



ORIGINAL

Yunnan Spinning top: Local Wisdom and Knowledge Management

Peonza de Yunnan: sabiduría local y gestión del conocimiento

Wenzhen Tian¹  , Homhuan Buarabha¹ , Laddawan-Indraragumhaeng¹, Keran Wang¹ 

¹Faculty of Fine and Applied Arts, Khon Kaen University. Khon Kaen 40000, Thailand.

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Corresponding Author: Wenzhen Tian 

ABSTRACT

Introduction: yunnan spinning tops, especially Jizong, Jinggu, and Shuangbai tops, are significant origins and inheritors of Chinese spinning tops. Carved from hardwood, they exhibit diverse shapes and play styles, reflecting local cultural identity and ethnic minorities' emotional memories. However, globalization, tourism, and commercialization have led to the loss of their original connotation and national characteristics, impacting local culture and wisdom.

Method: adopting a qualitative research approach with semiotics and knowledge management theory, this study explores Yunnan spinning tops' origin, local wisdom, protection, and knowledge management. Surveys, interviews, and observations collected information on origins, production processes, ceremonial applications, and technical characteristics.

Results: yunnan tops are tools for fitness, entertainment, and the crystallization of local wisdom and skills. They integrate traditional woodworking crafts, reflecting craftsmen's pursuit of beauty. Tops are also linked to local beliefs and celebrations, becoming essential parts of festivals or rituals. During ethnic minority celebrations, top competitions and performances express yearning for a better life and respect for ancestors.

Conclusions: protecting Yunnan spinning tops' local wisdom through knowledge management is crucial. Their unique charm as intangible cultural heritage is demonstrated, and systematic protection strategies are proposed. These strategies aid in preserving and transmitting traditional skills and cultural values, enabling sustainable development in modern society. Comprehensive knowledge acquisition, organization, storage, sharing, application, and innovation promote living inheritance and innovative development, enhancing national cultural confidence and influence, and providing references for other intangible cultural heritage protection.

Keywords: Yunnan Spinning Top; Origin; Local Wisdom; Protection; Knowledge Management.

RESUMEN

Introducción: las peonzas de Yunnan, especialmente Jizong, Jinggu y Shuangbai, tienen orígenes significativos y son las herederas de las peonzas chinas. Talladas en madera dura, exhiben diversas formas y estilos de juego, reflejando la identidad cultural local y los recuerdos emocionales de las minorías étnicas. Sin embargo, la globalización, el turismo y la comercialización han llevado a la pérdida de su connotación original y características nacionales, impactando la cultura y sabiduría locales.

Método: adoptando un enfoque de investigación cualitativo con semiótica y teoría de gestión del conocimiento, este estudio explora el origen de las peonzas de Yunnan, la sabiduría local, la protección y la gestión del conocimiento. Las encuestas, entrevistas y observaciones recopilaron información sobre los orígenes, los procesos de producción, las aplicaciones ceremoniales y las características técnicas.

Resultados: las peonzas de Yunnan son herramientas para el fitness, el entretenimiento y la cristalización de la sabiduría y las habilidades locales. Integran la artesanía tradicional de la madera, reflejando la búsqueda

de la belleza de los artesanos. Las peonzas también están vinculadas a las creencias y celebraciones locales, convirtiéndose en partes esenciales de festivales o rituales. Durante las celebraciones de las minorías étnicas, las principales competencias y actuaciones expresan el anhelo de una vida mejor y el respeto por los antepasados.

Conclusiones: es fundamental proteger la sabiduría local de las peonzas de Yunnan mediante la gestión del conocimiento. Se demuestra su encanto único como patrimonio cultural inmaterial y se proponen estrategias de protección sistemáticas. Estas estrategias ayudan a preservar y transmitir las habilidades tradicionales y los valores culturales, lo que permite el desarrollo sostenible en la sociedad moderna. La adquisición, organización, almacenamiento, intercambio, aplicación e innovación integrales del conocimiento promueven la herencia viva y el desarrollo innovador, mejoran la confianza y la influencia culturales nacionales y brindan referencias para la protección de otros patrimonios culturales inmateriales.

Palabras clave: Peonza de Yunnan; Origen; Sabiduría Local; Protección; Gestión del Conocimiento.

INTRODUCTION

Spinning tops have a long history in Yunnan Province, with their origins dating back to the Neolithic era.⁽¹⁾ The earliest spinning tops were made of wood, and as time evolved, their materials gradually became richer, from clay and bamboo to metal and plastic, and the craftsmanship became increasingly exquisite.⁽²⁾ It not only carries people's childhood memories, but also contains deep cultural connotations and folk traditions, such as spinning top competitions held in certain regions during specific festivals, which is not only a competition of skills, but also the inheritance and promotion of traditional culture.⁽³⁾ To this day, the Chinese spinning top is widely practiced in folklore and has become a cultural link between the past and the present.⁽⁴⁾ Especially in Yunnan, the area inhabited by ethnic minorities is the main birthplace and inheritance place of Chinese spinning top sport.⁽⁵⁾ According to historical records, wooden spinning tops existed as early as during the Majiabang culture period and were used to honor ancestors and pray for happiness.^(6,7) Jizong spinning top, Jinggu spinning top and Shuangbai spinning top are the representatives of Yunnan spinning tops.⁽⁸⁾

Jizong spinning tops, shaped like wild fungus Jizong, are made of hard-wearing Ziyang wood, with stable spinning and colorful ethnic totems carved on the surface, which are both beautiful and practical, reflecting the wisdom of craftsmen and the pursuit of a better life. Techniques include winding, spinning, throwing, and catching, throwing and catching are the two most difficult techniques, and the Jizong spinning top can be thrown into the sky up to more than 30 meters.⁽⁹⁾ In traditional festivals, playing the Jizong spinning top signifies a happy and fruitful harvest, and is not only a national sport but also an important carrier of cultural heritage.⁽¹⁰⁾ In 2021, the rooster fir top was selected for the National Intangible Heritage list.

Jinggu gyros and spinning tops have a long history and are made of high-quality oak or teak wood, which is hard and wear-resistant. The Jinggu spinning top and the Shuangbai spinning top can be played against each other to determine the winner. During the Chinese New Year and in their spare time, villagers hold ceremonies, competitions, and performances in honor of the god of spinning tops.⁽¹¹⁾ Nowadays, both have become provincial intangible cultural heritages, carrying rich historical and cultural connotations and national wisdom and are an important part of local people's spiritual life.

However, in the context of globalization, the pseudo-traditional phenomenon has impacted Yunnan spinning top culture. The rapid development of tourism and over-involvement of commercialization has reduced traditional spinning top activities to commercial performances, losing cultural connotations and national characteristics. Unified performances have made the unique skills, costumes, and movements of each village highly consistent, ignoring the local wisdom and traditional culture behind them.⁽⁸⁾ This not only misleads the public perception but also impacts the real spinning top culture. Young people's interest wanes, the main body of inheritance is lost, and the skill faces are lost. In the knowledge management perspective, knowledge is considered to be a static entities that can be easily transferred and shared.⁽¹²⁾ However, in the phenomenon of Yunnan spinning top pseudo-tradition, some over-packaged or innovative cultural elements may be seen as knowledge that can be easily shared, when in fact they have deviated from the essence of traditional culture. From the perspective of knowledge management, Yunnan spinning tops contain a wealth of local wisdom and skills and are an important resource for the study of local culture and folk beliefs. Their protection and study not only help to maintain cultural diversity but also provide valuable cultural reference and innovative inspiration for modern society. It is of great significance for the inheritance of local wisdom and the enrichment of human cultural diversity.

At present, the research on Yunnan spinning tops has achieved certain results but mainly focuses on the performance form, competitive rules, and social and cultural functions. However, research on the origin and local wisdom of Yunnan spinning tops is still insufficient, resulting in vague cultural cognition and a reduced sense of identity. At the same time, existing studies have not paid attention to effective protection and knowledge

management, resulting in a break in cultural inheritance and a decrease in cultural diversity. Therefore, research on the protection and knowledge management of Yunnan spinning top local wisdom is crucial.

The Convention for the Safeguarding of the Intangible Cultural Heritage, the universal law of international conventions, explicitly states that States parties are required to undertake to take the necessary measures to ensure the safeguarding, transmission, and enhancement of the intangible cultural heritage in their territories.

⁽¹³⁾ In order to protect and pass on the Yunnan spinning top and other traditional cultural heritage, the Yunnan Provincial Government has issued the Regulations on the Protection of Intangible Cultural Heritage in Yunnan Province, which clearly defines the scope of protection, measures, and legal responsibilities, and provides legal protection for the protection and inheritance of traditional sports programs.⁽¹⁴⁾

This study adopts a qualitative research methodology with the perspective of semiotics and knowledge management theory. Through research tools such as surveys, interviews, and observations, we collected a large amount of key information about the process of making Yunnan spinning tops, Yunnan spinning tops in ceremonies, and technical characteristics. This information provides an important basis for us to deeply analyze the local wisdom and cultural value of Yunnan spinning tops.

Research results show that the Yunnan spinning top is not only a tool for fitness and entertainment but also a crystallization of local people's wisdom and skills. The Yunnan spinning top incorporates traditional woodworking techniques, and each step reflects the wisdom of the craftsmen and their pursuit of beauty. In addition, spinning tops are closely linked to local beliefs and folklore ceremonies, becoming an integral part of specific festivals or rituals. During the ceremonies, people express their desire for a better life and their admiration for their ancestors through spinning top competitions, dancing, and singing. The local wisdom of Yunnan's spinning top is unique and has irreplaceable cultural value and social significance.

The conclusion of this study emphasizes the importance of protecting the local wisdom of Yunnan spinning tops through the perspective of knowledge management. The local wisdom contained in Yunnan spinning tops is discussed in depth, which not only demonstrates its unique charm as an intangible cultural heritage but also proposes a set of systematic protection strategies through the perspective of knowledge management theory. These strategies not only help to protect and pass on the traditional skills and cultural values of Yunnan spinning tops but also provide the possibility of their sustainable development in modern society. Through the comprehensive implementation of knowledge acquisition, organization, storage, sharing, application, and innovation, it can effectively promote the living inheritance and innovative development of Yunnan spinning top local wisdom, enhancing the self-confidence and influence of the national culture, and at the same time provide useful reference and inspiration for the protection of other intangible cultural heritage.

METHOD

This study adopts a qualitative research methodology with the perspective of semiotics and knowledge management theory. Through research tools such as surveys, interviews, and observations, the thesis has collected a large amount of key information about the origin of Yunnan spinning tops, the process of making them, and the application of Yunnan spinning tops in local ceremonies and technology. This information provides an important basis for us to deeply analyze the local wisdom and cultural value of Yunnan spinning tops.

RESULTS

Origin of Yunnan spinning tops

The activity of spinning tops in Chinese folklore has a history of thousands of years according to historical records. The author researches and sorts out the origin of Yunnan spinning tops according to the object and geographical scope of his research.

Origin of Jizong spinning top

There are two legends circulating about the origin of the Jizong spinning top. According to one legend, Zhuge Liang's skill was introduced to the Wa region during his southern expedition in the Three Kingdoms period. At first, it was used as a sacrificial item and was performed on the Dragon Day (also known as "Dragon Festival") in the lunar calendar in January before the "Water Splashing Festival".⁽⁷⁾ With the changes in history, this skill has gradually been separated from ritual activities and has become a recreational and performance program for the Wa people during their farming or annual festivals. Another legend is even more vivid, which says that when the Wa people first arrived in Shuangjiang County, the males were physically weak and the population developed slowly. One day, a Wa headman found an injured peacock in the mountains and carefully rescued it, releasing it after it recovered. The peacock, in return for his kindness, lets the headman of the Wa tribe have a dream and tells him the secret of reproduction - consuming the spirit of ants on the pile (Jizong fir) can strengthen the body and promote fertility.⁽⁹⁾ To commemorate the gift of the peacock and the Jizong fir, the Wa people created the Jizong spinning top, inspired by the unique umbrella cap of the chicken fir mushroom. This object not only expresses reverence for nature but also celebrates the reproduction of life and has become an important part of Wa culture.

Origin of Jinggu Spinning top

Regarding the origin of the Jinggu spinning top, according to legend, Jinggu County was once the seat of the Yi tribe, and the tribal chief Li Si fell in love with the daughter of his subordinate.

But because of the girl's poor family, and low status, the two could not get married, so they used wood to make spinning tops to send their thoughts, spinning tops to send the love between them constantly. Li Si is not only honored as the "God of the Spinning Top", but also regarded as the guardian of the spinning top.⁽¹⁵⁾ Legend has it that when there was a severe drought, Li Si succeeded in bringing rain to relieve the drought by holding a spinning top competition and demonstrating his skill. From then on, the local people regarded Li Si as the guardian deity of spinning tops and held spinning top competitions every year during traditional festivals to commemorate his achievements and pray for divine blessings.

Origin of the Shuangbai Spinning top

The origin of Yunnan Shuangbai spinning top is deeply rooted in the rich ethnic history and culture of Shuangbai County, Chuxiong Yi Autonomous Prefecture. According to folklore, the origin of the Shuangbai spinning top can be traced back to ancient times. At that time, the Yi ancestors lived in the mountains and hunted for a living. They found that there were limitations in the use of wooden sticks as hunting tools, and they could not effectively hunt long-distance prey. In order to survive, the hunters began to try to make easier and more suitable hunting tools. After a long time of searching, they found that stones tied with soft vines could improve hunting accuracy and hit long-distance prey. So, in their spare time, they got together to train hitting stones to improve their hunting skills. This activity gradually evolved into the later spinning top sport, which was loved by the Yi people.

Local Wisdom

Making of Jizong spinning tops

The process of making Jizong spinning tops combines traditional craftsmanship with the wisdom of natural materials, reflecting the mastery of the artisan (see figure 1). The craftsman carefully selects the material, often using hard, dense, beautifully textured Ziyang wood, and cuts it to a specific size (see table 1). Then, using tools such as wood knives, chisels, and sandpaper, they design and carve the spinning tops according to the characteristics of the chanterelle mushroom, finely carving the texture and details and ensuring that their surfaces are smooth to minimize resistance to spinning (see table 2). After the carving is completed, the spinning top needs to be polished with sandpaper of different thicknesses to make it as bright as a mirror. When making the rope, the craftsmen will choose the tough and unbreakable hemp rope or cotton rope, cut it into appropriate lengths, and tie a small ring on one end to match the groove on the spinning top. Finally, the craftsman will thoroughly inspect the surface of the spinning top, the firmness of the rope, and the stability of the spinning top to ensure the best quality and performance (figure 2).



Figure 1. The production process of Jizong spinning tops

Table 1. Material of Jizong spinning top			
Material name	Use	Sizes	Characteristic
Ziyang wood	Main part	810 cm high, 68 cm diameter	Hard texture, not easy to deform, beautiful texture



Figure 2. Jizong spinning tops

Table 2. Tools for making a Jizong spinning top	
Tool name	How to use
Chai knife (figure 3)	Chopping out the rough shape of the Jizong spinning top
Zao zi (figure 4)	Fine engraving of the texture and details of the Jizong spinning top
Sandpaper (figure 5)	Polishing、 Ensuring a smooth surface that、 Reduces rotational resistance



Figure 3. Chai knife



Figure 4. Zao zi



Figure 5. Sandpaper

Jinggu spinning top and Shuangbai spinning top making

Jinggu spinning tops and Shuangbai spinning tops share many similarities in their making. In terms of material selection, both prefer solid, dense wood, such as the ba chi wood used in the Jinggu spinning top. The Qingxiangzi wood used for the spinning top is hard and wear-resistant, making it ideal for making spinning tops (table 3). In the making process, the craftsman first removes the bark from the wood and cuts the wood into cylinders. Then, Futou and Kan knives are used to make the shape of spinning tops (figure 6). During the process, it is necessary to maintain a stable technique to ensure that the shape is symmetrical. Then, holes are punched in the top of the spinning top and a thin rope or nail is inserted to serve as a spinning axis to ensure that it is stable (table 4). Finally, the craftsman uses a Cuo knife and sandpaper to polish the spinning top to make it smooth and round, and adjusts the center of gravity to ensure spinning stability (figure 7).



Figure 6. The Making of Jinggu spinning top and Shuangbai spinning top



Figure 7. Jinggu spinning top and Shuangbai spinning top in the museum

Table 3. Jinggu spinning top and Shuangbai spinning top material				
Spinning Top Names	Material	Use	Size, Weight	Characteristic
Jinggu spinning top	bachu wood	Main part	Diameter: 9cm--12cm Height: 10cm--15cm Weight: 800g--900g	Firm texture High density
Shuangbai spinning top	qingxiangzi wood	Main part	Diameter: 9cm--12cm. Height: 12cm--15cm Height: 10cm--12cm Weight: 800g--900g	High density Hard Wear-resistant Resistant to corrosion

Table 4. Tools for making Jinggu and Shuangbai spinning tops	
Tool name	How to use
Mudun	Used to fix wood for easy cutting and grinding.
Saw (See figure 8)	Used to cut wood to the desired shape and size
Compasses	Draw the shape of the circle
Hammer	Certain parts for whacking and fixing spinning tops
Kan Knife	For peeling and chopping wood
Zhuizi (See figure 9)	For punching holes in spinning tops
Ruler	For measuring the size and length of wood
Pencil	For marking cut lines and positions on wood
Cuozi and Sandpaper (See figure 10)	Used to polish the surface of spinning tops to make them smoother and rounder.
Rocks	Used to further polish the tapered tip portion of the spinning top to make it sharper and more stable



Figure 8. Saw



Figure 9. Zhuizi



Figure 10. Cuozi and Sandpaper

Yunnan Spinning Top with Folk Ceremonies

Yunnan, as a province inhabited by many ethnic groups, is characterized by a high degree of diversity in its ethnic cultures and customs, and this diversity has given rise to a wealth of folk activities and ceremonies.⁽¹⁶⁾ When the rice is ripe, it is the local New Rice Festival. Spinning top competitions and performances become the highlights of the harvest celebration, through which communication and integration among ethnic minorities are promoted. During the Wooden Drum Festival and the Spring Festival, spinning tops become an indispensable part of the festivals and ceremonies, and both individual and group competitions are full of joy and harmony (table 5).

Jizong spinning top, Jinggu spinning top, and Shuangbai spinning top, each of these distinctive spinning tops is not only a vehicle for entertainment and competition in local folk festivals and ceremonies but also an indispensable part of national cultural treasures.⁽¹⁵⁾ It carries deep historical value, cultural significance, and spiritual beliefs, and promotes exchanges and integration among ethnic minorities.

Table 5. How and when to participate in Jizong spinning tops, Jinggu spinning tops and Shuangbai spinning tops in local folk festivals in Yunnan			
Name	Names of folk events, festivals and ceremonies	Time	Form of expression
Jizong spinning top	New Rice Festival	April 10-April 12	Team competition, individual competition
	Wooden Drum Festival	August of the lunar calendar	Competitions, performances
	Jilong Festival	March of the lunar calendar	Competitions, performances
Jinggu spinning top	Spinning Top Cultural Festival	Mid to late February	Mid to late February
	Chinese New Year	New Year’s Day in the lunar calendar	Performances
	Dragon Boat Festival	The fifth day of the May of the lunar calendar	Performances
Shuangbai spinning top	Yi Tiger Cultural Festival	There is no fixed date	Competitions, performances
	Torch Festival	June 24th, Lunar Calendar	Performances
	Yi New Year	October-November	Competitions, performances

Yunnan spinning top play and technique

Techniques for Jizong spinning tops

The technique of the Jizong spinning top mainly includes four steps: winding, spinning, throwing, and catching (table 6). The performer wraps the spinning top tightly with a thin rope, puts the rope on the right hand’s little thumb, holds the spinning top tightly and throws it out with force, and at the same time switches the rope back to make the spinning top rotate at a fast speed. Afterward, the rope is quickly removed and

fastened, and the spinning top is quickly thrown into the air and then caught with a rope. This technique is very ornamental, spinning top can reach a height of more than 30 meters (figure 11).

There are many ways to catch a Jizong spinning top, such as catching it in front of the chest, catching it behind the back, catching it in the crotch, or even catching it by biting the noose with your mouth.⁽¹⁷⁾ These exquisite skills not only show the local people’s profound observation and cognition of the natural environment but also highlight their outstanding talent and cultural creativity in sports activities. The Jizong spinning top is not only a treasure of Wa culture but also carries a deep historical heritage and national wisdom.



Figure 11. Spinning tops at festivals

Table 6. Basic techniques for Jizong spinning tops	
Name	Technique Essentials and Characteristics
Winding	Wrap the rope tightly around the thinnest part of the spinning top to provide the initial power for the spinning of the spinning top
Spinning throwing	Throw the spinning top so that it spins quickly on the ground or in the air
Catching	Catch a spinning top falling from the air, either in front of your chest, behind you, or under your hips.

Technique of Jinggu spinning tops and Shuangbai spinning tops

Jinggu spinning tops and Shuangbai spinning tops are played in a variety of ways, which can be a single, double, or multi-player confrontation. One side spun top for the defense, and the other side with their own spinning top hit the other side of the gyroscope, so that it stops, so as to determine the winner (table 7).

Table 7. Basic techniques of Jinggu spinning tops and Shuangbai spinning tops	
Name	Technique Essentials and Characteristics
Winding	Provides initial power for spinning tops
Lash	Spinning top to keep it spinning at high speed on the ground
Strike	Strike the opponent’s spinning top with the spinning top in an attempt to knock it out of the playing area or stop it from spinning
Defense	Prevent your opponent’s spinning top from hitting your own by adjusting the spinning direction and speed of the spinning top

Knowledge management for the protection of Yunnan spinning tops

Under the perspective of knowledge management theory, the protection of the local wisdom of Yunnan spinning top is a systematic project involving multiple aspects of knowledge acquisition, organization, storage,

sharing, application, and innovation.⁽¹⁸⁾ This process not only helps to preserve and pass on this unique cultural heritage but also stimulates its new vitality. This paper will analyze in depth how to protect the local wisdom of Yunnan spinning tops from four aspects.

Knowledge acquisition and organization: comprehensive recording and systematization

First, knowledge management emphasizes comprehensive access to and systematization of information.⁽¹⁸⁾ The production process of Yunnan spinning tops, the selection of materials, the application in local folk activities, and the traditional techniques of play require in-depth field research, in-depth exchanges with spinning top artists, folk activity organizers, and spinning top enthusiasts, and a comprehensive record of their oral histories, practical experiences, and unique insights. At the same time, modern technological means, such as high-definition photography, video recording, three-dimensional scanning, etc., are utilized to accurately capture and record the spinning top's production process, morphological details as well as traditional play. On this basis, the information is classified, coded, and systematized to form a complete and detailed knowledge system, laying a solid foundation for the subsequent protection and inheritance.

Storage and protection of knowledge: digitization and security

Knowledge management emphasizes effective storage and long-term protection of knowledge.⁽¹⁹⁾ For the local wisdom of Yunnan spinning tops, digital means should be used to transform the organized knowledge system into digital resources, such as the establishment of online databases and virtual museums to facilitate public access and learning. At the same time, intellectual property protection should be strengthened, and patents or intangible cultural heritage protection should be applied for the unique production process of spinning tops, traditional techniques of play, etc., to prevent malicious infringement or abuse. In addition, attention needs to be paid to the safe storage and backup of digitized resources to ensure that these precious knowledge resources will not be lost in the event of natural disasters, technological failures, and other unforeseen circumstances.

Knowledge sharing and dissemination: platform building and community participation

Knowledge management emphasizes the sharing and dissemination of knowledge to facilitate its wider application and innovation.⁽²⁰⁾ With regard to the local wisdom of Yunnan spinning tops, specialized online knowledge-sharing platforms can be established, such as social media groups, online forums, knowledge bases, etc., to encourage communication and sharing among groups of spinning top enthusiasts, researchers, makers, and so on. At the same time, offline activities can be organized, such as spinning top-making workshops, folklore activity experiences, skill training courses, etc., to attract more public participation and enhance the understanding and recognition of Yunnan's spinning top culture. Through community participation, a strong protection force will be formed to jointly promote the inheritance and development of Yunnan's spinning top culture.

Application of knowledge and innovation: cultural heritage and modern integration

Knowledge management emphasizes the application of knowledge and innovation to promote the continuous development of knowledge.⁽¹⁹⁾ For the local wisdom of Yunnan spinning top, on the one hand, it is necessary to deeply excavate its cultural connotation and unique value, and show its charm and charisma to the public through exhibitions, performances, documentaries, and other forms. On the other hand, we should actively explore the integration with modern technology, such as the use of 3D printing technology to make spinning top models, the development of gyro game apps, etc., so that the traditional culture in the modern society with new vitality. At the same time, to encourage innovative play and competitive rules, such as the organization of the International Gyro Culture Festival, International Gyro Championship, etc., to attract more domestic and foreign enthusiasts to participate, and promote the international dissemination and exchange of Yunnan spinning top culture.

CONCLUSIONES

This study delves into the local wisdom contained in Yunnan spinning tops, not only demonstrating its unique charm as an intangible cultural heritage but also proposing a set of systematic protection strategies through the lens of knowledge management theory. These strategies not only help to protect and pass on the traditional skills and cultural values of Yunnan spinning tops but also provide the possibility of their sustainable development in modern society. Through the comprehensive implementation of knowledge acquisition, organization, storage, sharing, application and innovation, it can effectively promote the living inheritance, and innovative development of Yunnan spinning top local wisdom, enhancing the confidence and influence of the national culture, and at the same time provide useful reference and inspiration for the protection of other intangible cultural heritage.

BIBLIOGRAPHIC REFERENCES

1. Yang Zhenghong. Research on the Spinning Top Culture in Pu'er City, Yunnan Province [Master] 2021.
2. Kuang Qiaoqiao, Liu Jian, editors. Research on the development path of traditional ethnic sports in Yunnan: A case study of spinning tops in Jinggu County. The 13th National Sports Science Conference; 2023; Tianjin, China.
3. Luo Jinfu. Research on the current status of competitive gyro sports in Pu'er City [Master] 2022.
4. Kuang Qiaoqiao, Liu Jian. Research on the inheritance and development of traditional ethnic sports in Yunnan: Taking the spinning top sport in Menghai County as an example. *Sports and Cultural Goods and Technology*. 2024(14):16-8.
5. He Yongjie, He Lijuan. Research on the high-quality development of Yunnan Gyro Competition based on "Together to the Future". *Journal of Baoshan University*. 2023;42(06):98-103.
6. Dai Lin, Pan Sheng. Analysis on the historical evolution of Guizhou Yao people's spinning top. *Wushu Research*. 2023;8(01):130-2.
7. Ji Wen, Tang Chun, Xiong Zhangbo, editors. New inspiration of "sports sharing" in Yunnan ethnic festivals for strengthening the sense of community of the Chinese nation. 2024 National Sports Social Science Annual Conference; 2024; Rizhao, Shandong, China.
8. Wu Minglin, Ma Jun, Feng Qiang. Research on the inheritance and development of traditional sports games of ethnic minorities in Yunnan Province. *Journal of Qujing Normal University*. 2022;41(03):122-8.
9. Zheng Mingju, Huang Baiqing, Lu Fuda. Research on the intelligent development path of traditional ethnic sports in Yunnan Province. *Sports and Cultural Goods and Technology*. 2023(12):4-6.
10. Zhang Chengcheng, Wang Xiaohu. Investigation on the development of Hani gyroscope sports in Yuanjiang County, Yunnan. *Contemporary Sports Science and Technology*. 2020;10(27):208-11.
11. Tao Hong, Gao Yan. A hundred flowers bloom in Yunnan, Yunnan's outstanding ethnic cultural achievements exhibition benefits the people and the community. *National Times*. 2023-11-16.
12. Liang Maoyun, Sun Jingjing, Li Menglei, Liu Shi, Zhang Fan. Visual comparative analysis of knowledge management research at home and abroad in the past decade. *Journal of Shanxi Library*. 2023(02):69-79.
13. Scovazzi T. Sustainable Development and Intangible Cultural Heritage. *Cultural Heritage, Sustainable Development and Human Rights: Routledge*; 2024. p. 213-32.
14. Qian J, Zhu XJJoES. Exploring the Path of Integration and Development of Intangible Cultural Heritage and Tourism Industry in Yunnan Province. 2024;20(10s):708-17.
15. Wang Yajun. Yunnan's traditional ethnic festivals in the new era empower the Chinese nation's sense of community. *Creation*. 2024;32(01):26-9.
16. Wang Qionghui, Wu Wenqiao, Yan Ruiqin, editors. Research on the inheritance and modernization of sports culture of the water splashing festival of the Dai nationality in Yunnan. The Second Shaanxi Sports Science Conference; 2024; Xi'an, Shaanxi, China.
17. Wang Jingxi, Wu Kun. Inheritance education of the traditional ethnic sport "spinning top" in Pu'er, Yunnan. *Sports Vision*. 2022(18):20-3.
18. Wiig KMJJokM. Knowledge management: an introduction and perspective. 1997;1(1):6-14.
19. Alavi M, Leidner DEJMQ. Knowledge management and knowledge management systems: Conceptual foundations and research issues. 2001:107-36.
20. Demarest MJLrp. Understanding knowledge management. 1997;30(3):374-84.

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AUTHORSHIP CONTRIBUTION

Conceptualization: Homhuan Buarabha.

Data curation: Homhuan Buarabha.

Formal analysis: Wenzhen Tian.

Research: Laddawan-Indraragumhaeng.

Methodology: Keran Wang.

Project management: Wenzhen Tian.

Resources: Wenzhen Tian.

Software: Laddawan-Indraragumhaeng.

Supervision: Keran Wang.

Validation: Homhuan Buarabha.

Display: Homhuan Buarabha.

Drafting - original draft: Homhuan Buarabha.

Writing - proofreading and editing: Laddawan-Indraragumhaeng.