

# Characteristics of nationalized creation of Chinese accordion music

## Características da criação nacionalizada da música chinesa para acordeão



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**Abstract:** Musical art develops together with instrumental art and musical pedagogy. This research aimed to study the characteristics of the nationalized creativity of Chinese accordion music, focusing on its comparison with European music. First, the authors identified the characteristic features of accordion music and its influence on the preservation of national traditions using the synthesis method. The indicators of Chinese music were as follows: onomatopoeia, seriality, Qu Pai musical form, polyphony, and pentatonic, hexatonic, and heptatonic modes. European accordion music uses sound imitation techniques, series, sound polyphony, contrasting performance styles, and combining major and minor parts. The researchers established that processing was more effective for creating new compositions than transcription (according to Chinese students) since it was associated with more complicated rhythms and higher expressiveness. The students determined that the most significant problem of accordion music was insufficient musical

repertoire (29%) since most of the compositions were transformed into music types to preserve national traditions. An analysis of the musical compositions “Flower Garden” by Junhao Mao and “Hometown Singing with Camp” by Qi Wang revealed that “Flower Garden” was more saturated with national Chinese motifs, which combined pentatonic mode and sound symmetry. The European accordion composition “The Four Seasons in Buenos Aires” is characterized by a reduced presence of traditional elements. The practical significance of this paper is based on the possibility of using the presented materials to improve the skills of playing the accordion. The identified advantages and recommendations contribute to creating new compositions that will display national motives. The research prospects are based on the possibility of comparing the specifics of writing national Chinese, Asian, and European accordion music.

**Keywords:** music expressiveness, onomatopoeia technique, sound polyphony, timbre colors, performance ideas.

**Resumo:** A arte musical desenvolve-se a par da arte instrumental e da pedagogia musical. Esta investigação teve como objetivo estudar as características da criatividade nacionalizada da música de acordeão chinesa, centrando-se na sua comparação com a música europeia. Em primeiro lugar, os autores identificaram os traços característicos da música de acordeão e a sua influência na preservação das tradições nacionais através do método de síntese. Os indicadores da música chinesa eram os seguintes: onomatopeia, serialidade, forma musical Qu Pai, polifonia e modos pentatônico, hexatônico e heptatônico. A música europeia de acordeão caracteriza-se pela utilização de técnicas de imitação sonora, séries, polifonia sonora, estilos de execução contrastantes e combinação de partes maiores e menores. Os investigadores verificaram que o processamento era mais eficaz para a criação de novas composições do que a transcrição (segundo os alunos chineses), uma vez que estava associado a ritmos mais complicados e a uma maior expressividade. Os alunos determinaram que o problema

mais significativo da música de acordeão era o repertório musical insuficiente (29%), uma vez que a maioria das composições foram transformadas em tipos musicais para preservar as tradições nacionais. Uma análise das composições musicais “Flower Garden” de Junhao Mao e “Hometown Singing with Camp” de Qi Wang revelou que “Flower Garden” estava mais saturado com motivos nacionais chineses, que combinavam o modo pentatônico e a simetria sonora. A composição de acordeão europeu “As Quatro Estações de Buenos Aires” caracteriza-se por uma presença reduzida de elementos tradicionais. O significado prático deste artigo baseia-se na possibilidade de utilizar os materiais apresentados para melhorar as capacidades de tocar acordeão. As vantagens e recomendações identificadas contribuem para a criação de novas composições que terão como objetivo apresentar motivos nacionais. As perspectivas da investigação assentam na possibilidade de comparar as especificidades da escrita de música para acordeão nacional chinesa, asiática e europeia.

**Palavras-chave:** expressividade musical, técnica de onomatopeia, polifonia sonora, cores de timbre, ideias performativas.

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## Background

Chinese culture gives special attention to musical instruments since they have been an integral element of ceremonies and performances since ancient times. This fact influenced the popularization of ensemble music (Yang *et al.*, 2015). National Chinese music is characterized by performance naturalness, sharp timbres, and performance depth. Chinese musical culture was enriched by the accordion introduction into ensemble music in the late XX and early XXI centuries (Gong *et al.*, 2021). The accordion influenced the introduction of European culture into traditional Chinese music, which affected sound expressiveness and improved the composing techniques (Zhang *et al.*, 2022). The accordion repertoire is characterized by original compositions as well as changes in folk compositions (Marín-Liévana *et al.*, 2021). The first accordion compositions were mass songs and marches (LU, 2022). The combination of Chinese and European accordion music is reflected in the fantasy genre (“No En Ji Ya” by Wang Shusheng), capriccio (“Xinjiang Capriccio” by Zhang Jiming), and suite (“Northeast Styles” by Du Ning) (Zhang *et al.*, 2022). National accordion music is characterized by the harmonization of compositions, the transformation of tonality and range, polyphonic techniques, and the enrichment of musical form (Shansky, 2020). Contemporary Chinese accordion music is characterized by register techniques, which were chosen based on semantics as well as the interaction of texture and dynamics (Kuang and He, 2022).

The interaction of European and Chinese music during the accordion performance is harmonious due to language elements that combine new performing ideas (Shansky, 2020). The accordion development influenced the transformation of military bands thus raising morale and increasing the number of patriotic songs (Yi, 2017). The spread of the accordion in China is associated with the possibility of its use in solo, ensemble, and orchestral performances (LU, 2022). Playing the accordion in an orchestra contributes to understanding the composition structure. It should also be aimed

at studying the musical scores, melody, and harmonic background for the perception of compositions by listeners (Yi, 2017). Collective playing contributes to new emotions and artistic imagination during a performance (Zhang and Lam, 2022). The accordion allows a musical composition to add new timbre colors and sound rhythms (Walden, 2022). The accordion contributes to the demonstration of national musical compositions as it promotes adaptation to spatial orientation due to the transformation of high-pitched sounds (Mambetovan *et al.*, 2023). This is a result of creating stable connections of sounds, meaningful movements on the keys, and proper use of interval and spatial identification (Walden, 2022). The sound displays national expressiveness due to a supply of air in the bellows (Wang, 2018). The timbres are changed due to the register transformation (Naveda and Nunes-Silva, 2021).

During playing the accordion, a musician can imitate vocals due to the dynamics of bellows (Obuch, 2017). Intonation is interconnected with speech; this affects the emotional coloring of the composition (Naveda and Nunes-Silva, 2021). The free use of metro rhythm in Chinese accordion music is associated with the principle of serialization. It is based on pitch parameters as a result of a series of non-repeating sounds (Elanskov, 2016). The variety of tempo and rhythm contributes to the chaotic performance, which is perceived as a change in musical theme (Jiang *et al.*, 2020). The performance harmony is achieved by using the initial tone with the previous one. The performance conciseness is a result of using the minimalist technique but with virtuoso performance (Jiang *et al.*, 2020).

## Literature Review

The popularity of accordions is due to the use of new acoustic technology, which was a result of focusing on the Chinese harmonica. Also, the popularity of this instrument is related to reforms for including the accordion in the music curriculum. The advantage of accordions is the ability to play different pitches. Bisonor accordions aim to produce a pitch based on the

movement of the bellows; unisonous contribute to the same pitch regardless of the bellow direction (Guo, 2022). Accordion scores are interrelated with chord configuration, musical harmony, and the interplay of pitch and melody. In China, the creation of melodies for the accordion began at the end of the XX century. At that, the composers started creating music in various genres for both solo performances and orchestras. The national features of the accordion sound are interconnected with expressive instruments and intonation, as well as the possibility of including Qiandiao tunes (Raz, 2020). The perception of accordion art depends on the developed performing skills and the quality of using expressive musical parameters. Interaction with specialists from different countries improves musical skills and influences the diversity of performances, genres, and forms. Specific techniques (glissando, clusters) help to imitate other instruments (pipa, erhu, xiao, etc.), which increases sound expressiveness (L, 2020).

Transcriptions and arrangements influence the updated interpretation of musical compositions, which is especially characteristic of a rich complex texture. The quality of interpretation and creation of new musical compositions depends on the skills of a musician, who can preserve complex textures and emphasize the beauty of polyphonic sound. The emphasis on the main idea of the composition allows for keeping the original content but at the same time adding new musical shades that affect performance expressiveness (Liu, 2022). The specificity of the composition structure during accordion performance depends on shaping and continuous transformation. The work on intonation contributes to the organic combination of traditional and innovative musical elements, which can also affect the genre change. The harmony of constructing melodies also depends on metro-rhythmic variations that affect the transformation of textural techniques (Dedyurin, 2018). In China, the accordion is used to accompany song and dance performances and displays a combination of Chinese and Western European traditions. The harmony of playing melodies on the accordion depends on the ability to make associations

between the keys and the pitch. Accordion musical culture is based on fantasy, variation, polyphony, and a combination of complex musical compositions (concert, sonata). The accordion improved the expressive possibilities of Chinese music (Trofimov, 2017).

Contemporary accordion music is characterized by respect for style, display of cultural ambiguity, and aesthetic performance and also depends on the personal musician's expression and adherence to national traditions. The creation of melodies for the accordion is often intertwined with the use of seven-scale modes and chromatic scale. The expansion of the instrument's range has affected the possibility of using various musical variations. Improvisation can be based on melismas, pauses of different durations, and rhythm transformation (Xu *et al.*, 2019). Learning to play musical instruments, including the accordion, develops positive qualities in students, which are formed due to musical education. To spread the accordion among students, the emphasis should be on improving musical practice and education and providing opportunities to participate in competitions (Alexander, 2020). The development of accordion music in Mexico is associated with its use in the Tejano Conjunto festival. The performance of compositions was focused on traditional music, the ethnic component. Melody jumps affect the sound variation and the creation of updated compositions. Intonation expressiveness creates vertical consonance and rhythmic originality resulting in national coloring (Zurc, 2020).

A literature review has determined a fair amount of research in the field of accordion music. However, most of it was focused on studying the technical aspects of playing as well as identifying the approaches that influence their popularity.

## Problem Statement

In China, playing musical instruments is a special part of musical culture. The development of the accordion is interconnected with the need to improve the artistry of musical works that combine Chinese and European traditions. The intensity of accordion art

development increases the interest in this musical instrument thus increasing the number of studies and expanding the repertoire. Playing the accordion is based on the preservation of national traditions and music adaptation to contemporary requirements. Changing chords form polyphony, which is more characteristic of European music. National musical elements are created based on intonation and melodiousness. This research aimed to study the features of Chinese accordion music based on the characteristics of nationalized creativity. The research objectives were as follows:

- Identifying the features of accordion music that influence its popularity and are aimed at displaying national elements (comparative analysis of Chinese and European accordion music).
- Identifying musical forms that are more conducive to qualitative variation in new compositions and finding existing gaps in accordion music.
- Conducting a comparative analysis of Chinese and European musical accordion compositions for their compliance with national musical elements.
- Presenting indicators that have a greater impact on the improvement of accordion playing.

## Methods

### Research Design

The research had three stages to study the features of accordion music in more detail and achieve the goal. The first stage was to study the characteristic features of accordion music, which are related to Chinese national musical parameters and influence the popularity of compositions. For additional comparison, the characteristics of European accordion music were also examined. The selection of distinctive features was based on the analysis of 200 Chinese and European compositions, which facilitated the comparison of similar parameters. Recurrent elements served

as the basis for identifying characteristic criteria of Chinese and European accordion music. For this, the researchers used the synthesis method and calculated intensive values. The synthesis method was based on the connection and comparison of characteristic parameters for identifying similar features. The calculation of intensive values revealed the most unique features of the identified parameters (Bauer, 2019):

(1)

'g - Partial authors' estimates for a single indicator, which affects the high popularity of accordion music and the preservation of national traditions.

M - Total allowable grade.

The characteristic features of Chinese accordion music were: onomatopoeia; seriality; qu pai musical form; polyphony; pentatonic, hexatonic, and heptatonic modes. In European accordion music, characteristics include the use of sound imitation techniques, series, sound polyphony, contrasting performance styles, and harmonic combinations of major and minor parts.

The second stage was to define the most qualitative and effective forms that contribute to the creation of accordion music. This indicator is important since most often the accordion melodies are a result of the transformation of original compositions. The methods of music creation were separately evaluated by students from Chinese and European educational institutions. The second stage became possible due to the coefficient calculation according to Formula 2:

(2)

$C_m$  - Ability to change melodies under national motives.

$E_s$  - Sound expressiveness

$L_e$  - Level of effort it takes to change melodies

$H_c$  - Harmony in creating melodies

$V_m$  - Method value

To determine significant differences or similar parameters between the indicators, the authors calculated the Student's t-test (Mei and Yang, 2021):

(3)

Where,  $M_1, M_2$  – mean differences.

$m_1, m_2$  – Standard deviations.

The second stage was to identify the problems faced by students during their studies. For this, the authors used an interval scale to determine the preferences using the scores. The students gave 1 and 0 points if they agreed or disagreed with some problem, respectively. The answers were sent to the authors' mail to compare the results.

The third stage was to study the features of musical compositions and their influence on the observance of national traditions. The researchers calculated the significance using Formula 1, based on the quality of performance of individual pieces. The results were presented among students from Chinese and European educational institutions. The evaluation of Chinese works ("Flower Garden" by Junhao Mao and "Singing the Hometown with the Tabor" by Qi Wan) was conducted by Chinese students. In contrast, the assessment of the European composition ("The Four Seasons in Buenos Aires" in the original performance by Elena and Ruslan Kratchkovsky) took into account the opinions of students from European institutions. They also identified parameters that affect the perception of accordion compositions by students: aesthetics, harmony, and preservation of national traditions. Students' responses were provided using an interval scale. The third stage also presented the parameters that should be considered when playing the accordion.

## Sample

The study involved 127 students from the Music Middle School (group 1, China) and 73 students from Sibelius Academy, University

of the Arts Helsinki (group 2, Europe). Participation in the study required knowledge of accordion music and the ability to play compositions. For this, the researchers enrolled students of years 4-5, who could positively and critically evaluate the performed accordion compositions. Students who had exclusively studied accordion music were selected for participation, as they were able to provide more substantiated data. This criterion ensured the acquisition of valid results, supported by relevant information. The approach also precluded the provision of spontaneous responses that would not reflect a thorough analysis of accordion music. The authors planned to enroll 213 students but 13 were students of years 1-2 without the necessary knowledge. The students gave written consent to confirm their voluntary participation.

### Statistical Processing

The researchers used Microsoft Excel for the calculation and data processing. This application allows for processing large amounts of data for the correctness and accuracy of their grouping. It also allows for using formulas regardless of whether they were previously developed or derived by the authors.

### Ethical Issues

Ethical issues were based on compliance with the confidentiality of data received from respondents, which excluded the disclosure of their names and answers. The authors confirm the correctness of the presented data, which were obtained directly in the study, and also exclude the use of published materials (Phafoli and Martins, 2015).

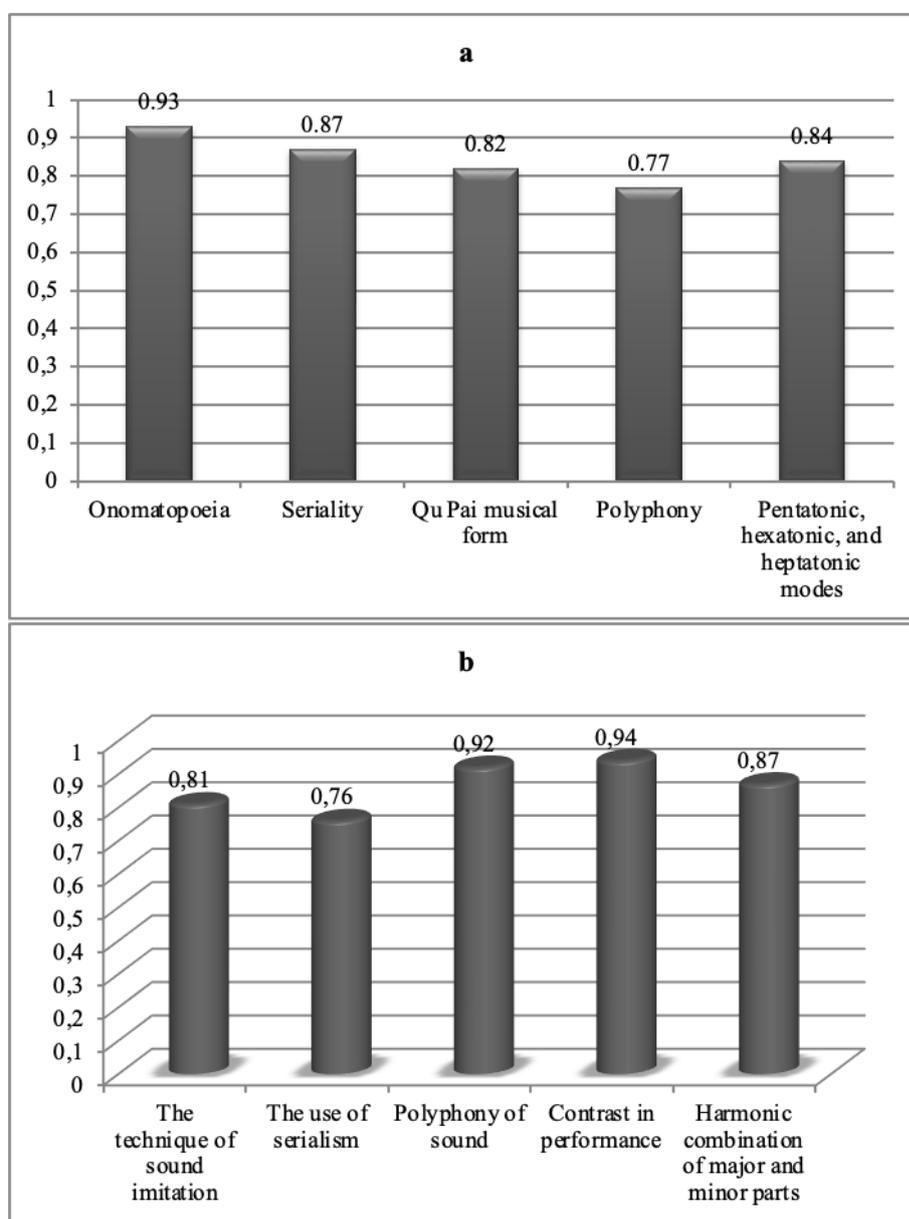
### Research Limitations

Research limitations were based on the study of Chinese and European accordion music, excluding in general the study of Asian accordion music. In the future, the researchers plan to conduct a comparative analysis of the compliance of accordion compositions with musical requirements.

## Results

In China, accordion music is interconnected with national traditions and is quite widespread at the present stage of musical culture. The researchers identified the characteristic features of accordion music that influence its popularity by calculating intensive values. The prominence of these criteria in European accordion music was also taken into account (Figure 1).

Figure 1 - Characteristic features of accordion music:  
a) Chinese music; b) European music



Onomatopoeia (0.93) in Chinese music is based on the imitation of bird voices and sounds of nature, which gives new opportunities for the instrument's sound. It contributes to the bold transformation of melodies for the creation of a new rhythm, texture, and harmonious combination of elements. This technique increases the artistic expressiveness of melodies and performance aesthetics. Onomatopoeia is aimed at conveying various musical shades, states, and emotions, which are connected with the sound rhythm. In combination with musical melismas, this technique creates an additional expressive load. Sound imitation techniques are also employed in European music, but to a greater extent for the creation of musical nuances. Emphasis on individual notes contributes to the expression of the desired dynamics. This approach impacts rhythmic performance, as it manifests in the conveyance of melodic expressiveness.

Seriality (0.87) is an element of new musical traditions for playing a series of non-repeating sounds. It is associated with Western musical traditions, which influence the work of composers either minimally with individual expressiveness indicators or as deeply as possible for forming a unique artistic image. Seriality is characterized by tone heights without other parameters. Series are also characteristic of European accordion music, influencing the repeated iteration of specific elements. This process is realized through the alteration of one hand's direction to the right or left, often utilizing the more prevalent technique of upper bellows movement. The musical technique aims to enhance the colorfulness and expressiveness of the sound.

Pentatonic, hexatonic, and heptatonic modes (0.84) are associated with a variety of chords for preserving the national musical system. These parameters contribute to the saturation of compositions and the improvement of melodic structure, intonation, rhythm, and musical scores for the harmonious construction of melodies.

The Qu Pai musical form (0.82) is also an innovative element, which in ancient times denoted Chinese melodies. In contemporary

music, it is characterized by the combination of various melodies that display altered timbres (fast or slow). Qu Pai reflects the national Chinese traditions, which are based on free and natural sound production as well as different transformations of information. This musical form influences the formation of the composer's style. These criteria are not typical of European accordion music, as they reflect distinct national traditions. European music, in contrast, is characterized by the depiction of contrasting combinations based on the use of different sound qualities (such as rounded, soft, or firm). Contrasting combinations can be created through techniques that lower the sound, achieved by applying strong bellows pressure. The harmonic combination of major and minor sections is associated with the use of contemporary approaches to the implementation of the tonal system. The diversity of modern musical forms influences the multi-timbral nature of accordion performance. This approach enhances the role of sonority and the use of unconventional harmonies.

Polyphony (0.77) is uncharacteristic of Chinese music but contributes to its enrichment. It can be used for both simple compositions and more complex ones. Polyphony forms natural sound without copying thus changing musical thinking. It saturates Chinese compositions with Western technical musical techniques that expand sound opportunities. Polyphony is also employed in European music, which influences the integration of diverse folk themes. During performance, approaches to variability are developed, contributing to the expansion of folk traditions.

Since Chinese accordion music is characterized by the transformation of original compositions, the students determined the method with a better variation for creating new compositions. Similar results were obtained for students who performed Chinese accordion music (Table 1).

Table 1 - Most Acceptable Forms of Accordion Music Creation  
(According to Students)

Method of Music Creation	Group 1			Group 2			Student's t-test (the tabular value is 2.447)
	Estimated Value	M	SD	Estimated Value	M	SD	
Processing	1.7	0.721	0.104	1.4	0.680	0.092	1.836
Transcription	1.5	0.693	0.1	1.6	0.719	0.102	1.892

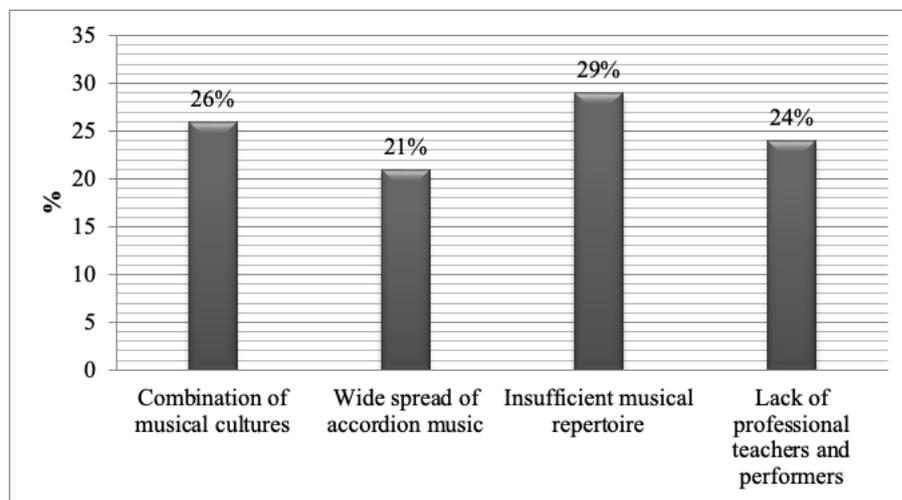
Processing (1.7) is aimed at preserving common elements of the main composition and changing the phonetic layer, which is the rhythmic, textural, and timbre side of the composition. It is more significant than transcription due to its higher expressiveness, which is especially important for creating compositions for competitive performances. Processing changes the musical texture and complicates the rhythm significantly. Imitation of sounds and decorations changes compositions to contemporary standards.

Transcription (1.5) is characterized by structural and compositional transformations of the original text with possible melody transformation into another genre. It allows for leaving the originality of the composition, which is the basis for a new melody. Transcription saturates the composition with national motifs and creates original melodies. It is also characterized by the use of polyphony.

The results of the study on the methods of musical composition creation by European students revealed a preference for transcription techniques (1.6) over arrangement techniques (1.4). For European students, preserving the originality of compositions is crucial, which aligns with the principles of transcription. This process aims to create sound contrasts through the incorporation of traditional motifs. Transcription is characterized by shorter time frames for creating new compositions compared to arrangement principles, which are oriented toward musical complexity.

Focusing on the positive effect of accordions on Chinese music, the students identified the problems that they faced while mastering musical art (Figure 2).

Figure 2 - Problems faced by students while playing the accordion



The students determined that the most significant problem of accordion music was insufficient musical repertoire (29%) mainly due to writing the majority of compositions for piano or traditional instruments. The material is enriched by changing existing musical compositions using processing or transformation. The combination of musical cultures (26%) is the second most important problem for students since it requires basic knowledge of composing and is based on performance virtuosity. It is also aimed at understanding the specifics of Chinese and European musical cultures. Lack of professional teachers and performers (24%) affects the lack of motivation among students and insufficiently formed base of musical knowledge. A wide spread of accordion music (21%) is problematic since it requires a repertoire and trained musical personnel.

Further, the researchers analyzed Chinese accordion compositions, which are more aimed at reflecting national traditions. They calculated the importance of compositions for the preservation of national elements according to Formula 2 (Table 2):

Table 2 - Comparison of musical accordion compositions

Musical Composition	Estimated Value	Student Opinion, %		
		Performance Aesthetics	Performance Harmony	Preservation of National Traditions

“Flower Garden” by Junhao Mao	0.89	33%	31%	36%
“Hometown Singing with Camp” by Qi Wang	0.71	39%	37%	24%
“The Four Seasons in Buenos Aires” by Elena and Ruslan Kratchkovsky	0.64	40%	37%	23%

“Flower Garden” by Junhao Mao (0.89) reflects national musical traditions aimed at displaying natural harmony, which is manifested in the imitation of natural sounds. It has a multi-frequency form with the preservation of pentatonic techniques. Phonisms influenced the sound expressiveness resulting from the additional influence of contemporary European technique. Free rhythms form sound symmetry, which is also not characteristic of Chinese music. The composition is aimed at comparing strong and weak rhythms. Expressiveness is achieved through the trills that speed up and slow down (Figure 3).

Figure 3 - The musical score for “Flower Garden” by Junhao Mao

происходит свободное ритмическое уменьшение восьмых длительностей до тридцать вторых (рис. 16, т. 2), он же обрамляет произведение в конце создавая зеркальную симметрию, которая в целом несвойственна китайской традиционной музыке.

Molto rubato  
 Composed by Junhao Mao  
 毛俊涛曲

Accordion

Рис. 16. Цзюньхао Мао. «Цветочный сад», тт. 1–3.

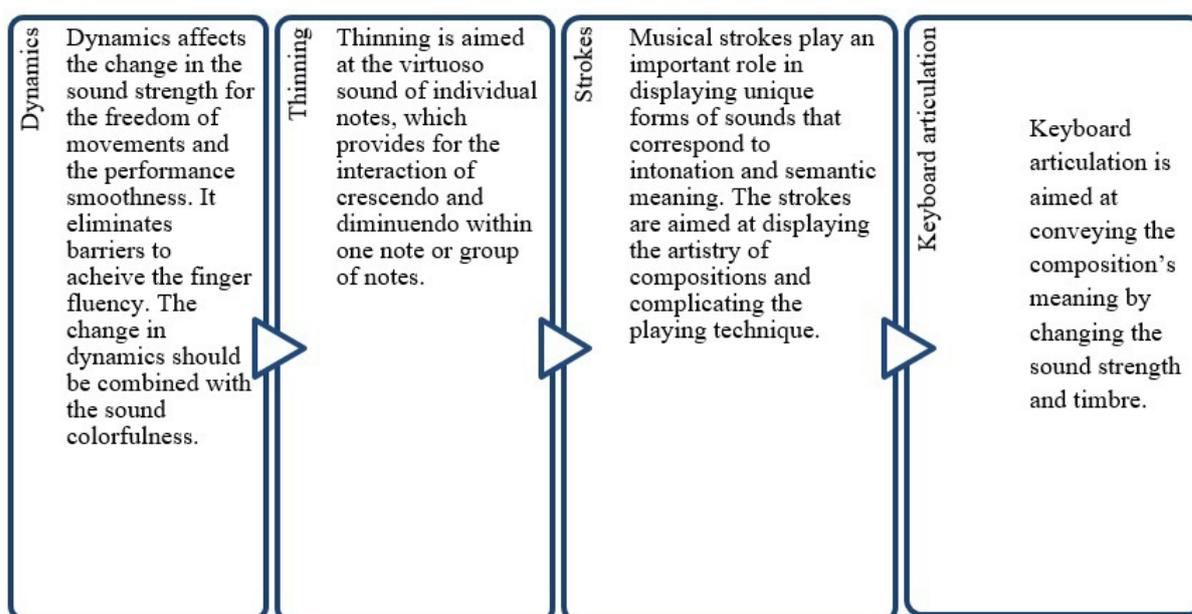
Организация ритма также напоминает описанные ранее примеры из музыки для шэна: она заключается в сопоставлении малых и долгих

“Hometown Singing with Camp” by Qi Wang (0.71) is based on Western traditions, which are rich in expressive elements. The piece combines the basics of the waltz, which are displayed in the texture, as well as jazz. Jazz elements are based on rhythmic aspects with seventh chords. The repetitions reflecting national motifs affect the composition’s completeness.

It was established that the performance of the European accordion composition “The Four Seasons in Buenos Aires” was characterized by a high level of sound aesthetics. However, techniques involving emotional exaggeration were frequently employed, which affected the distortion of the original sound and compromised the purity of the performance. Harmonic coherence was observed through the use of contrasting melodic techniques, which were marked by either lyricism or richness. Although the musicians were able to convey the change of seasons through their accordion interpretation, adherence to the national style of musical compositions was not achieved to a high degree.

To improve accordion playing, the musician should pay attention to the following indicators (Figure 4).

Figure 4 - Indicators to consider while playing the accordion



## Discussion

The aesthetic perception of playing the accordion is interconnected with the harmonious combination of musical elements based on polymetry and asymmetrical figures. Selecting and creating compositions should be focused on their meaning and specificity. Musical strokes, registers, and special techniques (glissando) affect performance expressiveness (NATIONAL COMMITTEE FOR RESEARCH ETHICS IN SCIENCE AND TECHNOLOGY, 2016). The dissemination of accordion music needs an emphasis on the combination of popular music elements for the extravagance and eccentricity of performances. The peculiarity of melodies affects the spiritual awareness of the listeners and promotes inner harmony (Borregaard *et al.*, 2018). In the 1960s and 1970s, musical culture developed under the influence of national-style compositions. Chinese accordion pieces are characterized by a polyphonic technique for achieving a neutral tone, which affects the expressiveness of the sound effect for better aesthetic perception. Articulation techniques provide the necessary sound effect as a result of pressing the keys. Chinese music is characterized by a soft expression of hierarchical themes, which requires a pronounced contrast. The performance harmony is a result of comparing the intonation at different heights (Mckeague 2018). The current research indicated the following advantages that affect the spread of accordion music: onomatopoeia, seriality, Qu Pai musical form, sound polyphony, and pentatonic, hexatonic, and heptatonic modes.

The main feature of playing the accordion is the development of students' musical skills based on the interaction of popular and academic works during performances. Since the end of the XX century, dissonant consonances and chromatic elements interrelated with chords and seconds structures have been increasingly used during accordion playing. Contemporary compositions are based on the expansion of tonal and serial structures to increase performance quality (XING, 2018). The spread of the accordion in France is

based on existing music and its transformation through cultural connotations. In French cinema, accordion music was used for the first time in the 1930s (*Sous les toits de Paris* and *La Belle Equipe*); this influenced its distribution. The speed of sound reproduction is interconnected with the speed of movements and the interactions of fingers with the keys of a musical instrument because air valves produce noise and knocking. The valve lift is characterized by dynamics and affects the sound volume: the smaller the lift, the quieter the sound (Bonfante Weiss and De Marques e Louro-Hettwer, 2019). The creation of accordion compositions should be based on a variety of sounds to change the timbre, melody, and pitch. Also, sound aesthetics based on its richness is important. The sound variation should be interconnected with the artistry, which is a result of using intonations. The free variation affects fragmentation and tonality. Changing the main theme creates new composition images reflected in the meter and tempo changes (Powrie, 2017). The current findings indicated that the creation and transformation of compositions are possible through processing and transcription.

Musical elements can also be implemented using a 3D visualization tool that displays the virtual parameters of notes and chords of a given musical scale. Virtual instruments facilitate the use of note spatiality with the minimum cost of their switching. Three-dimensional tools facilitate playing complex musical compositions due to the pre-composed combination of notes. Contrast and juxtaposition of musical material contribute to the creation of new compositions (Mcmullan-Glossop, 2017). Creating compositions for the accordion should be associated with the definition of musical texture, which will be more consistent with contemporary musical compositions. Such changes will allow for transforming the compositions and displaying the dramatic function of individual elements. Changing compositions needs an initial focus on sound pitch and tempo with further attention to the dynamics and fingering (Cabral *et al.*, 2015; Vitale, 2022).

A literature review determined that accordion music transfers national musical elements through musical texture and sound

spatiality. The current research identified the benefits of accordion music, which are interconnected with national musical traditions. The authors also analyzed musical compositions that reflect national musical traditions.

## Conclusion

The researchers identified the characteristic features of accordion music that influence its popularity by calculating intensive values. Initially, the distinctive features of Chinese accordion music were established. They established that onomatopoeia (0.93) is aimed at the bold transformation of melodies for their expressiveness and artistry. Seriality (0.87) reflects Western musical traditions with the transformation of pitches; Qu Pai musical form (0.82) is characteristic of Chinese music and aimed at free sound extraction. Polyphony (0.77) and pentatonic, hexatonic, and heptatonic modes (0.84) enrich Chinese accordion music. For European music, the distinguishing features are the contrast in performance (0.94) and the harmonic combination of major and minor sections (0.87).

The accordion compositions are created based on the transformation of existing melodies using two methods: processing and transcription. The authors found that processing (1.7) had advantages over transcription (1.5), according to students of Chinese educational institutions since it changes the sound texture and phonetic layer. Students from European educational institutions indicated a preference for both transcription (1.6) and arrangement (1.4), which is associated with a more facilitated approach to modifying melodies. The students noted that the greatest problems associated with playing the accordion were insufficient musical repertoire (29%) and a combination of musical cultures (26%).

An analysis of two musical compositions found that “Flower Garden” by Junhao Mao reflects national musical elements to a greater extent than “Hometown Singing with Camp” by Qi Wang because “Flower Garden” reflects the natural harmonica, preserves

the pentatonic scale, and uses free rhythms characteristic of Chinese music. In “Hometown Singing with Camp”, expressive elements reflect Western culture to a greater extent. To improve accordion playing, the authors proposed to use dynamics, thinning, strokes, and keyboard articulation. The European accordion composition “The Four Seasons in Buenos Aires” was characterized by a lower presence of distinct national elements.

The practical significance of this paper is based on the possibility of creating national compositions focusing on the characteristic features of accordion music. Research perspectives are related to the study of the parameters that influence the creation of European, Asian, and Chinese accordion compositions.

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