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Exploring Organology and Learning Techniques of Dongxiao Chinese Folk Musical Instruments in Shandong Province

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Abstract

Back ground and Aims: This study explores the organology and learning skills of Dongxiao Chinese folk musical instruments in Shandong Province, a traditional Chinese folk musical instrument with deep historical and cultural significance, particularly in Shandong Province. The aim is to provide a comprehensive understanding of Dongxiao music culture, ensuring its preservation and development alongside contemporary music cultures in Asia.

Materials and Methods: The study is conducted through fieldwork in Heze, Shandong, China, involving data collection, identification of key informants, and systematic data collation. Observations and interviews are used as research tools to gain insights into Dongxiao materials, organology, and playing techniques. Data analysis includes quantitative and qualitative methods to identify patterns and themes related to Dongxiao.

Results: The study reveals the organology of Dongxiao, highlighting materials such as bamboo, hardwood, jade, metal, and PVC, along with their advantages and disadvantages. It categorizes the instrument's components, including the mouthpiece, body, finger holes, and barrel holes, elucidating their roles in sound production. Additionally, the study explores the learning techniques for Dongxiao, emphasizing playing postures, finger hole techniques, and lip positioning.

Conclusion: Dongxiao, with its rich history and cultural significance, plays a vital role in traditional Chinese music. Understanding its organology and learning techniques is essential for its preservation and promotion. Recommendations include the establishment of music education centers, digital learning platforms, collaborative performances, music festivals, and documentation efforts. Further study avenues include acoustical analysis, pedagogical approaches, regional variations, cross-cultural studies, contemporary compositions, and exploring the psychological and health benefits of Dongxiao.

Keywords: Dongxiao; Chinese Folk Musical Instrument; Organology; Learning Techniques

Introduction

The Dongxiao holds significant historical and cultural importance within traditional Chinese music culture. Its unique characteristics, including its vertically blown, single-barreled, rimmed tone design and soft, graceful sound, have made it a cherished instrument throughout China's history. The term "Xiao" was explicitly used during the Yuan dynasty to differentiate it from other musical instruments, emphasizing its distinction as a single-barreled, vertically-blown reed Xiao. Over the centuries, the Dongxiao has played pivotal roles in various aspects of Chinese society, from court music and religious ceremonies to literati traditions and folk music. This instrument has been featured in diverse performance settings, ranging from solos and ensemble Xiaos to orchestral compositions (Witzleben, 1995; Jingfang, 2000; Thrasher, 2008; Yaohua, 2012).

Historical records trace the roots of flutes and Xiaos, including the Dongxiao, back to ancient China. The use of Xiao instruments dates as far back as the time of the Yellow Emperor (2400 BC), marking the transition from bone to bamboo construction (Li & Xu, 2016; Thrasher, 2023). The evolution continued, leading to distinct forms during the Wei and Jin dynasties, which differentiated the vertical single-barrel flute from the Xiao (Jin, 2011; Filipiak, 2014). Notably, a significant transformation occurred during the Western Jin Dynasty, resulting in an instrument with six holes closely resembling the modern Xiao. Throughout the Wei, Jin, and North-South dynasties, the Xiao remained integral to solo and ensemble performances and orchestral accompaniments (Jinyuan, 2002; Xingchen, 2022).

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Shandong Province boasts a diverse and vibrant traditional music landscape encompassing a wide array of songs, operas, and solo instrumental ensembles. The southwestern region, particularly Heze, situated in the southwestern part of Shandong and adjacent to Henan, Anhui, and Jiangsu, stands as a cultural crossroads enriched with folk music traditions and a wealth of regional cultural nuances (Zhuo & Zhuo, 2018). Heze has preserved numerous cultural traditions to this day, making it an ideal focal point for the study of traditional music (Hongmei & Fang, 2018; Liu & Pianchana, 2023).

However, amidst the backdrop of rapid economic and cultural development, traditional music, including Dongxiao music, faces various challenges. The rural roots from which Dongxiao music emerged have diverged significantly from contemporary urban life. Traditional music often struggles to resonate with modern culture, resulting in a dwindling audience, particularly among the younger generation. To revitalize traditional Chinese music culture, it is imperative to undertake a comprehensive and systematic exploration of Dongxiao's music culture. This endeavor aims to foster its preservation and development alongside contemporary music cultures in Asia (Yang, 2016; Zhong, 2023).

This article has explored the organology and learning techniques associated with the Dongxiao, shedding light on this rich musical tradition. By understanding the intricacies of this ancient instrument, we aim to ensure its enduring presence and relevance in the future. The Dongxiao's historical significance and its role as a cultural emblem of Shandong Province underscore the importance of our research efforts. As we navigate a rapidly changing cultural landscape, the study of traditional music forms like Dongxiao is essential for preserving and celebrating the rich tapestry of Chinese music culture.

Objective

To explore organology and learning techniques of Dongxiao Chinese folk musical instruments in Shandong Province.

Literature review

The Xiao, an ancient Chinese instrument with a history spanning millennia, holds a cherished place in the hearts of the public due to its distinctive tones and elegant allure. It has been extensively employed in various forms of music, contributing to the transmission of playing skills and imparting values to its practitioners. Recent archaeological discoveries related to the Dongxiao family of instruments have led to more systematic and scientific research in China. Chinese scholars have produced numerous papers and works concerning Chinese Dongxiao musical instruments, with research efforts primarily concentrated in the following areas.

Dongxiao instruments are characterized by two primary features: their articulation principle as single pipes with open edges and their vertical orientation with mouthpieces and finger holes. Despite variations in mouthpiece shapes and the number of finger holes due to temporal and geographical factors, the fundamental attributes of Dongxiao instruments remain consistent. Notably, the famous Hemudu region of Zhejiang Province has yielded an array of bone pipes and flutes through archaeological excavations. These ancient instruments feature equal divisions of sound holes, allowing them to produce the six-tone scale when played today. Among these artifacts, a particularly exceptional and valuable flute stands out—resembling today's modern flutes with a thick middle section, approximately 10 cm long, featuring one blowing hole for horizontal playing and six tone holes similar to contemporary models (Charles, 2010).

With a history spanning nearly 5,000 years in Shandong, flutes and Xiao instruments have woven themselves intricately into the fabric of local Shandong opera, songs, and dances. Numerous compositions made or adapted by older artists contain elements of regional folk and opera music, where flutes and Xiao instruments play crucial roles. The study of Shandong's folk music holds immense value for the development of flute music in the region. It not only serves as a means of preserving and advancing traditional culture but also complements the flourishing of musical culture (Yang, 2016).

Shandong stands as a province rich in folk songs, boasting a diverse array of folk songs characterized by distinct attributes. These songs are classified into six types: labor songs, mountain songs, daily life ditties, large sets of songs, children's songs, and more. While some of these folk songs are ubiquitous throughout the province, others remain localized. The primary genres of folk music in Shandong encompass

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drumming, wind music, guqin, guzheng, liuqin, qin, sanshin, soft-bowed jinghu, and percussion. Two of the most influential forms are drumming and guzheng. Particularly in the southwestern region of Shandong, Suona takes center stage and is acclaimed as the "hometown of Suona" (Hong & Wu, 2022; Wang & Chonpairot, 2023).

Traditional Chinese music serves as an integral component of traditional culture, seamlessly interwoven with the customs and traditions of the local population. Shandong, renowned as the birthplace of Confucius and Mencius, embodies the essence of Confucian culture, with the spiritual underpinnings of Confucianism permeating various aspects of life, from festivals and weddings to funerals and ancestral rituals. The musical traditions of Shandong encompass a rich tapestry of songs, operas, and solo instrumental ensembles (Tang & Sornyai, 2023; Zhou & Chuangprakhon, 2023).

The southwestern region of Shandong, predominantly in Heze, occupies the southwestern portion of the province, bordering Henan, Anhui, and Jiangsu. This geographical location marks it as a transitional zone between distinct cultural regions, endowed with a robust foundation in folk music and a plethora of regional cultural nuances. Traditional opera, operatic arts, drumming, and wind music all flourish in Heze, complementing local rituals and customs. One such custom is the Spring Festival activity of ancestor worship, a testament to the enduring patriarchal concept that seeks blessings and protection from disasters while serving as a means of remembering ancestors and reinforcing family unity (Fan et al., 2020; Shao et al., 2023).

Theory Used

Ethnomusicology, originating in the late 19th century, is a discipline that revolves around the investigation and comprehension of folk music within diverse social systems and stages of development. Employing anthropological methodologies, ethnomusicology delves deep into the intricate relationship between folk music and the broader culture, with a particular focus on unraveling the profound significance of Dongxiao Chinese folk musical instruments that transcend their traditional roles (Campbell, 2003).

Musicology, on the other hand, concentrates on the comprehensive study of music in all its facets, encompassing historical and contemporary compositions and behaviors. This approach encompasses the examination of physiological, creative, performance, aesthetic, reception, and learning behaviors associated with music. Musicology strives to uncover the underlying causes and contextual factors shaping these expressions, with a keen emphasis on the roles played by both individuals and societies (Kerman, 2009).

Conceptual Framework

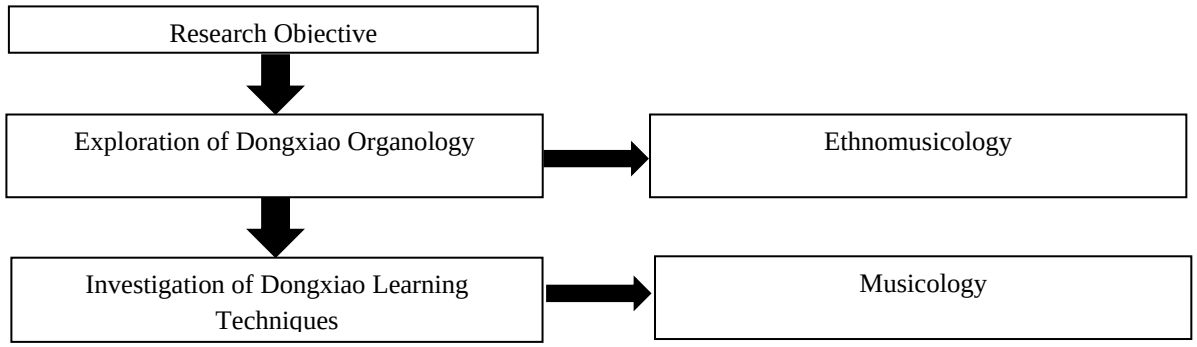

Figure 1 Conceptual Framework

Methodology

Research site: The research will be centered in Heze City, situated in Shandong Province, China, as shown in Figure 1. Heze City boasts a significant repository of traditional music culture, with the Dongxiao instrument holding a crucial role in its heritage. However, after compiling and organizing pertinent data, it has come to light that there is a noticeable scarcity of research concerning Dongxiao's form, techniques,

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and music within this locality. Consequently, the researcher will conduct fieldwork in Heze, Shandong, China, with the objective of data collection, identification of key informants, and systematic data collation for subsequent analysis.

Figure 1 Map of Heze City, Shandong Province
Source: Chinafolio (n.d.), China Discovery. (n.d.)

Key Informants: Criteria for Identifying Two Key Informants:

1) The candidates should have a minimum of 30 years of dedicated experience in the study of Dongxiao.
2) The individuals must be revered elders within the Dongxiao community, recognized for their wisdom and expertise.
3) The candidates should have earned multiple prestigious awards and honors in recognition of their substantial contributions to Dongxiao music and culture.

Research tools and data analysis, as shown in Table 1**:**

Table 1 Research Tools, Creation and Quality, Steps for Use, and Data Analysis

Research Tool	Creation and Quality	Steps for Using the Tool	Data Analysis
Observation Form (Huang, 2021)	- Meticulously designed for immersive experiences and active participation within cultural contexts and communities - Adaptable to various fieldwork situations to capture profound insights into Dongxiao Chinese Folk Musical Instruments	- Preparation: Familiarize researchers with the cultural context and Dongxiao music aspects - Fieldwork: Actively engage with Dongxiao practitioners and cultural communities. - Data Collection: Document Dongxiao-related activities, instrument characteristics, and cultural practices - Reflection and Notes: Expand notes after each session to capture detailed observations	- Review and organize collected data for accuracy and completeness - Identify recurring themes, patterns, and key insights within the data - Group codes into categories to form a structured framework - Interpret data within the context of Dongxiao music and culture - Perform comparative analysis if needed - Synthesize data into research findings

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Research Tool	Creation and Quality	Steps for Using the Tool	Data Analysis
Interview Form (Wan, 2021)	- Thoughtfully crafted to facilitate in-depth conversations with individuals closely connected to Dongxiao Chinese Folk Musical Instruments - Designed to elicit firsthand testimonials, personal anecdotes, and valuable narratives, enriching the comprehensive understanding	- Preparation: Develop research questions and objectives, considering cultural nuances - Participant Selection: Identify Dongxiao music experts and individuals with deep connections - Informed Consent: Establish informed consent procedures and address ethical considerations - Conducting Interviews: Conduct structured or semi-structured interviews using the form - Recording and Transcription: Record interviews (with consent) for accuracy and transcribe them for analysis	- Review and organize collected interview data for accuracy and completeness - Assign codes to segments of text for data categorization - Group codes into categories to create a structured framework - Interpret data within the context of Dongxiao music and culture - Perform comparative analysis if required - Synthesize interview data into research findings

Results

1. Organology of Dongxiao

Dongxiao, an integral part of traditional Chinese music culture, stands as a vertically blown, single-barreled, rimmed tone instrument, characterized by its soft, light, and elegant sound. Throughout ancient China, it played a significant role in court music, religious ceremonies, literati art, and folk traditions. The art of playing the Dongxiao, deeply rooted in breath control, finger dexterity, and tongue techniques, hinges upon a mastery of these elements to bring forth expressive melodies.

To understand the nuances of Dongxiao performance, it is essential to delve into its organology, encompassing the materials used and their characteristics. One such material, bamboo, is renowned for its unique sound quality and portability. On the other hand, hardwood offers a fuller, more resonant tone but comes with added weight. These material choices directly impact the instrument's sound, weight, and cost, catering to the preferences and needs of the player. This exploration into Dongxiao organology is crucial for both players and enthusiasts, facilitating informed decisions in selecting the instrument that resonates with their musical journey, as shown in Table 2.

Table 2 Dongxiao Materials and Characteristics

Material	Advantages	Disadvantages
Bamboo	- Natural sound quality with a unique, clear, and sometimes soft and natural tone - Lightweight and portable - Easy to work with and adjust - Malleability allows for sound optimization	- Sound quality dependent on bamboo quality - Affected by environmental factors - Vulnerable to damage.

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Material	Advantages	Disadvantages
Hardwood	- Full-bodied tone with richness and warmth - Durability in various environments - Tunability for pitch and tone adjustment - Aesthetic appeal with natural grain and texture	- Heavier weight requires greater hand strength - Higher price compared to bamboo
Jade	- Unique, beautiful, crisp sound quality - Elegant appearance with natural beauty and texture - High durability - Stable sound quality in different environments	- High price due to the rarity and preciousness of jade - Relatively heavier - Complex production process.
Metal	- High durability and resistance to external shocks - Consistent sound quality - Easy maintenance - Special metallic tonal characteristics	- Heavier weight compared to other materials - Preferable for higher parts of music - Limited tonal variation
PVC	- Inexpensive material - High durability and resistance to external factors - Easy maintenance.	- Limited sound quality compared to natural materials - Limited tonal range and intonation adjustments - Not traditional in style.

From Table 2, provides a concise overview of the materials commonly used in crafting Dongxiao instruments, highlighting their respective advantages and disadvantages. Understanding these material characteristics is crucial for players and enthusiasts in making informed choices when selecting a Dongxiao instrument. The example for Hardwood Dongxiao, as shown in Figure 2.

Figure 2 Hardwood Dongxiao

The organology of a Dongxiao can be categorized into four main components: the mouthpiece, the body, the finger holes, and the barrel holes, each contributing to the instrument's sound and playability.

Mouthpiece: Located at the top edge of the Dongxiao, the mouthpiece is where air is blown to produce sound. The shape of the mouthpiece significantly influences the instrument's tone. Historically, Dongxiao mouthpieces have taken various forms, such as flat, U-shaped, V-shaped, and cut. In most cases, a typical Dongxiao features a U-shaped mouthpiece.

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Body: The main body of the Dongxiao consists of hollow sections of bamboo. A standard Dongxiao has a barrel tone of d1, a length of 70-78 cm, and an inner diameter of 1.6-1.7 cm. Typically, it is crafted from purple or white bamboo. The sound quality of a Dongxiao is greatly influenced by the material and production quality of the bamboo used.

Finger Holes: Dongxiao instruments have eight finger holes, seven on the front and one on the back. Among these, two are basic holes, while one to four auxiliary holes may be present. All the holes are generally round or oval in shape. They are arranged from bottom to top, with the bottom hole as the first, the top as the seventh, and one at the back as the eighth. Manipulating these finger holes through opening and closing controls the pitch and enables the direct playing of notes within the same key scale. The holes have different tunings, and fingering can transpose notes to match the desired scale. Common Dongxiao pipes cover a range of two octaves and can even be played an interval of four degrees higher through overblowing. Dongxiao can be played using three techniques: slow blowing, rapid blowing, and super blowing. Each hole can be played in slow-blowing octaves or twelfths, offering a range of three notes per hole.

Barrel Holes: The auxiliary hole serves as the fixed point for the lowest note when crafting a Dongxiao. During the instrument's production, the mouthpiece is hollowed out, and a hole is created at the end of the tube to establish a fixed pitch. This produces the lowest note, often referred to as the barrel tone. The auxiliary hole primarily serves as an outlet for air, not affecting the pitch, and is positioned at the very end of the tube.

Understanding these components and their roles in the Dongxiao allows for a deeper appreciation of the instrument's intricate design and capabilities, as shown in Table 3.

Table 3 The organology of a Dongxiao

Component	Description
Mouthpiece	Located at the top edge; where air is blown; shape influences tone (e.g., U-shaped, V-shaped)
Body	Main hollow body made of bamboo; standard size, length, and inner diameter; typically purple or white bamboo
Finger Holes	Eight holes-seven on the front, one on the back; two basic holes and one to four auxiliary holes; controls pitch and allows playing within the key scale; different tunings for transposition; the range of two octaves and overblowing possible; three playing techniques
Barrel Holes	Auxiliary hole; fixed point for lowest note (barrel tone); does not affect pitch; located at the very end of the tube

From Table 3, summarizes the key components of a Dongxiao and their respective functions within the instrument.

2. Learning Techniques for the Dongxiao

2.1 Playing Posture: Playing the Dongxiao involves two main postures: standing and sitting. The standing position is generally recommended for practice, while the seated position is more suitable when playing as part of an ensemble or in situations where sitting is required. The standing posture offers several advantages, particularly in terms of smooth breathing and overall ease of playing.

In the standing posture, it's important to keep your eyes level and focused in front of you, maintain a relaxed body, keep your shoulders level, maintain a straight spine, and position your legs naturally spread apart, about shoulder-width, with your chest held upright, as shown in Figure 3.

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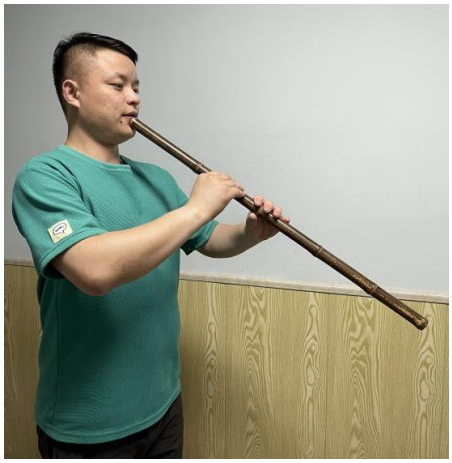

Figure 3 Standing position

When playing while standing, aim to perform with a spirited and naturally relaxed demeanor. Play with enthusiasm and vigor, much like how we carry ourselves in everyday life – standing tall, walking confidently, speaking assertively, and maintaining a strong and determined presence, as shown in Figure 4.

Figure 4 Sitting position

2.2 Playing techniques, as shown in Table 4, Figure 5 and Figure 6.

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Table 4 Playing techniques step

Step	Playing Technique	Description
1	Maintain Proper Alignment	- Hold Dongxiao vertically with the left hand covering the top sound hole and the right hand covering the bottom sound hole - Keep the body upright with shoulders parallel to the ground - Hold the Dongxiao from a vertical direction, angling it upward at about 45 degrees - Prioritize body alignment and adjust hands flexibly while maintaining an upright posture
2	Natural Hand Placement	- For the left hand, use a natural grip with a slightly bent elbow and keep the hand close to the chest - Right-hand finger holes are positioned lower; bend the right wrist backward parallel to the body, with the back of the hand facing outward - Maintain this posture to prevent discomfort and soreness in the right hand over time.
3	Keep Elbows Elevated	- Allow both left and right elbows to hang naturally, slightly away from the sides of the body - Angle the Dongxiao at approximately 45 degrees from the body - Adjust the lift to keep your head level in front of you - Avoid lowering your elbows to the sides due to hand fatigue
4	Finger Hole Technique	- Determine finger positions based on the hole spacing - In general, the left hand can use the first knuckle to cover the finger holes - In the right hand, tilt it slightly to the lower left, with the right index and middle fingers using the second knuckle to cover the finger holes, and the ring finger using the first knuckle - The right pinky finger and thumb position themselves naturally.
5	Proper Support Points	- Identify three primary support points: the lips, the left pinky finger, and the right index finger - Avoid relying on the little finger of the right hand as a support point, as it often needs to be lifted during play - Ensure that supporting fingers and playing fingers have distinct roles - For eight-hole Xiaos, apply slight force to enhance stability in the left pinky finger's support.
6	Lip Positioning	- When playing the Dongxiao, it's important to maintain a slight lip tension resembling a smile. - Position the upper lip so that it faces the blowhole, and keep the lower lip close to the top edge of the pipe. - Maintain a small gap between the blowhole and the lower lip, with the gap slightly exceeding the lower lip line by 1mm-2mm.

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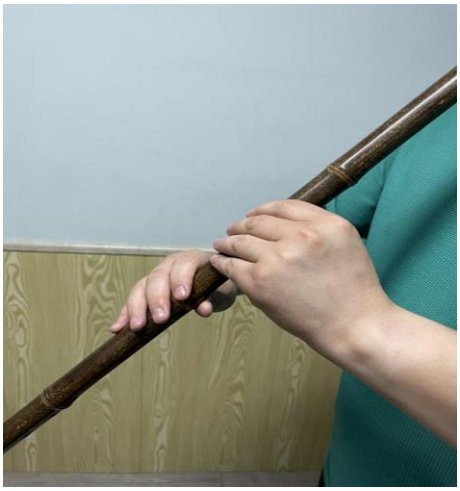

Figure 5 Hand position

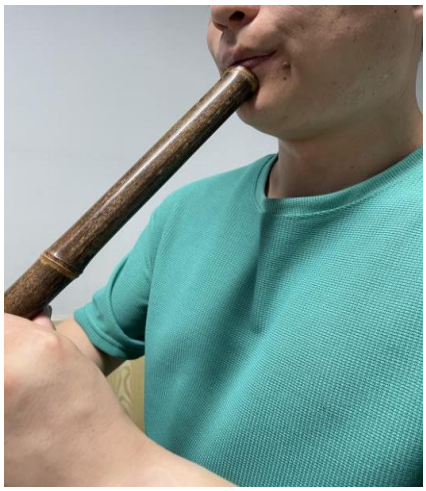

Figure 6 Lip position

Discussion

The objectives of this study were to explore organology and learning skills of Dongxiao Chinese folk musical instruments in Shandong Province. Through extensive fieldwork and data collection in Shandong Province, China, the study uncovered valuable insights into the materials, construction, and components of the Dongxiao, shedding light on its intricate design and attributes. Additionally, the research delved into the nuanced playing techniques and postures required for mastering this instrument, providing a comprehensive understanding of its performance aspects. The findings not only contribute to the preservation and promotion of Dongxiao music but also serve as a valuable resource for musicians, educators, and enthusiasts interested in this rich musical tradition.

The study on Dongxiao Chinese Folk Musical Instruments in Heze, Shandong Province, has drawn from a wide range of sources and methodologies to explore the organology and learning techniques associated with these traditional instruments. This study will assess the consistency of the research findings with theoretical principles, highlighting key insights and their implications.

The organological exploration of Dongxiao materials and components aligns well with the principles of ethnomusicology and musicology. The study recognizes the deep historical and cultural significance of Dongxiao instruments, emphasizing their roles in Chinese music culture (Campbell, 2003). The classification of materials, including bamboo, hardwood, jade, metal, and PVC, reflects the ethnomusicological approach of understanding musical instruments within their cultural context (Campbell, 2003). Moreover, the detailed description of organological components, such as mouthpieces, bodies, finger holes, and barrel holes, showcases the musicological focus on the technical aspects of musical instruments (Kerman, 2009).

The research findings provide valuable information for both players and enthusiasts, consistent with the theoretical principles outlined in the literature review. Understanding the advantages and disadvantages of different materials empowers individuals to make informed choices when selecting a Dongxiao instrument. The study on the instrument's components enhances our appreciation of its intricate design and craftsmanship, reflecting the principles of musicology (Kerman, 2009).

The Discussion on learning techniques for the Dongxiao, including playing posture and playing techniques, aligns with the principles of ethnomusicology and musicology. The emphasis on proper alignment, hand placement, and support points reflects the ethnomusicological approach of considering the physical and cultural aspects of music performance (Campbell, 2003). Additionally, the detailed guidance

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on finger techniques and lip positioning adheres to the musicological focus on technical and artistic aspects of playing a musical instrument (Kerman, 2009).

The practical insights provided in the research findings are consistent with the theoretical principles outlined in the literature review. These techniques not only enhance musical performance but also contribute to the overall playing experience, fostering a deeper connection with the Dongxiao instrument. The research serves as a valuable resource for learners, complementing the principles of musicology (Kerman, 2009).

Conclusion

In conclusion, the study on Dongxiao Chinese Folk Musical Instruments in Heze, Shandong Province, demonstrates strong consistency with the theoretical principles of ethnomusicology and musicology. The exploration of organology and learning techniques enriches our understanding of these traditional instruments and their cultural significance.

The findings contribute to the preservation and promotion of Dongxiao music in the context of modern cultural developments. They empower individuals to make informed choices in selecting instruments and provide practical guidance for aspiring players. Dongxiao instruments, with their unique organological features and learning techniques, continue to play a vital role in Chinese music culture.

Overall, this study serves as a testament to the enduring relevance and cultural value of Dongxiao instruments in Heze, Shandong Province, and the broader landscape of Chinese folk music.

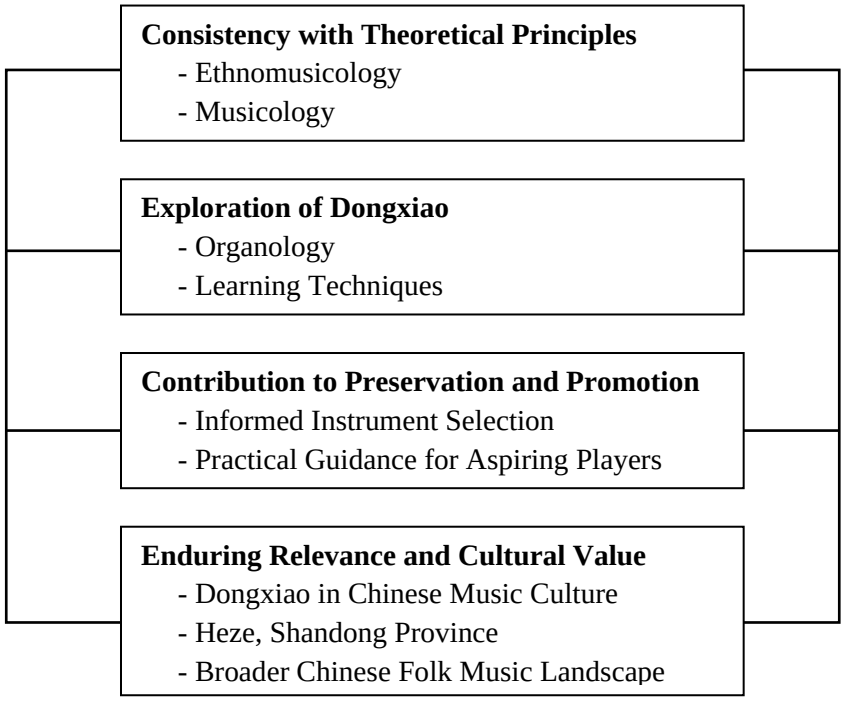

Figure 7 Dongxiao Chinese Folk Musical Instruments

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Recommendation

To promote and preserve Dongxiao music in Shandong Province, several recommendations for application are suggested. These include the establishment of dedicated music education and cultural centers that provide training, workshops, and performances for enthusiasts and beginners. Additionally, the development of user-friendly digital learning platforms and mobile apps tailored for Dongxiao instruction can enhance accessibility. Encouraging collaborations between Dongxiao musicians and contemporary artists to create fusion music can bridge the gap between traditional and modern music cultures. Furthermore, organizing regular music festivals with a focus on Dongxiao can facilitate cultural exchange, and establishing a digital archive of Dongxiao music, historical records, and interviews can serve as a valuable resource for study, education, and enthusiasts interested in the instrument's history and techniques.

Further study on Dongxiao can be directed towards various avenues. Conducting in-depth acoustical analyses of Dongxiao instruments can provide insights into how different materials and construction methods influence sound quality and tonal characteristics. Exploring innovative pedagogical approaches for teaching Dongxiao can enhance music education and instrument instruction. Investigating regional variations within Shandong Province can shed light on unique styles and playing techniques from different areas. Cross-cultural studies can delve into the influence of Dongxiao music on neighboring cultures and vice versa, particularly in regions with historical connections to Shandong. Additionally, encouraging composers to create contemporary compositions that blend traditional elements with modern styles can further expand the instrument's repertoire. Exploring the psychological and health benefits of learning and playing Dongxiao, as well as assessing the economic and cultural impact of preservation and promotion efforts, can provide valuable insights into the broader significance of Dongxiao music.

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References

Campbell, P.S. (2003). Ethnomusicology and music education: Crossroads for knowing music, education, and culture. *Research studies in music education, 21*(1), 16-30, DOI: 10.1177/1321103X030210010201

Charles, N.M. (2010). *A supplementary book of Chinese music for the Suzuki flute student.* Doctoral dissertation: The Ohio State University.

China Discovery. (n.d.). *Shandong China Map*. Retrieved from: https://www.chinadiscovery.com/shandong-tours/maps.html

Chinafolio. (n.d.). *Shandong Province*. Retrieved from: https://chinafolio.com/provinces/shandong-province

Fan, W., Wang, H., Liu, Y., & Liu, H. (2020). Spatio-temporal variation of the coupling relationship between urbanization and air quality: A case study of Shandong Province. *Journal of Cleaner Production, 272*, 122812.

Filipiak, Y. (2014). *The drum and wind palace music of the Tang and Song dynasty. In Civil-Military Relations in Chinese History*. Routledge.

Hong, X., & Wu, Y. H. (2022). The use of AR to preserve and popularize traditional Chinese musical instruments as part of the formation of the tourist attractiveness of the national art of Guizhou province. *Digital Scholarship in the Humanities, 37*(2), 426-440.

Hongmei, W. & Fang, D. (2018). *Cultural Attributes of Traditional Music in the Southwest of Lu*. Music and Dance.

Huang, J. (2021). *Research of Huizhou Music from the Perspective of Musical Ethnography*. Xinjiang Art Institute.

Jin, J. (2011). *Chinese music*. Cambridge University Press.

Jingfang, Y. (2000). The art of the cave flute in traditional Chinese music culture. *Music Research 2000, 1*(2), 22-32.

Jinyuan, L. (2001). *A study of the musical culture of the Chinese caveman*. Chinese Musicology.

Kerman, J. (2009). *Contemplating music: Challenges to musicology*. Harvard University Press.

Li, H., & Xu, Z. (2016). Protection and Inheritance of the Korean Nationality Music. In *2016 3rd International Conference on Education, Language, Art and Inter-cultural Communication (ICELAIC 2016)* (pp. 556-558). Atlantis Press.

Liu, J., & Pianchana, T. (2023). The Development of Learning Achievement in Chinese Vocabulary Using Chinese Song for Grade Three Thai Students. *International Journal of Sociologies and Anthropologies Science Reviews, 3*(4), 267-276.

Shao, Y., Zhao, F., Mu, G., Sun, B., Liang, K., Wang, D., & Shao, L. (2023). Sequence-paleogeography and coal accumulation of the Late Carboniferous–Early Permian paralic successions in western Shandong Province, northern China. *Marine and Petroleum Geology, 151*, 106184.

Tang, J., & Sornyai, P. (2023). The Cultural Treasures of Baima Tibetan Folk Songs in Gansu Province, China, as a Resource for Literacy Education in Chinese Music History. *International Journal of Education and Literacy Studies, 11*(3), 234-243.

Thrasher, A. (2008). *Sizhu instrumental music of south China: Ethos, theory and practice (Vol. 84)*. Brill.

Thrasher, A. (2023). *Traditional instruments and heterophonic practice*. The Oxford Handbook of Music in China and the Chinese Diaspora.

Wan, H.X. (2021). *Review and Thinking of Mulao Folk Songs Research*. Artistic Evaluation.

Wang, M. & Chonpairot, J. (2023). Analysis of Laiwu Bangzi opera in Shandong province as a resource for teaching Chinese opera music history: Teaching Chinese opera music history. *International Journal of Curriculum and Instruction, 15*(3), 1399-1413.

Witzleben, J.L. (1995). *"Silk and bamboo" music in Shanghai: the jiangnan sizhu instrumental ensemble tradition*. Kent State University Press.

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Xingchen, (2022). *Yuping Xiaodi (Bamboo Flute) Musical Instrument in Yuping County, Guizhou Province, China*. Doctoral dissertation: Mahasarakham University.

Yang, X. (2016). *Detailed explanation of the positioning of the base tone hole for cave-jiao making*. Light Industry Handicrafts.

Yaohua, W. (2012). *Chinese Music in Okinawa: A Comparison of Chinese Music with Ryukyu Music*. Tradition & Change Performance.

Zhong, X. (2023). A study on the characteristics and inheritance of Chinese Yazheng. *Trames: A Journal of the Humanities & Social Sciences, 27*(1), 21-50.

Zhou, J., & Chuangprakhon, S. (2023). The Role of Nanyue Ritual Songs in Promoting Literacy and Cultural Education in Longhui County, Hunan, China. *International Journal of Education and Literacy Studies, 11*(3), 264-270.

Zhuo, X., & Zhuo, X. (2018). The Religious Culture of the Chinese. *Religious Faith of the Chinese*, 209-241.

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