

## Using Informatization Technology Analysis of the History and Modern Development of Chinese Traditional Slingshot

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**Keywords:** Information Means; Traditional Slingshot; Competitive Sports; Cultural Heritage

**Abstract:** Traditional slingshot is a sport with a long history in China, which belongs to the category of shooting technology. It refers to a technique that has been launched with the carrier of slingshot. It is an important part of China's traditional sports culture. It is not only an item in China's martial arts, but also one of China's important intangible cultural heritages. The purpose of this paper is to explore and analyze the development trajectory of traditional slingshot in sports history and its functional positioning in historical evolution from the perspective of modernization and informatization, so as to better enable it to inherit and develop in the era of informatization. This article take the expert interview, logical analysis and literature query methods to analyze the the modern value of the sling operation in the information era, based on this, advances the slingshot surgery should be how to deploy and implement development programs with the help of information era, to change their own development key, enhance self-identity, start from the strengthening itself, to reveal their charm of Chinese traditional culture. The research results of this paper show that traditional slingshot still has strong vitality and attraction in today's information age. Constructing teaching base and training inheritors through information technology and means is not only an important part of inheriting excellent traditional culture, but also a key link of promoting national cultural confidence.

### 1. Introduction

With the acceleration of the information age, not only the process of cultural evolution is accelerated, but also the fixed mode of traditional culture is broken. The Internet, new media and other communication carriers have also rapidly become the forefront and position of cultural communication. Cultural exchanges have also promoted the exchange and mutual learning between various traditional cultures and modern fashion elements. As an important part of traditional culture, traditional slingshot is a weapon that has existed for a long time in Chinese history. In the course of the development of Chinese history, this traditional martial art has always been in the situation of passing inside and out, passing only the passers, making the modern people lack the necessary understanding of slingshot to a certain extent, making the traditional slingshot become a little-known technology.

What is worth people's attention is that in 2005, a famous Chinese martial artist and university professor spread the slingshot technique to universities. Once it spread, it soon took root and grew up in China [1]. For more than half a century before this, there had been no movement in the market of traditional slingshot, and the vast majority of the people were unaware of its existence [2]. In 2006, the slingshot team, whose mission was to spread the traditional slingshot technique, performed two feedback performances successively and received unanimous praise from the crowd [3]. In 2010, in the third national traditional sports meeting of ethnic groups, the organization demonstrated the traditional slingshot through the information channel in the form of performance, which immediately attracted wide attention [4]. A good intangible cultural heritage system is the institutional guarantee for the revitalization and vitality of traditional slingshot, which has become the consensus of Chinese slingshot enthusiasts, and how to inherit and develop slingshot has become the core issue of constructing this mechanism [5-6]. Through the unremitting efforts of

martial arts professionals, in 2011, slingshot was finally successfully applied for the traditional skills in the national intangible cultural protection list, which was positively responded by national policies and relevant experts, and also established its irreplaceable status [7].

In this study, the rigid mechanism was proposed as the protective layer and the soft mechanism as the inner layer. Meanwhile, the application of traditional slingshot as the national intangible cultural heritage was actively proposed [8]. This article keenly finds that with the origin history of slingshot, a broad avenue can certainly be blazed on its development path [9]. When constructing the inheritance and development mechanism of slingshot, it is necessary to integrate more modern factors such as competition content, high-quality slingshot production technology and technical system construction [10]. This paper makes a comprehensive analysis of the advantages of inheritance and development of traditional slingshot in today's information age, and puts forward the idea of building the inheritance base of slingshot in university campus [11]. Through the policy support of the state for the establishment of the traditional culture inheritance base and the charm of the traditional culture itself, the corresponding research base can be prepared and the grand goal of the creation, promotion, popularization and development center can be realized step by step [12]. This kind of path design is of great theoretical and practical significance to the inheritance of excellent traditional culture and the glory of slingshot technique in the information age.

## **2. Method**

### **2.1 Core Concepts**

#### **(1) Traditional slingshot**

Traditional slingshot can also be simply referred to as slingshot. It was applied for national intangible cultural heritage in 2012. The official name of slingshot is traditional slingshot, and it has been added to the national wushu competition. In essence, slingshot is an important part of traditional shooting culture. In form, slingshot refers to the form of firing projectiles with a crossbow. It is one of the instruments of martial arts. As a historical sport, slingshot has rich connotations and cultural characteristics of traditional sports. Technical characteristics tend to be actual combat rather than performance.

#### **(2) Information means**

Information means can also be called information productivity, mainly refers to the training and development of computer-based intelligent production tools as a representative of advanced productivity, and put into practice to benefit the people's intelligent production tools. This section of the means of informatization originated in Japan in the 1960s, and was later spread to the western world by a Japanese scholar, and the concept of the universal application of informatization in the western world began in the 1970s. It can be considered that informatization represents a state in which information technology is highly applied and information resources are highly Shared, so that people's material production capacity can be given full play to the greatest extent, and individual behaviors and social norms can also produce informatization and gradually become idealized. Informationization means are also the result of the full diffusion of IT industry and technology in the social and economic functions, and will play a powerful role in the process of transforming the traditional economic and social culture.

### **2.2 Research Objects and Methods**

In this paper, traditional Chinese slingshot is used to study the main basic objects, and the research method based on information means is used to study the historical origin and modern development of traditional Chinese slingshot as the through-line of the research, so as to carry out the full text of the research. In terms of research methods, this paper takes the inheritance and modern development of intangible cultural heritage as the purpose and support point of the research. First, on the basis of fully consulting relevant literature and works on the famous academic website CNKI, the research ideas and basic principles are formulated.

The research in this paper has drawn up the interview outline before the field investigation,

which mainly involves the historical origin of some Chinese traditional slingshot and the inheritors' views on the revitalization of slingshot by means of informatization. After fully listening to the opinions of relevant experts and scholars, and drawing up the outline, the formal investigation process was launched to ensure that the research of this paper has a strong objectivity and credibility, thus laying a good foundation for the conclusion of objectivity. After drawing up the formal outline and obtaining the first-hand survey data, this paper USES SPSS logic analysis software to process and analyze the survey and interview results, which is also to echo the original intention of carrying out the research by means of informatization. By adopting the analysis method of information means, this study fully understood the bottleneck of traditional slingshot in the modern society development of information, and put forward a pioneering strategic viewpoint with the modern perspective.

### **3. Experiment**

#### **3.1 Experimental Data Sources**

The research of this paper is carried out based on relevant literature collection and interviews of relevant professionals and the data and interview results are taken as the transcendental links of research and investigation. The specific literature information was obtained from the CNKI academic website, and the specific interview data was obtained from the oral narration of the inheritors of slingshot in modern society.

#### **3.2 Experiment Implementation**

In the process of obtaining literature materials, this study took "traditional slingshot technique" as the key word and found a total of 7 related literatures after searching. After screening, it was found that 2 of them had no reference content at all, so the viewpoints were not adopted. Among the remaining five, three of them are interviews with the inheritor of slingshot art and the staff of a famous university in China. The other two are the introduction of its history and the development of slingshot. This paper has made full use of the beneficial results of these studies, and has deliberately maintained the objective independence of this study. On issues related to the researcher's personal position, the principle of "true knowledge comes from investigation" has been adhered to, so as to ensure the objective neutrality of the research results to the greatest extent.

In the process of interviewing speakers for the inheritance of slingshot, this study conducted consultation and interview in strict accordance with the standard steps of outline design, and recorded the interviewees' narration in detail in turn. In addition, the interview results are carefully analyzed and evaluated to ensure the full research significance of this paper, so as to provide feasible research routes and reference contents for further research.

### **4. Discuss**

#### **4.1 History of Traditional Slingshot**

Experimental results and literature studies show that slingshot has always been a part of Chinese shooting technology in the long history. In the era of cold weapons, the most lethal weapons are bow and crossbow, but slingshot is not suitable for the ancient weapons because of the high technical requirements and less lethal, so it is only in the form of skills spread among the people, and eventually developed into a cold weapon. Undoubtedly, the traditional slingshot is an important part of China's sports culture, which has always occupied a place in China's sports civilization, with mysterious color and strong Oriental charm.

Slingshot training and requirements have the characteristics of Chinese traditional martial arts and rich martial arts culture. Due to the limitations of the inheritance of teacher and pupil, the slingshot technique is doomed to be a few people to master the skills, therefore, in modern times, when it comes to slingshot, what people thinks of above all is the modern simplified slingshot, rather than in the old slingshot, due to catapult the sport too mysterious, and flowers that submerged

in the vast cultures, little-known.

The survey found that historically, slingshot was not absent from competitive games. In the form of comparison table, the form and requirements of the competition are summarized as follows, as shown in table 1 below.

Table 1. Analysis of slingshot competition rules

Events	Range	Prescribed action	Headcount requirement	Time requirements	Ranking arrangement	Other requirements
	m	number	person-time	seconds	/	/
Men and women's 50	Men 10, women 15	3	/	/	By score	/
Shaft door shooting halberd	10	/	Since the set	180	By time	Must be with music
Horse racing slot	20	/	Since the set	150	By time	Must be with music
Bow shot the tiger	10	5	8	180	By time	Must be with music
Group slingshot performance	50	/	8-12	/	By score	/

As can be seen from table 1, the slingshot competition is also competitive by gender, and quite mature introduction of individual competition and team competition concept. In individual competitions, there are different requirements and standards for different genders. In terms of the form of the competition, not only the individual competition team competition is distinguished, but also the specific rules are set for the number of participants and site layout.

#### 4.2 Analysis of Development Status

Through the interview of the inheritors of slingshot art, this paper has found some recent important achievements. The interview found that the performance practice played a very important role in promoting the traditional slingshot technique to today. According to the results of the performance competition, the corresponding reward standard is set, which is shown in figure 1 below. It should be pointed out that in order to win these prizes, each inheritance base must carry out the inheritance and development activities of slingshot in accordance with relevant requirements, and shall not violate the provisions in the establishment and distribution of intangible cultural heritage awards.

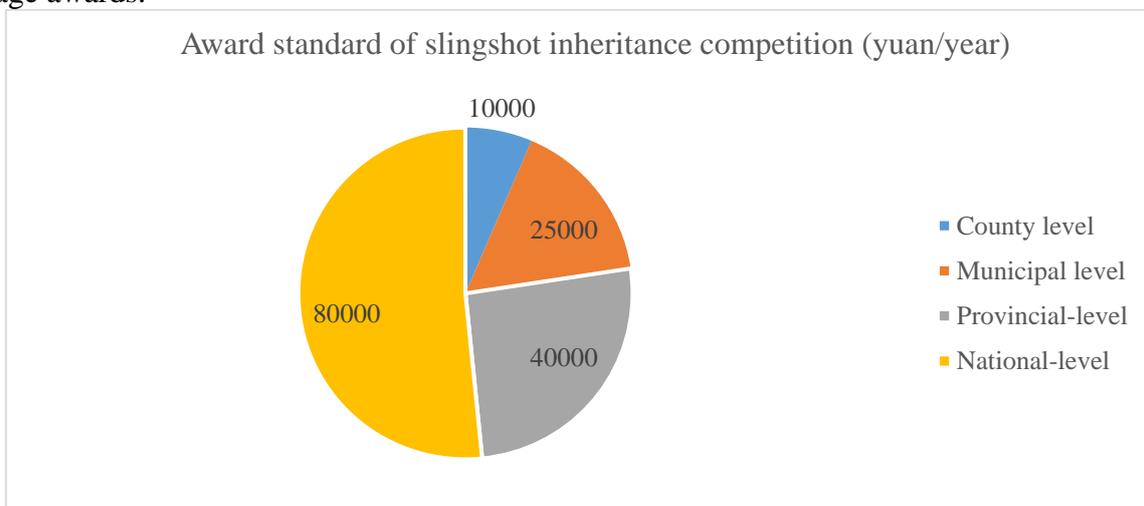


Figure 1. Award criteria of slingshot inheritance competition

It is not difficult to find that slingshot art in the information age in the form of performance to achieve the inheritance and development of triple jump. The first open competition was held after

the successful application for immaterial cultural inheritance in 2011, which marked that slingshot began to be active in people's vision. The second leap was in 2014. The traditional slingshot team participated in the 8th national workers' games held in Guangzhou, and finally won the second prize. The third leap was in 2018, at the opening ceremony of the international shooting association shooting championship held in Beijing, slingshot was the first to make an appearance, which was warmly cheered by the crowd, and the performance of the players was almost perfect. The smooth development of the competition made slingshot praised by fans all over the world.

## 5. Conclusion

Traditional slingshot has not lost its value in the information age. On the contrary, it is not only a good way of physical exercise, but also has a strong appreciation and entertainment. In the information age, our needs are diversified, and we need the coexistence of diverse cultures. The traditional slingshot is exactly in line with the requirements of the information age, in line with the values of contemporary people, suitable for all age groups to practice. How to better promote the traditional slingshot technology and culture is the historical mission and responsibility of every Chinese in the information age.

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