

A Study on the Gameplay and Cultural Survival Space of Fangqi a Chinese Folk Chess Art from the Perspective of Intangible Cultural Heritage

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Abstract

Fangqi is one of the important chess games in Chinese folk chess culture, which bears the mission of people's cultural life and communication, and enhances interpersonal interactions. Through methods such as literature review and field investigation, this paper conducts research and analysis on the gameplay principles and cultural survival space of Fangqi, a project listed in the intangible cultural heritage. It is found that there is a lack of young talents for Fangqi in China, and its original existence mode is difficult to maintain and spread, facing the risk of being lost in generations. It is only through the protection of intangible cultural heritage that Fangqi can continue to exist. Therefore, it is of great significance to explore the cultural survival space of Fangqi from the perspective of intangible cultural heritage protection.

Keywords

Intangible Cultural Heritage, Fangqi, Survival Space

1. Introduction

According to archaeologist Geng Zhiqiang's introduction in 2000, a chessboard composed of a mi-shaped grid with five lines was unearthed from Han tombs, which closely resembles a type of chess popular in rural areas of southern Ningxia—Xiafangqi (Zhang, 2022), indicating that Fangqi existed as early as the Han Dynasty. Today, Xiafangqi is widely played in the vast fields of Ningxia, Gansu, Xinjiang, and other regions in northwest China. Fangqi is also listed in the first batch of provincial intangible cultural heritage inventories in Ningxia and Xinjiang (SOHU, 2018). Meanwhile, the tradition of playing Xiafangqi is also present in other regions such as Henan, Anhui, Shaanxi, Shanxi, Shandong, northern

Jiangsu, and Hubei, where Fangqi has been included in the county-level intangible cultural heritage inventories. Current academic research on Fangqi mainly focuses on protection and development (Zhang, 2022; Zhang et al., 2020; Gao & Zhang, 2020), with little systematic and in-depth research conducted from the perspective of intangible cultural heritage. Additionally, field investigations have revealed a scarcity of young people engaging in Fangqi. Therefore, this study aims to explore the gameplay and cultural survival space of Fangqi from the perspective of intangible cultural heritage protection.

2. Interpretation of Cultural Survival Space

Intangible cultural heritage (hereinafter referred to as “ICH”) is a living art form that originates from a specific time and space, relies on human beings for generational transmission, and serves as a precious memory of ethnic traditional culture. It not only carries rich historical and cultural information and ethnic spirit but also holds great significance for establishing cultural self-confidence and enhancing cultural soft power (Tan & Zhang, 2018). In fact, ICH is a form of preserving the practical achievements of past production and life, serving as an important carrier and means for communicating with predecessors, and an effective form of cultural transmission. Some scholars have pointed out that the living space of intangible cultural heritage is an organic whole, an environment that can preserve the cultural knowledge, skills, and techniques passed down by inheritors of intangible cultural heritage for a long time, ensuring relative stability and protection from destruction (Hao, 2015). In a sense, the people (inheritors), activities (inherited content), and objects (cultural environment) of intangible cultural heritage constitute the main factors of the cultural living space of intangible cultural heritage.

3. Rules of Playing Chinese Folk Square Chess an Intangible Cultural Heritage

From historical documents, archaeological materials, and surviving forms, we can glimpse the long history of practical activities related to “chess”. Due to the different categories of chess, a chess culture with distinct ethnic characteristics, varied styles of play, and rich chess content has formed (Zhou & Ma, 2023). Go master Nie Weiping once said, “Go requires more precise thinking (He, 2013).” Zhang Xiaochuan pointed out in “An Evaluation Method for Computer Game AI Agents in the Intangible Cultural Heritage Tibetan Jiuqi Project” that the essence of game-playing lies in important aspects such as thinking, reasoning, and calculating moves (Zhang et al., 2021). Since the artificial intelligence “AlphaGo” defeated Go master Lee Sedol in 2016, intelligent game-playing technology has emerged as a prominent force, filling board game competitions with great uncertainty and concealment for both players. In fact, not only Go requires precise thinking, but other types of chess do as well. It can also be said that all chess activities are, to some extent, a specific reflection of the players’ psychological states. Therefore, square chess also contains this cultural phenomenon.

Through field investigations and literature reviews, comparing different regional variations of square chess, it can be seen that square chess boards mainly consist of 5×5 , 6×6 , and 7×7 grids, with the 7×7 grid being more widely popular in the northwest region. In some areas of Xinjiang and Shanxi, the center of the square chess board has two intersecting diagonal lines, and the rules are slightly different from others. Apart from these differences, there are other minor variations, but the principles are basically the same.

3.1. Rules for Playing Seven-Square Chess

1) The Seven-Square Chess board consists of 49 intersections formed by 7 horizontal and vertical lines (**Figure 1**).

2) There are 49 chess pieces in total, divided into two different colors, with one side having 25 pieces and the other 24.

3) Game Principles: The game is mainly divided into three stages: placing pieces, moving pieces, and capturing pieces.

Placing pieces: Both players take turns placing their pieces on empty intersections until the board is fully occupied before they can start moving their pieces.

Moving pieces: Players begin to move their pieces, shifting them one space along the lines to an adjacent empty spot. If a player has fewer than 14 pieces remaining, they can move them freely to any empty spot.

Capturing pieces: During the game, a straight line of 7 pieces in either the horizontal or vertical direction is called a “gun” and allows the player to capture two of the opponent’s pieces. A small square formed by four adjacent pieces is called a “square” and allows the player to capture one of the opponent’s pieces (**Figure 2**).

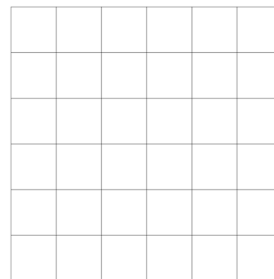


Figure 1. Seven-square chess board.

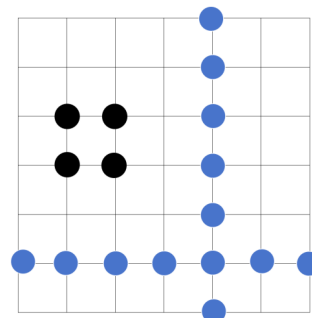


Figure 2. Chess moves for capturing pieces.

The player who reduces their opponent's pieces to three or fewer wins the game.

3.2. Rules of Xinjiang Square Chess

Game Principles: The game is mainly divided into three stages: placing pieces, moving pieces, and capturing pieces.

Placing pieces: Both players take turns placing their pieces on empty intersections until the board is fully occupied before they can start moving their pieces.

Moving pieces: Players begin to move their pieces, shifting them one space along the lines to an adjacent empty spot.

Capturing pieces: A small square formed by four adjacent pieces is called a "square," and the player can capture any one of the opponent's pieces that has not formed a square.

The game is won when one player has captured all of the opponent's pieces (**Figure 3**).

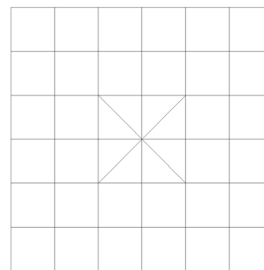


Figure 3. Xinjiang square chess board.

3.3. Rules for Playing Chengfang Chess

1) Chessboard

The chessboard consists of one large outer square, two inner squares in the upper left and lower right corners, and three smaller squares diagonally from the upper right to the lower left. Each square has four placement points (**Figure 4**).

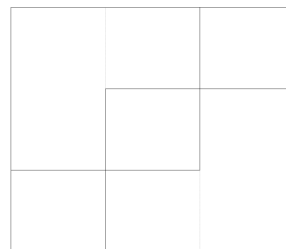


Figure 4. Chengfang chess board.

2) Chess Pieces

Chengfang Chess uses two colors of chess pieces, with each player selecting five pieces, totaling ten pieces.

3) Game Rules

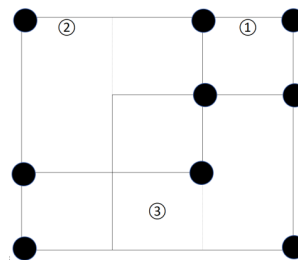
Placing Pieces: No pieces can be placed before the game starts. After the game

begins, players take turns placing pieces in order on empty spots on the chessboard according to the sequence of play.

Moving Pieces: After all pieces are placed, players take turns moving their pieces in sequence. The player who placed the first piece goes first. When moving pieces, players should place them on the nearest empty spot adjacent to their current position, with no restrictions on the direction of placement. The ultimate goal of moving pieces is to form valid Chengfang patterns and capture the opponent's pieces.

Valid Chengfang Patterns: A valid Chengfang pattern is when four pieces are placed simultaneously on one square, a process called "forming a square."

Capturing Pieces: When a player forms a square, they can capture one of the opponent's pieces from any area. However, squares formed during the piece placement phase cannot be used to capture the opponent's pieces (Figure 5).



Note: ① indicates a small square formed by four pieces in the upper right corner; ② indicates a medium square formed by four pieces in the upper left corner; ③ indicates a large square formed by four pieces in the largest square.

Figure 5. Capturing pieces in Chengfang chess.

Determining the Winner: The player who captures two of the opponent's pieces first wins the game. A draw is declared if a player's pieces are completely blocked, preventing them from placing pieces in adjacent areas.

3.4. Rules for Playing Taofang Chess

1) Chessboard

The chessboard is composed of five overlapping and offset squares of different sizes. Additionally, there are 16 isosceles right triangles of varying sizes on the chessboard, with a total of 20 placement points for the pieces (Figure 6).

2) Chess Pieces

Taofang Chess uses two colors of chess pieces, with each player selecting eight pieces, totaling 16 pieces.

3) Game Rules

Placing Pieces: No pieces can be placed before the game starts. After the game begins, players take turns placing pieces in order on empty spots on the chessboard according to the sequence of play.

Moving Pieces: After all pieces are placed, players take turns moving their pieces in sequence. The player who placed the first piece goes first. When moving

pieces, players should place them on the nearest empty spot adjacent to their current position, with no restrictions on the direction of placement. The ultimate goal of moving pieces is to form valid Taofang patterns and capture the opponent's pieces.

Valid Taofang Patterns: A valid pattern is when three pieces are placed simultaneously on one triangle, allowing the player to capture one of the opponent's pieces from any position; when four pieces are placed simultaneously on one square, the player can capture two of the opponent's pieces from any position. If both patterns appear simultaneously, the number of pieces captured should be calculated together. However, squares formed during the piece placement phase cannot be used to capture the opponent's pieces (**Figure 7**).

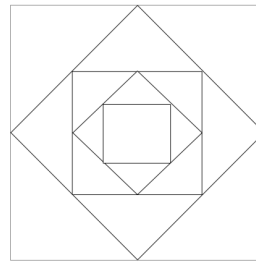


Figure 6. Taofang chess board.

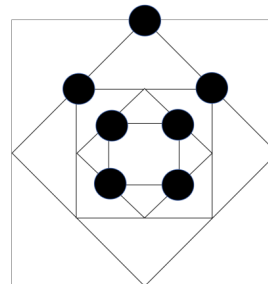


Figure 7. Capturing pieces in Taofang chess.

Determining the Winner: The player who first accumulates and captures five of the opponent's pieces wins the game.

3.5. Rules for Playing Trapezoid Chess

1) Chessboard

The chessboard is composed of three squares of different sizes, connected by four diagonal lines, with a total of 12 placement points for the pieces (**Figure 8**).

2) Chess Pieces

Trapezoid Chess uses two colors of chess pieces, with each player selecting five pieces, totaling ten pieces.

3) Game Rules

Placing Pieces: No pieces can be placed before the game starts. After the game begins, players take turns placing pieces in order on empty spots on the chessboard

according to the sequence of play.

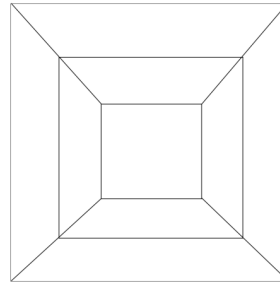


Figure 8. Trapezoid chess board.

Moving Pieces: After all pieces are placed, players take turns moving their pieces in sequence. The player who placed the first piece goes first. When moving pieces, players should place them on the nearest empty spot adjacent to their current position, with no restrictions on the direction of placement. The ultimate goal of moving pieces is to form valid patterns and capture the opponent's pieces.

Valid Patterns: A valid pattern is when four pieces are placed simultaneously on one trapezoid or one square, allowing the player to capture one of the opponent's pieces from any position. If both patterns appear simultaneously, the number of pieces captured should be calculated together. However, squares formed during the piece placement phase cannot be used to capture the opponent's pieces (**Figure 9**).

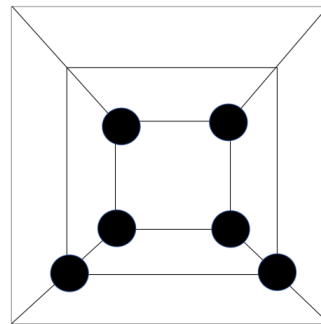


Figure 9. Capturing pieces in trapezoid chess.

Regarding the popularity of Fangqi (a type of board game), it is mainly concentrated in the western regions and some central areas of northern China, while its scope in southern China is relatively smaller. Due to differences in culture, behavior, and other aspects, the types of Fangqi exhibit diversity, sharing both commonalities and unique characteristics.

4. Shifting Survival Space of Chinese Folk Fangqi (A Type of Board Game) as an Intangible Cultural Heritage

Through field interviews and on-site observations, it is understood that the reason why Fangqi has been able to spread among different ethnic groups and regions is

not only due to the straightforwardness of its gameplay rules but also, more importantly, to the simplicity of its game pieces and the diversity of its playing environments in its early development. Fields, street corners, and alleys all served as spaces for playing Fangqi, while stones, grass sticks, bottle caps, and cement ground were sources of game pieces. The players ranged from the elderly, women, and children to social elites, constituting the survival space of folk Fangqi. Today, with the rapid rise of technology, swift economic development, and accelerated urbanization, changes in the objective environment are bound to have a profound impact on the survival space of folk Fangqi. As scholars have said, “For sports-related intangible cultural heritages to gain new derivative spaces in modern society, they must undergo innovative transformations in form and content, finding points of convergence with modern society and evoking emotional resonance among contemporaries” (Luo et al., 2024). Therefore, it is necessary to explore the shifting survival space of folk Fangqi from the perspectives of intangible cultural heritage transmitters and artificial intelligence.

4.1. Cultivating Youth Talents to Enhance the Transmission Strength of Folk Fangqi

The implementing subject of folk Fangqi is “people.” That is to say, the development of Fangqi should not only focus on the transmission of game principles but also on the cultivation of “people.” The core element of intangible cultural heritage protection and transmission lies in the transmitters of intangible cultural heritage (Yang, 2024). From a societal development perspective, with the acceleration of urbanization, rural areas are facing a crisis of “hollowing out,” with a large number of young people following their parents to cities for education. Regarding the issue of intangible cultural heritage transmitters, development strategies should be further clarified, leveraging the status of folk Fangqi as an “intangible cultural heritage” to seek appropriate opportunities to integrate into the school education system, establish Fangqi-related courses, expand the audience for folk Fangqi, and incorporate competition elements into the curriculum to improve the integrated development of teaching and competition modes. This will cultivate transmitters of folk Fangqi as an intangible cultural heritage and enhance its transmission strength.

4.2. Leveraging Artificial Intelligence Technology to Broaden the Dissemination Path of Folk Fangqi

Advancements in science and technology have greatly enriched people’s sociocultural lives, and the emergence of artificial intelligence is leading the way in shaping people’s lifestyles. From the perspective of technology philosophy, intelligent dissemination essentially involves the digital simulation of human thinking activities and processes, built upon computing power, algorithms, and big data analysis, implying iterations in human-machine relationships and representing a new paradigm where information dissemination is co-led by both humans and machines

(Xu et al., 2023). With the continuous updating and iteration of smart electronic devices, people's use and dependence on them have gradually increased. In this intelligent era, this undoubtedly presents opportunities for the dissemination of folk Fangqi. The development of smart apps or mini-programs for folk Fangqi will enhance its adaptive development in contemporary society. Meanwhile, during human-machine gameplay, high-level game records can be collected to enrich the theory and culture of folk Fangqi. The application of artificial intelligence technology can promote the digital protection of folk Fangqi as an intangible cultural heritage.

5. Conclusion

Intangible cultural heritage represents a living history of human civilization. It is imperative to tell the Chinese story of intangible cultural heritage, innovate expression methods, promote transmission through dissemination, and foster development through transmission (Yuan, 2021). Generative artificial intelligence provides a new logical approach for the protection of intangible cultural heritage, fully leveraging digital technology to broaden the living space of intangible cultural heritage. Folk Fangqi boasts a broad mass base, a strong gameplay atmosphere, and rich cultural accumulation. It upholds tradition while innovating and adheres to the culture of gameplay principles while transmitting. Deep considerations of folk Fangqi must focus on intangible cultural heritage projects while also keeping pace with societal development, Promote the leapfrog development of square chess by relying on generative artificial intelligence and digital technology. Enriching people's sociocultural lives, improving their quality of life, and enhancing their enjoyment are the social functions and values that folk Fangqi is obligated to uphold.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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