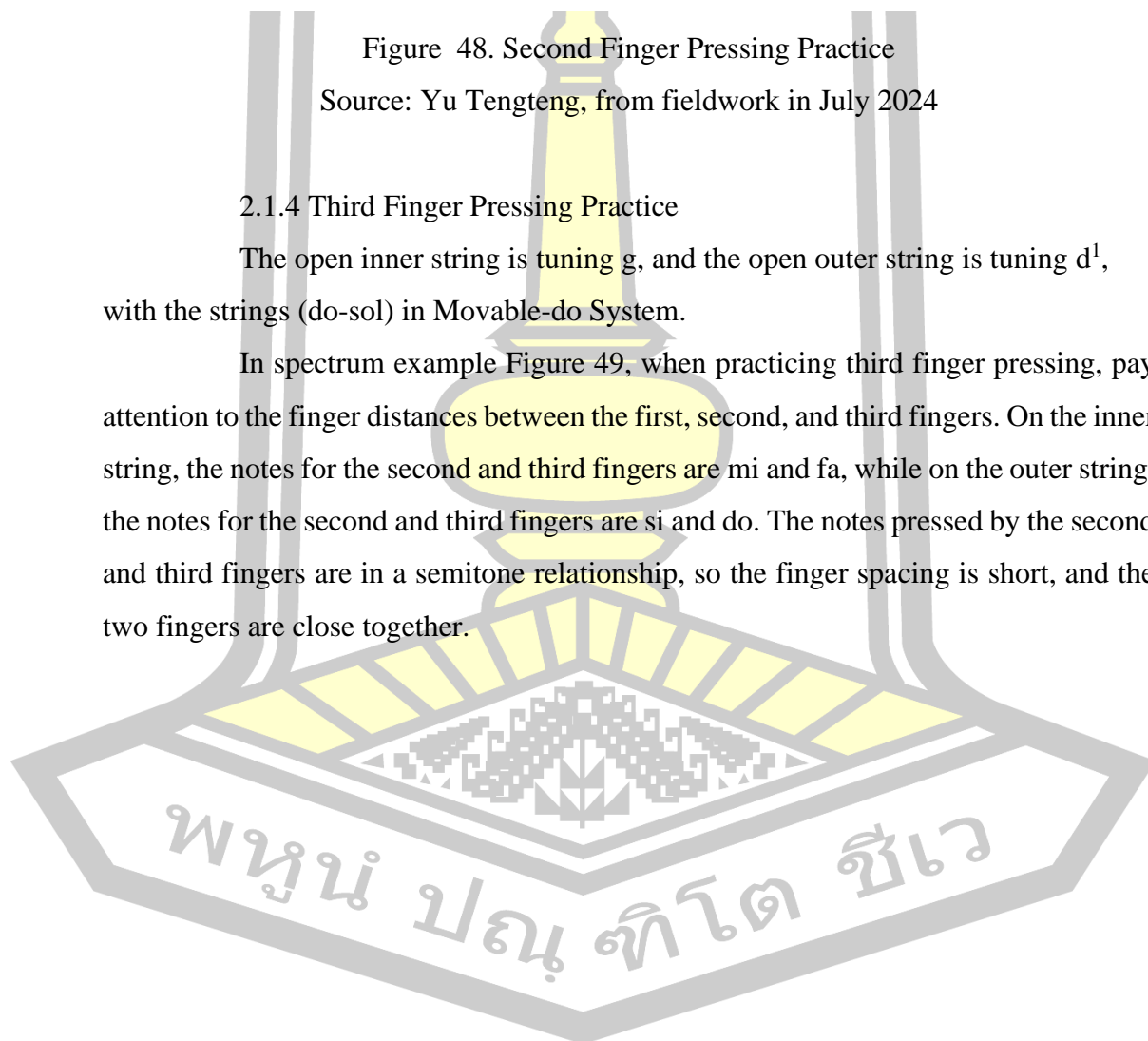




Figure 49. Third Finger Pressing Practice

Source: Yu Tengting, from fieldwork in July 2024

2.1.5 Fourth Finger Pressing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 50, the fourth finger pressing practice is training the independence of the fourth finger (little finger). The little finger is relatively shorter and weaker compared to the other fingers. When playing with the little finger, try to keep it relaxed. Other fingers can assist by acting as retaining fingers to ensure the stability of the hand shape and the accuracy of the position. Additionally, in the 10th measure, the same note can be alternated between the fourth finger on the inner string and the open string on the outer string to better check the pitch accuracy of the fourth finger pressing.



Figure 50. Fourth Finger Pressing Practice
Source: Yu Tengteng, from fieldwork in July 2024

2.1.6 Legato Bowing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 51, when performing legato bowing, pay attention to the smoothness of the bowing motion. Minimize the bowing marks when switching between pushing and pulling the bow and when changing between inner and outer strings. Start by practicing slowly, using the full bow. Once you have mastered the legato technique, practice at a speed of 60 beats per minute.

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Figure 51. Legato Bowing Practice

Source: Yu Tengteng, from fieldwork in July 2024

2.1.7 Fast Bowing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 52, when practicing fast bowing, ensure that the right wrist is relaxed. During the performance of fast bowing with sixteenth notes, the length of the bow strokes needs to be consistent and synchronized with the left-hand finger pressing. Additionally, when necessary, practice finger retention with the left hand. Each note should be played short and strong, with a clear and distinct articulation.

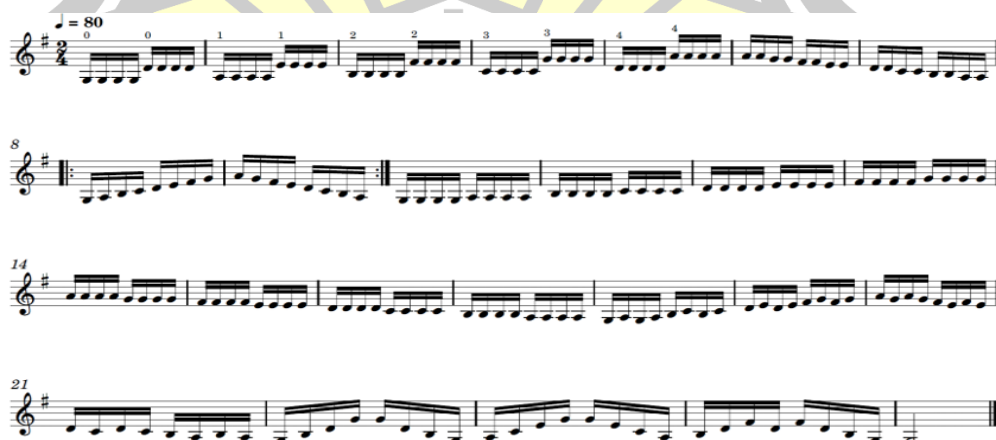


Figure 52. Fast Bowing Practice

Source: Yu Tengteng, from fieldwork in July 2024

2.1.8 Tremolo Bowing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 53, the speed of tremolo bowing is faster than fast bowing, and the bowing needs to be even. The right arm should be completely relaxed. For soft tremolo, use the tip of the bow; for strong tremolo, use the bow near the middle. Tremolo bowing should be elastic to ensure it can be sustained.



Figure 53. Tremolo Bowing Practice

Source: Yu Tengteng, from fieldwork in July 2024

2.1.9 Trill Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 54, the left hand needs to be relaxed from start to finish, the fingers need to be raised high, the trill speed needs to be uniform, the right hand needs to coordinate with the left hand to press the strings, and the speed by the right hand moving the bow and the bow segment distribution need to match the trill by left hand.

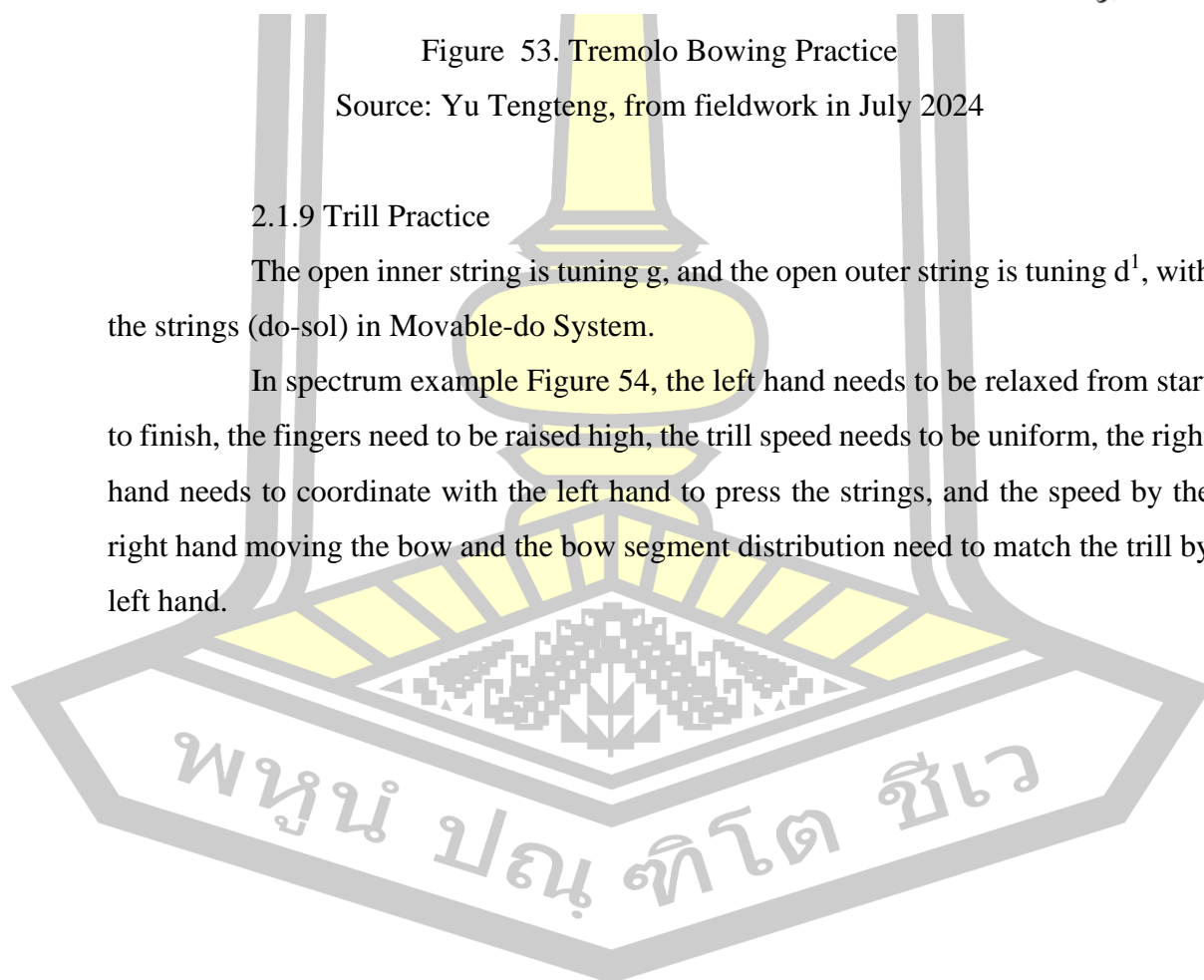




Figure 54. Trill Practice

Source: Yu Tengteng, from fieldwork in July 2024

2.1.10 Vibrato and Rolling Finger Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 55, it can be performed using various vibrato techniques, including rolling vibrato, pressing vibrato, plucking vibrato, and sliding vibrato.

The technique of vibrato and rolling finger is a kind of regular movement of the fingers that press the strings, so that the sound produced by the performance fluctuates regularly, making the music more singing.

When player was vibrated the strings, he should keep the finger pressing the strings regular and evenly.



Figure 55. Vibrato and Rolling Finger Practice

Source: Yu Tengteng, from fieldwork in July 2024

2.1.11 Position Shifting Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (do-sol) in Movable-do System.

In spectrum example Figure 56, in the first bar, the two notes used the index finger to press, belong to shift position by the same finger. When changing the position, the left hand is relaxed. The first finger can be changed from the first position to the second position on the strings, and the wrist and fingers can be moved in the same hand shape.

In the 6th bar, position shifting between the first note and the second note is used different fingers, sliding motion from the first finger to the third finger, the position from the first position to the second position. The first finger can be used as a transition finger to slide from the first finger position on the first position to the third finger position on the second position, and then immediately press the third finger.

In the 7th bar, the first long note is played with the second finger on the second position, when the long note is finished, the left hand keeps relax and returns to the first position, pressing the second finger to finish the position shifting. When shifting the position, breathing can be introduced to reserve the breath timing for playing.

In the 9th bar and 13th bar, the first note and the second note are used the same finger to change position. In the 10th bar, the second tone and the third tone are used the same finger to change position.



Figure 56. Position Shifting Practice

Source: Yu Tengting, from fieldwork in July 2024

2.2 The Representative Performance Practice of Tuhu

2.2.1 Portamento and Ti-gong Bowing Practice

The open inner string is tuning g, and the open outer string is tuning d¹, with the strings (mi-si) in Movable-do System.

As in spectrum example Figure 57. For details on how to play the Portamento and Ti-gong Bowing Practice, please refer to Figure 58.

Glissando and Ti-gong Bowing Practice

Excerpt from "Ba Zhui Yao"

Composer: Su Chaofu
Huang Yige



Figure 57. Portamento and Ti-gong Bowing Practice

Source: Yu Tengteng, from fieldwork in July 2024

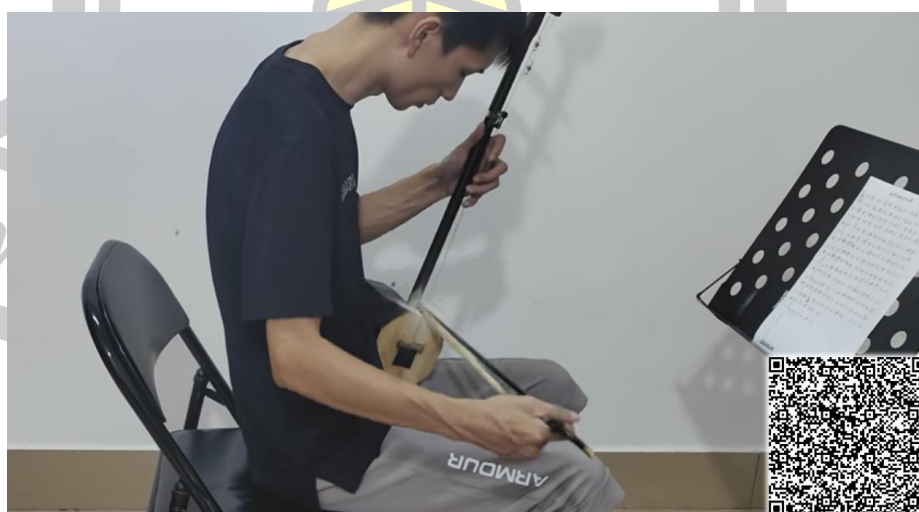


Figure 58. The Video of Portamento and Ti-gong Bowing Practice

Source: Yu Tengteng, from fieldwork in Sept. 2024

2.2.2 Cuo-gong Bowing Practice

The open inner string is tuning d, and the open outer string is tuning a, with the strings (fa-do) in Movable-do System.

As in spectrum example Figure 59. For details on how to play the Cuo-gong Bowing Practice, please refer to Figure 60.

When performing spiccato bowing, pay attention to the variations in bowing pressure and coordination with the left hand.

Cuogong Bowing Practice Excerpt from "Zhuang Shan Yun"

Composer: Su Chaofu
Huang Yige



Figure 59. Cuo-gong Bowing Practice

Source: Yu Tengfeng, from fieldwork in July 2024

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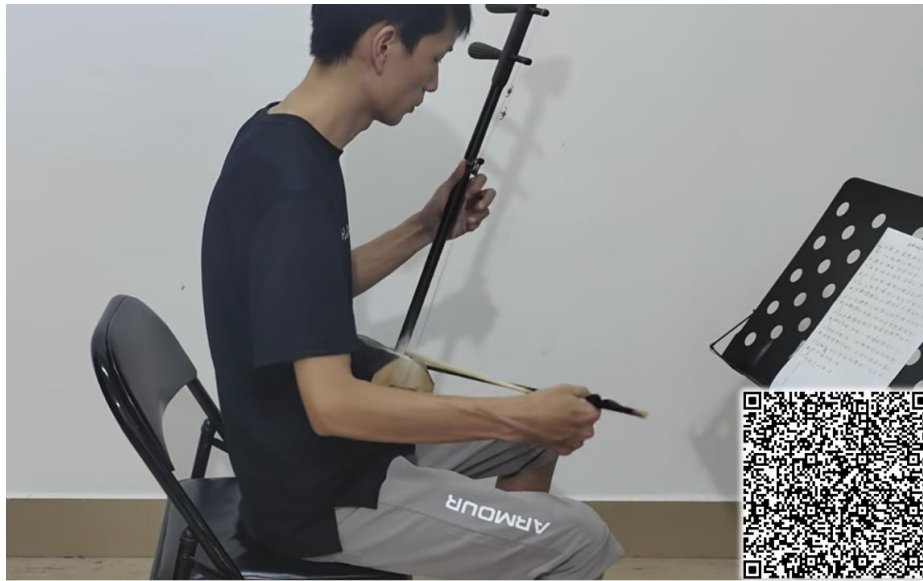


Figure 60. The Video of Cuo-gong Bowing Practice

Source: Yu Tengting, from fieldwork in Sept. 2024

2.2.3 Dian-zhi Portamento Practice (垫指滑音)

The open inner string is tuning d, and the open outer string is tuning a, with the strings (fa-do) in Movable-do System.

When performing an ascending press-and-pad the finger portamento, the middle finger (low position finger) first presses the strings and rolls downward along the strings. The motion is then transferred to the ring finger (support and pad finger) and the little finger (high position finger). The three fingers press the strings together and slide, achieving the correct pitch, thus completing the portamento. When performing a descending press-and-pad the finger portamento, the three fingers press the strings together. The little finger (high position finger) presses the high note accurately, and the weight shifts upward to press and slide the strings. When sliding to the position of the ring finger (support finger), the little finger (high position finger) leaves the strings. The sliding continues to the position of the middle finger (low position finger), and when the ring finger (support finger) leaves the strings, the middle finger (low position finger) reaches the accurate pitch on the strings, the portamento is completed. As in the sheet music score Figure 61. For details on how to play the Dian-zhi Portamento Practice, please refer to Figure 62.



Figure 61. Dian-zhi Portamento Practice

Source: Yu Tengteng, from fieldwork in July 2024

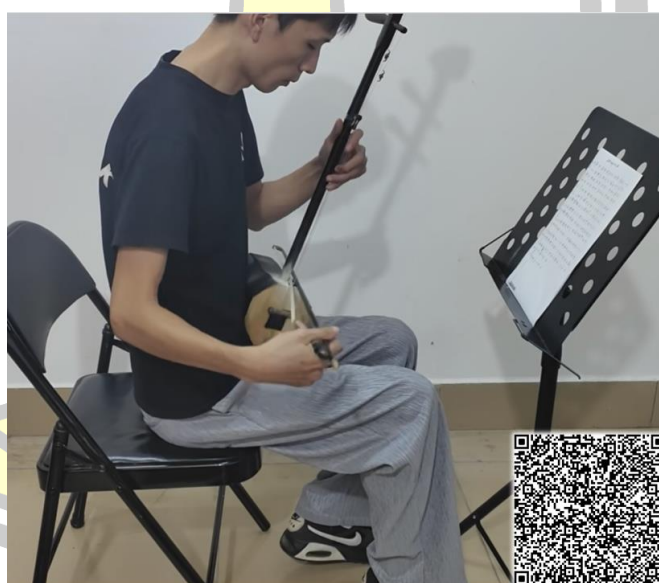


Figure 62. The Video of Dian-zhi Portamento Practice

Source: Yu Tengteng, from fieldwork in Sept. 2024

The sheet music score Figure 61 is selected from "Zhuang Shan Yun". In the 99th bar the sequence of finger positions for the four notes is: second finger, fourth finger, second finger, and open strings. The technique of press-and-pad the finger portamento is required from the second finger to the fourth finger and from the fourth

finger back to the second finger. From the sheet music score Figure 61, it can be concluded that the transitions from the second finger to the fourth finger, or from the fourth finger to the second finger on the same string, almost always use of the press-and-pad the finger portamento technique. The only exception is in measure 112, where this technique is not used. The reason is that the fourth finger needs to play softly and then quickly shift back to the first position. Considering the dynamics, rhythmic pattern, tonal style, and phrasing of this passage, the press-and-pad the finger portamento technique is not necessary here.

When playing this technique, due to the increased pressure on the strings when the left hand presses the strings, specially attend the intonation and finger position. When the second finger to the fourth finger presses the strings, the little finger is used as the high position finger. When the finger position is less than the fourth finger position, the pitch is reached. When the intonation is accurate, the finger distance from the Qian Jin to the fourth finger is shorter than the finger distance when the fourth finger is normally pressed the fourth finger position.

2.2.4 Quarter Note Practice

The open inner string is tuning a, and the open outer string is tuning e¹, with the strings (fa-do) in Movable-do System.

"Kuai Cai Hua" is a kind of the fast tempo vocal music of operas in Nanlu Zhuang Opera. Nanlu Zhuang Opera means the South Zhuang Opera, refers to using the southern dialect Zhuang language to sing Zhuang opera. The 1/4 beat is very distinctive. Each beat is a heavy beat. Every beat needs to be accented when playing, otherwise the music will sound wobbly. It is played with (fa-do) strings. The (fa-do) strings are commonly used in the music of Nanlu Zhuang Opera. The fa in the first tune appears many times, and it appears as the tonic. It is not an accidental passing tone, which is very characteristic in the Zhuang traditional music.

As in the sheet music score Figure 63. For details on how to play the Quarter Note Practice, please refer to Figure 64.

Kuai Cai Hua

Playing techniques: Huang Yige
Trascript: Yu Tengmeng



Figure 63. Quarter Note Practice

Source: Yu Tengmeng, from fieldwork in July 2024

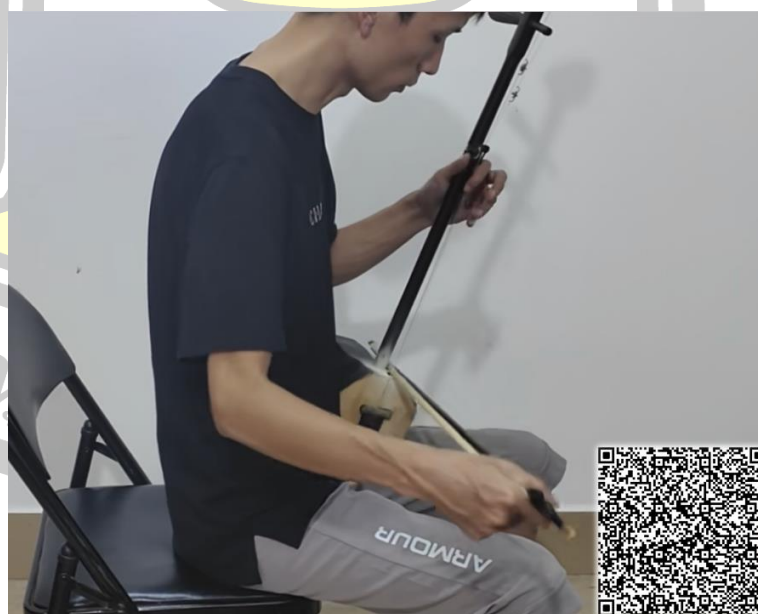


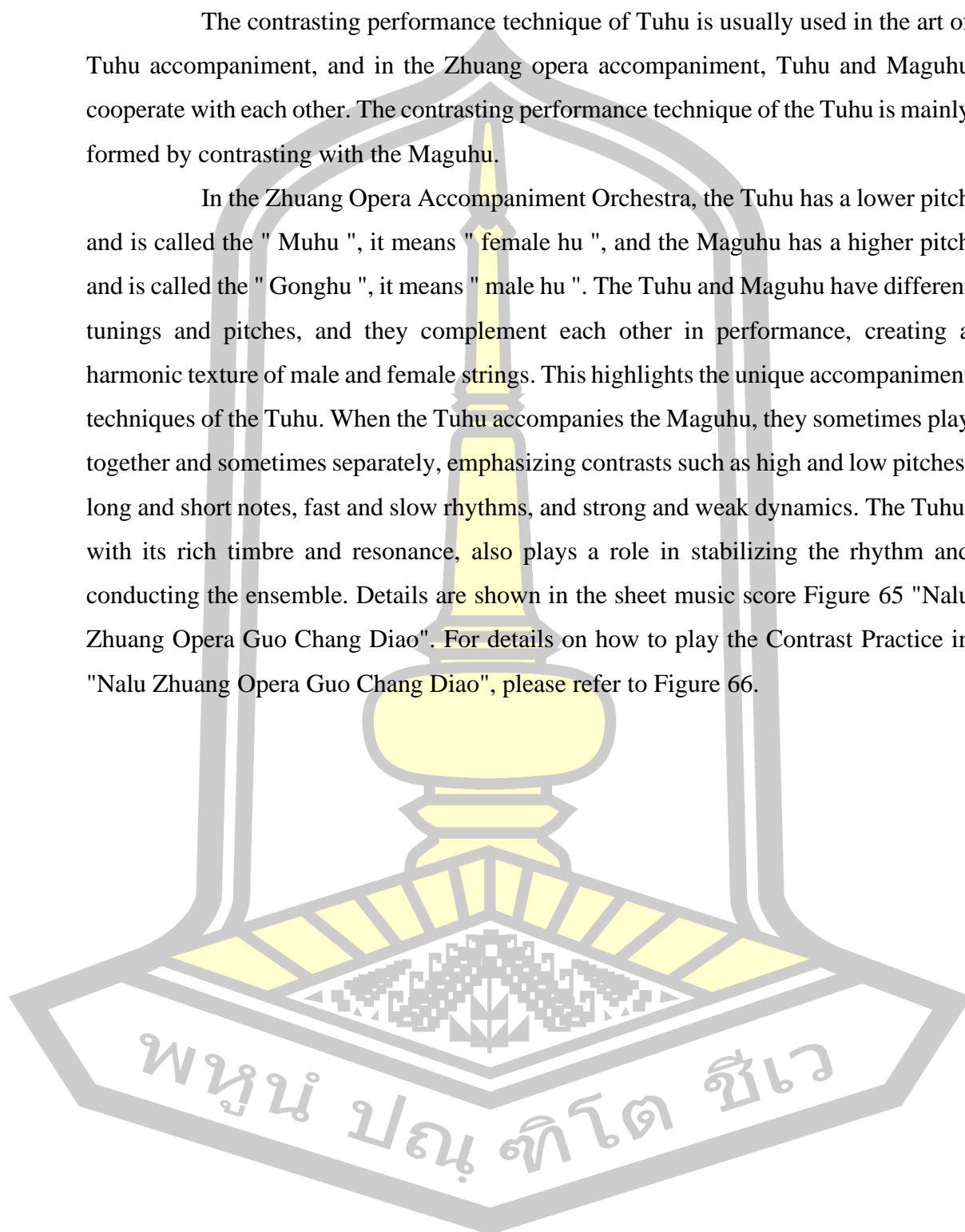
Figure 64. The Video of Quarter Note Practice

Source: Yu Tengmeng, from fieldwork in Sept. 2024

2.2.5 Contrast Practice

The contrasting performance technique of Tuhu is usually used in the art of Tuhu accompaniment, and in the Zhuang opera accompaniment, Tuhu and Maguhu cooperate with each other. The contrasting performance technique of the Tuhu is mainly formed by contrasting with the Maguhu.

In the Zhuang Opera Accompaniment Orchestra, the Tuhu has a lower pitch and is called the "Muhu", it means "female hu", and the Maguhu has a higher pitch and is called the "Gonghu", it means "male hu". The Tuhu and Maguhu have different tunings and pitches, and they complement each other in performance, creating a harmonic texture of male and female strings. This highlights the unique accompaniment techniques of the Tuhu. When the Tuhu accompanies the Maguhu, they sometimes play together and sometimes separately, emphasizing contrasts such as high and low pitches, long and short notes, fast and slow rhythms, and strong and weak dynamics. The Tuhu, with its rich timbre and resonance, also plays a role in stabilizing the rhythm and conducting the ensemble. Details are shown in the sheet music score Figure 65 "Nalu Zhuang Opera Guo Chang Diao". For details on how to play the Contrast Practice in "Nalu Zhuang Opera Guo Chang Diao", please refer to Figure 66.



"Nalu Zhuang Opera Guo Chang Diao"

Playing techniques: Huang Yige

Trascript: Huang Yige, Yu Tengteng

马骨胡
Maguhu

土 胡
Tuhu

The musical score is written for two instruments: Maguhu (Ma Bone Hu) and Tuhu (Tu Hu). The score is in 2/4 time and G major (one sharp). It consists of six systems of music, each with a Maguhu staff on top and a Tuhu staff on the bottom. The measures are numbered 10, 19, 27, 35, and 44. The Maguhu part features a melodic line with various ornaments and trills, while the Tuhu part provides a steady accompaniment with eighth and sixteenth notes. The score ends with a double bar line at measure 44.

Figure 65. "Nalu Zhuang Opera Guo Chang Diao"

Source: Yu Tengteng, from fieldwork in March 2024



Figure 66. The Video of Contrast Practice in "Nalu Zhuang Opera Guo Chang Diao"
Source: Yu Tengting, from fieldwork in March 2024

Contrast technique is the core technique of training the accompaniment ability of Tuhu. If player has mastered the contrast technique, he can accompany different vocal music of operas and different labelled pieces freely in the accompaniment of Zhuang opera. Especially for the transmission of traditional Zhuang opera accompaniment, the method of oral transmission is mostly adopted. The player can use the contrast technique to play Tuhu, cooperating with the main instrument-Maguhu, to highlight the timbre of Tuhu, so as to play Tuhu as a leading role in Zhuang Opera Accompaniment Orchestra. The player can be on his own and be fully qualified to play Tuhu on the Zhuang Opera Accompaniment.

2.2.6 Jia-hua (加花) Practice

Jia-hua means add decorative notes, in Zhuang Eight Categories Instrumental Music Ensemble, Jia-hua is usually improvised by the player and it is according to the progression of the main musical theme.

In accompaniment or ensemble performances, it is usually used the Jia-hua techniques to play the Tuhu. Jia-hua techniques such as appoggiaturas, acciaccaturas, portamento, mordents, and tremolos. They are highlighted the unique style and musical imagery of the Tuhu performance. The specific Jia-hua embellishment methods, such as to use an appoggiatura or acciaccatura, an ascending or descending portamento, and

the dynamics, speed, and pitch of the portamento, are closely related to the local language. These embellishments are performed in a way that aligns with the tonal patterns of the local Zhuang people's speech (Interview, Li Xike, 2024.04.10). Details are shown in the sheet music score Figure 67 "Jingxi Zhuang Eight Categories Instrumental Music Xian Ban Diao". How to play the Jia-hua Practice in "Jingxi Zhuang Eight Categories Instrumental Music Xian Ban Diao", please refer to Figure 68.

Jia-hua Practice

"Jingxi Zhuang Eight Tones Music Xian Ban Diao"

Playing techniques: Li Xike

Trancript: Yu Tengteng



Figure 67. Jia-hua Practice "Jingxi Zhuang Eight Categories Instrumental Music Xian Ban Diao"

Source: Yu Tengteng, from fieldwork in April 2024



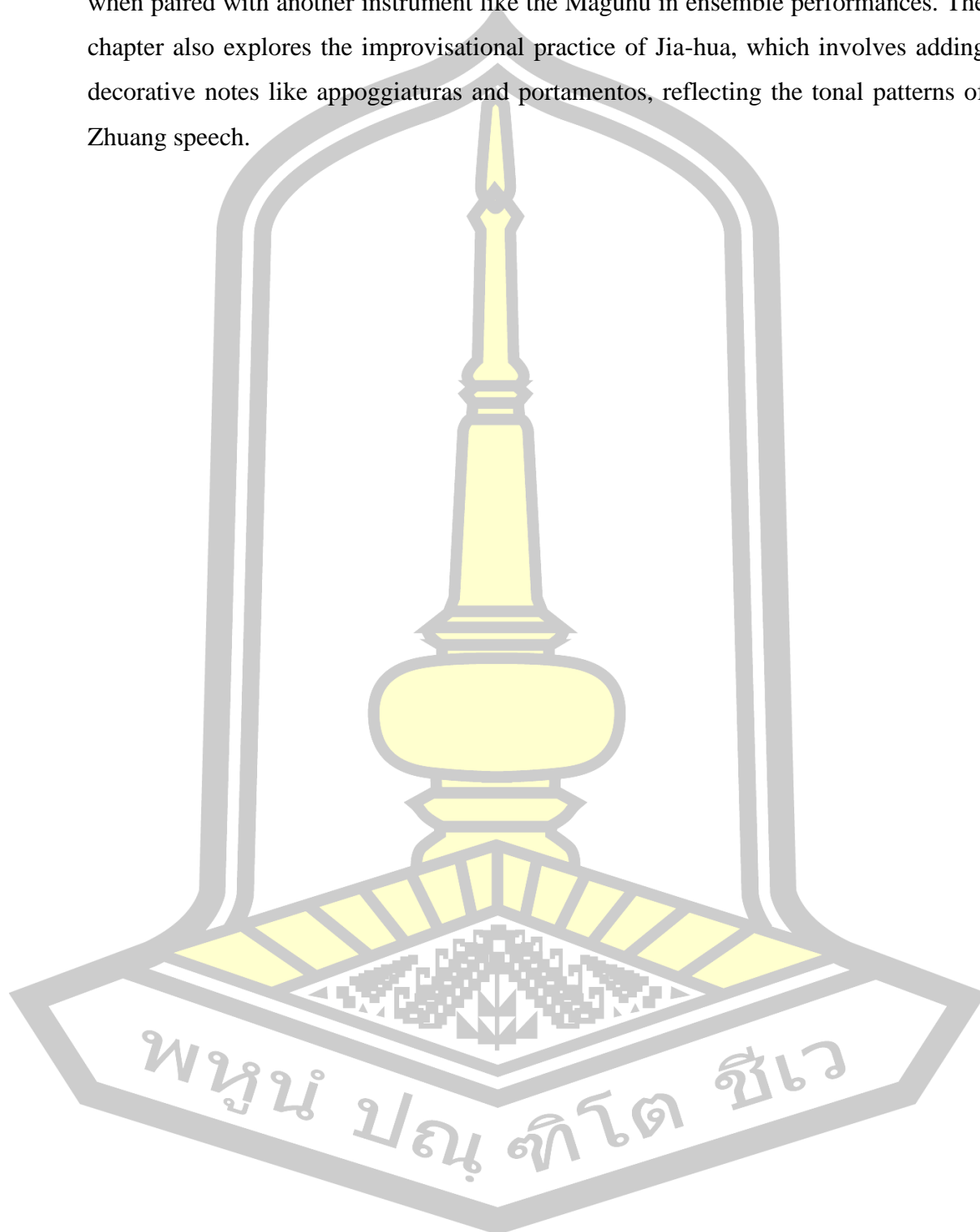
Figure 68. The Video of Jia-hua Practice in "Jingxi Zhuang Eight Categories Instrumental Music Xian Ban Diao"

Source: Yu Tengting, from fieldwork in April 2024

Summary

The transmission process of Tuhu in Guangxi Zhuang Autonomous focuses on two aspects: the transmission ways of Tuhu and the transmission steps of Tuhu. The transmission ways of Tuhu mainly include self-taught performance, master-apprentice transmission and family transmission. They are all through orally to transmission. The transmission steps of Tuhu are mainly divided into two parts, basic and representative practices. Based on interviews with key informants such as Mr. Huang Yige, Mr. Li Xike, and Mr. Qin Dachuan, the chapter provides a detailed analysis of various Tuhu playing techniques. The basic practice begins with foundational skills like tuning, open string exercises, and string-changing techniques. These are crucial for mastering the correct methods of holding the instrument and bow and controlling tone smoothness during bowing. The chapter also covers finger pressing techniques, emphasizing accuracy and finger independence across different fingers, especially in exercises involving rapid string changes. Advanced techniques, such as legato, fast bowing, and tremolo, are explored to ensure proper coordination between the left and right hands. Representative practices focus on more sophisticated performance methods, including portamento, Ti-gong, and Cuo-gong bowing, all unique to Tuhu's role in Zhuang music.

These techniques help players navigate the instrument's distinct sounds, especially when paired with another instrument like the Maguhu in ensemble performances. The chapter also explores the improvisational practice of Jia-hua, which involves adding decorative notes like appoggiaturas and portamentos, reflecting the tonal patterns of Zhuang speech.



CHAPTER VI

The Guidelines for the Preservation of Tuhu into School Curricula in Guangxi Zhuang Autonomous, China

As a bowed string instrument of the Zhuang with unique charm and a long history, the Tuhu still retains its traditional form. Because the Tuhu has been circulated among the folk for a long time. Folk artists play Tuhu and accompany Zhuang opera and ensemble Zhuang Eight Categories Instrumental Music, continuing the transmission and vitality of Tuhu, and most of the folk artists who play Tuhu are elderly people. However, only a small number of teachers, orchestras, and students in schools who pay attention to the characteristic musical instruments of Zhuang in Guangxi play Tuhu Occasionally. Because Tuhu has received relatively little attention for a long time, few people have excavated it. In order to ensure the sustainable development of Tuhu, active measures should be taken, especially young students are the main body and core of the future transmission, and schools are important places for young students to grow and become talents. In response to this problem, this chapter will discuss the following two aspects:

1. The current situation and difficulties in the preservation of Tuhu
2. The guidelines for the preservation of Tuhu into school curricula

According to the above questions, the researcher interviewed five informants:

Professor Chen Kunpeng, associate professor Wang Guangguo, Mr. Qin Dachuan, Mr. Huang Yige, Mr. Li Xike. The five informants can help us to understand the problems in the development of Tuhu.

1. The Current Situation and Difficulties in the Preservation of Tuhu

1.1 The number of Tuhu players in folk is seriously aging, and the number is decreasing year by year.

Mr. Li Xike said that in Jingxi City, there are very few people who can play Tuhu, and there are several members of the Jingxi Zhuang Museum Ethnic Art Troupe he founded, aged between 60 and 80, who can play Tuhu, and the others are distributed

in the village and town Zhuang Opera troupes in various towns and villages in Jingxi City, and few young people learn and play Tuhu. For some older players, the number of people who can play the tuhu is decreasing year by year due to their age and declining physical condition (Interviews, Li Xike,2024.4.10).

Mr. Huang Yige said that the Tuhu players in Debao County are mainly members of the Zhuang Opera Accompaniment Orchestra in folk, all of whom are elderly, no young people. The number of Tuhu players in Debao County does not exceed 100, and some of them are not played enough to fully accompany the different vocal music of operas and labelled pieces of the Zhuang Opera. Because most of these people are self-taught, they have no professional performance training (Interviews, Huang Yige,2024.7.13).

1.2 Tuhu has received less attention from professional performers, and the functional performance of the instrument is limited.

The researcher interviewed Qin Dachuan, a national first-class performer. According to him, Tuhu has not received such attention as Maguhu, and has not been promoted and developed. There is a lack of people to excavate it. Tuhu usually appears as an accompaniment instrument, less in the form of solo on the professional stage, and fewer people create Tuhu solos. The performance of the Tuhu instrument is limited, and if the Tuhu is excavated as a separate instrumental, its instrumental functional performance and solo musical compositions will not be able to keep up with the development (Interviews, Qin Dachuan,2024.9.9).

1.3 There is a shortage of teachers and teaching materials in Tuhu.

Professor Chen Kunpeng thinks that due to the development of society and education, school education cannot fully assume the responsibility of inheriting national culture. Inheritors play an important role in the transmission, dissemination, development and evolution of national culture. In the school teaching, there is no Tuhu major or Tuhu curriculum for the time being, and the supporting teachers and teaching materials have not been developed for the time being. Chen Kunpeng introduced the current situation of the inheritance and application of Tuhu in Guangxi Arts University:

There is no Tuhu performance major in Guangxi Art University. Tuhu has been used in the teaching research, practical application, composition and ensemble of Guangxi minority musical instruments in Guangxi Art University, all of which appear

in the form of ensemble, but not in the form of solo. In 2016, Professor Chen Kunpeng set up the project of "Guangxi Opera Musician Talents Training" of the National Art Fund, in which the special course of Guangxi Opera Zhuang Opera Musician Training includes the performance teaching and practice of Tuhu performing Zhuang Opera music works, and the final concert also shows the performance of Tuhu. In 2017, Professor Cai Yang of Guangxi Art University set up the project of Guangxi Higher Education Undergraduate Teaching Reform Project "The Application and Practice of Guangxi Minority Musical Instruments in National Orchestra Ensemble Course" to explore the application and practice of Tuhu Musical Instruments in National Orchestra Ensemble Course in the research and practice of the project. Tuhu is displayed in the National Music Museum of Guangxi Art University. In the special concert of Indonesian Gamelan Music and Guangxi Minority Music of China-ASEAN Music Week on December 20, 2020, there was a performance of Tuhu, directed by Chen Kunpeng and Huang Guangkuo, Tuhu and Guhu "Flat Tune" (traditional tune of Zhuang Opera), Tuhu performer: Zhou Zhiyao, Guhu performer: Wu Hao. In addition, Professor Chen Kunpeng instructs his Erhu students to hold special concerts, which will guide students to play works with Guangxi minority stringed instruments in concerts, and some students will also apply minority instruments to their work after graduation, such as Professor Chen Kunpeng's student Jiang Qing, who will also play minority stringed instruments after graduation. On December 11, 2019, Jiang Qing National Bowstring Concert and the project of improving the basic abilities of young and middle-aged teachers in Guangxi Zhuang Autonomous, "Research on the Transplantation of Works of Guangxi Ethnic Minority Stringed Instruments", were held in the Art Department of Guangxi Preschool Teachers College. In the first half of the concert, Mr. Jiang Qing mainly showed the music works of Guangxi ethnic minority stringed instruments, such as "South Road Zhuang Opera Flat Interlude" with Tuhu and Magu Hu, Tuhu: Jiang Qing, Magu Hu: Zhang Jingyi. Professor Chen Kunpeng also mentioned that the National Orchestra of Guangxi Art University will also use horse bone Hu, Tuhu, bamboo tube Qin, solo string Qin and other Guangxi national characteristic instruments in many performances every year, and hold the New Year Concert of the National Orchestra and the closing ceremony of the China-ASEAN Music Week every year. There will also be some original works of Guangxi minority

characteristic musical instruments, which make the orchestra perform with strong Guangxi national characteristics, and create a number of repertoires, which have made positive contributions to the prosperity of Guangxi's national music (Interviews, Chen Kunpeng,2024.3.9).

The transmission of Tuhu in Guangxi Art University includes the display of Tuhu musical instruments in the National Music Museum for publicity and promotion, the display and promotion of Tuhu musical works in concerts, and the transmission of Tuhu musical instruments through scientific research or related special training, but the current transmission methods are all based on individual works. He did not study the tradition in depth from the perspective of setting up Tuhu specialty, systematically studying Tuhu and studying Tuhu music culture.

Researcher interviewed Wang GuangGuo associate professor. According to his introduction, there is no students to learn Tuhu in Wuzhou University. The students also have little chance to contact Tuhu musical instruments. Between 2011 and 2020, The university offers elective courses on traditional Chinese musical instrument performance for all students, including the study of musical instruments such as Erhu, Dizi, Xiao, and Hulusi. The course was offered for a total of 3 semesters, with Wang Guangguo as the teacher. Since 2020, Wuzhou University has included an elective course on the Erhu in the curriculum for the musicology program. These students come from Guangxi Zhuang Autonomous. But they don't know much about the Zhuang Tuhu musical instruments. Due to the influence of personnel training objectives, curriculum, class hours and credits, it is not easy to set up a tuhu curricula at Wuzhou University now (Interviews, Wang Guangguo,2024.9.8).

2. The Guidelines for the Preservation of Tuhu into School Curricula

In terms of teaching system, talent training program and curriculum setting, the schools have formed a relatively stable mode through continuous teaching development, and it is necessary to carry out phased reform from many aspects of teaching objectives, talent training objectives and curriculum system. The specific recommendations are as follows:

2.1 Policy support, enlist the support of the government and the education sector, and integrate the preservation and transmission of Tuhu into education policies and planning.

The reform of school education and teaching is inseparable from policy support. The preservation and transmission of Tuhu into education policy and planning, it needs to obtain the support of the government and education departments, such as inheriting the excellent traditional Chinese culture and characteristic music culture into the campus and classroom in school education, which can provide a policy guarantee and implementation basis for the inclusion of Tuhu in school education.

2.2 Compile Tuhu teaching materials and build a professional Tuhu teaching team.

Compile and publish textbooks on tuhu, including its history, production techniques, playing techniques, cultural connotation.

Textbooks are developed for different ages and skill levels to ensure that learners are able to systematically master the basic knowledge and advanced techniques of Tuhu.

In Guangxi Zhuang Autonomous, priority will be given to erhu teachers, erhu performers, stringed musical instruments teachers and tuhu folk performers for cooperation and exchange. Research and demonstrate Tuhu knowledge and technique together. Setting standards and training unified. Cultivating a group of qualified Tuhu teachers. To ensure that they have sufficient professional knowledge, teaching skills, and cultural literacy. The teachers with basic knowledge of stringed instrument playing, they can achieve a good level of knowledge and dissemination in a relatively short period of time. They are highly efficient in their learning. After that, teachers of culture, arts, science and other subjects in each school will be trained in batches. A strong team of teachers can stimulate students' interest in learning and enhance students' learning outcomes. It can also attract the attention of more outstanding students and parents, and enhance the influence of school in the transmission of Tuhu.

2.3 Carry out teaching reform on curriculum and talent training programs, and set up Tuhu into school curricula.

To set up Tuhu into school talent training program curriculum system. Such as elective courses, compulsory courses, practical courses, extended courses. Reform of

the curriculum and talent development program, combine with history, music, art and other disciplines in teaching. Introduce the origin and development of Tuhu in the history and culture course, to help students understand the significance of Tuhu music culture. Cultivate students' interest and understanding of Tuhu. To enable students to be exposed to the basic knowledge, playing technique and cultural connotations of Tuhu in schools.

Organize cultural practices and outreach activities related to Tuhu in schools. Invite Tuhu players and orchestras to campus to hold Tuhu music festivals, concerts, lectures and workshops. Organize students to participate in practical activities and cultural and artistic activities. Such as making traditional handicrafts and participating in traditional festivals. Set up a Tuhu music club in schools, provide extracurricular time for students to study and practice Tuhu. Enhance students' sense of cultural identity. Promote the transmission and development of Tuhu in schools.

2.4 Develop the Tuhu online education and teaching resource library, and build the Tuhu digital online course.

Make use of online platforms for education and teaching such as Massive Open Online Courses (MOOC), to develop Tuhu online education and teaching resource library and Tuhu digital online course. It includes modules such as Tuhu knowledge and techniques, playing demonstrations, cultural introductions and interactive exchanges. Digital resources include videos, pictures, audio, textual materials.

To develop online courses, it can promote equity in education, break geographical restrictions, ensure that students in remote and rural areas can also enjoy high-quality educational resources.

It allows students to be flexible in their study schedules and at their own pace. It is convenient for students to learn independently. Expand the communication influence and audience scope of Tuhu, and attract more young people's attention and participation.

The creation of interactive communication modules for online courses can encourage learners to share their learning experiences, exchange learning experiences, and promote cultural exchange and interaction.

Through the combination of online and offline courses in schools, interdisciplinary curriculum collaboration. The schools collaborate with other folk

artists, art groups and educational institutions, Tuhu art techniques in school curriculum system, realize the comprehensive linkage of learning and inheritance. Promote the transmission and development of Tuhu culture.

Summary

The preservation and integration of the Tuhu instrument into the school curricula in Guangxi Zhuang Autonomous. As a culturally significant instrument of the Zhuang, the Tuhu currently needs help in its transmission due to a declining number of players, a lack of professional attention, and insufficient educational resources. Most Tuhu performers are elderly, and the younger generation has limited exposure to the instrument, particularly in schools where it is rarely taught or played. Through interviews with experts, including teachers and performers, this chapter highlights the urgent need to preserve Tuhu by addressing these issues. The first step is recognizing the current challenges, such as the aging player base, limited professional training, and lack of dedicated teaching materials. The chapter suggests several strategies for integrating Tuhu into educational systems to counter these difficulties. These include garnering government and educational policy support, developing teaching materials, building a trained teaching workforce, and incorporating Tuhu into school curricula as elective and practical courses. Additionally, cultural practices like music festivals and workshops can enhance student interest and involvement in Tuhu. Expanding into online education platforms is also suggested to reach broader audiences, including students in remote areas. By implementing these measures, the transmission and development of Tuhu within the education system can be significantly strengthened, ensuring its survival and continued cultural relevance.

พหุ ประเด็น ชีว

CHAPTER VII

Conclusion, Discussion, and Suggestions

1. Conclusion

The study explores the playing techniques of the Tuhu, a bowed string instrument in Guangxi Zhuang Autonomous, China. It focuses on three aspects: elementary knowledge of Tuhu, right-hand and left-hand playing techniques, and interviews with key informants like Huang Yige and Li Xike. The Tuhu, also known as "Thick Hu" or "Female Hu", is larger than other Chinese bowed instruments and features a cylindrical or octagonal soundbox made from hollowed-out paulownia wood. It was traditionally strung with silk, but post-1949, steel strings were introduced. Tuned in perfect fifths, it can be played solo or in ensemble settings, often paired with the Zhuang Maguhu. Right-hand techniques, such as bowing, are crucial for controlling the Tuhu's tonal quality. Techniques like Long Bowing, Legato Bowing, Staccato Bowing, and Fast Bowing are essential for the rhythmic character of Tuhu music. Techniques like Ti-gong and Cuo-gong are unique to Zhuang music. Left-hand or fingering techniques are vital for producing accurate tones and executing ornamentations. Finger retention helps stabilize the hand while playing complex passages. Techniques like trill, vibrato, rolling finger, portamento, and position shifting enhance the performance's emotional quality. Overall, understanding and preserving Tuhu's performance practices is essential for preserving the cultural heritage of the Zhuang people.

The transmission process of the Tuhu is a fundamental practice for mastering the instrument. It involves developing technical accuracy in open string exercises, string changes, and finger placement practices for each of the four fingers. These practices teach players proper posture, bowing techniques, and finger dexterity. As the practices progress, the techniques become more complex, introducing faster bowing and tremolo exercises to increase fluidity and performance speed. Advanced representative practices extend beyond the basics to incorporate techniques essential for professional performances in solo and ensemble settings. Techniques like portamento, Ti-gong bowing, Cuo-gong bowing, and Dian-zhi Portamento contribute to the expressive musical phrases of Zhuang music. The Tuhu's transmission also interacts with other

instruments, particularly the Maguhu, creating a harmonic balance. This collaborative technique showcases the versatility of the Tuhu and its ability to support the ensemble's overall sound while retaining its distinct timbre. Jia-hua, or decorative embellishments, further enhance the musicality of Tuhu performances. These improvisational techniques, such as appoggiaturas, portamentos, and mordents, reflect the influence of local Zhuang language patterns on music, adding complexity and stylistic depth to solo and ensemble performances.

The Tuhu, a bowed string instrument in Zhuang culture, faces challenges due to its limited attention and aging players. Despite its importance, its presence in educational institutions in Guangxi Zhuang Autonomous is minimal. The scarcity of young learners exacerbates this decline, limited professional development of Tuhu as a solo instrument, and lack of formal teaching materials and trained instructors. To ensure the instrument's future, guidelines are provided to integrate Tuhu into school curricula, emphasizing the crucial role of young students. Policy support and government-backed education reforms are essential, along with the development of comprehensive Tuhu teaching materials. A professional teaching team combining Erhu performers and Tuhu folk artists can enhance transmission. Schools should also reform their curricula to include Tuhu as an elective or compulsory subject. Extracurricular cultural activities like music festivals, concerts, and workshops can raise awareness and encourage student engagement. Digital resources like Massive Open Online Courses (MOOCs) and online learning platforms can broaden access to Tuhu education, reaching students in remote areas. Integrating Tuhu into online and offline learning environments will promote its preservation and facilitate cross-cultural exchange, ensuring Tuhu remains an enduring element of Zhuang musical heritage for future generations.

2. Discussion

The results of this study align with prior research in traditional music preservation, particularly regarding the challenges of maintaining interest and proficiency in minority folk instruments. For instance, as noted in studies by Wang (2017), the transmission and development of ethnic minority music in China often face obstacles such as a lack of institutional support, minimal exposure in educational settings, and a general lack of interest among younger generations. In the case of the

Tuhu, these challenges are compounded by the aging population of players and the instrument's limited inclusion in professional and academic music settings (Chen, 2022). This confirms that preserving traditional instruments like the Tuhu requires more robust integration into the educational system and a more extensive effort to cultivate new generations of players (Pan, 2014).

The theoretical principles of ethnomusicology provide a useful framework for understanding the cultural significance of the Tuhu. As an essential part of the Zhuang musical heritage, the Tuhu's role extends beyond its musical function. It is deeply embedded in the Zhuang community's social, cultural, and ceremonial life (Luo, 2011). This reflects the ethnomusicological view that music is a cultural artifact, contributing to identity formation, social cohesion, and cultural transmission (Guan, 2013). The findings of this study corroborate this perspective, demonstrating that the Tuhu is more than just an instrument; it is a symbol of the Zhuang people's cultural identity. Its preservation is thus not only about maintaining musical techniques but also safeguarding cultural values and traditions.

One of the key findings of this research is the need for qualified teachers to teach the Tuhu. This is consistent with the broader literature on traditional music education, highlighting the lack of trained educators as a major barrier to the effective transmission of traditional music forms (Bao, 2016). The scarcity of teaching materials and the limited availability of professional performers further exacerbate this issue (Gao, 2010). The interviews with key informants such as Professor Chen Kunpeng and Mr. Huang Yige revealed a growing need to formalize Tuhu education within music conservatories and schools in Guangxi. This aligns with suggestions from scholars like Su (2005), who argue that traditional music forms will likely face extinction without structured education programs as older performers pass away.

The findings also suggest that integrating Tuhu into school curricula could be a viable strategy for its preservation. Similar conclusions have been drawn in previous studies on the role of schools in cultural preservation. As noted by Ke (2006), schools are pivotal in transmitting cultural knowledge to younger generations, and they provide a structured environment where students can systematically engage with traditional music. This study supports this view, as introducing Tuhu into school curricula would provide young students with the theoretical and practical knowledge needed to preserve

and develop the instrument. However, as the research also demonstrates, this requires substantial policy support, curriculum development, and teacher training.

The use of online resources and digital platforms to support the preservation of the Tuhu represents an innovative approach that aligns with broader trends in the digitalization of education (Yang, 2022). The research highlights the potential of online courses and digital resources to reach a broader audience, particularly in remote areas where access to professional music education may be limited. This is consistent with other studies' findings that advocate using digital technology to preserve intangible cultural heritage (Xu, 2019). By creating digital archives and online learning modules, the transmission of Tuhu can be expanded beyond the physical boundaries of Guangxi, potentially attracting interest from students and musicians worldwide.

Despite these promising avenues, the research also identifies significant challenges that must be addressed to ensure the successful integration of Tuhu into the educational system. One of the most pressing issues is insufficient governmental and institutional support. As Feng (1986) noted, preserving traditional music often depends on the active involvement of government bodies and cultural institutions. Without adequate funding, policy support, and educational reforms, efforts to promote Tuhu education will likely falter. This finding highlights the need for coordinated efforts between local governments, educational institutions, and cultural organizations to create a sustainable framework for the preservation of the Tuhu.

3. Suggestions

3.1 Suggestions for applying this research

3.1.1 It is essential to create structured music education programs incorporating Tuhu as part of schools' core or elective curriculum, especially within Guangxi Zhuang Autonomous.

3.1.2 Establishing online platforms, such as Massive Open Online Courses (MOOCs) or digital archives, would provide easy access to Tuhu educational materials, including video tutorials, digital sheet music, and performance recordings.

3.1.3 For effective preservation and integration of Tuhu into schools, there needs to be increased support from both government bodies and educational

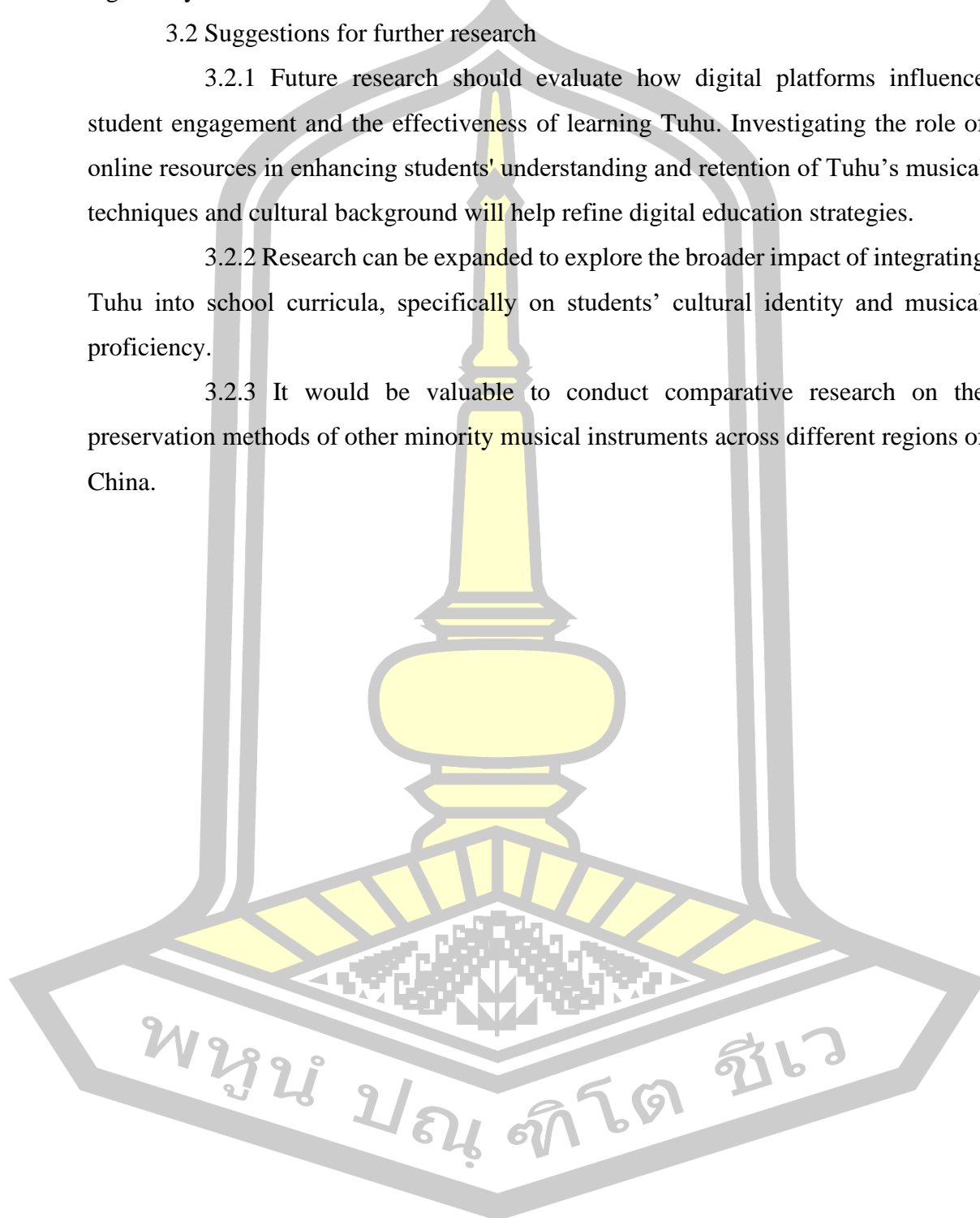
institutions. Government-backed support will provide the necessary resources and legitimacy for Tuhu to flourish in formal education.

3.2 Suggestions for further research

3.2.1 Future research should evaluate how digital platforms influence student engagement and the effectiveness of learning Tuhu. Investigating the role of online resources in enhancing students' understanding and retention of Tuhu's musical techniques and cultural background will help refine digital education strategies.

3.2.2 Research can be expanded to explore the broader impact of integrating Tuhu into school curricula, specifically on students' cultural identity and musical proficiency.

3.2.3 It would be valuable to conduct comparative research on the preservation methods of other minority musical instruments across different regions of China.



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APPENDIX

Appendix I Fieldwork Photos



Figure 69. Collecting Zhuang Oper3257a Accompaniment Music with Asst Prof. Dr. Sayam Chuangprakhon at Jiuqu Bridge in Debao County, Guangxi Zhuang Autonomous, China

Source: Yu Tengteng, from fieldwork in July 2024



Figure 70. Collecting Zhuang Opera Music with Asst Prof. Dr. Sayam Chuangprakhon and Asst. Prof. Dr. Weerayut Seekhunlio at Jiuqu Bridge in Debao County, Guangxi Zhuang Autonomous, China

Source: Yu Tengteng, from fieldwork in July 2024



Figure 71. Zhuang Opera Accompaniment Orchestra is Accompanying in Najia Town Debao County, Guangxi Zhuang Autonomous, China

Source: Yu Tengting, from fieldwork in July 2024



Figure 72. Zhuang Opera Accompaniment Orchestra in Najia Town Debao County, Guangxi Zhuang Autonomous, China

Source: Yu Tengting, from fieldwork in July 2024



Figure 73. Mr. Huang Yige is explaining Zhuang Opera Accompaniment Techniques in Najia Town Debao County, Guangxi Zhuang Autonomous, China
Source: Yu Tengting, from fieldwork in July 2024



Figure 74. Mr. Huang Yige is accompaniment for the Zhuang Opera in Najia Town Debao County, Guangxi Zhuang Autonomous, China
Source: Yu Tengting, from fieldwork in July 2024



Figure 75. Folk Zhuang Opera Troupe in Najia Town Debao County, Guangxi
Zhuang Autonomous, China

Source: Yu Tengting, from fieldwork in July 2024



Figure 76. Zhuang Eight Categories Instrumental Music Ensemble in Jingxi City,
Guangxi Zhuang Autonomous, China

Source: Yu Tengting, from fieldwork in July 2021



Figure 77. Interview Mr. Li Xike in Jingxi City, Guangxi Zhuang Autonomous, China

Source: Yu Tengpeng, from fieldwork in July 2021



Figure 78. Interview Mr. Li Xike and Mr. Huang Yige in Jingxi City, Guangxi Zhuang Autonomous, China

Source: Yu Tengpeng, from fieldwork in July 2019



Figure 79. Interview Mr. Li Xike in Jingxi Zhuang Museum, Guangxi Zhuang Autonomous, China

Source: Yu Tengting, from fieldwork in August 2018



Figure 80. The researcher interviewed the folk musicians with Asst Prof. Dr. Sayam Chuangprakhon and Mr. Huang Yige in Najia Town Debao County, Guangxi Zhuang Autonomous, China

Source: Yu Tengting, from fieldwork in July 2024



Figure 81. The researcher interviewed Najia Town Zhuang Opera Troupe with Asst Prof. Dr. Sayam Chuangprakhon and Asst. Prof. Dr. Weerayut Seekhunlio in Debao County, Guangxi Zhuang Autonomous, China

Source: Yu Tengpeng, from fieldwork in July 2024



Figure 82. The researcher interviewed Mr. Huang Yige with Asst Prof. Dr. Sayam Chuangprakhon and Asst. Prof. Dr. Weerayut Seekhunlio in Debao County, Guangxi Zhuang Autonomous, China

Source: Yu Tengpeng, from fieldwork in July 2024

Appendix II Chinese Musical Notation

1. Zhuang Shan Yun-Staff Notation

Zhuang Shan Yun

Composer: Su Chaofu, Huang Yige
Transcript by Yu Tengting

The musical score is written in staff notation with a key signature of two sharps (F# and C#) and a 2/4 time signature. It consists of ten staves of music, each beginning with a measure number (8, 16, 25, 33, 40, 49, 57, 65, 73). The notation includes various musical symbols such as notes, rests, and dynamic markings. The dynamics include *f* (forte), *p* (piano), *mf* (mezzo-forte), and *mp* (mezzo-piano). There are also articulation marks like accents and slurs. The score includes first and second endings at measures 25-28 and 40-43. The final measure is 73.

81 *f* *p* *f*

88 *p* *f* *p* *mf*

96 1. 2.

106 1. 2.

116

2. Zhuang Shan Yun-Numbered Musical Notation

壮山韵

音乐改编：苏朝晖、黄十村、陈永梅
根据广西壮族《山歌》曲调整理

Handwritten musical notation for "Zhuang Shan Yun" (壮山韵). The notation is written on a system of five staves, each beginning with a circled number (1, 2, 3, 4, 5). The notation consists of numbers (1-7) and various musical symbols (accents, slurs, etc.) indicating pitch and rhythm. The notation is written in a traditional Chinese style, with some numbers and symbols appearing in a stylized or abbreviated form. The notation is written on a system of five staves, each beginning with a circled number (1, 2, 3, 4, 5). The notation consists of numbers (1-7) and various musical symbols (accents, slurs, etc.) indicating pitch and rhythm. The notation is written in a traditional Chinese style, with some numbers and symbols appearing in a stylized or abbreviated form.

<1>

Handwritten musical notation for "Zhuang Shan Yun" (壮山韵). The notation is written on a system of five staves, each beginning with a circled number (1, 2, 3, 4, 5). The notation consists of numbers (1-7) and various musical symbols (accents, slurs, etc.) indicating pitch and rhythm. The notation is written in a traditional Chinese style, with some numbers and symbols appearing in a stylized or abbreviated form. The notation is written on a system of five staves, each beginning with a circled number (1, 2, 3, 4, 5). The notation consists of numbers (1-7) and various musical symbols (accents, slurs, etc.) indicating pitch and rhythm. The notation is written in a traditional Chinese style, with some numbers and symbols appearing in a stylized or abbreviated form.

<2>

3. Kuai Cai Hua

快 采 花

演奏：黄一格
收集记录：于腾腾

1=E $\frac{1}{4}$ (4 1)

$\dot{5}$ | $\dot{1}$ $\dot{2}$ | $\dot{6}$ $\dot{6}$ | $\dot{6}$ $\dot{4}$ | $\dot{5}$ $\dot{6}$ | $\dot{5}$ $\dot{4}$ | $\dot{2}$ $\dot{1}$ | $\dot{2}$ $\dot{4}$ | $\dot{5}$ $\dot{6}$ | $\dot{5}$ |

$\dot{2}$ $\dot{2}$ | $\dot{5}$ | $\dot{3}$ | $\dot{3}$ $\dot{5}$ | $\dot{6}$ | $\dot{3}$ $\dot{5}$ | $\dot{5}$ $\dot{6}$ | $\dot{5}$ | $\dot{2}$ $\dot{2}$ | $\dot{5}$ |

$\dot{6}$ | $\dot{2}$ | $\dot{5}$ | $\dot{5}$ $\dot{3}$ | $\dot{3}$ $\dot{2}$ | $\dot{3}$ | $\dot{6}$ | $\dot{6}$ | $\dot{3}$ | $\dot{3}$ $\dot{6}$ |

$\dot{6}$ $\dot{1}$ | $\dot{1}$ $\dot{2}$ | $\dot{2}$ | $\dot{6}$ | $\dot{6}$ $\dot{1}$ | $\dot{6}$ | $\dot{6}$ $\dot{1}$ | $\dot{2}$ | $\dot{2}$ $\dot{3}$ | $\dot{5}$ |

$\dot{1}$ $\dot{6}$ | $\dot{6}$ $\dot{5}$ | $\dot{5}$ | $\dot{6}$ $\dot{6}$ | $\dot{6}$ $\dot{4}$ | $\dot{5}$ $\dot{6}$ | $\dot{5}$ $\dot{4}$ | $\dot{2}$ $\dot{1}$ | $\dot{2}$ $\dot{4}$ | $\dot{5}$ |

$\dot{5}$ $\dot{1}$ | $\dot{6}$ $\dot{6}$ | $\dot{6}$ $\dot{4}$ | $\dot{5}$ $\dot{6}$ | $\dot{5}$ $\dot{4}$ | $\dot{2}$ $\dot{1}$ | $\dot{2}$ $\dot{4}$ | $\dot{5}$ | $\dot{5}$ $\dot{5}$ | $\dot{5}$ |

$\dot{6}$ | $\dot{2}$ | $\dot{6}$ | $\dot{3}$ $\dot{5}$ | $\dot{6}$ | $\dot{6}$ $\dot{5}$ | $\dot{3}$ | $\dot{2}$ $\dot{3}$ | $\dot{3}$ | $\dot{2}$ |

$\dot{3}$ $\dot{2}$ | $\dot{1}$ $\dot{2}$ | $\dot{3}$ | $\dot{5}$ $\dot{5}$ | $\dot{2}$ | $\dot{6}$ | $\dot{6}$ | $\dot{3}$ $\dot{5}$ | $\dot{5}$ $\dot{3}$ | $\dot{5}$ $\dot{3}$ |

$\dot{2}$ | $\dot{2}$ $\dot{3}$ | $\dot{3}$ $\dot{1}$ | $\dot{2}$ $\dot{2}$ | $\dot{2}$ $\dot{3}$ | $\dot{3}$ $\dot{3}$ | $\dot{6}$ | $\dot{2}$ | $\dot{6}$ | $\dot{6}$ $\dot{1}$ |

$\dot{6}$ $\dot{1}$ | $\dot{2}$ | $\dot{2}$ | $\dot{1}$ | $\dot{6}$ $\dot{1}$ | $\dot{2}$ | $\dot{5}$ | $\dot{2}$ | $\dot{2}$ $\dot{3}$ | $\dot{2}$ $\dot{1}$ |

$\dot{6}$ | $\dot{1}$ $\dot{6}$ | $\dot{5}$ | $\dot{3}$ | $\dot{2}$ | $\dot{3}$ $\dot{2}$ | $\dot{1}$ | $\dot{1}$ $\dot{2}$ | $\dot{3}$ | $\dot{2}$ $\dot{3}$ |

$\dot{2}$ $\dot{1}$ | $\dot{6}$ | $\dot{5}$ | $\dot{6}$ | $\dot{1}$ | $\dot{5}$ | $\dot{1}$ | $\dot{6}$ $\dot{5}$ | $\dot{4}$ | $\dot{5}$ |

$\dot{5}$ $\dot{1}$ | $\dot{6}$ $\dot{6}$ | $\dot{6}$ $\dot{4}$ | $\dot{5}$ $\dot{6}$ | $\dot{5}$ $\dot{4}$ | $\dot{2}$ $\dot{1}$ | $\dot{2}$ $\dot{4}$ | $\dot{5}$ | $\dot{5}$ $\dot{1}$ | $\dot{6}$ $\dot{6}$ |

$\dot{6}$ $\dot{4}$ | $\dot{5}$ $\dot{6}$ | $\dot{5}$ $\dot{4}$ | $\dot{2}$ | $\dot{1}$ | $\dot{2}$ | $\dot{4}$ | $\dot{5}$ | $\dot{5}$ ||

邕 椎 谣

作曲：苏朝甫 黄一格

(3 6 6 3 6 6 | 2 3 - | 3 3 | 7 2 6 7 2 6 | 6 - | 6 -) || 7 2 6 7 2 3 | 1 6 1 6 5 |
 10 15
 6 6 3 3 2 | 1 2. 3 5 | 2 3 2 7 2 2 | 6 7 2 7 2 6 | 6 6 3 3 3 | 6 3 2 3 2 | 1 6 1 1 1 | 6 3 2 3 5 |
 20 25 30
 2 6 7 2 2 | 6 3 2 3 5 | 3 7 3 3 3 | 6 3 2 3 | 2 6 3 7 2 3 | 2 7 2 2 2 | 2 0 3 0 | 5 0 3 3 3 3 |
 35 40
 3 1 1 1 1 | 1 0 6 6 6 6 | 6. 0 :|| 1 0 6 6 6 6 | 6 3 6 6 | 3 6 6 3 6 6 6 | 7 6 6 3 6 6 6 | 7 6 6 3
 45 50 55
 3 3 5 5 6 | 6 1 2 | 7 7 6 5 3 5 6 | 7 2. | (2 3 5 1 1 | 7 2 7 6 5 | 2 3 5 1 1 | 7 6 5 3 2 |
 60 65
 2 3 5 1 1 | 7 2 7 6 5 | 2 3 5 1 1 | 7 6 5 3 2 | 2 3 5 3 | 5 3 5 6 7 6 7 2 | 3. 5 6 | 4. 2 |
 70 75 80
 2. 3 | 3. 1 6 | 6 - | 6 - :|| 3. 1 6 | 6 (0 3 | 5 3 5 6 5 3 5 6 | 7 6 5 6 7 6 5 6 | 7 3 3 3 3 |
 原速稍快
 85 90 95
 7 2 6 7 2 3 | 1 6 1 1 6 5 | 6 6 3 3 2 | 2. 3 5 | 2 3 2 7 2 2 | 6 7 2 7 2 6 | 6 6 3 3 3 |
 100
 6 3 2 3 2 | 1 6 1 1 1 | 6 3 2 3 5 | 2 6 7 2 2 | 6 3 2 3 5 | 3 7 3 3 3 | 6 3 2 3 | 2 6 3 7 2 3 |
 105 110 115
 2 7 2 2 2 | 2 0 3 0 | 5 0 3 3 3 3 3 | 3 1 1 1 1 | 1 0 6 6 6 6 6 | 6 3 6 6 | 3 6 6 6 :||
 120 125 130
 7 6 6 7 6 6 | 2 3 - | 3 3 | 7 2 6 7 2 6 | 7 2 6 6 6 | 3 5 2 3 5 2 | 6 - | 6 - |
 135 140 145
 3 5 2 3 5 2 | 3 5 2 2 2 | 3 5 2 3 5 2 | 3 5 2 2 2 | 6 - | 6 - | 6. 0 ||

5. Nalu Zhuang Opera Guo Chang Diao

南路壮剧过场调

演奏技法：黄一格
音乐整理：黄一格、于腾腾

1=G $\frac{2}{4}$

11

C G
马骨胡
(4 1弦)

G D
土胡
(1 5弦)

1. 2 6 1 6 | 5. 6 1 | 5 1 5 6 | 1 2 2 3 | 1 2 1 2 6 | 5 5 5 6 | 5. - |

0 0 | 5 1 5 6 | 1 1 5 6 | 1 1 2 1 | 1 6 1 2 6 | 5 1 5 6 | 5 1 5 6 |

8

3 2 3 1 2 | 3 5 3 2 | 1 2 2 6 | 1 2 2 3 | 1 5 3 | 3 5 5 1 | 3 2 3 5 3 |

5 5 5 6 | 3 5 1 2 | 3 3 5 2 | 1 2 2 6 | 1 1 5 3 | 5 6 6 1 | 3 2 3 5 3 |

15

2. 3 | 2 3 5 6 | 3 2 3 5 2 | 1 2 5 6 | 1 6 6 1 | 2 1 2 2 1 | 6 6 5 6 |

2. 3 | 5 6 5 1 | 3 3 5 3 2 | 1 1 2 6 | 1 1 1 2 | 2 3 2 1 | 2 1 2 6 |

22

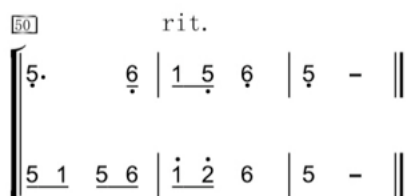
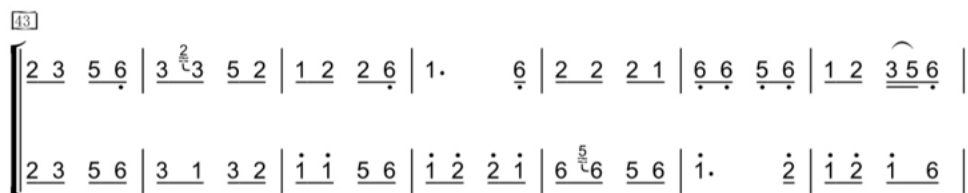
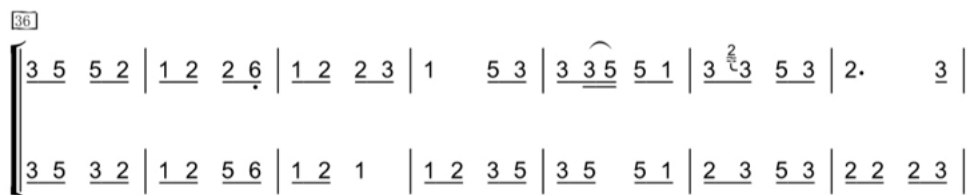
1 2 3 5 6 | 5 4 5 5 6 | 1 1 2 1 | 6 1 6 1 2 | 3. 5 | 3 2 3 2 3 | 2 1 2 6 |

1 2 1 6 | 5 4 5 5 4 5 | 1 1 2 1 | 5 6 1 2 | 3 2 3 3 2 3 | 3 5 3 2 | 2 3 2 1 |

29

1 2 3 5 6 | 5 4 5 5 1 | 5 1 5 6 | 1 6 2 3 | 1 2 1 6 | 5 1 5 6 | 5 3 3 5 |

1 2 1 6 | 5 4 5 5 4 5 | 5 1 5 6 | 1 1 5 6 | 1 6 1 2 6 | 5 4 5 5 4 5 | 1 2 3 5 |



作品根据黄一格演奏技法记谱整理，马骨胡定音C G（4 1弦），土胡定音G D（1 5弦）。

6. Jingxi Zhuang Eight Categories Instrumental Music Xian Ban Diao

靖西壮族八音《仙家乐》

（又名《仙班调》、《仙班曲》）

1=G $\frac{2}{4}$

演奏技法：李西克
音乐整理：于腾腾



作品根据李西克演奏技法进行记谱整理，土胡定音G D（1 5弦）。

Appendix III Research Tools

1. Observation Form

1.1 Subject Information: Huang Yige, male, 67 years old, master of Tuhu player

Observer's Name: Yu Tengteng

Date:

- 1) 5:00 p.m., March 2, 2024 ;
- 2) 5:00 p.m., March 7, 2024 ;
- 3) 10:00 a.m., March 8, 2024
- 4) 5:00 p.m., March 13, 2024 ;
- 5) 10:00 a.m., March 22, 2024 ;
- 6) 10:00 a.m., March 23, 2024 ;

Observation location: Huang Yige home

Observation Content:

1. What are the Tuhu playing techniques?
2. Tuhu playing posture.
3. Tuhu's accompaniment techniques and methods.
4. What are the common performance techniques of Tuhu used to play Zhuang Opera music? And how to practice these playing techniques?
5. The process and steps of learning Tuhu

Observation Methods Used: participant observation

Data Recording: Video recording and audio recording

Qualitative Data: The researcher recorded the Tuhu music played by Huang Yige, and Huang Yige explained and answered the functions and techniques of the Tuhu. The researcher obtained qualitative data such as the Tuhu performance techniques and the transmission process of the Tuhu.

Analysis and Interpretation: After recording the video of Huang Yige's Tuhu performance, the researcher analyzed the video data. Combined with the content of Huang Yige's explanation, the researcher refined, explained and summarized Tuhu performance techniques, techniques classification, performance principles, learning and transmission process.

1.2 Subject Information: Li Xike, male, 74 years old, the representative inheritor of the intangible cultural heritage project of Guangxi Zhuang Autonomous at Jingxi Zhuang Eight Categories Instrumental Music.

Observer's Name: Yu Tengting

Date: 10:00 a.m., April 10, 2024

Observation location: Qingxiu Mountain in Nanning City

Observation Content:

1. Li Xike used Tuhu to play the Jingxi Zhuang Eight Categories Instrumental Music the "Xian Ban Diao" and "Ying Ke Qu".

2. The playing techniques in the Jingxi Zhuang Eight Categories Instrumental Music.

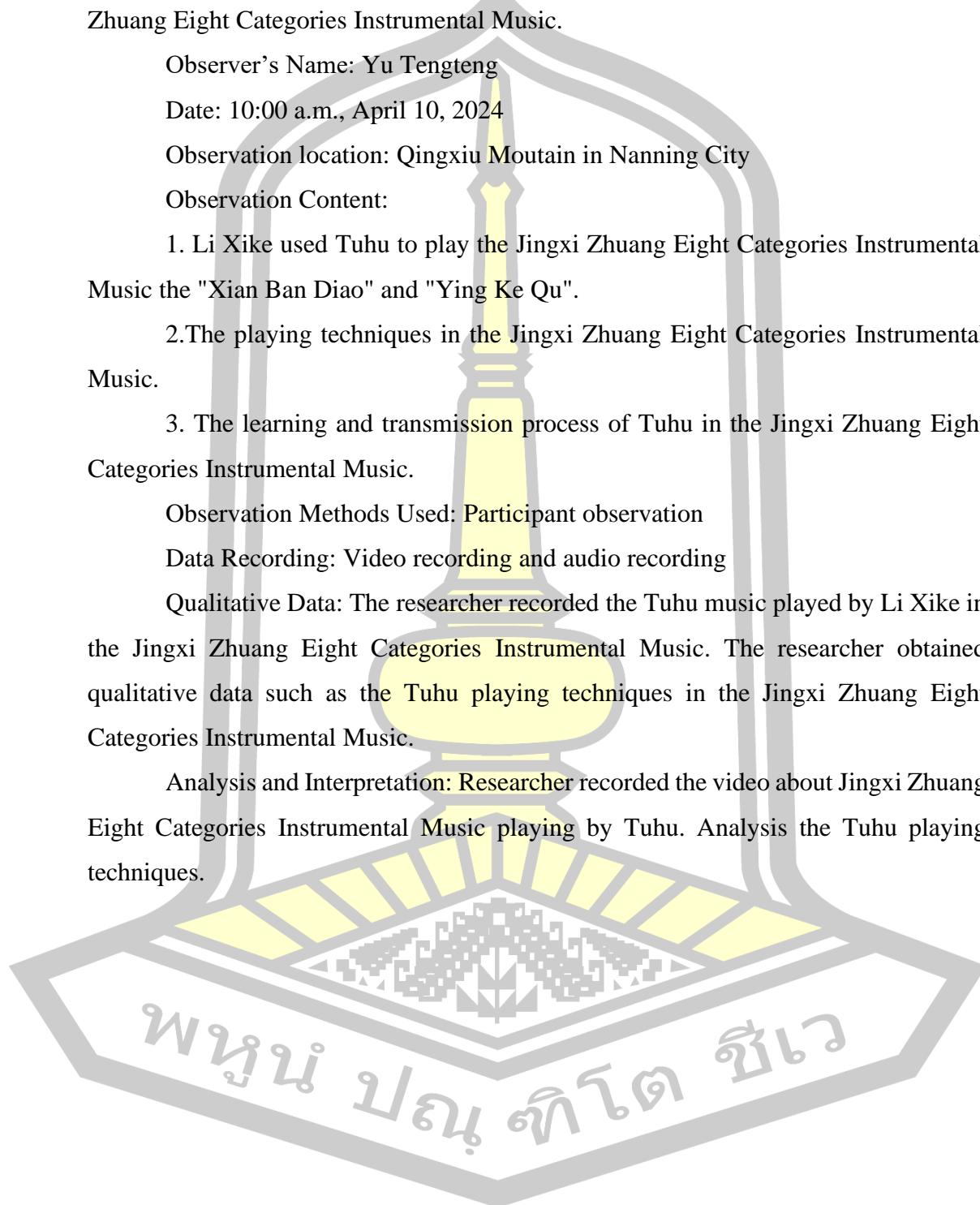
3. The learning and transmission process of Tuhu in the Jingxi Zhuang Eight Categories Instrumental Music.

Observation Methods Used: Participant observation

Data Recording: Video recording and audio recording

Qualitative Data: The researcher recorded the Tuhu music played by Li Xike in the Jingxi Zhuang Eight Categories Instrumental Music. The researcher obtained qualitative data such as the Tuhu playing techniques in the Jingxi Zhuang Eight Categories Instrumental Music.

Analysis and Interpretation: Researcher recorded the video about Jingxi Zhuang Eight Categories Instrumental Music playing by Tuhu. Analysis the Tuhu playing techniques.



2. Interview Form

Time	Site	Informant	Investigation Content
March, 2024	Nanning City, Guangxi Zhuang Autonomous Region	Huang Yige	<ol style="list-style-type: none"> 1. The shape and structure of the Tuhu in Debao City. 2. Uses and functions of Tuhu. 3. Tuhu playing techniques 4. The current situation of the transmission of Tuhu in Debao county. 5. The representative music of Tuhu. 6. The transmission process of Tuhu in Debao county.
July, 2024	Debao County, Guangxi Zhuang Autonomous Region	Huang Yige	<ol style="list-style-type: none"> 1. The use of Tuhu in the Zhuang Opera. 2. What is the art of Tuhu accompaniment? 3. The transmission process of Tuhu in Jingxi City. 4. The current situation and difficulties in the preservation of Tuhu.
April, 2024	Nanning City, Guangxi Zhuang Autonomous	Li Xike	<ol style="list-style-type: none"> 1. The use and performance techniques of Tuhu in the Zhuang Ba Yin.

			<p>2. The shape and structure of the Tuhu in Jingxi City.</p> <p>3. The current situation of the transmission of Tuhu in Jingxi City.</p>
July, 2021	Jingxi City, Guangxi Zhuang Autonomous	Li Xike	<p>1. Representative music of the Zhuang Ba Yin.</p> <p>2. The transmission process of Tuhu in Jingxi City.</p>
March, 2024	Nanning City, Guangxi Zhuang Autonomous	Chen Kunpeng	<p>1. The current situation of the transmission on Guangxi ethnic minorities stringed musical instruments in Guangxi Arts University.</p> <p>2. The situation of Tuhu entering the lecture and entering the campus of Guangxi Arts University.</p> <p>3. What are the difficulties of Tuhu transmission in university education and teaching?</p> <p>4. The guidelines for the preservation of Tuhu into school curricula.</p>
September, 2024	Nanning City, Guangxi	Qin Dachuan	<p>1. The transmission process of Tuhu in Guangxi.</p>

	Zhuang Autonomous		<p>2. Whether the Guangxi Song and Dance Theater has choreographed or performed Tuhu music.</p> <p>3. The current situation about using Tuhu in the Guangxi Song and Dance Theater.</p> <p>4. The guidelines for the preservation of Tuhu into school curricula.</p>
September, 2024	Yancheng City, Jiangsu Province	Wang Guangguo	<p>1. The current situation and difficulties about Wuzhou University offers traditional Chinese stringed instruments and Zhuang stringed instruments.</p> <p>2. The transmission difficulties of Tuhu in schools.</p> <p>3. The guidelines for the preservation of Tuhu into school curricula.</p>



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