

### **Research Progress of Ecological Museum**

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#### Abstract

Constructing ecological civilization is a millennium plan for the sustainable development of Chinese nation. The ecological museum is an important measure to foster the construction of the ecological civilization. If we input "ecological museum" as the key word and look it up in the CNKI with a time span from 1986 to 2018, we can obtain 574 articles from journal and literature. Then we carry out the literature quantitative analysis and knowledge graph analysis by utilizing Citespace software, we discover that the research of the ecological museum in China started from the theory introduction of overseas ecological museum. Then it gradually applies to the practice of Chinese ecological museum and expands to the themes of tourism and national culture protection and others. Hence it naturally forms into the current hot spot--tourism and it's development, cultural heritage and its protection, intangible cultural heritage and its protection and others. Chinese characterized ecological museum theory and practical experience have therefore been gradually formed. However, in terms of theoretical value recognition, comparative study as well as quantitative study and others, the strengths are considerably weak. It is suggested that the research for the future ecological museum shall adopt the cross discipline mode, perform theoretical exploration of combined diachronic analysis and synchronic comparison for various ecological museums which are cross border and cross regions.

**Key words:** The ecological museum; Heritage; Protection; Development direction

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The report of the 19th National Congress of the CPC has established a milestone for the construction of the ecological civilization. The report indicates that the construction of the ecological civilization is a millennium plan for the sustainable development of Chinese nation. We should firmly bear in mind about the ecological civilization concept and take various protective actions to substantially push the construction of ecological civilization. The thriving of ecology makes civilization thrives, if ecology declines, civilization also declines. The key of constructing a beautiful China lies in constructing beautiful rural villages. The featured village protection and development and construction for ethnic minority groups are the important parts for constructing new socialism villages and new pasture lands, and are the important components for ethnic works, they are also important measures to protect the cultural diversity of Chinese civilization. With the quickening progress of urbanization, drastic changes also take place in traditional villages. Hence, in recent years, the nation has accelerated the protective extent to ethnic minority villages with national, regional diverse ecological and cultural features. Ecological museum takes village communities as units, utilizes various approaches to record and protect communities' cultural essences, which protects overall the communities' natural environment and cultural heritage, and fosters the "live museum" that pushes forward the development of communities (Yu & Wu, 2001). It provides the protection of ethnic villages with a primitive, holistic and dynamic protection mode and has an inseparable connection with the protection of ethnic villages (Zuo, et al, 2017). Currently, the practice of ecological museum in our nation has developed into the level of third generation. Scholars has shifted from focusing on the tourism development and protection study of ecological museums and emphasizing on analyzing the theoretical system of ecological museums to highlighting on exploring the holistic protection, the inheritance of Intangible cultural heritage and ethnic cultures. They sort out the development track of researches on ecological museums and summarize the domestic theories of ecological museums and implementation results, all of which is conducive to exploring the growth point of Chinese ecological museum research and provides references for further exploring the ecological museum governance and operating mode suited to Chinese domestic situations.

### 1. DATA SOURCE AND RESEARCH METHODS

In order to guarantee the representativeness and authority of data, this paper takes CNKI Chinese journal full text database as the retrieving database. We input "ecological museum" as the key word to retrieve, with a time span from 1986 to 2018. We received 574 journal articles, after eliminating the invalid information, we eventually obtained 566 journal articles. We carried out the statistical analysis based on the temporal distribution of papers, highly cited papers and institutions, and utilized Citespace V software to draw the co-occurrence network map of keyword and the time zone map of research frontier to analyze the research hot spots and development trends.

# 2. DEVELOPMENT CONTEXT OF THE KNOWLEDGE MAPPING RESEARCH

#### 2.1 Temporal distribution

Since 1986, after Chinese Museum had successively published introductory thesis on overseas ecological museum theories, the annual issued volumes on the study of domestic ecological museum have shown an overall rising trend. (As shown in Figure 1), from 1986 to 1998, the research on ecological museums has been in a state to be developed. Starting from 1999, with scholars' attentions, the research on the ecological museum has gradually risen. From 2003 to 2005, the amount of paper researching on the ecological museum had increased sharply, and entered into a rapid development stage. In 2005 alone, 92 articles had been published, reaching the first research climax. In 2006, the issuing volume dropped. From 2007 to 2010, the annual publishing volume of researches on ecological museum recovered slowly, the publishing volume from 2010 to 2017 fluctuated within a certain range, but remaining the research enthusiasm in general.



Annual distribution curve of the number of research papers in the ecological museum in the CNKI database from 1986 to 2018

#### 2.2 Content Distribution

#### 2.2.1 Theme Change

Combining with relevant literature and key words time zone map, (as shown in Figure 2) we can divide the research subject evolution of the ecological museum into four stages. The first stage is the theoretical enlightenment period (1986-1999), mainly introducing the theory of overseas ecological museum. The second stage is the practice and deduction period (2000-2004), mainly taking the Suojaqing Miao Ecological Museum Cluster in Guizhou as the subject to study the feasibility of development for the museum cluster and discuss the practical application of advanced ecological museum concept in China. The third stage is the practice expanding period(2005-2008), the study of ecological museum had been expanded to the themes such as tourism, protection and ethnic cultures. In the era of public tourism, the ecological museums in our county have born the responsibility of developing tourism economy. The fourth stage is the practice and innovation period(2009till now), its theme focuses on the protection of cultural heritage, tourism development and intangible cultural heritage(hereinafter referred to as "ICH"). Some scholars have pointed out the role the ecological museum plays in terms of protecting cultural heritage and proposed that the ecological museum is a positive attempt to protect cultural heritage and develop regional economy. What's more, under the influence of globalization and pushed by domestic relevant policies, since 2011, the research subject of the ecological museum has begun to be biased towards the research of intangible cultural heritage and its protection.



### Figure 2

Key words co-occurrence time zone of CNKI China ecological museum research paper

#### 2.2.2 Theme Distribution

Key words co-occurrence network of the study on the ecological museum (Figure 3) can reflect that the research hot spot in this arena mainly focuses on the themes such as tourism, and its development, cultural heritage as well as its protection, intangible cultural heritage and its protection and others.

In terms of tourism and its development, the development of tourism economy in ethnic regions has brought about negative impacts such as the degradation of tourism resources, the commercialization and vulgarization of ethnic culture and arts, while paying attention to protection, the ecological museum makes local residents prosperous through tourism development, establishes a balance between protection and development, and solves the contradiction between tourism development and national culture protection (Liu , Yang, & Xie, 2005; Jian, 2003). Fang Changmin (Fang, 2016) combines the cultural space theory of the ecological museum and proposes the sustainable development implementation paths for the tourism of the ecological museum, that is, based on the active participation of community residents, taking the accurate positioning of cultural landscapes as the condition, and guaranteed by the space production of the national ecological museum, which provides theoretical references for the construction of the ecological museum and tourism development, and promotes the sustainable development of the national ecological nature, culture and tourism.

In terms of cultural heritage, we shall reduce natural and man-made destructive factors faced by heritage, fulfill the demand for prolonging the life of heritage noumenon and maximizing the heritage values, promote the ecological museum to explore and protect the cultural heritage of the village, and to display this cultural heritage reasonably (Cao, 2018). Under the mode of promoting the ecological museum in the small and medium sized historical cities, it enables citizens to take the ownership to participate into the protection of cultural heritage for the city (Tao, 2016).

Wang Dong et al (Wang, 2016) draw lessons from the circle space structure of architectural heritage protection and constructs the protection system of material cultural heritage of traditional village ecological museum at different levels, explores more comprehensive cultural heritage theories and methods. While on the practical

level, via the theoretical analysis of overall protection of the ecological museum located in traditional Miao and Dong villages in Southeast Guizhou (Wang, 2016), the summarization of "1+10 project" practical mode for the ecological museum in Guangxi (Gong, 2016), the exploration of overall protection of Qiqiao village in the view of the ecological museum (Zuo, et al., 2017), it is further affirmed that the ecological museum is an important means for overall protection of traditional village's cultural heritage, and turns into a new trend in the area of cultural heritage protection.

In the context of globalization, the protection of intangible cultural heritages has become the consensus of all countries in the world (Peng, 2006). The protection of intangible cultural heritages emphasizes on the concept of the living protection, making the traditional culture turn to the public and objectification, and reconstructing the subjectivity of traditional cultures (Gao, 2016). The construction of the ecological museum takes the development as the objective to carry out the holistic living protection (Ma, 2017). In 2016, Chinese Art Research Institute drafted and completed Professional Standard of Digitalized Protection of Intangible Cultural Heritage (submission for approval), providing new thoughts for the digitalized construction for the intangible cultural heritage. It will forcefully push the standardization of digitalized resource collection for the intangible cultural heritage (Zhou & Xu, 2017). For example, Zhao Ming (Zhao, et al, 2014) et al made an attempt to combine the theory of the ecological museum and the digitalization of intangible cultural heritages, carried out the research analysis of the construction thoughts and elements and others of the digitalized ecological museum of Haizhou's Five Palace Tunes, discussed the issues and resolutions during the construction of digitalized ecological museum, and provided references for carrying out the protection of intangible cultural heritages by adopting the approach of digitalized ecological museum for intangible cultural heritages.



#### Figure 3

#### Key words co-occurrence network for research thesis on CNKI ecological museum

#### 2.2.3 Analysis of Highly Cited Papers

This paper performs statistical analysis on the highly cited papers studying on the ecological museum in CNKI and derives the situations for top 10 highly cited papers from 1986 to 2018. Based on the analysis of the citation frequency of the literatures published in CNKI's ecological museum research from 1986 to 2018 (see Table 1), the top 10 papers mainly focus on the introduction of the museum concept and its theoretical system, tourism development and cultural protection research.

The ecological museum is an ideological trend formed by the combination of a new mindset existing at the international museum circle and the strong will to revolutionize the traditional museum as well as the practical activities for this ideological trend (Su, 2001). Ecological museum is a definition for evolution, which can be view as an interpretation of mirror, the reflection of mankind and nature and time, as well as space, can also be regarded as a lab on the basis of common principles, a resource protection center and a school (Riviere, 1986). In order to develop the ecological museum cause of our country, and make its model and thought tagged with Chinese features, Su Donghai analyzed the generated historical background and era meanings of the ecological museum theoretically (Su, 1995), Zhen Sunan interpreted the new concepts and new developments in the international museum study (Zhen, 2001). Ethnic villages and towns bear two tasks which are protecting cultures and eradicating poverty (Luo, 2004). According to *Cultural Development Planning Outline during 11<sup>th</sup> Five Year Plan Period-ethnic cultural protection*, cultural ecological protection is a systems engineering (Liu, 2007), the rise of the ecological tourism agriculture not only conforms to the requirements of agricultural sustainable development, but also meets the objective requirements of the sustainable development of tourism industry (Song, 2002). For example, Guizhou Suoga Ecological Museum, Tuwa Ecological Museum located in Altay region, Xinjiang , while giving a full play of good social displaying functions, they have also yielded good economic benefits and fully explored the paths for folk cultural developments and protection coordination developments (Liu, Liu, & Wall, 2005; Liu , Yang, & Xie, 2005). The ecological museum, as a sustainable tourism development mode for ethnic culture, it not only protects the pureness of ethnic cultures in the course of tourism developments, but also retains the inheritance of ethnic cultural essences and dynamic developments (Yu & Wu, 2001).

Table 1	
Top 10 cited research thesis on the ecological museum in CNKI from 1986 to	2018

Thesis name	1st author	Journal title	Year	Times
The ecological museum, a sustainable tourism development mode for ethnic cultures.	Yu Qing	Human Geography	2001	234
Discussion on the issues in cultural and ecological protection zone	Liu Kuili	Journal of Zhejiang Normal University	2007	130
A brief account of the international ecological museum movement and its practice in china	Su Donghai	Chinese Museums	2001	96
What is new museology?	Zhen Suonan	Chinese Museums	2001	90
Development of the ecological tourism agriculture and its innovation significance	Song Xiaohong	Guizhou Agricultural Science	2002	87
The application of the ecological museum concept in the development of ethnic cultural tourism places-take Tuwa village(Hemu, Kans) as an example	Liu Xuling	Geography In The Arid Area	2005	71
The protection and utilization of ethnic villages and towns in Guizhou Province of China	Luo Qide	Journal of Architecture	2004	71
Concept of the ecological museum and its role played in the protection of minority ethnic community landscape- take Suoga Ecological Museum in Guizhou as an example	Liu Peilin	Resources and Environment in the Yangtze River Valley	2005	66
Thoughts on the ecological museum	Su Donghai	Chinese Museum	1995	66
The ecological museum-a definition for evolution	George Henry Riviere	Chinese Museum	1986	59

### 3. DEVELOPMENT SCHOOLS

## 3.1 Analysis of Subject Distribution and Source Journals

Based on the statistics of the disciplines and journals involved in the research papers of China's ecological museums from 1986 to 2018 (see Table 2), it can be seen that the discipline distribution of the ecological museum research is mainly tourism, archives, museums and culture, and the research results are mainly published in museums and national culture research journals. The ecological museum research papers published in the top 10 journals accounted for 32.69% of the total number of papers published in this field. Among them, the number of papers published by *The Chinese Museum* in the ecological museum accounted for 14.49% of all journal literature on this topic, far ahead of other journals.

Table 2

Top 10 discipline and journal distribution of the eco	ala siaal marganena magaamah in CNIVI
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	Discipline di	stributions	Journal distributions			
S/N	Discipline	Published volume/article	Proportion/%	Journal	Published volume/article	Proportion/%
1	Tourism	265	46.82	Chinese Museum	82	14.49
2	Archives and museums	257	45.42	Contemporary Guizhou	25	4.42
3	Culture	139	24.56	Guizhou Ethnic Economy	15	2.65
4	Building Science and Engineering	28	4.95	Chinese Cultural Heritages	13	2.30
5	Archaeology	27	4.77	South Eastern Culture	12	2.12
6	Environmental Science and Resource Utilization	19	3.36	Chinese Nations	9	1.59
7	Ethnology	15	2.65	Ethnic Arts	9	1.59
8	Administration and International Administration Management	13	2.30	Contemporary Guangxi	8	1.41
9	Geography	13	2.30	Tourism Overview(2nd issue of the month)	6	1.06
10	Cultural Economy	12	2.12	Guangxi Ethnic Study	6	1.06

#### 3.2 Analysis of Institutions

The ecological museum has experienced more than 30 years of theoretical and practical explorations in the protection and development of minority cultures in China. When we conduct statistical analysis on the issuing institutions of published articles(as shown in Figure 4), the top 10 institutions with highest publishing volume in

this area are Central University for Nationalities, Hezhou College, Chinese National Museum, Guizhou Provincial Department of Culture etc, followed by colleges and universities in southwest China. All these institutions focus heavily on the ecological museum, which have become the main force for the research of the ecological museum.



Top 10 institutions for published volume of the ecological museum research thesis in CNKI

## 4. THEORETICAL RESULTS AND PRACTICAL EXPERIENCES FOR THE ECOLOGICAL MUSEUM RESEARCH

#### 4.1 Concepts, Features, Functions and Principles

In the course of localized construction of the ecological museum theory, Mr. Su Donghai has proposed that the ecological museum performs holistic protection, insitu protection and residents self-protection for natural environments, human environments, tangible heritages, and intangible heritages, which enables people and objects and environment to be in the inherent ecological relationship and develop harmoniously into a new concept for museum (Su, 2002). The ecological museum has the properties of being multi scientific, being regional in relation to natural and cultural traditions, the openness not limited to buildings and the coordination of local residents (Su, 2001). First, the ecological museum expands the space of museum, makes museum decentralized, incorporate ecological environments, landscapes and communities into the scope of a museum, allows tangible and intangible cultural heritages to be shared with community residents in the region of the ecological museum. What's more, community residents, as community subjects, are able to participate into the management, maintenance, development of museums, thus generating a concept of "localized management". The locals become the owners of the ecological museum and participate into various decisions and future development of the museum while scholars and experts mainly provide the technologies, cultures, as well as economic conditions etc required by the future development. Lastly, the ecological museum affirms the local protection of heritages, not detaching from the original birthplace and leaving the relied cultural scenarios (Jin, 2014). On the experiential basis of the construction of Suoga ecological museum, the government and scholars proposed "six branch principles" as the management principles of the ecological museum. In between, there are 3 major views: 1. local villagers are the masters of culture, they must be engaged into the management; 2. when tourism is in contradiction with the cultural protection, cultural protection must be placed as a priority; 3. on the basis of not deteriorating the traditional cultural value, the living standard of local residents must be enhanced (Ma, 2017). All these provide overall theoretical guidance, agile construction means as well as broad development spaces for the practice of Chinese ecological museum, have a more general forward looking guidance to the protection of ethnic cultures.

#### 4.2 Four Practical Paths

After various years' practices, the ecological museum has formed into four ecological museum paths with regard to the traditional village protection in domestic China;

Guizhou path, which theoretically emphasizes the leading by villagers. But viewing from the practical results, the pro-activity of villagers' community engagement is limited, it relies largely on the experts and government. The path is profoundly influenced by the foreign ecological museum theories, which does not perfectly combine with the real situation of less developed ethnic zone in Guizhou, and is unable to change the material living standard of villagers effectively (Mao, 2011).

Guangxi path, that is, ethnic cultural heritage protection means of "1+10" and "union". This means more relies on scholars and the cooperation and communication of local residents, constructing the scientific research force and villagers' interactive mechanism, arousing the active participation of villagers, strengthening the cultural display function of the ecological museum (Jin, 2012), also making up for the dilemma of lack of relevant professionals in ethnic minority areas.

Yunnan path. The ethnic cultural ecological village in Yunnan Province is a villager led means under the guidance of experts (Duan, 2013), which is committed to the ethnic cultural protection and new rural construction mode for the sustainable development, aiming to awaken the consciousness of villagers as the main body.

Anji path, which is a new concept proposed based on the practical situation of the eastern developed zone, highlighting the core concepts such as "featured integration of heritages and resources", "good coordinations between residents and government as well as cultural consciousness", "point-line-area style innovation for museum clusters", "system first and sound operation" etc (Pan, 2013). Anji path is an ecological museum which is different from the one in the less developed ethnic zone, it implies that the ecological museum development of our nation has entered into new stage, and led the new direction of the museum theory study (Tang & Wang, 2017).

#### 4.3 Governance and the Operating Mode

The fact that China's national conditions and ethnic cultures, especially the culture of ethnic minorities, are widely rooted in the underdeveloped vast countryside determines that the construction of Chinese ecological museum has a strong "Chinese" color (Rong, 2005). The site selections of Chinese ecological museum communities are mainly at the ethnic minority areas. The rationale is to take the inheritance of the national culture and the preservation of the authenticity of heritage as the starting point, especially to provide holistic, dynamic and in-situ protections to the cultural heritages of ethnic minorities. Our country has formed into a Chinese characterized construction mode for the ecological museum, that is, governments, experts and community residents have constituted the leaders who pay attention to the engagement from community residents and are committed to have them play their pro-activeness and creativity to build up and maintain the museum together and meet the requirements of visitors at the same time. For example, the ecological museum located in Longga Village of Guizhou has clarified to employ the government deeds to organize the planning of the ecological museum and the construction committee participated commonly by the administration and community residents, so as to uniformly direct the construction of the ecological museum. In terms of business constructions, cadres allocated from the cultural department with professional knowledge take the role. They also must receive the directions from Province and Central Departments, Chinese Museum Society in order to carry out works (Hu, 2000). What's more, in the construction practice of the ecological museum, Mr. Su Donghai creatively proposed "four dimensional protection" mode of Chinese ecological museum. The 1<sup>st</sup> dimension is overall protection, that is, integrate the natural heritage, cultural heritages, tangible heritages and intangible heritages as well as environment in the village as a whole for protection. The 2<sup>nd</sup> dimension is the protection from villagers their own, that is, turn the protection into the voluntary and conscious behaviors from villagers. The 3<sup>rd</sup> dimension is in-situ protection, that is, to protect at the original place of cultural relics, to allow villagers to live according to the traditional customs. The 4<sup>th</sup> dimension is dynamic protection, this practice mainly focuses on resolving the conflicts between the protection and development. (Wei, 2007)

#### 4.4 Enlightenments From the Protection of the Cultural Heritages in Our Country and the Construction of Ecological Civilization

The ecological museum has clarified the guiding notion of "people centered", highlighting the harmonious development of the society and changing the "inhuman tendency" of classic museology, therefore the village of ethnic minorities in our country shall pay attention to the human factors and enhance the attention to local residents to arouse the "culture consciousness" of local people. Furthermore, the construction of the ecological museum in our country has always adhered to the basic principles established at the preliminary stage: one is localization of the ecological museum, second is leading by governments, guidance by experts and participation by villagers; three is not only to protect culture but also to develop the economy. Years of practices has opened a new way to have museums return to mass public, providing references for the protection of ethnic minority villages in our nation and their cultural heritages; The aim is to focus on the issue concerned by people, stimulate the creativity of people, enhance the developmental capability of people to build up a harmonious development environment (Song, 2005). The ecological museum takes the "protection" as the core notion, addressing the requirements for "development" at the same time, to provide a new possibility for the protection of our cultural heritages and the construction of the ecological civilization. However, when relevant cultural heritage protection and development utilization are investigated profoundly and literally, researches must first be conducted. (Fang, 2007)

## 5. THE RESEARCH FRONTIER AND DEVELOPMENT DIRECTION OF THE ECOLOGICAL MUSEUM

#### 5.1 Research Overview at Various Periods

After various years' exploration on theories and practices, the ecological museum in our nation has reached the considerably complete 3<sup>rd</sup> generation level for the ecological museum (Jiang, 2015). Via the burst level (figure 5) of 8 strongest cited key words, it allows us to explore the burst concepts and potential research problems existing for the ecological museum study of our country. It also allows us to interpret the forefront in the realm of the ecological museum study.

<b>Top 8 Keyword</b>	s with the	Strongest	<b>Citation Bursts</b>
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Keywords	Year	Strength	Begin	End	1986 - 201
梭夏	1986	4.7265	1996	2005	
博物馆学家	1986	3.5294	1996	2005	
中国博物馆学会	1986	3.5294	1996	2005	
博物馆群	1986	5.1165	2001	2005	
黔东南	1986	4.996	2008	2009	
非物质文化遗产	1986	6.127	2010	2018	
传统村落	1986	5.0427	2015	2018	
保护	1986	3.535	2015	2018	

#### Figure 5

#### Top 8 burst key words in the ecological museum study in CNKI from 1986 to 2018

According to the indication by Figure 5, in 1996, "Suoga", "Museologist" as well as "Chinese Museum Society" started to become strongest burst key words, while the research focus on "museum clusters(2001-2005)", "South eastern part of Guizhou" had dropped. The literature quantity started to decrease gradually to a steady state. Especially for key words such as "intangible cultural heritages" and "traditional village" , "protection" have shown continuous rising trends respectively since 2010 and 2015. Hence, they become the frontier problems which are worth great attentions. Although the current researches have accumulated abundant theories and conducted case investigations in the process of the research of the ecological museum, which has laid the basis for the theoretic mode of the ecological museum as well as research methodologies, if viewing comprehensively, the existing researches still have following deficiencies.

#### 5.1.1 Inadequate Research on the Rational Meaning and Insufficient Exploration Spirit of the Ecological Museum

The ecological museum covers broad topics, however, via sorting out the localized practices of the ecological museum, we can discover that, majority of museums and professionals from the cultural heritage realm are not supported by sufficient theoretical preparations, they only view the ecological museum as an immediate tool to eradicate poverty and gain fortunes. They have commonly ignored the rational spirits and exploration spirits behind this tool (Cao, 2018), unable to sort out systematically and plan profoundly for ecological elements and relevant resource other than the ecological museum heritages, unable to treat the planning of the ecological museum as the integrated and long-term development of the region.

#### 5.1.2 The Horizontal Comparative Study of Cross-Border, Cross Ethnic and Cross Regional Ecological Museums Needs to be Promoted

In the past, most of the studies on ecological museums were conducted by individual ecological museums in a certain region (such as Guizhou Suoga Ecological Museum). Although some case investigations were quite meticulous, it was easy to lose a more general explanation due to the particularity of the case. How to escalate a specific individual case study to general holistic research gains and find a combination point between the community museum and the full territory museum, so as to supersede sole research target to carry out horizontal comparison among various museums, integrate various disciplinary theories, establish an analytical framework with a general explanation function to finally address the more complicated problems and more serious challenges faced by the real societies.

## 5.1.3 Quantitative Researches on the Impact and Value of Ecological Museums Need to be Explored

The ecological museum is closely linked with the national tourism, economic development in the process of localized practices of our nation, the research on the ecological museum in China is enthusiastic in qualitative research paradigm, while the quantitative exploration on the influence and value brought by the construction of the ecological museum to the social economy and development are very rare. The researches are unable to timely analyze the social reputation change before and after the construction of the ecological museum, the economic incoming changes of residents, the change situations of local infrastructure constructions etc, unable to reveal the well rounded impacts such as cultural and economic impacts of the ecological museum, which should be heavily paid attention for the upcoming researches.

## 5.2 The Developmental Directions for Future Researches

## 5.2.1 The Profound Researches on the Theoretical Meaning and Rationale Values

As a powerful tool for the heritage protection and ecological civilization construction, the ecological museum must be analyzed to discover the scientific and cultural as well as ecological rationales behind the tool. We shall not only discover the visible, specific practices of the ecological museum, but also realize the philosophical notions and social values embedded behind the notion of the ecological museum, so that an important role can be fully played in the context of heritage's protection and utilization as well as the deepening and transformation of the heritage cause, so that it allows the "Five in One" ecological civilization construction advocated by Chinese Communist Party to give a positive play.

## **5.2.2 Diachronic Analysis and Synchronic Comparative Studies**

The localized practice of the ecological museum firstly is to address the issues of the protection and utilization of traditional villages' cultural heritages in ethnic regions. China is a nation with many ethnic groups, each traditional village has its own distinctive ethnic features and regional characteristics. Complex diversity and giant difference exist among various villages, which provides the necessities and possibilities of diachronic analysis and synchronic comparative study for the ecological museum. At the same time, only carrying out the comparative study can locate the critical factors for the protection and inheritance of ethnic cultures, provide effectively the thoughts and measures to adjust cultural protection and development, push the sustainable development of communities.

#### 5.2.3 Multi Perspective Interdisciplinary Researches

The ecological museum, as a new type of museum, covers interdisciplinary levels from culture to tourism, from ethnology to resource utilization including culture, archaeology, ethnology, tourism, archiving, museum, environmental science as well resource utilization. Any single sided research cannot cover fully the research progress of the ecological museum. Therefore the domestic research on the ecological museum shall pay more attention to expanding the discipline range, carry out interdisciplinary researches, to strengthen the inter-activeness among disciplines and explore more comprehensive heritage protection theory and form complete research system.

REFERENCES

- Economic Development Department of the State Ethnic Affairs Commission (2014). *Notice on the planning outline of the protection and development of featured villages for ethnic minorities* (2011-2015). Beijing: Nationalities Publishing House.
- Yu, Q., & Wu, B. H. (2001). The ecological museum: A sustainable tourism development mode for ethnic cultures. *Human Geography*, (06), 40-43.
- Zuo, Y. X., Liu, L., Li, G., et al. (2017). Qiaoqi Village's holistic protection study in the view of the ecological museum. *Southern Agriculture*, *11*(2), 60-62.
- Jian, W. H. (2003). Discussion on the ecological tourism development in the ethnic minority zone. *Geography of Arid Area*, 26(3), 286-290.
- Liu, X. L., Yang, Z. P., & Xie, T. (2005). The application of the ecological museum notion in the development of ethnic cultural tourism-Take Tuwa Village (located in Hemu, Kanas) as an example. *Geography of Arid Area*, 3(28), 414-418.
- Fang, C. M. (2016). The study on tourism sustainable development of national ecological museum-Take Guangxi

National Ecological Museum Cluster as an example. *Ethnic Forum*, (9), 54-60.

- Cao, B. W. (2018). The exploration of the ecological museum and the construction of ecological civilization-discussion on the living protection and inheritance issues of cultural heritages. *Chinese Museums*, (1), 38-42.
- Tao, Y. (2016). Discussion on the promotion of the ecological museum in the small and medium sized historical cities-Take Anqing as an example. *Specially Established Journal*, (4), 60-63.
- Wang, D. (2016). Exploration on the holistic protection of Miao and Dong Traditional Villages' Ecological Museums in south eastern Guizhou. *Journal of Kunming Polytechnic* University (Social science edition), 2016, 16(4), 94-99.
- Gong, S. Y. (2016). Exploration and practice: The review, assessment and thoughts on "1+10 project" for Guangxi Ethnical Ecological Museum. *Guangxi Ethnic Study*, (1), 143-149.
- Peng, D. M. (2006). Digitalized protection: The new approach for the intangible cultural heritage protectio. *Chinese Calligraphies and Paintings*, (4), 47-51.
- Gao, X. K. (2016). The paradox of living inheritance of intangible cultural heritage: Preservation and development. *Cultural Heritage*, (05), 01-07.
- Ma, G. Q. (2017). Protection and activation of ethnic villages. *Tourism Journal*, 32(02), 5+7+6.
- Secretariat of National Technical Committee for Standardization of Cultural and Artistic Resources. Notice on Publicly Soliciting Opinions on the Cultural Industry Standard *Professional Standards for Digital Protection of Intangible Cultural Heritage*[EB/OL]. [2016-08-29]. http://www. chinesefolklore.org.cn/web/index.php? NewsID=14588.
- Zhou, Y., & Xu, X. (2017). Research review on the digitalization of intangible cultural heritage. *Library and Information Work, 61*(2), 6-15.
- Zhao, M., & Cheng, Z. J., Ni, A. D., et al. (2014). Digitalized protection and ecological museum construction of intangible cultural heritage: Take the Protection of Haizhou Five Palace Tunes as an example. *Huaihai Engineering Journal: Social Science Edition*, 12(7), 71-75.
- Su, D. H. (2001). A brief account of the international ecological museum movement and its practice in China. *Chinese Museums*, (2), 2-7.
- Riviere, G. H. (1986). The ecological museum-A definition of evolution. *Chinese Museums*, (04), 75.
- Su, D. H. (1995). On the thoughts of the ecological museum. *Chinese Museums*, (02), 2-4.
- Zhen, S. N. (2001). What is new museology. *Chinese Museums*, (01), 25-32.
- Luo, D. Q. (2004). The protection and utilization of ethnic villages in Guizhou, China. *Building Journal*, (06), 7-10.
- Liu, K. L. (2007). Discussion on the cultural ecological protection zone. *Zhejiang Normal University Journal (Social science edition)*, (03), 9-12.
- Song, X. H. (2002). The development and its innovation

significance of ecological tourism agriculture. *Guizhou* Agriculture Science, 20(1), 59-61.

- Liu, P. L., Liu, A., & Wall, G. (2005). The notion of the ecological museum and its application in the community landscape protection for ethnic minorities-Take Suoga Ecological Museum in Guizhou as an example. *Resource* and Environment in the Yangtze River Basin, 14(2), 254-257.
- Su, D. H. (2002). The No.1 of China: Guizhou Suoga Village. *Chinese and Foreign Cultural Exchange*, (2), 8.
- Jin, L. (2014). The concept of the ecological museum, functional transfer and Chinese practice. *Guizhou Social Science*, (6), 46-51.
- Mao, J. Y. (2011). The ecological museum is simply a notion, not a fixed mode-a dialogue with Pan Shouyong. *Cultural Monthly*, (10), 24-26.
- Jin, L. (2012). Explore the Root of the Ecological Museum-Discuss the Generation. *Development and Chinese Practices* of Ecological Museum, (9), 180-185.
- Duan, Y. P. (2013). Study on the Ecological Museum of South West Ethnic Groups (p.187). Beijing: Central University for Nationalities Press.
- Pan, S. Y. (2013). The 3<sup>rd</sup> generation ecological museum and the

theoretical thoughts on the construction of Anji Ecological Museum Cluster. *South Eastern Culture*, (6), 86-93.

- Tang, X. X., & Wang, D. (2017). Traditional village protection and research guided by the ecological museum. *Kunming Polytechnic University Journal (Social science edition)*, 17(01), 102-108.
- Rong, X. N. (2005). The exploration and planning of the ecological museum construction in Guangxi. *Chinese Museums*, (3), 44-45.
- Hu, C. Y. (2000). The practice of the theory of the ecological museum in Guizhou. *Chinese Museums*, (02), 61-65.
- Wei, Z. Q. (2007). The aesthetical connotation of the ecological museum. *Guizhou Social Science*, (8), 48-52.
- Song, X. G. (2005). The contribution to the development of museology made by the theory and practice of the ecological museum. *Chinese Museums*, (03), 63-67.
- Fang, L. L. (2007). The profound social background of the protection of intangible cultural heritage- The research and reflection on the Suoga Ecological Museum in Guizhou. *Ethnic Art*, (04), 6-20.
- Jiang, L. (2015). Knowledge graph analysis of the study of the ecological museum in our country. *Scientific Information Development and Economy*, 25(13), 139-141