

# Cultural Sustainability: Strategies for Digital Protection and Products Development of YAO Ethnic Panwang Festivals Cultural Heritage

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**Abstract.** The purpose of this paper is to discuss the digital protection and development strategies of YAO ethnic festival cultural heritage. Based on the main framework of "collecting and analyzing data-- digital preservation and sharing-products development", introduces the methods of collecting and analyzing data, and explores the method of building a digital protection and sharing platform for YAO festival cultural heritage, summarizes the IP strategy and applied on products development in order to achieve sustainable cultural development.

Keywords: Festival Cultural Heritage  $\cdot$  Digital Protection  $\cdot$  IP Development Strategy

## 1 Introduction

From the perspective of sustainable rural development, ethnic traditional festivals are one of the representative symbols of regional culture, have a high degree of cultural identification, and are an important part of building a system of cultural identification and cultural self-confidence [3]. The traditional festival culture is the epitome of the local cultural system, and it is the presentation of the relationship between man and nature, man and man, man and god, etc., which local residents thinking under the accumulation of long-term survival experience, and is ultimately reflected in the visual materials, Language, food, dance, props, activity arrangements, etc. With the global expansion of modernity, the production and living systems of ethnic minority areas have been greatly impacted, resulting in serious cultural dislocation and cultural loss. In this context, the digital protection and development of excellent traditional festival culture has become a culturally sustainable effective way.

## 2 Data Collection and Analysis

### 2.1 Data Collection Methods

Data collection is carried out through field investigation, literature reading, interviews with inheritors, museum information collection, documentaries and other methods,

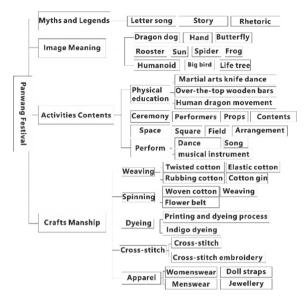


Fig. 1. Collection and Classification of YAO ethnic's Panwang Festival Data.

focusing on the collection of YAO ethnic recorded in ancient books such as "YAO History", "YAO Folk Stories", "Local Chronicles", Myths and stories, the implication of festival images and patterns, the basis for festival activities, songs and dances, production tools, etc. This stage pays attention to the comprehensive and detailed data collection, conducts in-depth interviews with the current inheritors, and records with audio and video.

#### 2.2 Data Analysis Method

The data of Panwang festival was classified by the type method and form a framework system, which is divided into four first-level catalogues, including text, pattern implication, festival activities, and craftsmanship, the second-level and third-level categories are set up under the four first-level categories (Fig. 1).

Content analysis method: First, through the content analysis of the images and texts, sort out the YAO ethnic cultural spirit contained in Panwang festival, and understand the philosophical concepts between people and people, people and things, people and nature, people and time, people and God etc. Secondly, interpret how the cultural concept of festivals shapes the behavioral characteristics of the group and endows the ornamentation with sociological significance, and what are the lessons for the modern society in the process of its generation. Thirdly, analyze the inner relationship between the concept layer, the behavior layer and the creation layer with systematic thinking, how to interpret the two core themes of blessing and gratitude conveyed by traditional festivals in the context of modern consumer society, and explore the auspicious culture and gratitude culture in modern times. New meanings in social harmony values.

## 3 Digital Protection of Festival Cultural Heritage

Database construction and sharing: On the basis of information collection and classification, through the technologies for permanent preservation like video recording, image tracing, 3D scanning, 3D modeling and material mapping, the key point is finish high quality transformation from physical forms to non-material forms. This step focusing on the integrity of objects, even if the object is eliminated, such as the fish crates used by local fishermen. Data management is carried out at the same time as the database is built, use the advantages of information retrieval, data statistics, digital display, function expansion, etc., depend on the data statistics such as click-through rate and attention to explore the products. The database also can be used as digital education resources for provide assistance on basic education, higher education, corporate product development, cultural tourism companies, etc.

Save the festival scene through animation demonstration and immersive visual display, and record every step of the character demonstration, such as dance body movements and gestures. On the whole, the digital protection of festival cultural themes is a lot of work, which requires multi-disciplinary collaboration.

## 4 IP Development Strategy of Festival Cultural Heritage

#### 4.1 Propose the Concept of Cultural IP

Cultural IP (intelligent property) refers to the connection and integration of cultural products. It is a cultural symbol with high recognition, self-contained traffic, strong realization and penetration ability, and long realization cycle. It has regional cultural, commercial, and social characteristics. Ethnic festival culture has rich narrative content and visual performance, and more importantly, festival cultural heritage has three contents: text, visual performance and dynamic display, which is very in line with the development characteristics of cultural IP.

#### 4.2 Principles of Cultural Heritage Development for Festivals

#### 4.2.1 Functional Expansion

Clothing, flags, utensils and other objects in traditional festivals reflect the productivity level, ideology and technical craftsmanship at that time. With the globalization of modern science and technology, the original production methods of ethnic minorities have been eliminated due to low productivity, and their existence value has shifted from tool attributes to cultural attributes [6]. So, the tool attributes are expanded and activated to enter the modern life system and redefine its functionality. For example, The long drum is a representative musical instrument in the Panwang festivals, The shape of the long drum is applied to the packaging design of the YAO ethnic specialty food camellia oil. The drum surface is used as the cup lid and the drum body is the cup, and two cup feet are combined with connectors with YAO ethnic patterns, the material are often food-grade glass, plastic or metal. The functional attributes of the drum was be broadened, it can be lighter or toy, its benefit to promotes the local food culture brand, and at the same time



Fig. 2. Design work for long drum applied on cup and food packaging.

enhances the recognition of ethnic food (Fig. 2). About the digital space, its functional transformation is more diversified, and it exists in various forms such as video game props, architectural modeling, animation scenes, and expression packs.

#### 4.2.2 Situational Space Expansion

At present, the contextual space for cultural inheritance and innovation of ethnic festivals has shifted from ethnic minority settlements to modern cities. Cities around the world have similar spatial appearances, and buildings, vehicles, roads, greening, and lifestyles are similar. Postmodern cultural diversity Conservation and development have become a new trend, and also provide a cultural driving force for the development of cultural tourism. Some urban areas such as themed restaurants, urban central squares, pocket parks, government buildings, national costumes, transportation decoration, lighting, schools, and hospitals, ethnic minority festival elements was be applied, it has been became an important role show the urban cultural brand image, as well as an important part of attracting inbound tourists and foreign tourists, Experience the unique local way of life is an important purpose of travel, the higher the participation of tourists, the greater the inspiration [6].

The urban production and living system is different from the background of the farming era of traditional festival culture. The urban siphon effect accelerates the flow of rural labor to the city. The knowledge reserve and self-capacity of the rural labor group do not have a competitive advantage in the needs of urban operation. The national hand-icrafts, textiles, farming, folk dances and other skills are in a passive position because they are misplaced with the needs of the city. There are roughly two ways to integrate traditional festival content into the urban life system: one is to integrate the cultural elements of ethnic minority festivals into clothing, food, housing, transportation and music. For example, the ethnic dance is adapted into urban square dance, and square dance has become the current urban residents exercise. The second is to take festival cultural heritage as an important part of basic education, higher education and skills training, reflect regional cultural characteristics in personnel training, teaching design, curriculum setting, etc., cultivate new inheritance subjects, and rural labor force with relevant skills to undertake training teachers, technical guidance and other roles [5].



Fig. 3. LINGGUAN character design and emoticons.

#### 4.2.3 Language Interaction

From the perspective of communication, symbolic interaction forms the meaning construction of social reality, through the interpersonal network constructed by information production, the language as a link, integrating core ideas into the behavior of creation, and completing the endowment and operation of referential meaning through interactive behavior. In this context, whether the inheritance and innovation of traditional festival cultural heritage can be integrated into the modern language interaction system is an important factor. The form of information in language interaction reflects the characteristics of the times. For example, the design cases is based on the shapes of the gods LINGGUAN in the festive statues, which are transformed into digital social languages through cartoon character design, such as emoticons (Fig. 3). Transform the interesting character image and expression design as dynamic social language into the public daily life system, the emoticons, pictures, and videos in the digital media era not only conveys information such as the thinking habits, but also implies the identity of the group [1], rapidly disseminated in digital information platforms, the inheritance and innovation are realized.

#### 4.3 Cultural IP Development Framework

IP extraction stage: This stage purpose is to establish IP core keywords, through the content analysis of festival cultural materials, from three parts: concept layer, behavior layer, and creation layer. The national world outlook, values, and outlook on life contained in the culture, and good qualities such as bravery and wisdom are reserved for IP character design and character shaping; the behavior layer mainly analyzes the reason of the activities arranged in the ceremony and the content of the game, How festival activities and production and other behaviors express national concepts; the creation layer is to analyze how the shapes, materials, colors, techniques and other elements of production and living objects reflect the guiding significance of the concept layer. With the systematic perspective thinking to combine the concept layer, behavior layer, and creation layer, to deeply understands its internal relationship [4].

IP development stage: The important purpose of this stage is to explore the path of digital content production, focusing on how to develop sustainable products for festival



Fig. 4. Character design and play card application.

cultural content under the context of mass consumption. The main methods are user demand research, user experience, creative design, model method, cultural translation is the main thing. IP development content is divided into two categories: digital products and material products. The former is mainly in the form of video games, emoji language, user interface design, animation films, etc.; the latter is mainly in the form of film and television cultural derivatives, daily necessities, holiday gifts, teaching Supplies, special product packaging design, etc., for example, For example, the characters in the panwang festival portraits were be character design and integrated into playing cards, each playing card has different roles and role-specific functions (Fig. 4). The two are integrated with each other.

IP generation stage: This stage has two aspects: one is to build an IP cultural identification system, establish the genetic code of festival cultural heritage, and introduce the concept of CIS, a corporate image identification system, which is divided into four parts: continuing the context through the identification of IP cultural concepts With the innovation of the times, IP behavior recognition reflects the modern interpretation of national consciousness and behavior, IP visual recognition shows the specific application of festival cultural elements in people's daily life, and IP digital media recognition reflects the festival culture of digital space as a language, these four parts are commonly constitute the "concept-behavior-visual-media" system. The second aspect is to discuss the economics, sociology, cultural inheritance and other meanings of cultural IP generation. For example, the IP-based development of YAO ethnic festival cultural heritage is conducive to the regeneration of rural resources, such as the knowledge and skills of the rural surplus labor force. Activation, reuse and transformation of rural space, which is conducive to the construction of a new type of urban-rural relationship, rural space has become an important space for urban residents to experience life, approach nature, and parent-child activities. In this process, the excellent content of festival culture cultivates new inheritors through education, games, entertainment, etc. [2], and realizes the sustainable development of culture. The three frameworks of IP extraction, IP development, and IP meaning generation are shown (Fig. 5).

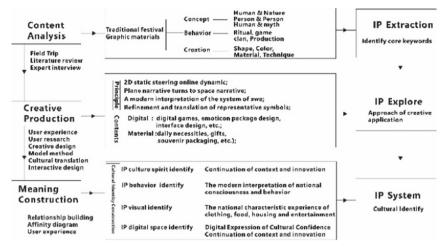


Fig. 5. IP explore processing framework.

### 5 Conclusion

Based on the results and discussions presented above, the conclusions are obtained as below:

(1) The digital protection of festival cultural heritage is a useful supplement to the current way of preserving cultural relics in museums, giving full play to the technological advantages of digital protection, digital display and dissemination.

(2) Apply Yao festival elements to mass entertainment, social language, and daily consumption system, and expand its functional attributes through design transformation to enhance its vitality in a modern context.

(3) The framework of "IP Refinement-Product Development-Meaning Generation" serves as a method to provide reference for relevant parties, and develop festival cultural heritage through systematic design thinking, which is helpful to establish a regional cultural tourism brand.

Acknowledgments. This research is supported by the "Review the Past to Understand the Present—Research on the Packaging Design of Local Products Based on 'Traditional Festival Culture'" (Guangxi Education Department No. 2020KY06050).

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