



Cherry Packaging Design for Community Economic Promotion in Luoyang

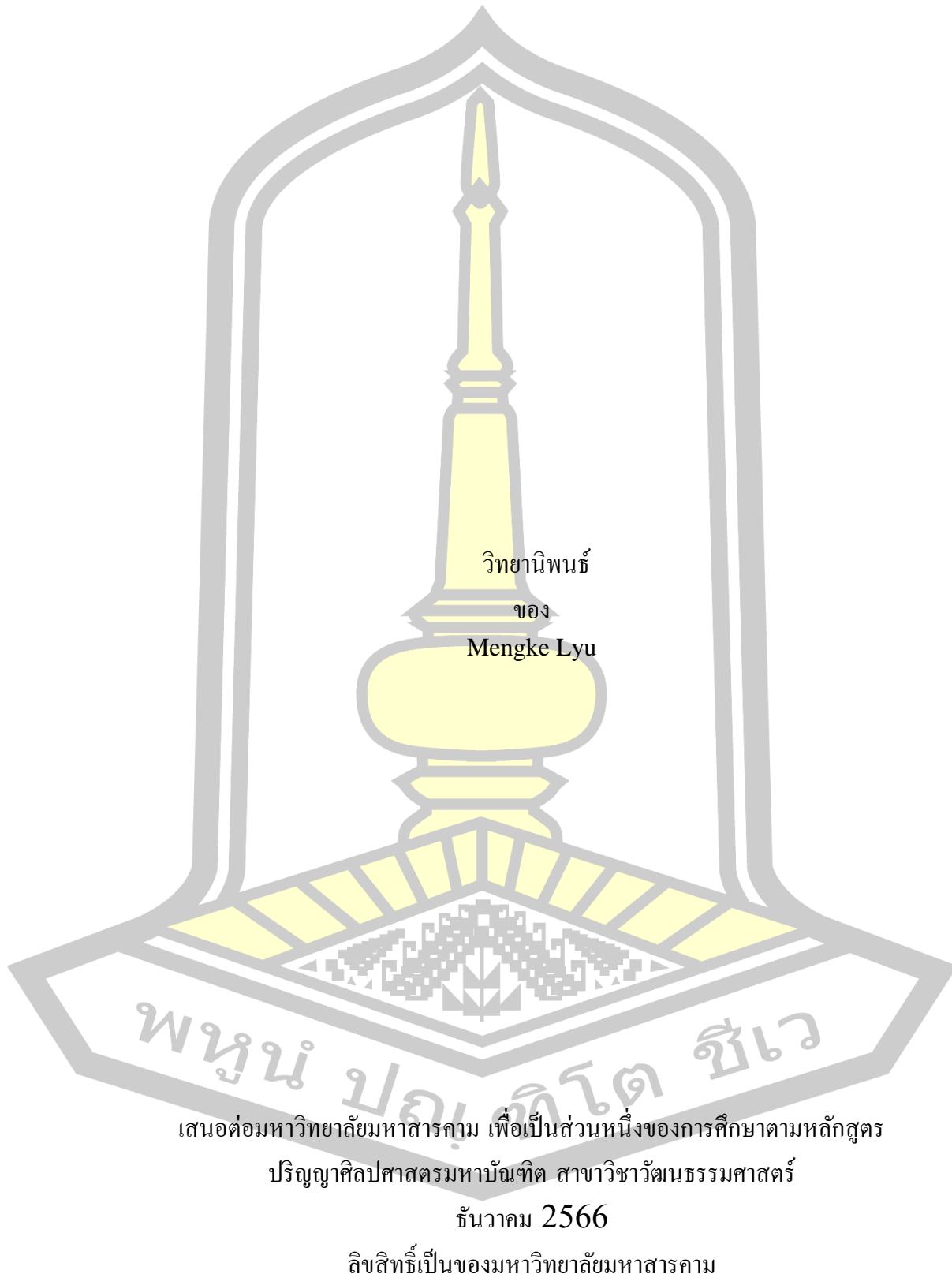
Mengke Lyu

A Thesis Submitted in Partial Fulfillment of Requirements for
degree of Master of Arts in Cultural Science

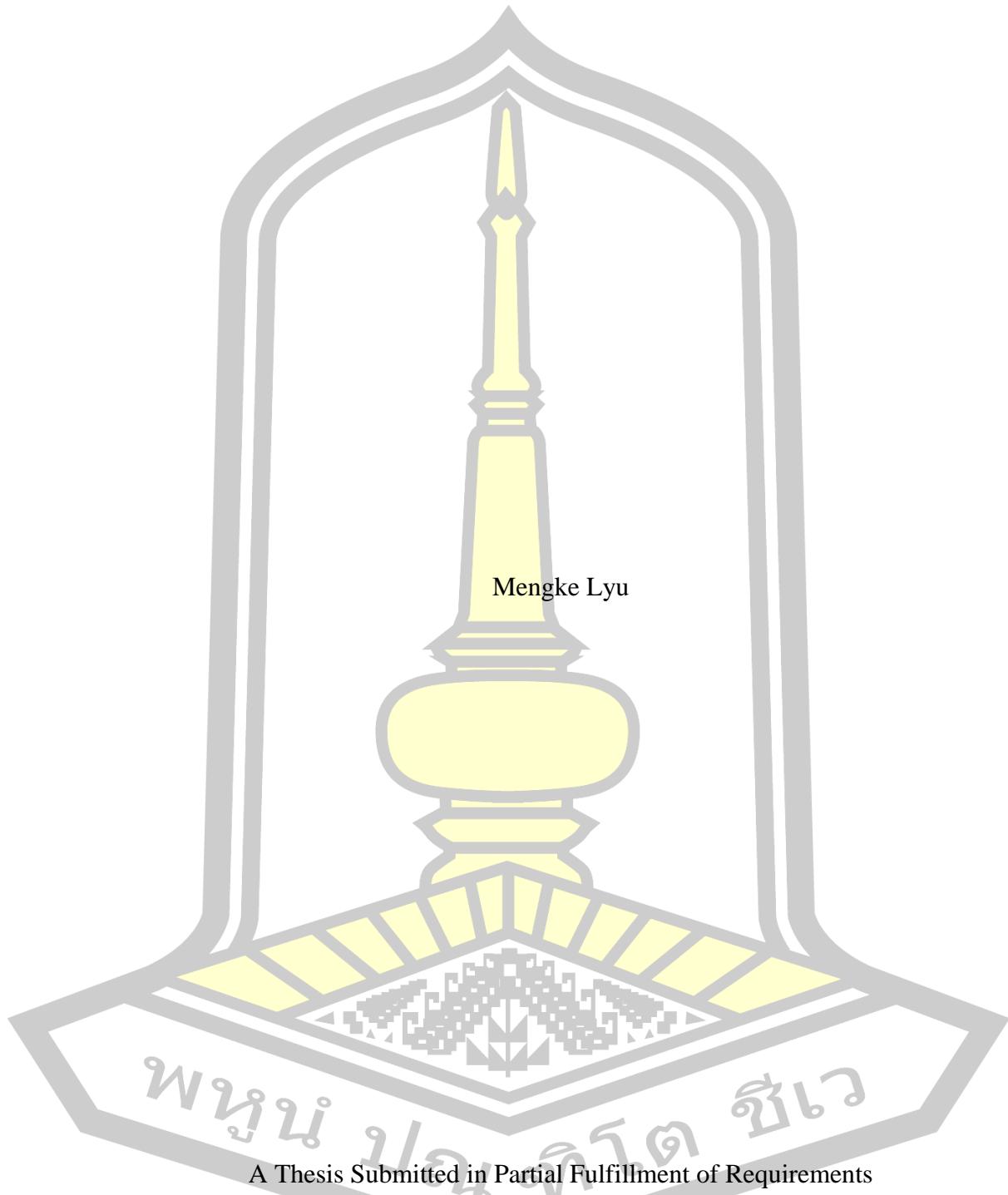
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Cherry Packaging Design for Community Economic Promotion in Luoyang



A Thesis Submitted in Partial Fulfillment of Requirements
for Master of Arts (Cultural Science)

December 2023

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The examining committee has unanimously approved this Thesis, submitted by Mr. Mengke Lyu , as a partial fulfillment of the requirements for the Master of Arts Cultural Science at Mahasarakham University

Examining Committee

Chairman

(Assoc. Prof. Sastra Laoakka ,
Ph.D.)

Advisor

(Thitisak Wechkama , Ph.D.)

Committee

(Assoc. Prof. Sithisak Jupadaeng ,
Ph.D.)

Committee

(Boonsom Yodmalee , Ph.D.)

Mahasarakham University has granted approval to accept this Thesis as a partial fulfillment of the requirements for the Master of Arts Cultural Science

(Asst. Prof. Peera Phanlukthao , Ph.D.)
Dean of Faculty of Fine - Applied Arts
and Cultural Science

(Assoc. Prof. Krit Chaimoon , Ph.D.)
Dean of Graduate School

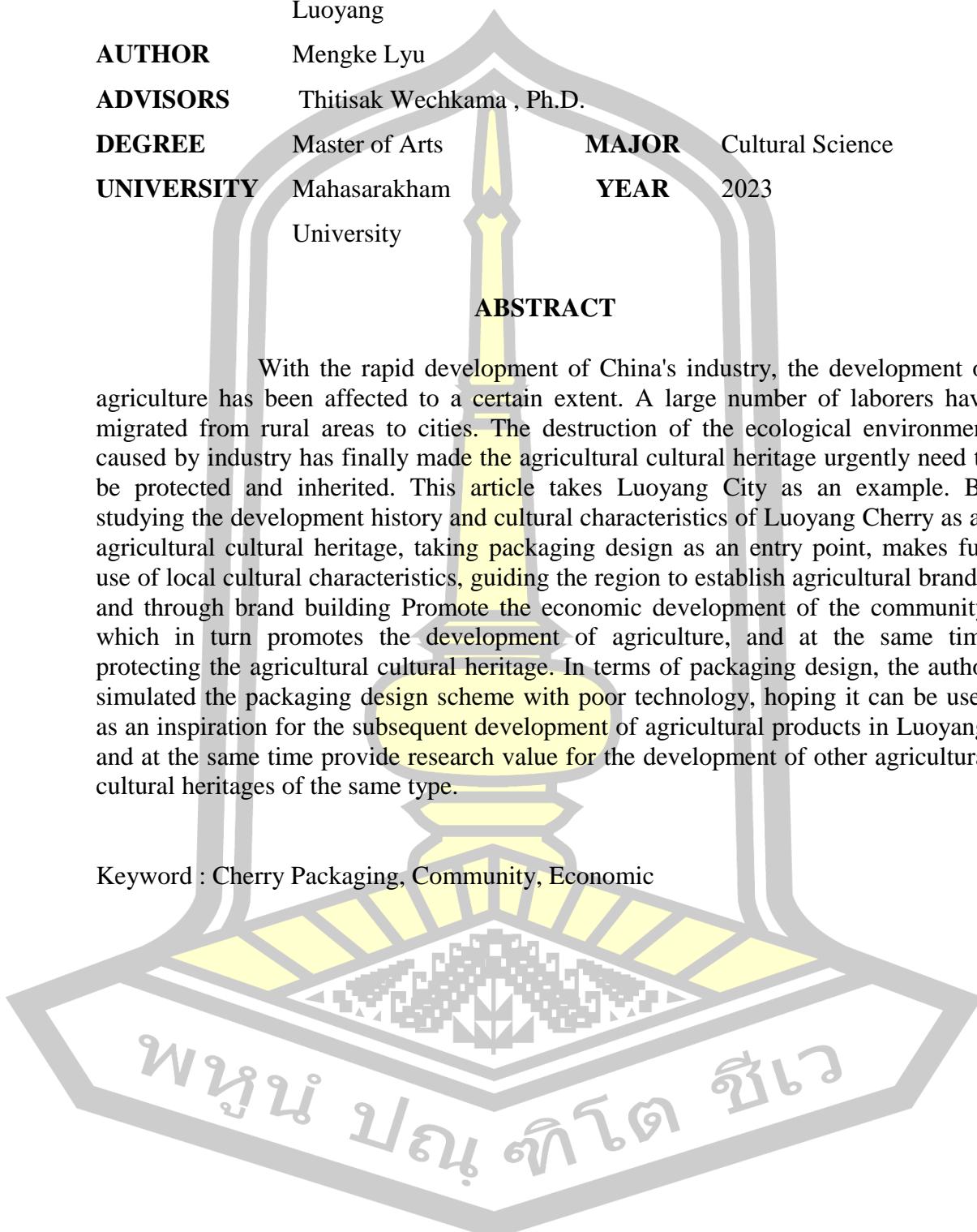
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AUTHOR	Mengke Lyu
ADVISORS	Thitisak Wechkama , Ph.D.
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ABSTRACT

With the rapid development of China's industry, the development of agriculture has been affected to a certain extent. A large number of laborers have migrated from rural areas to cities. The destruction of the ecological environment caused by industry has finally made the agricultural cultural heritage urgently need to be protected and inherited. This article takes Luoyang City as an example. By studying the development history and cultural characteristics of Luoyang Cherry as an agricultural cultural heritage, taking packaging design as an entry point, makes full use of local cultural characteristics, guiding the region to establish agricultural brands, and through brand building Promote the economic development of the community, which in turn promotes the development of agriculture, and at the same time protecting the agricultural cultural heritage. In terms of packaging design, the author simulated the packaging design scheme with poor technology, hoping it can be used as an inspiration for the subsequent development of agricultural products in Luoyang, and at the same time provide research value for the development of other agricultural cultural heritages of the same type.

Keyword : Cherry Packaging, Community, Economic



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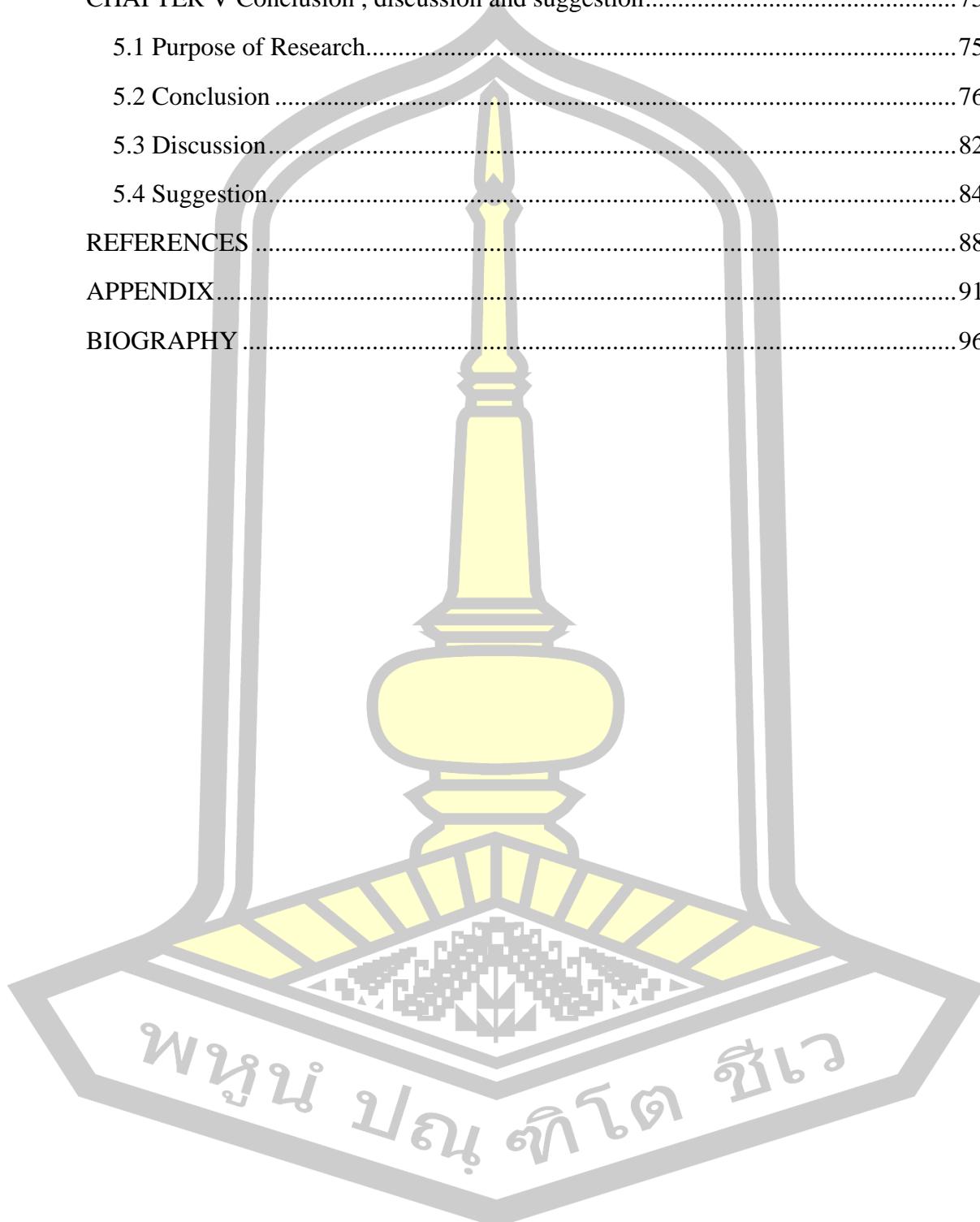
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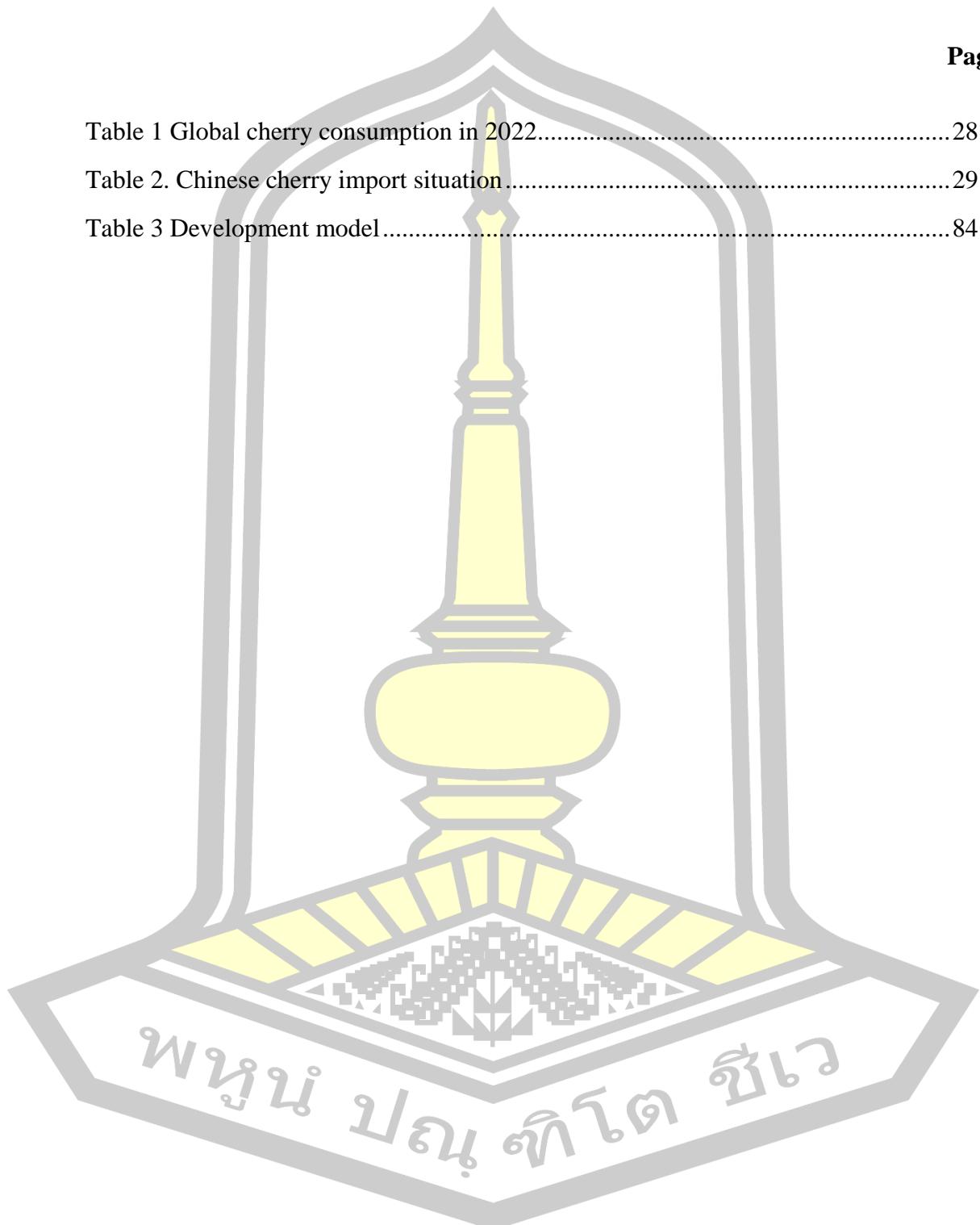
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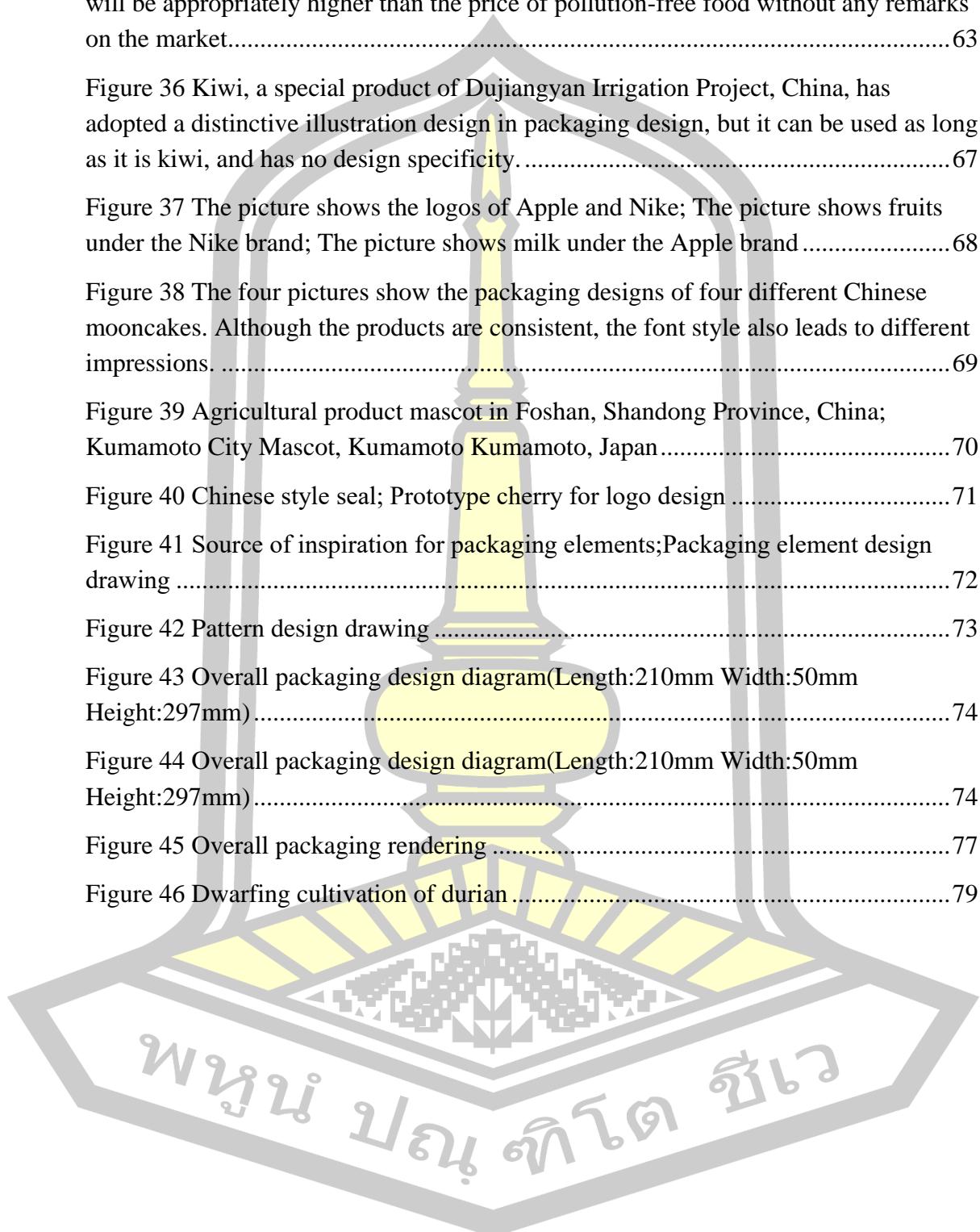
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CHAPTER I

Introduction

1.1 Research background

Most cultures in China are entering a stage of rapid development with economic globalization, and the Chinese government is gradually strengthening the protection and development of cultural heritage, including agricultural cultural heritage, but in today's China, the planting environment has been harmed to a certain extent due to modern planting methods, leading to deterioration of the ecological environment and even bottlenecks in planting. Agricultural cultural heritage has also been valued. Not only their technical characteristics in planting or breeding can be used as an important reference for scientific and technological research and development, but also their rich regional historical and cultural connotations cannot be ignored. Therefore, in the context of agricultural cultural heritage promotion, as an agricultural culture, the cultivation and processing of food raw materials with heritage characteristics have also received more and more attention, and it is particularly important to choose an appropriate cultural communication method when promoting. How to combine with agricultural culture in daily food packaging is one of the first problems to be solved; the rational design of packaging can promote the economic development of agricultural products, and at the same time, it can also integrate more information content into the limited packaging space. Inside, the space is fully utilized, and the possibility of choosing the packaging method is expanded. Under the current development situation where culture and technology go hand in hand, the development strategy of packaging is combined with the packaging design related to the cultural industry. In terms of performance or inheritance, it is not only through the introduction of words, but also new sensory elements can be integrated. Combining with the development background of agricultural culture, the local cultural characteristics can be symbolized and integrated into the packaging design, so that can let consumers experience the characteristics of agricultural culture more concretely from multiple aspects at the same time. A specific experience of the characteristics of agricultural culture can also enhance consumers' cognitive model construction of the area where agricultural cultural heritage is located, and also allow consumers to have a more intuitive understanding of regional culture. (Lin Xiaoxian 2023)

In 2017, the cherry planting system located in Luoyang, China was selected as an agricultural cultural heritage. Although the cherries in Luoyang have a long history of planting and the annual production of cherries is also very large, such a promising agricultural cultural heritage has never had its own brand, and cannot be used as a major economic industry to guide the development of Luoyang.



Figure 1 Illustration of some agricultural cultural heritage in China

Source:<https://image.baidu.com/>

1.2 Research objectives

- 1.2.1 To study the historical and cultural background of Luoyang cherry
- 1.2.2 To study current situation of cherry packaging designs for community economic promotion.
- 1.2.3 To study how cherry packaging design can promote the economic development of Luoyang city.

1.3 Research questions

- 1.3.1 What is the history and background of Luoyang cherry growth?
- 1.3.2 What are the current problems of cherry packaging design?
- 1.3.3. How to promote the economic development of Luoyang City through packaging design?

1.4 significance of research

Under the influence of the planting methods in the new era, China is a large agricultural country, but the land has experienced a series of problems such as hardening, compaction, soil fertility decline, pH imbalance, and excessive toxic substances. Chinese agricultural cultural heritage has high scientific cultivation value in the direction of cultivating crops. On the basis of respecting nature, using nature skillfully, thus realizing zero emission to nature. Agricultural cultural heritage urgently needs to be protected in the development of the current information age, and the cultivation and processing of food raw materials are important manifestations of agricultural culture. People only pay attention to relevant agricultural culture when purchasing food, so food packaging is a very useful communication medium. China is a big agricultural country, and Luoyang City, as an industrial city successfully transformed from an agricultural city, has a rich history of development, and its cultural heritage has revitalization policies in all aspects, but the research on agriculture compared to other cultural and creative industries has not been recognized by the people's attention, the people's awareness of agricultural culture is not much, leading to the rapid demise of agricultural cultural heritage. Therefore, the scope of the specific literature is based on the agricultural development of Luoyang City in the

past 5-10 years as the research background, and at the same time, we set out to make people understand the agricultural cultural heritage through packaging design.

1.4.1 Protecting the original ecological regional characteristics of agricultural cultural heritage

As the ancient capital of China, Luoyang City has a very profound cultural heritage. In recent years, it has rapidly transformed from an agricultural city to an industrialized city. Combining with conflict theory, although the rapid transformation of the city is positive, it does not affect the agricultural city contained in the previous agricultural city. Cultural heritage must be bound to bring a huge impact. Coupled with the rapid development of the current information age, agricultural cultural heritage will gradually lag behind in the cognition of the new generation, and even in the cognition of some young people for agricultural culture. (Qiu Jianmin 2023)

1.4.2 Effective combination of new forms of cultural transmission and characteristics of agricultural cultural heritage

The value recognition design of agricultural product packaging design can bring higher profits to the product, which is the reason why companies are willing to invest in it. Design can not only bring commercial value, but also improve consumers' aesthetic experience and convey correct values. The use value of traditional agricultural products has risen to social and cultural value, which is passed on to consumers in different ways, forming an emotional resonance with consumers who have the pursuit of consumption and life philosophy.

1.5 Definition of terms

1.5.1 Agricultural cultural heritage

The agricultural cultural heritage specifically referred to in this article is Luoyang cherry. Luoyang cherry was selected into the fourth batch of China's important agricultural cultural heritage list in June 2017. Luoyang cherry is characterized by a long history of planting, large planting scale, and fruit of high quality. The planting technology of Luoyang cherry has two main characteristics, namely thinning flowers and fruit and dwarfing cultivation technology. Through these two technologies, the planting distance and average height of cherry trees are suppressed, so that they can use more of their own nutrients for flowering and fruiting, and to improve the yield and quality of cherries. It is a unique agricultural production system created and inherited by the local people of Luoyang and their environment in the long-term coordinated development.



Figure 2 Chinese cherry fruit
Source:<https://image.baidu.com/>

1.5.2 Community economic development

Community economic development refers to the promotion of development methods rich in local characteristics. Luoyang City, as a city that has successfully transformed from agriculture to industry, has great potential for economic development in this area, and community economic development is the basis for economic development in a certain area. The production complex produced by the interaction of internal factors and external conditions refers specifically to Luoyang area in this paper.

1.5.3 Packaging Design

Packaging design in this paper means to provide a more feasible way for Luoyang cherry planting system to export through special packaging. Packaging is a comprehensive reflection of brand concept, product characteristics, and consumer psychology, and it directly affects consumers' purchases. For agricultural cultural heritage, packaging is a powerful means to establish affinity between products and consumers. If packaging design is likened to a ship, then brand development is the sail of the ship. A mature and complete packaging design cannot be separated from brand building. Only by establishing a brand first can packaging design have a clearer direction.

1.6 Conceptual framework

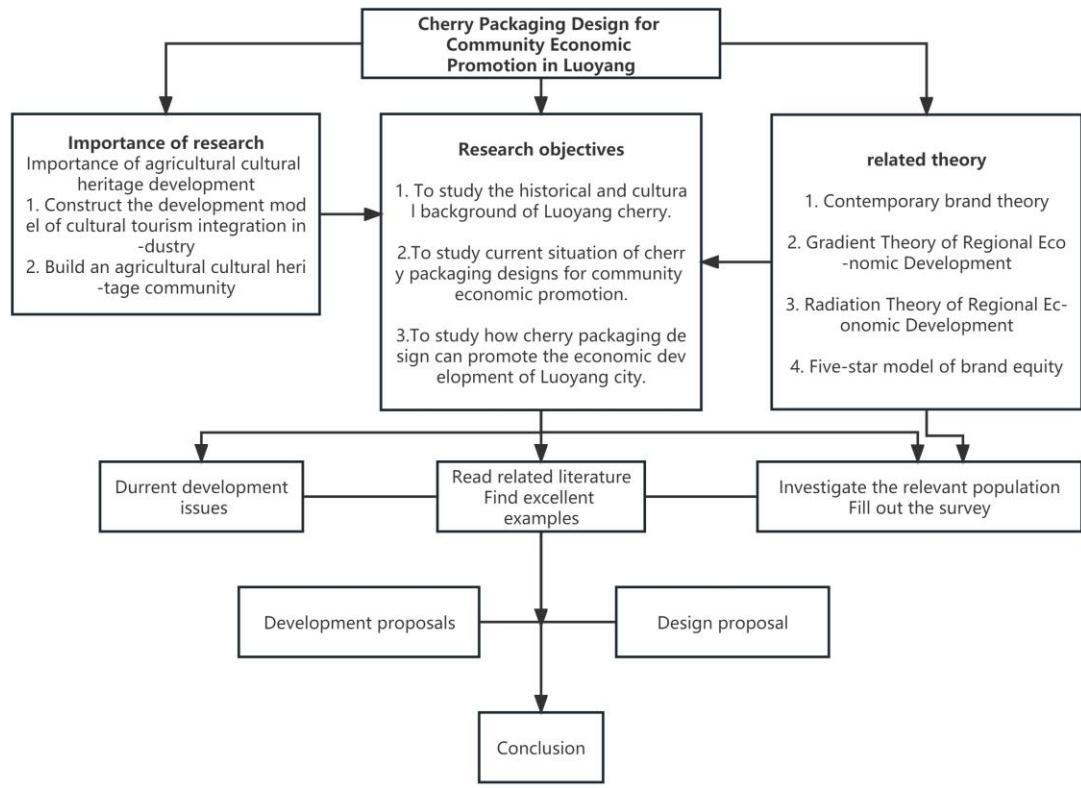
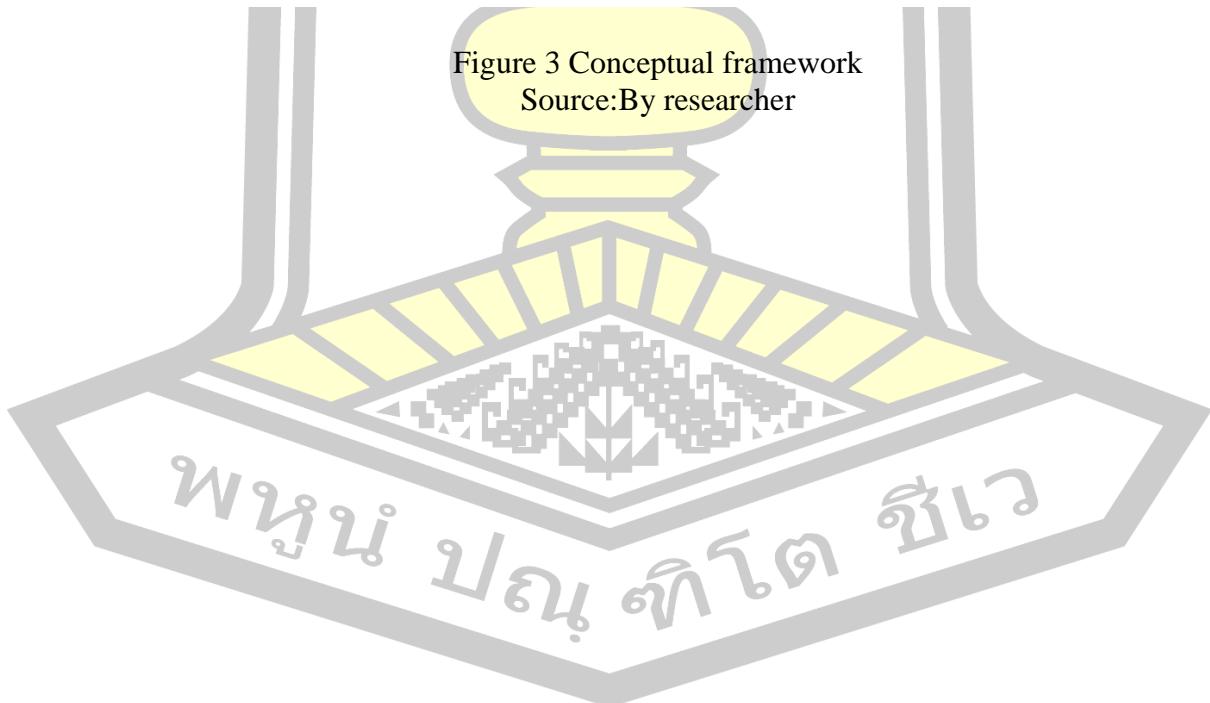


Figure 3 Conceptual framework
Source:By researcher



CHAPTER II

Literature Reviews

This chapter mainly studies the papers of other authors, categorizing them into three research objectives based on their literature. It mainly studies the development and packaging history of cherries in Luoyang. Through research on the importance of packaging, it focuses on the value that agricultural product packaging can bring, and uses brand development as a medium to analyze the importance of brand development.

- 2.1 Subject-related knowledge
 - 2.1.1 Current status of agricultural cultural heritage
 - 2.1.2 The Contradiction of Aesthetic Promotion of Agricultural Cultural Heritage
- 2.2 The Importance of Developing Agricultural Cultural Heritage
 - 2.2.1 Building a development model for cultural and tourism integration industry
 - 2.2.2 Building a community of agricultural cultural heritage
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 - 2.4.8 The Five Star Model of Brand Equity
- 2.5 Summary of relevant literature research in China
 - 2.5.1 Protection value of agricultural cultural heritage
 - 2.5.2 Development of Packaging Design
 - 2.5.3 The promoting effect of packaging design on agricultural products

2.1 Subject-related knowledge

- 2.1.1 Current status of agricultural cultural heritage

Rooted in a long cultural tradition and long-term practical experience, agricultural cultural heritage has inherited the old ideas of system, coordination, circulation, and regeneration, and has developed many valuable models and good experiences according to local conditions, containing rich of the ecological philosophy of harmony between man and nature is in line with the concept of sustainable development advocated by modern society. The development of modern agriculture must not only pay attention to the development, application and promotion

of new technologies, but also pay attention to the excavation and improvement of agricultural cultural heritage. However, in the process of rapid economic development, accelerated urbanization and the application of modern technology, some important agricultural cultural heritages are facing the danger of being destroyed, forgotten and abandoned due to the lack of systematic and effective protection. Therefore, in 2002, the Food and Agriculture Organization of the United Nations (FAO) put forward the concept of "Globally Important Agricultural Heritage Systems(GIAHS)", aiming to establish a global important agricultural cultural heritage and its related landscape, biodiversity, knowledge and cultural protection system, and to protect it can be recognized and protected internally, providing material basis and technical support for the sustainable development of modern agriculture. In 2005, FAO launched the "Dynamic Protection and Adaptive Management of Global Important Agricultural Cultural Heritage" project. For example, China's rice fish symbiotic system, along with other traditional agricultural systems from Chile, Peru, the Philippines, Algeria, Tunisia, and Morocco, became one of the first global pilot projects for the protection of important agricultural cultural heritage. Over the past decade, the international community has continuously increased its emphasis on agricultural cultural heritage. As of now, 31 traditional agricultural systems from 13 countries have been included in the Global Important Agricultural Cultural Heritage List. With the strong promotion of China and other countries, the global important agricultural cultural heritage work has been included in the reports of the FAO Planning Committee, Agriculture Committee, and Council meetings, becoming one of the focuses of FAO's work. In addition, agricultural cultural heritage has also become a hot topic of concern at multiple important international conferences such as the United Nations General Assembly and the Rio+20 Conference.(Zou Ailei 2023)

Although agricultural cultural heritage has made many important progress in the past 10 years, compared with the 40-year development history of UNESCO World Heritage, the research and protection of agricultural cultural heritage is still a new thing. The promotion and development of agricultural cultural heritage in the world also needs to pay attention to the following tasks: first, continue to expand the number of participating countries, and at the same time promote each country to carry out its own agricultural cultural heritage excavation and protection work; second, continuously improve the system construction and selection standards, form a complete evaluation and monitoring and supervision index system, and strengthen management; third, attach importance to cooperation and exchanges with other heritage projects such as world heritage, and learn from experience; fourth, expand financing channels, and continue to strengthen cooperation with the World Bank, GEF(Graphical Editing Framework), WWF(World Wide Fund for Nature or World Wildlife Fund) .On the basis of cooperation with other institutions, develop mutual help and mutual assistance among agricultural cultural heritage, and at the same time expand the participation of enterprises; fifthly, strengthen scientific research, pay attention to productivity, ecosystem services, biodiversity conservation, sustainability and recovery new research and exploration of evaluation, management system, and dynamic protection approaches; Sixth, establish a multi-party participation mechanism that includes the power of FAO, governments, NGOs(Non-Governmental Organizations), enterprises, communities, farmers, and experts from all walks of life.

Although the protection and development of China's agricultural cultural heritage have achieved certain results and are at the forefront of the world, in the process of rapid economic development, accelerated urbanization, and modern technology application, due to the lack of systematic and effective protection, some important agricultural cultural heritage is facing the risk of being destroyed, forgotten, and abandoned. There are still a series of challenges in exploring and protecting agricultural cultural heritage. One is the unclear base of agricultural cultural heritage. China has numerous ethnic groups, vast regions, and diverse ecological conditions, resulting in the creation and development of various types and diverse functions of agricultural cultural heritage. But as of now, there has not been a systematic survey of agricultural cultural heritage nationwide, let alone a value evaluation and level determination of agricultural cultural heritage. Secondly, the awareness of protecting agricultural cultural heritage urgently needs to be improved. Some local governments have not recognized the importance of conservation work from a high level related to the future development of humanity, and have unilaterally believed that agricultural cultural heritage only represents the past, without realizing that once heritage disappears, its unique species resources, production technology, ecological environment, and cultural benefits will also disappear forever. Thirdly, there is insufficient exploration of the essence of agricultural cultural heritage. The lack of systematic exploration of the historical, cultural, economic, ecological, and social values of agricultural cultural heritage, as well as insufficient efforts in live display, promotion, and scientific research utilization, has led to insufficient innovation and integration of traditional concepts with modern technology, which is not conducive to the inheritance and sustainable utilization of agricultural cultural heritage. The fourth is that the mechanism for excavation and protection needs to be improved. Although various regions have explored some methods and approaches related to the protection and inheritance of agricultural cultural heritage, there are still practices that prioritize development over protection, prioritize immediate and long-term development, prioritize production functions over ecological functions, and neglect the interests of farmers in heritage sites and the sustainable development of agriculture, making it difficult to achieve the unity of cultural, ecological, social, and economic benefits in heritage sites.

2.1.2 The Contradiction of Aesthetic Promotion of Agricultural Cultural Heritage

The generation of aesthetic value is formed by the interaction between the aesthetic subject or object. Simply put, when an object is not included in the aesthetic object, either "it is not beautiful enough" or people "do not consider it beautiful". The establishment of the Library Department of Jinling University in 1920 is widely recognized as the beginning of China's agricultural cultural heritage cause. By 1955, the China Agricultural Heritage Research Office and the Ancient Agriculture Research Office of Northwest Agricultural College had been established, and agricultural cultural heritage had officially entered the scientific process. The most important aspect of agricultural cultural heritage is its ability to be "user-friendly" rather than "aesthetically pleasing". However, in the field of aesthetics, what is "user-friendly" cannot be "aesthetically pleasing", and there is little intersection or even opposition between the two until the aesthetic community takes the lead in making

changes. From the late 1970s to the entire 1980s, aesthetics entered a second wave of research, widely applied in social settings, including applied aesthetics, environmental aesthetics, and aesthetic psychology. Aesthetics began to take on practical and utilitarian colors. In the mid-1990s, aesthetic objects were further broadened, and the research scope "extended to various aesthetic levels of human culture," especially the aesthetic trend of people's daily lives. This not only made up for the inherent shortcomings of aesthetic categories, but also objectively incorporated rural society into aesthetic objects. At this point, the discourse power channel for agricultural cultural heritage to enter the aesthetic field began to be truly opened up.(Gong Chengwei 2023)

As new aesthetic objects, agricultural cultural heritage products can be intuitively perceived as having vastly different aesthetic values from pure artistic products, garden landscapes, and even intangible cultural heritage. For example, it is difficult to place the scene of farmers planting cherries on the same value dimension as the David sculpture created by Michelangelo or the rockery pavilions in Suzhou gardens. If viewed from mainstream or classical aesthetic theories, the aesthetic value of agricultural cultural heritage is more unique, as current mainstream aesthetic theories seem to be difficult to interpret its aesthetic value. For example, typical aesthetic objects often have individuality and creativity. Whether it is David sculpture or Suzhou gardens, they demonstrate the identity trait of "scarcity", which can be summarized as "scarcity is precious" in value evaluation; At the same time, it is compatible with the "formalist" aesthetic principle, which refers to the orderly combination of specific elements such as lines, colors, or blocks to create aesthetic pleasure or emotions. Therefore, Schiller pointed out that "art masters are very skilled at eliminating materials through form". But these characteristics of agricultural cultural heritage are almost non-existent. Firstly, individuality or scarcity have never been the core label defining agricultural cultural heritage. On the contrary, many agricultural heritages selected for global or Chinese important agricultural cultural heritage lists have similarities and inheritance origins (such as the jasmine system in Fuzhou, Fujian and the jasmine system in Hengxian, Guangxi province); Secondly, it is difficult to have a unified aesthetic standard for agricultural cultural heritage, as its aesthetic elements are intricate and diverse according to different regions and small environments, and may undergo periodic changes due to seasons and agricultural production. There are many examples like the above, and the folklore circle has long noticed that if the general art principles are applied to folk arts such as Paper Cuttings production, manual printing and dyeing, its "aesthetic value seems to be commendable". If the folk art that is closest to the "art world" in the entire agricultural cultural heritage system is still the case, then the connotation of the aesthetic value of other agricultural cultural heritage is even more difficult to determine. But from another perspective, it is actually a more unique expression of the connotation of aesthetic value, just as Impressionist painting, before becoming an epoch-making art genre, could not be recognized by the mainstream due to its unique external light expression. The author believes that the uniqueness of the aesthetic value of agricultural cultural heritage stems from the particularity of its creative subject and process, which is what Mr. Wan Guoding referred to as "generations passed down in the practice of farmers". It includes at least three core elements, namely "farmers" as

the creative subject, "practice" as the creative method, and "generations" as the basic attribute of creation.

From the perspective of genetics, farmers are the creators and owners of agricultural cultural heritage and its aesthetic value, while art and scientific researchers are only the discoverers and promoter of beauty. Farmers, philosophers, artists, and scientists are on the same aesthetic level, which is unimaginable in the past aesthetic subject object relationship. Moreover, the latter can only examine, define, and even evaluate agricultural cultural heritage, but has no property relationship with the aesthetic object. However, the subjectivity of farmers seems to be flawed. In theory, they have the most reasonable and legal right to interpret the aesthetic value of agricultural cultural heritage. In reality, they seem to lack aesthetic awareness. For example, farmers in terraced fields only care about whether the villages they live in are reliable, safe, or conducive to production. Whether from Heidegger's interpretation of the subject in the aesthetic state or George Dickey's advocacy of aesthetic attitude, the former is far more in line with the image of the aesthetic subject than the latter, but in reality, the latter is precisely the only source of aesthetic value for agricultural cultural heritage. Moreover, unlike artistic works that can be separated from creators and creative spaces and placed in exhibition halls, museums, galleries, and other places for appreciation, agricultural cultural heritage has never been and cannot be separated from farmers, and farmers cannot be separated from agricultural cultural heritage. Therefore, in aesthetic activities, we must consider the production, labor, and living conditions of farmers as a part of the aesthetic object, This has resulted in a unique aesthetic quality that is both the aesthetic subject and the aesthetic object unique to the farmers' group. Therefore, from our perspective on the historical existence, source of connotation, experience acquisition, and practical guidance of the aesthetic value of agricultural cultural heritage, classical aesthetic theories cannot provide sufficient explanatory power to agricultural cultural heritage. Therefore, the construction of the aesthetic discourse system of agricultural cultural heritage should trace the theoretical source from the thousands of years of agricultural history, seeking theoretical basis from contemporary rural aesthetic activities can sometimes lead to difficulties in selecting suitable regional cultures. Therefore, it is possible to combine other scenic spots or famous industries in the local area to more simply and specifically protect agricultural cultural heritage and keep up with the times.

2.2 The Importance of Developing Agricultural Cultural Heritage

In order to achieve the ecological value of agricultural cultural heritage protection, farmers in heritage sites use traditional agricultural production methods for production, and the economic losses caused need to be compensated, especially since most heritage sites are located in economically impoverished areas, relying solely on ecological compensation funds is difficult to achieve precise poverty alleviation. A market-oriented ecological compensation mechanism can introduce market entities, such as creating local brands and collaborating with farmers to cultivate. This not only effectively eliminates sales competition among individual farmers, but also ensures an increase in the total output of products, driving investment from private enterprises and individuals, and promoting the development of ecological industries. Poor farmers can solve employment problems in the process of protecting agricultural cultural heritage, and the industrialization development of agricultural cultural

heritage is also beneficial for creating ecological agricultural brands and forming an ecological industry chain. (Yuanyuan 2023)

In terms of resource attributes, agricultural cultural heritage exhibits diversified characteristics. Agricultural cultural heritage is not simply agricultural production activities, but rather a combination of folk culture, agricultural production activities, and natural ecology. For example, cherry cultivation in Luoyang City is mainly concentrated near the Cherry Valley in Xin'an County, and there is a tradition of planting and picking there.

In terms of resource dynamics, there is a coexistence of periodicity and non periodicity. Periodicity is manifested in the rhythmicity of agricultural production, natural ecological environment, and folk culture, while non periodicity is manifested in the changes in agricultural cultural heritage and its elements caused by factors such as foreign cultural invasion and improved agricultural production science and technology. In terms of case studies, cherry planting and picking have seasonality and periodicity.

In terms of resource resilience, there is a characteristic of ecological fragility. The agricultural production of agricultural cultural heritage sites is largely affected by climate change, and unreasonable planning in the process of tourism and other development activities can easily lead to the destruction of the ecological environment.

In terms of participation subjects, farmers are the main body of agricultural cultural heritage sites. Farmers use their wisdom to engage in agricultural production activities within their production and living spaces, while creating unique agricultural production methods and folk culture. The continuous production and living behavior of farmers brings about the continuation of agricultural cultural heritage, therefore, farmers are creators, owners, and have a dominant position. The cherry cultivation in Luoyang city has a high reputation in the local area, which is the crystallization of the local cherry planting technology over the years. It is also the creator and owner of the Luoyang cherry cultural heritage.

2.2.1 Building a development model for cultural and tourism integration industry

The cultural industry and tourism industry are important components of the tertiary industry and occupy an important position in China's economic development. Rural tourism in China emerged in the late 1980s as a form of tourism that is different from urban tourism and scenic tourism, with the main elements being fields, rural areas, and farmers. Due to the rapid urbanization development in China, which has changed people's original living environment, more and more people are yearning for the natural scenery and simple and plain rural life in rural areas, in order to find triggers for nostalgia and awaken sleeping memories. Therefore, rural tourism has gradually become a way of life for people.

The necessity of combining cultural and tourism integration with packaging design. From a theoretical perspective, the combination of the two is not an unfounded surface patchwork and a simple mechanical double superposition, but an organic deep fusion. The integration of cultural factors can make tourism factors more active and colorful, thereby generating more business opportunities. At the same time, the prosperous development of the tourism industry will attract and mobilize more cultural factors to infiltrate, thereby enhancing the correlation and complementarity

between culture and tourism, and generating greater benefits. From a practical perspective, people's tourism aspirations are generated by the strong attraction of tourism elements such as cultural geography. For example, consumers are willing to experience the sense of achievement of picking cherries independently and choose to purchase local specialties as a companion gift when returning. Therefore, when constructing characteristic packages, more cultural elements should be fully mobilized to join, present more cultural and unique cultural and tourism products to consumers, achieving their consumption intentions, and enabling them to deeply experience the enjoyment of cultural feast during the tourism process. In the unforgettable experience that people have experienced for a long time, culture has been passed down, physical and mental pleasure has been achieved, and the value of cultural and tourism integration has been fully reflected, promoting the quality and upgrading of the rural cultural and tourism industry. If there is no integration of cultural elements, tourism products will lack highlights and characteristics, experience value will be greatly reduced, product cycle will also be shortened, and it will inevitably cause a lot of resource waste.

2.2.2 Building a community of agricultural cultural heritage

The construction of an agricultural cultural heritage community refers to the economic chain in which agricultural cultural heritage completes its industrial efficiency in society. The community here is different from an academic community, but it goes from planting farmers to packaging manufacturers to generating economic benefits, which in turn promote the popularity of agricultural products and carry out a virtuous cycle.

2.3 Packaging design strategies targeting the characteristics of agricultural cultural heritage

The specific research strategy is divided into two main contents after the study, namely the rational use of sensory memory and the use of the uniqueness inherent in the product itself. The first point is the rational use of sensory memory. As for packaging, visual comfort is the most likely to arouse consumers' desire to purchase. At the same time, an excellent packaging will leave a good visual memory to induce consumers to make secondary purchases, especially in the series of cultural and creative designs with regional characteristics. Integrating regional characteristics into graphic design can effectively attract consumers' attention. The second uniqueness of the product is to increase consumers' sensitivity to product identification. In the current market, major IP industries, both online and offline, are creating brand value around IP. For example, when referring to the IP of "Three Squirrels", consumers will associate it with high-quality dried fruit products.



Figure 4 Nut packaging for the "Three Squirrels" brand
 Source:<http://tech.hexun.com/2019-06-12/197499133.html>

2.3.1 Building brand influence through packaging

The essence of packaging is to make the product easy to carry or store, and to have a certain degree of recognition. But in modern times, the function of packaging is not limited to the product itself, its value is more reflected in having a certain cultural added value, whether it is corporate culture or agricultural culture. When packaging forms a "symbol", its economic impact is immeasurable. Whether it is the logo or style, the recognition of the product is raised to an unprecedented level, and its characteristics are integrated into it, enhancing its economic efficiency in society. Enhancing brand influence through packaging requires the following as important starting points.(Linzhi 2023)

(1) Personalized form expression. The psychological needs of users are a key factor affecting the emotional experience of packaging. The emergence and development of packaging emotional experience is not based on the occurrence of purchasing behavior, and the psychological needs of users have already emerged or existed before they come into contact with the product. While product information provides decision-making support for consumer behavior, the activated emotional experience further strengthens consumer psychological needs and promotes purchasing behavior. If psychological needs are not met within a certain period of time, they will gradually weaken and be replaced by constantly emerging new psychological needs. The reality is that the higher the level of psychological needs of users, the stronger their emotional experience, the clearer their purchasing goals, and the easier it is to achieve their purchasing behavior. The product packaging design process triggers consumers' purchase intention based on their potential needs and personal emotions, and enhances their emotional experience through visual comprehensive sensory information, maximizing the level of psychological needs of users.

(2) Emotional expression of meaning. Product packaging resonates with users through strong sensory sensations, prompting them to generate a willingness to purchase. The packaging form that triggers user emotions is a complex two-way information exchange process. While packaging forms actively influence user awareness, differences in user concepts, culture, and experience can also affect the understanding of packaging forms and meanings. The concept of interactive design provides new ways of thinking and implementation for in-depth emotional packaging design. Integrating the emotions you want to express into packaging design elements, guiding users to engage in psychological communication and communication with the packaging, can often trigger corresponding emotional experiences and stimulate users' desire to purchase. Adding interesting elements to the interactive behavior between people and objects, strengthening the impact of packaging on user psychological factors, and establishing emotional connections between users and packaging that transcend material elements are also effective methods to improve the user experience.

(3) The characteristic of contextualization. The key to showcasing the impact on user experience is not the product itself, but the role it plays in connecting with the outside world. There are definitely differences in user experience among different usage environments. Designers need to understand the entire behavioral process of users and their needs in different stages or contexts; Then, starting from the needs and feelings of users, different design strategies are adopted in different contexts to design predictive solutions or behavioral guidance for the reactions, feelings, and actions that may occur during the interaction between users and packaging, in order to achieve the goal of creating a good user experience.

(4) Simplified design implementation. Packaging, as an important carrier and medium of consumer behavior, is not only in line with people's material and spiritual needs, but also deeply influenced by the concept of green development. With the promotion of sustainable design and user centered design concepts, the principles of moderation and simplification must be implemented in product packaging from the design stage to reduce resource consumption in all aspects. It should be noted that the implementation of form simplification is based on user needs, and its ultimate goal is still to provide users with a good user experience. A simple experience will make users confident that they have made the right choices. A simple experience will make users worry free.

2.3.2 Enhancing Cultural Confidence

The return of national cultural confidence has led to the gradual awakening of Chinese aesthetics. What is needed to further promote cultural heritage to the world through packaging is to enhance cultural confidence. With the rapid development of China's economy, consumer demand is also constantly increasing, and consumption upgrading has become a trend. At the same time, consumers are increasingly paying attention to brand and packaging image. However, due to insufficient understanding of local brands among consumers, such as in the cosmetics industry in China, both European and American cosmetics and Japanese and Korean cosmetics are considered better by the general public than cosmetics produced in China. This is because most consumers live in the era of so-called "foreign brands" and have a distrust of "made in China", so the sales of local cosmetics brands in China are not significant. Moreover, consumers' understanding of domestic cosmetics brands

is also limited. However, in recent years, China's cosmetics industry has become increasingly strong, and domestic brands have also emitted their own light. However, many brands have excessively imitated foreign elements in packaging, lacking their own brand characteristics, and presenting visual images without a sense of series. Today's domestic brands should showcase packaging design with ethnic cultural connotations to consumers, amplify their brand characteristics, and design packaging that belongs to our own style of local cosmetics.

Food packaging design is a very important part of the entire food marketing process. The role of food packaging design in the marketing process is reflected in the display of packaging design. Display is a main form of communication in packaging, which allows consumers to feel the diversity of packaged products from different perspectives. In terms of this research, the display function of packaging design is to reflect the characteristics and image of traditional festival activities on the packaging, and to use a series of design plans such as spatial planning and visual style of the internal and external structures of the packaging to carry out purposeful, logical, and planned product displays. Due to the three-dimensional and all-round spatial characteristics of the packaging structure, both the internal and external spaces of the packaging can be cleverly designed to create a sense of space and create a festive atmosphere. In this process, the role of food packaging is also constantly increasing, from being a window for showcasing agricultural cultural industry food to becoming a medium for spreading cultural and artistic concepts. More and more food companies are also paying increasing attention to the dissemination and influence of brands and culture. Therefore, the design of food packaging should be closely linked to innovation, using multiple display methods to break through the traditional packaging style, organically integrating new media factors, and presenting the packaged food to customers vividly, thereby improving customers' purchasing power and brand communication ability. Therefore, exploring how food packaging design can comprehensively promote food and spread cultural connotations, thereby enhancing consumers' sense of national cultural identity, establishing a sense of cultural confidence, and accurately leaving a good shelf impression on consumers through traditional food packaging, showcasing unique design charm, rendering a strong traditional holiday atmosphere, also proposing a creative design concept for food brands, I hope to better reflect the local traditional cultural characteristics, in order to create a packaging design for agricultural products that is in line with the trend of the times.

2.3.3 Excellent cases

In the era of information technology, visual symbols are widely used in daily life and have reached a certain agreement with modern public aesthetics. People have a high acceptance of symbolic information. Therefore, in design, the "signifier" and "signified" in semiotics can be used as theoretical guidance for design activities. By utilizing the aesthetic value of intangible cultural heritage itself, the visual symbols in intangible cultural heritage can be accurately extracted for design and creation, improving the aesthetic quality of products. For example, the "Victory in Prosperity" tea brand is a niche cultural and creative gift packaging with blessings for good luck. This packaging uses the cultural elements of the Wuqiang New Year painting in Wuqiang County, Hengshui City, Hebei Province, which is one of the national intangible cultural heritages. The Wuqiang New Year painting was formed in

the late Song and early Yuan dynasties, based on primitive farming methods, Buddhist ideas and folk local art with its own unique style developed under the influence of traditional concepts and ancient ethnic customs. Using Wuqiang New Year paintings as visual symbols in design, the composition is rich, the themes are rich, the colors are bright, the festive red color is strong, and the recognition is strong, allowing consumers to easily understand where the product comes from.



Figure 5 The packaging design completed by the tea linkage Wuqiang New Year painting

Source: <https://image.baidu.com/>

2.4 Correlation theory

In this study, the main basis is the theory of cultural conflict, combined with the theory of symbolic interaction; Post modern; Popular cultural will further refine the research and combine it with regional economic development theory to study the packaging design development of Luoyang cherries.

Regional economic development is an economic theory (development economics) that was first developed by the West. Regional economy refers to the

production complex generated by the interaction between internal factors and external conditions of economic development within a certain region. A regional development entity that is located within a certain region and closely integrated with economic factors and their distribution. The regional economy reflects the objective laws of economic development in different regions and the interrelationships between their connotations and extensions. This viewpoint needs to be combined with contemporary brand theory and the five star model of brand equity, as well as two regional economic development theories, including the gradient theory of regional economic development and the radiation theory of regional economic development.

2.4.1 Social conflict theory

This theory can be explained as follows: when the social nature of a city or country is changed due to external forces, industries that conform to the original social nature will inevitably be impacted. However, this impact can be a benign promotion or a substitution of one industry for another. In response to the social nature of Luoyang, initially as a city that developed agriculture, Luoyang had a rich cultural history. With the development of China, In the past 20 years, Luoyang has been vigorously developing industry, with a large amount of farmland being transformed into factories, leading to the rapid transformation of Luoyang from an agricultural city to an industrial city. However, due to the rapid transformation, agricultural culture has been replaced by industrial culture, leading to the neglect of Luoyang's agricultural cultural development. Based on this theory, it is necessary to consider the feasibility of research and the importance of protecting agricultural cultural heritage.

2.4.2 Symbolic interactionism

Based on this theory, a development model suitable for the brand of Luoyang Cherry can be derived. One of the views of Symbolic Interaction Theory is that things themselves do not have objective meaning, and it is given by people in the process of interacting with society. In this paper, it is mentioned that it is expected to develop Luoyang Cherry into a local brand in Luoyang, making this brand a landmark enterprise in Luoyang, this can promote the development of agriculture in Luoyang more efficiently.

2.4.3 Post modern

The postmodern aesthetic trend is a complex aesthetic response that emerged after the development of contemporary Western capitalism to a certain stage, which was nurtured by postmodern society and reflects the sharp contradictions and conflicts between social systems and people's cultural psychology. The postmodern situation first emerged in the field of architecture in the United States and Western Europe. In the mid-20th century, postmodern aesthetics, which opposed modern aesthetics, increasingly became a highly influential aesthetic trend in the contemporary West. In this article, this theory is mainly used to assist the packaging design ideas of Luoyang cherries, forming an opposition to early cherry packaging and highlighting the characteristics of modern packaging, in order to bring new visual impact to consumers and establish a new brand impression for them. In terms of aesthetic tendencies, postmodern aesthetics are more approachable to the people. Modern aesthetics entrusts the discourse power of knowledge to a few cultural elites and outstanding geniuses, but lacks attention to the mass cultural market. Postmodern aesthetics is based on a consumer society, and it is necessary for a consumer society

that follows the logic of consumption to strive for artworks to meet the cultural needs of the common people. In this way, mass culture and popular aesthetics can be freed from the situation of being ignored by intellectual elites. Mass aesthetics ultimately affects the construction of aesthetics at the cultural level, and can also design packaging design products that are more suitable for different consumers.

2.4.4 Popular cultural

Pop culture influences the lives of contemporary people in all aspects, permeates various aspects of public life and society, and is accepted and loved by the general public. Pop culture, as a broad cultural phenomenon, is mainly reflected in social fashion at the conceptual, material, and behavioral levels. In this article, this theory is applied to interviews with consumers, categorizing them based on their consumption levels, and determining whether the packaging of Luoyang cherries is worth applying to high-end derivatives of Luoyang cherries.

2.4.5 Correlation theory

Contemporary brand theory is a comprehensive development of brand theory, mainly including brand relationship and brand power theory, brand shaping methods, strategic brand management theory, categorical brand theory, and other emerging brand ideas. In this paper, contemporary brand theory is mainly used to deduce brand development needs, and to study the attention points of brands when combining with agricultural cultural heritage development.

2.4.6 Gradient Theory of Regional Economic Development

The gradient theory of regional economic development aims to find a development mode that is suitable for the development rate of Luoyang by combining the local economic development status and potential. In the development of Luoyang, due to the changes in its main industries from agriculture to industry, the agricultural economic development speed of Luoyang is relatively slow. If the government directly intervenes in agricultural development, it will interfere with the industrial development of Luoyang, at the same time, the sudden acceleration of agricultural development will lead to a gap in agricultural culture during the development process. Once the government no longer helps with agricultural development, it will lead to an economic reversal of the local agricultural development in Luoyang. The development of Luoyang city needs to be assisted step by step based on the current development situation of agriculture, for example, from the establishment of packaging design to the development of brands, and then to the reverse effect of mature brands on economic development, but if other successful agricultural cultural heritage development models (such as the "rice fish symbiotic system") are blindly applied, the opposite result will be achieved due to differences in one's own environment.

2.4.7 Radiation Theory of Regional Economic Development

The radiation theory of regional economic development refers to the flow of capital, talent, technology, market information, and the dissemination of ideas, ways of thinking, and lifestyle habits between economically developed and underdeveloped regions. The media of radiation are transportation conditions, information dissemination methods, and personnel mobility. Utilize both economically developed and economically underdeveloped regions for two-way influence. In this article, it is necessary to further refine the development of agricultural cultural heritage. Agricultural cultural heritage has various classifications,

so it can be developed or assisted by the local characteristics of surrounding areas, known as joint development. Cherries in Luoyang, as an agricultural cultural heritage, do have their own characteristics, but the villages that mainly produce cherries do not have some unique regional cultures. Therefore, appropriately utilizing the iconic local characteristics of Luoyang city can more efficiently provide diversity for the development of agricultural cultural heritage.

2.4.8 The Five Star Model of Brand Equity

The Five Star Model of Brand Equity was proposed by David Ike, which divides brand assets into five main parts: Brand Awareness, Perceived Brand Quality, Brand Association, Brand Loyalty, and other brand proprietary assets. It can be summarized as consumers' "recognition recognition recognition recognition repurchase" of the brand. As long as consumers can repeat purchases of the product, it means that the product has high choice value in consumers' minds, This consumer group can also serve as the main consumer group of the brand and a disseminator of the brand's excellent reputation. Using this theory as a deduction, taking consumer recognition of the brand as a condition for this study, in order to promote the brand development of Luoyang cherry and further promote the economic development of Luoyang city.

2.5 Summary of relevant literature research in China

2.5.1 Protection value of agricultural cultural heritage

A. Liu Pengfei, Gao Qijie, Xu Wangsheng, 2015. Research on the relationship between agricultural cultural heritage protection and socio-economic development

The author of this article compares and analyzes the laws of how the economy and culture coordinate during the transition from developing countries to developed countries, studies the relationship between national economic development and the protection of agricultural cultural heritage, establishes a mathematical model for the evolution of agricultural functions, identifies the reasons for the transformation of agricultural functions from ancient multifunctional to single functional, and proposes several suggestions for the protection and development of agricultural cultural heritage based on China's national conditions.

B. Yu Yan, 2017, Research on the Excavation, Protection, and Development and Utilization of Agricultural Cultural Heritage in Dapu County

This article takes Dapu County, China as the research object. The agricultural cultural heritage of Dapu County shares the same characteristics as Luoyang City, which is the lack of high-precision products, that is, the economic benefits of the added value of the products themselves are low. The author systematically collects and organizes agricultural information related to the county's agricultural history, agricultural systems, agricultural species, production tools, soil cultivation, crop cultivation, and other related agricultural materials, and on this basis, the systematic structure of agricultural cultural heritage in Dapu County was clarified. This article argues that the agricultural cultural heritage of Dapu County not only has universal characteristics such as longevity, liveliness, complexity, and strategy, but also has typical Lingnan mountainous characteristics. In response to the scientific, ecological, economic, cultural, and tourism values of the agricultural cultural heritage in Dapu County, this paper points out the problems existing in the local agricultural

cultural heritage, such as sharp reduction of local varieties, pollution of green products, disappearance of beautiful ancient villages, and destruction of agricultural heritage. It also proposes dynamic protection methods and strategies for the agricultural cultural heritage in Dapu County in terms of production development, ecological protection, cultural inheritance, and other aspects, such as conducting a cultural heritage survey, establishing a multi-party participation mechanism for heritage protection, developing ecotourism and ecological agriculture, and promoting the formulation of local heritage protection laws and regulations, in order to promote the inheritance of agricultural culture, sustainable development of agriculture, and expansion of agricultural functions in Dapu County, thereby enhancing the added value of the county's agriculture, promoting agricultural production and farmers' income, and promoting the sustainable development of the county's economy and society, it also lays a solid foundation for Dapu County to apply for China's important agricultural cultural heritage.

C. Wei Zhenying, 2022. Current Status and Shortcomings of the Protection of Agricultural Cultural Heritage in China

This article is based on the recent development of agricultural cultural heritage in China, and explains that although agricultural cultural heritage is valued by the government in China, there is still significant room for economic development in the regions where agricultural cultural heritage is located. However, with the continuous development of China's agricultural economy, the land use system is gradually tending towards economic and ecological unity, which is also the result of China's constantly developing historical and cultural heritage, because the development of the national economy cannot be separated from agriculture, in order to create a sustainable ecological environment and form a unique dynamic protection system, which is closely related to the development of modern ecological agriculture, the Food and Agriculture Organization of the United Nations released the key agricultural project "Global Important Agricultural Cultural Heritage" in 2012, and with the continuous implementation and development of this regulation, protecting agricultural cultural heritage has become an important global concern. Therefore, this article provides a deeper analysis and answers to the concept and characteristics of agricultural cultural heritage, summarizes the current problems and development status in China, and provides targeted suggestions for the protection of agricultural cultural debt in China based on relevant information. The main focus is on scientific protection opinions on strengthening support, improving management system, and talent cultivation.

2.5.2 Development of Packaging Design

A. Lyv Chunfeng, 2012, Looking at the Personalized Aesthetic Emotions of Modern People from the Perspective of Food Packaging Design

With the development of the times, information has become the most prominent feature of this society. The author of this article takes the improvement of people's living standards and level of civilization, as well as the development of technology, as research conditions to greatly increase people's acceptance of information. Living in such a cultural atmosphere with abundant and even excessive visual senses, consumers have a great desire for personalized aesthetic emotions, and need "personalized" products to meet their psychological demands that are different from those of others. At this point, the functionality and economy of packaging are no

longer the primary factors, and personalized aesthetic expression has become the first factor to be considered in modern packaging design. The pursuit of personalized aesthetic emotions, if lacking in emotion or personalization, can make people feel a lack of certain visual requirements. Therefore, modern food packaging design should try to reflect the personalized aesthetic emotions of modern people, so that different consumer groups can generate joyful aesthetic emotions.

B. Prince Ju, 2020, Packaging Design and Consumer Psychology Exploration

This article focuses on consumers' consumption psychology, aiming to make the basic functions of packaging include realizing product value, protecting products, selling counting, beautifying products, etc., which is conducive to promotion. The packaging design of the product, as an important means to enhance the overall style of the product, builds a communication bridge between the product and consumers. Packaging, as an external manifestation of a product, not only showcases its unique features, but also establishes a communication bridge with consumers, allowing them to have a desire to understand and even purchase the product. In the modern business environment, it is necessary to grasp the changes in consumer psychology and maintain a packaging design concept that keeps up with the times.

2.5.3 The promoting effect of packaging design on agricultural products

A.Huang Jie, Shao Yuhan, 2020, Leading the Development Journey of Ecological Packaging Design - Reading Liu Wenliang's "Green and Safe Ecological Packaging Design Theory"

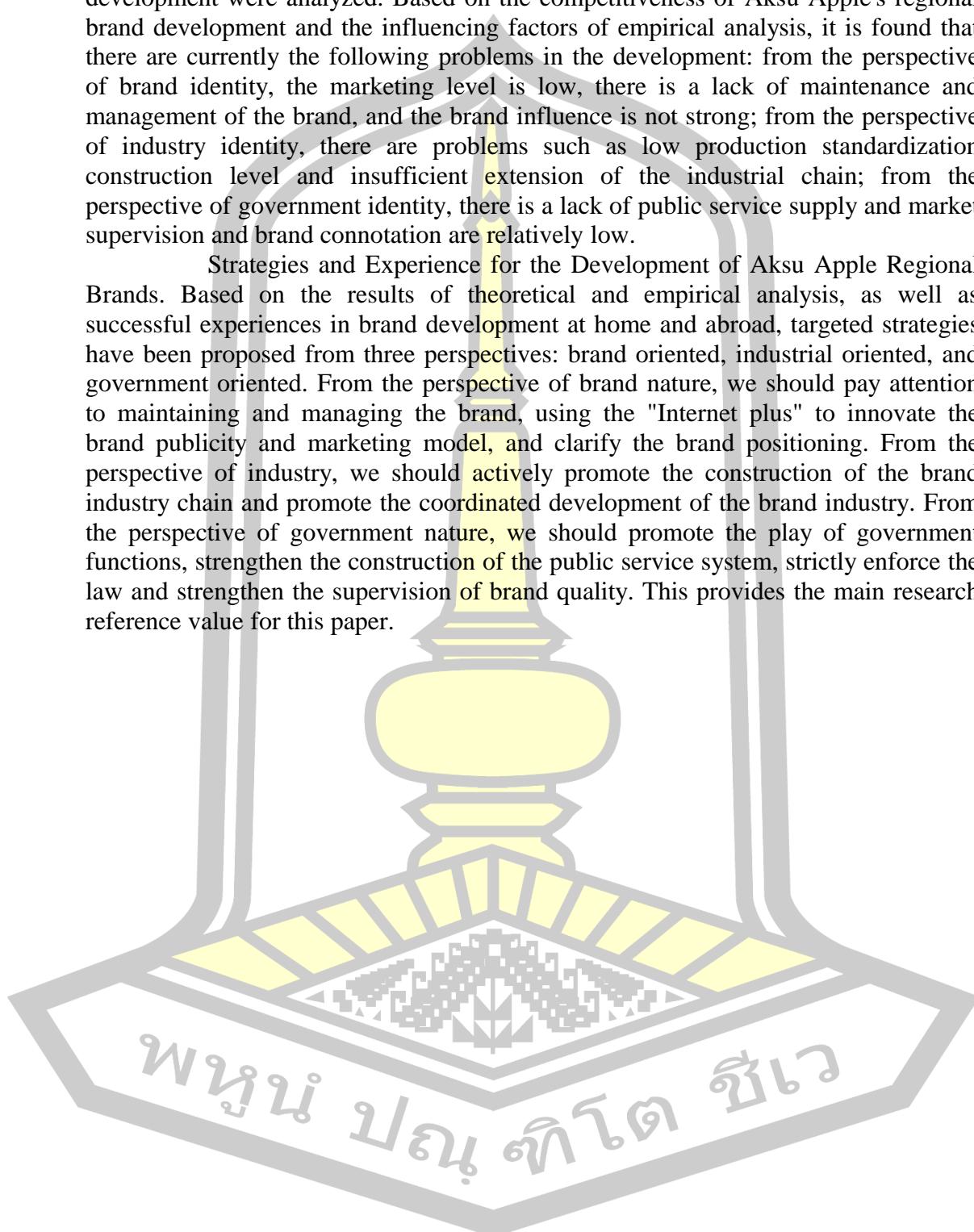
The main idea of this article is to innovate packaging design on the basis of inheritance. Doing a good job in ecological packaging design, if you want it to be full of emotions and more warm, you cannot do without the integration of strong traditional cultural elements. Integrating culture into packaging design, telling stories that belong to China with heart, and through packaging design, we can better understand the spiritual essence of traditional culture dissemination and inheritance, thereby sublimating cultural connotations and enhancing cultural influence. A good packaging design closely combines people, objects, and cultural environment, making it closer to life and more concise, beautiful, flexible, generous, innovative, and other characteristics. Combining packaging design with agricultural products can make our lives more rich and meaningful, further highlighting the value and aesthetics of traditional Chinese cultural elements, as well as meeting the emotional needs and national identity of the public, helping China transition from a large country with packaging design to a country with excellent packaging design.

B.Li Yanhua, 2021, Research on Regional Brand Development of Aksu Apple Products

In the article, the author mainly summarizes the current development status of Aksu Apple regional brands. Based on the current research conducted by domestic and foreign scholars on regional agricultural product brands, the development process, scale status, characteristics, and competitiveness of the brand were focused on, and the current development status of the brand was clarified. The author analyzes the factors that affect the development of Aksu Apple's regional brand. Based on the perspectives of regional, industrial, and brand characteristics, empirical methods were used to analyze the factors that affect the regional brand of

Aksu Apple. The problems faced by the Aksu Apple regional brand in its development were analyzed. Based on the competitiveness of Aksu Apple's regional brand development and the influencing factors of empirical analysis, it is found that there are currently the following problems in the development: from the perspective of brand identity, the marketing level is low, there is a lack of maintenance and management of the brand, and the brand influence is not strong; from the perspective of industry identity, there are problems such as low production standardization construction level and insufficient extension of the industrial chain; from the perspective of government identity, there is a lack of public service supply and market supervision and brand connotation are relatively low.

Strategies and Experience for the Development of Aksu Apple Regional Brands. Based on the results of theoretical and empirical analysis, as well as successful experiences in brand development at home and abroad, targeted strategies have been proposed from three perspectives: brand oriented, industrial oriented, and government oriented. From the perspective of brand nature, we should pay attention to maintaining and managing the brand, using the "Internet plus" to innovate the brand publicity and marketing model, and clarify the brand positioning. From the perspective of industry, we should actively promote the construction of the brand industry chain and promote the coordinated development of the brand industry. From the perspective of government nature, we should promote the play of government functions, strengthen the construction of the public service system, strictly enforce the law and strengthen the supervision of brand quality. This provides the main research reference value for this paper.



CHAPTER III

Research Methodology

In this chapter, the research direction is mainly planned, and the research content is planned. The research population is classified based on the research content, and further research is promoted through a reasonable research cycle.

1. Research scope
2. Method of conducting research

3.1 Research scope

3.1.1 Research contents

1. The history and background of cherry growth in Luoyang.
2. Current issues in cherry packaging design.
3. Combining packaging design with agricultural cultural heritage to promote socio-economic development.

3.1.2 Research cycle

February 2022- August 2022

3.1.3 Research method

Literature research method: by studying literature on the development models of agricultural cultural heritage, summarize the development models adopted by agricultural cultural heritage in different economic conditions. Firstly, the author searched for the development methods of agricultural cultural heritage in China and abroad in the past five years, and summarized their advantages and disadvantages. They summarized the common characteristics of agricultural cultural heritage that have achieved good development, namely finding suitable cultural characteristics. Agricultural cultural heritage has multiple types, mainly including production techniques, customs, music and dance, traditional medicine planting and collection, and art. Luoyang cherries belong to the production technique, it has some specific planting ecological environments and a large scale, but in various cultural heritages, all research is based on human development, and the cultural value of agricultural cultural heritage is also endowed by humans. Therefore, when researching literature, the author will take humans as the main object of benefit. Only when farmers gain economic benefits from the planting industry can the development of agricultural cultural heritage be more dynamic. Next is the packaging of agricultural products, studying the packaging methods, packaging costs, and packaging style of Chinese agricultural products, and selecting breakthroughs that can be reasonably combined with agricultural cultural heritage. Finally, it is to study how agricultural cultural heritage is integrated with brand development, what aspects of assistance are needed for brand development, and how to solve the problem of insufficient market competitiveness in the early stages of agricultural cultural heritage brand development.

Interview method: Interview consumers with independent purchasing power to inquire about their desire to purchase cherry products and their attitudes towards purchasing branded food; Consult senior packaging designers to understand the current focus of food packaging; Search for consumers of different age groups to

investigate their demand for cherry products and whether they are willing to purchase cherry products with added value among fruits. First, visit the largest cherry planting area in Luoyang. Understand the special planting methods that farmers in Luoyang use when planting cherries, which are different from other crops. Focus on investigating the concerns of farmers regarding the current cherry cultivation, as well as whether they are satisfied with the current cherry sales methods and willing to regularly provide their planting industry to the emerging cherry brand industry. Secondly, the survey targets packaging designers, and interviews with designers are mainly divided into two categories: one is designers specializing in food packaging; The other type is designers who specialize in designing co branded brand culture. They first consult with the first type of designer about the design elements that food packaging designers value the most when designing; Secondly, consult with the second category of designers on how the design focus of brand packaging should be selected in conjunction with regional economic development; Visit local farmers with rich experience in cherry cultivation to understand the main market for cherries and the specific issues that need to be addressed in subsequent research.

The experience summary method: this method refers to finding suitable cases for the development of agricultural cultural heritage and summarizing its shortcomings and advantages. Summarize the characteristics of its own development, and whether it can use the development framework of excellent cases in the development process of Luoyang Cherry. At the same time, search for high-quality brand food packaging design in packaging products, summarize its design focus, and summarize how high-quality brands reflect the different details of packaging design for series products under a unified packaging style, and how to improve recognition.

3.1.4 Study area

Large cherry planting bases in and around Luoyang City, Henan Province, China

3.1.5 Population and sample

3.1.5.1 Key Informants, about 6 person

As Key Informants for this survey, consumers, designers, and cherry growers were selected each 2 of them. Among consumers, they frequently purchase fruits and are between the ages of 25 and 35, possessing certain purchasing power and advanced aesthetic abilities, while also having a certain demand for high-end products; Designers choose experienced designers with over 10 years of experience, who have an independent and complete understanding of current food packaging and have a certain degree of brand sensitivity; Cherry growers choose to inherit agricultural cultural heritage, with over 15 years of planting experience and a large planting scale in their cherry planting areas.

3.1.5.2 Casual Informants, about 15 person

As Casual Informants for this survey, consumers, designers, and cherry growers each chose 5 people. Among consumers, they chose to be between the ages of 25 and 35, have a certain purchasing power, and frequently purchase fruits; Designers choose designers who have been in the industry for more than 5 years, with a complete understanding of current food packaging and a strong sense of innovation; Cherry growers choose to inherit agricultural cultural heritage and have more than 5 years of experience in planting and selling cherries.

3.1.5.3 General Informants, about 15 person

As the General Informants of this survey, 15 individuals were selected from consumers, designers, and cherry growers. Among them, consumers were selected from the age range of youth and middle age, who had a certain purchasing power and occasionally had a demand for expensive products; Designers choose designers who have been in the industry for over 5 years and are proficient in packaging design. At the same time, they have an independent understanding of the packaging styles of different products and a sense of innovation; Cherry growers who choose to inherit agricultural cultural heritage have rich experience in the market demand for cherry sales.

3.2 Method of conducting research

3.2.1 Research tools

3.2.1.1 Basic Survey

Basic Survey is used to survey the research area where plant the cherry in Luoyang city.

3.2.1.2 Structured Interviews

Prepare questions and survey questionnaires in advance to find suitable target groups to fill out.

3.2.1.3 Non-participatory Observations

Do not directly intervene in the middle of the observation object, observe the ongoing process from the side, and objectively record the process of the incident.

3.2.2 Data collection

-Data collection (through written documents and on-site work)

During interviews, a notebook should be prepared in advance to capture the inspiration and valuable research questions discussed with the interviewees. At the same time, respondents should be carefully selected to ensure the authenticity of the research.

-Data analysis (based on established goals)

Summarize interview records daily and make 1-2 copies. In the later stage of the research, summarize the records left on the interview form and group them according to the interview group. At the same time, pay attention to the follow-up dynamics during the research period.

3.2.3 Organization and analysis date

The observation records will be collected three times, once a month.

3.2.4 Introduction to research results

After obtaining the consent of the interviewee, publicly record the interview, reconfirm the research conclusions, and submit the research results to society for legitimate authentication. Each content should include sub content and should also be analyzed in detail. In the process of research and analysis, the extracted knowledge can be published in the form of academic papers or reports, and the research and analysis can be followed by writing a paper.

CHAPTER IV

Research results

This chapter mainly presents the research results. Through the research background and the current development status of Luoyang cherries, it further extends the next steps of how Luoyang cherries can complete their independent brand building in packaging, and takes this as an opportunity to further develop the agricultural culture and economy of Luoyang city.

- 4.1 Exploration of the Historical Inheritance of Agricultural Cultural Heritage
- 4.2 The current situation and problems of packaging in the marketing of Luoyang cherry industry
- 4.3 Guidelines for promoting economic development through packaging

4.1 Exploration of the Historical Inheritance of Agricultural Cultural Heritage

In Chinese agricultural culture, there are a large number of agricultural planting methods that arise due to regional or economic development reasons. In different regions, different crops are planted due to different land qualities. Throughout China's long history, various regions have experienced varying degrees of famine. In ancient times, many people starved to death due to famine, so in order to ensure a more sufficient supply of crops, the ancient Chinese people invented many intelligent agricultural planting methods to improve the efficiency of crop cultivation. Currently, China is still a major country in the world's grain industry, but with the development of modern technology, many planting techniques have been replaced by machinery, which is beneficial for China's development. However, some inherited planting techniques are gradually disappearing due to the automatic production of machinery, young people in modern China have little exposure to agriculture as they grow up, resulting in a large amount of agricultural cultural heritage being gradually overlooked, either forgotten, or without new inheritors.(Deng Feifei 2023)



Figure 6 Special crops from various regions in China
Source:<https://image.baidu.com/>

The essence of agricultural cultural heritage is an agricultural development system, which includes a complete economic development chain. Agricultural cultural heritage can be roughly divided into agricultural species, agricultural engineering, agricultural landscapes, agricultural technology, agricultural tools, agricultural specialties, agricultural customs, etc. So when agricultural cultural heritage is effectively protected, the entire economic development chain can also be effectively protected and further developed.(Wang Bojie 2023)

Agricultural cultural heritage is a product of historical accumulation, reflecting the evolution of human civilization. Its inherited agricultural production methods and agricultural culture reflect the characteristics of different historical periods, and have significant humanistic and historical value. But before exploring the historical origin, evolution, and impact of the agricultural cultural heritage system, it is necessary to first distinguish its historicity. It can be said that having historicity is a necessary prerequisite for the heritage system to generate historical value, and the two are interdependent and inseparable. Historical evidence is a true witness to the agricultural exploration of ancient ancestors in heritage sites and the development and changes of the knowledge system of the heritage system.

The agricultural history of China is infinitely continuous, and the boundary between traditional agriculture and modern agriculture is not entirely clear. The rich and diverse agricultural cultural heritage system has survived to this day and has been explored by future generations. It must have gone through the test of time and has vitality and adaptability. Its adaptability and liveliness are reflected in the resilience, resilience, adaptability, and disguised development ability of the system in the face of changing environmental conditions at different stages of development, resulting in a sustainable and ecologically friendly positive development trend in the relationship between humans and nature. This positive development trend is expressed in the historical context and evolution process of the heritage system: at present, it reflects the specific situation of the heritage system under immediate coercion and development opportunities; Looking back, we can restore the level of economic, agricultural, productivity, and technological development of its past era, and explore its deep connotations such as folk customs, beliefs, and concepts; In the future, we will not hesitate to provide inspiration and reference for the development of modern ecological agriculture in the model of co evolution and dynamic adaptation between genetic systems and ecological environments. It is not difficult to find that the concepts expressed in traditional agriculture form the foundation of contemporary ecological agriculture, and there are also factors and things related to tradition in the production of modern agriculture. Even in intensive production and life, agricultural heritage still retains traditional agricultural fragments in physical form, customs, techniques, proverbs, and other forms. Therefore, deeply exploring the historical value connotation of agricultural cultural heritage has an important impact on China's ecological agriculture construction and future development.

The important aspect in the development process of agricultural cultural heritage is inheritance, which is to some extent protection. In various regions of China, there will be agricultural cultural heritage that needs to be protected. The concept of agricultural cultural heritage protection has a historical process of development and evolution, with characteristics of the times and stages. Correspondingly, the objects of agricultural cultural heritage protection also have a

development process. The protected objects of agricultural cultural heritage should be recognized and understood from the perspective of the creation, memory, and future development of human agricultural culture. Just like organisms passing on the biological characteristics of species to their descendants through genetic codes, cultural heritage involves passing on the rich and diverse cultural characteristics of various human races to future generations. If organisms rely on genes to ensure biodiversity, then humans ensure cultural diversity through cultural heritage. The purpose of protecting China's agricultural cultural heritage is not only to protect agricultural biodiversity, but also to protect human cultural diversity. The rich connotation and value of China's agricultural cultural heritage come from the long-term development of the agricultural civilization of the Chinese nation. Whether it is tangible or intangible agricultural cultural heritage, whether it is preserved in a "solid" or "live" form, whether it exists in a single or systematic form, it includes the creation process of agricultural culture, or is directly created by agricultural culture, or it can be given new meaning by agricultural culture.(Degang 2013)

4.1.1 The Historical Background of Cherry Planting Technology in Luoyang City

China, as the world's largest consumer of cherries in 2022, accounted for 23% of the world's cherry purchases, indicating that China has a large cherry market. In recent years, China's cherry imports have shown an annual increasing trend .

Table 1 Global cherry consumption in 2022

Source:<https://www.hanghangcha.com/industry>, made by researcher.

Global cherry consumption in 2022

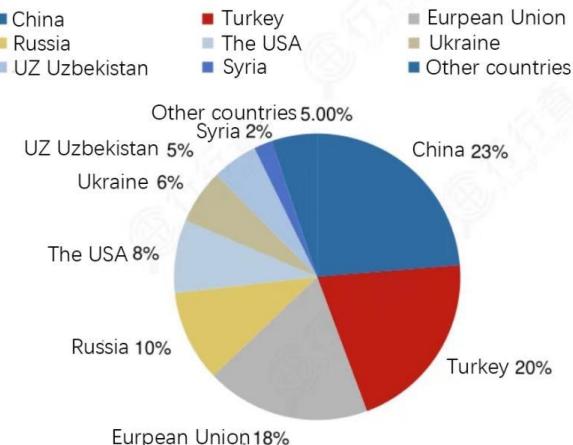


Table 2. Chinese cherry import situation

Source:<https://www.hanghangcha.com/industry>, made by researcher.

Chinese cherry import situation



The main target object of the cherry packaging method studied in this article is the agricultural cultural heritage of Luoyang City - Henan Xin'an Traditional Cherry Planting System, which is a cherry planting system characterized by cherry tribute. There are currently over 10000 ancient cherry trees, and the famous "Thousand Year Cherry Tree" is still well preserved to this day. A unique set of planting techniques has been developed, including thinning flowers and fruits and dwarfing cultivation techniques.



Figure 7 Cherry Valley Scenic Area in Luoyang, China

Source:<https://image.baidu.com/>

Around the Luoyang Basin, there are crisscrossing gullies and winding clear streams, facing the sunlight. There are many places that cannot be reached by the wind, making it the most suitable for cherry growth . Therefore, many people have planted cherries throughout history. From the perspective of advantages, it can be specifically listed as 5 points.

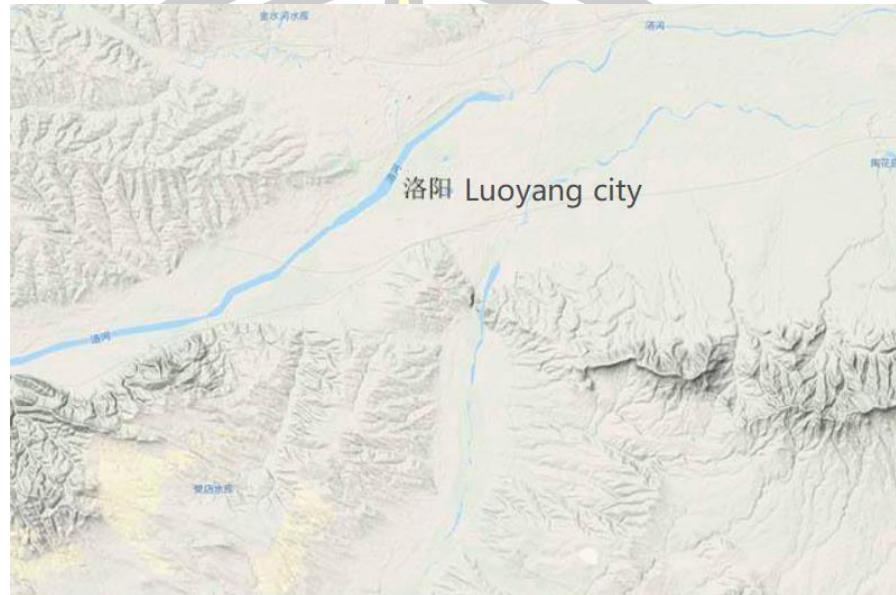


Figure 8 The geographical location of Luoyang City in China, where the location is a basin.

Source:<https://image.baidu.com/>

Firstly, Luoyang cherries mature the earliest. Xin'an Ludi cherries mature more than 10 days earlier in the same variety compared to Shandong and Shaanxi provinces, and are known as the "first branch of spring fruit". They have certain advantages in market prices. Cherries that mature in early April can be priced at over 100 yuan per kilogram, while facility cherries can be priced at over 120 yuan per kilogram.

Secondly, Luoyang cherries have excellent quality. Luoyang City belongs to a warm temperate continental monsoon climate, with hills as the main terrain and mostly brown soil with distinct four seasons. The climate is mild, with a long frost free period and abundant resources of light, heat, and precipitation. The geographical location and climate conditions are conducive to cherry sugar storage and fruiting. In addition, scientific site selection, optimal root species selection, standardized management, etc., the "cherries" produced are famous for their bright color, strong taste, thick flesh, juicy, and healthy appearance .(Ren Hongwei 2012)



Figure 9 Luoyang cherry.
Source:<https://image.baidu.com/>

Thirdly, there are various cherry varieties in Luoyang. According to reports, there are currently over 20 early, medium, and late maturing cherry varieties in Luoyang. The maturity period lasts from early April to early June. In recent years, high-quality varieties such as Brooks, Russia 8, Deying 1, Kodia, and the United States 1 have been introduced for hybridization to cultivate new varieties.

Fourthly, the integration and development of Luoyang cherries. In recent years, Luoyang has built cherry sorting centers around the development of the cherry industry, including over 100 cherry cold storage and preservation warehouses, 2 cherry intelligent sorting lines, 3 cherry markets, cherry wine and cherry juice processing factories, cherry leisure parks, cherry picking gardens, etc. At present, we are preparing to build intensive processing plants for dried cherry, jam, Dim sum and other cherry wholesale trading markets.



Figure 10 Sorting of Cherries in Luoyang.
Source:<https://image.baidu.com/>

Fifth, Luoyang cherries have a high reputation. The "Xinyan Cherry in Luoyang City" has been selected as a national geographical indication protection product, a list of famous and high-quality new agricultural products in China, and one of the top 100 most popular regional public brands for fruit products in 2020. And Luoyang Cherry has successfully recognized Henan Province's characteristic agricultural product advantage zone and Henan Province Cherry Modern Agricultural Industrial Park. Five cherry enterprise brands were awarded the 2020 China Cherry Industry Role Model 100 brand.

The cherry planting industry in Luoyang City, China is very developed, and a large amount of cherry production is supplied to various parts of China every year. Luoyang City produces a variety of cherries, especially the cherries in Xin'an County, Luoyang City. As early as the Spring and Autumn Period and the Warring States Period, the Zhou Emperor who lived here used cherries to worship ancestral temples and deities. Since the Qin and Han dynasties, cherries have been transplanted into imperial gardens and gardens of high-ranking officials and scholars. This makes cherry planting more widespread. But it is rare for cherry trees to be widely planted in Cherry Valley Village. Luoyang cherry, a large and thick flesh, has a pure and sweet taste, and has the medicinal effects of regulating the spleen and stomach, eliminating cold, and preventing diarrhea. It has always been very famous. During the Western Zhou Dynasty, the capital of ancient China was Chang'an, and the emperor's Spring Recommendation Temple used cherries produced by Shanglan at the foot of Mount Hua. After King Ping moved eastward to Luoyang, he sent his servants to search for work, and finally selected cherries produced in the Cherry Valley deep in Mangshan Mountain as sacrificial treasures, and once again developed cherry cultivation agriculture.

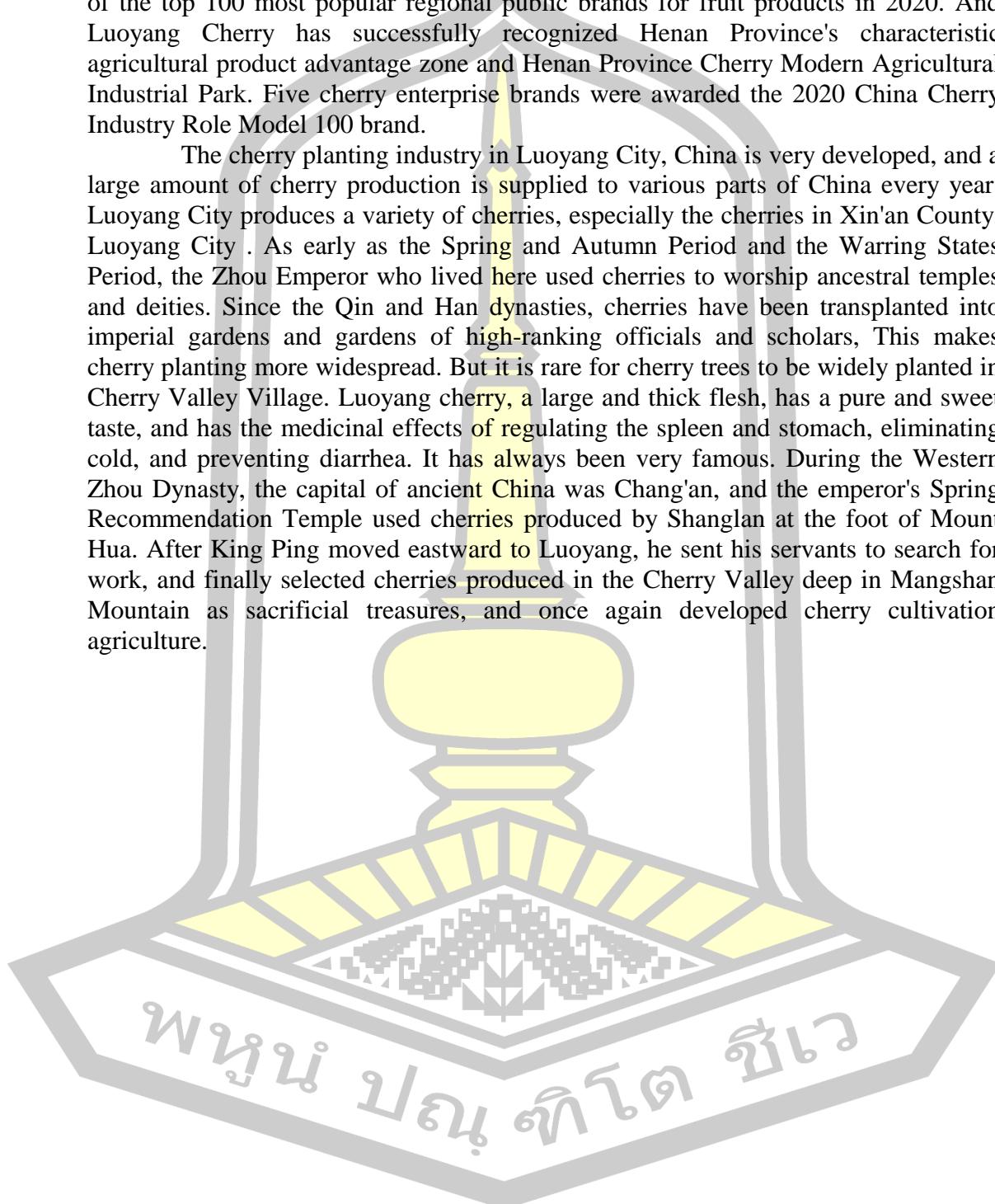




Figure 11 Luoyang cherry; The 5th Luoyang Big Cherry Evaluation and Tasting Competition was held in Xin'an, Luoyang city.

Source:<https://image.baidu.com/>

In the subsequent development, cherry farmers developed multiple cherry cultivation techniques, and in June 2017, the Ministry of Agriculture of China released the fourth batch of China's important agricultural cultural heritage list, among which the cherry planting system in Xin'an County, Luoyang City is located.

The cherry planting system is located in Wutou Town, Xin'an County, and the existing core area of the ancient cherry peach forest is mainly located in the cherry ditch of three villages: Matou Village, Dushu Village, and Dawa Village in Wutou Town. The Cherry Valley in this town covers an area of approximately 2.4 million square meters and currently has over 10000 ancient cherry trees, among which 30 have been recognized as millennium old cherry trees, making it the largest ancient cherry base in China.

河南新安传统樱桃种植系统成为中国重要农业文化遗产

目前，农业部发布了第四批中国重要农业文化遗产名单，河南新安传统樱桃种植系统榜上有名，成为河南省唯一上榜的传统农业系统。

新安传统樱桃种植系统位于该县五头镇，现存的古樱桃林核心区主要位于该镇马头、独树、大洼3个村的樱桃沟内。该镇樱桃沟面积约240万平方米，现存樱桃古树1万余棵，其中被认定的千年樱桃古树有30棵，是全国最大的古樱桃基地。

新安樱桃栽培历史悠久，距今已

有1400余年历史。2014年，中央电视台《中国古树》栏目曾为“千年樱桃树”拍摄专题纪录片，并在中文国际频道播出。立足樱桃优势，新安县大力推进“农旅融合”，目前全县樱桃种植面积达3.06万亩，成为豫西最大的樱桃基地。该县还依托传统樱桃产业培育了省级农业科技园区，建立农业专业合作社13家，发展特色采摘园50余个。目前，樱桃已成为该县新的旅游符号、当地农民脱贫致富的“摇钱树”。

(资料来源：《洛阳日报》)

Figure 12 Luoyang Daily reports that the cherry planting system in Xin an County, Luoyang City, Henan Province has become an important agricultural and cultural heritage in China

Source:<https://image.baidu.com/>

Another main reason why Luoyang cherries are designated as agricultural cultural heritage by China is their planting techniques. Luoyang cherries have two characteristics in planting techniques, namely thinning flowers and fruits during planting and dwarfing cultivation techniques. In many regions, agricultural industries choose to plant crops in order to yield, using intensive planting to maximize the use of land area. However, in Luoyang's cherry planting, Planters have chosen to plant fruit trees separately and regularly build fruit trees during their growth to reduce and sparse the number of branches and buds. This may reduce the yield of cherries, but because fruit trees are planted separately, they have sufficient nutrition and do not block each other's sunlight due to being too dense, resulting in better plant conditions. Dwarfing cultivation techniques, on the other hand, use grafting techniques to cut off the taller branches of cherry trees, leaving only the lower ones, allowing the nutrients absorbed by the plants to be more efficiently applied to fruit growth rather than their own height, while also reducing the difficulty of picking appropriately.

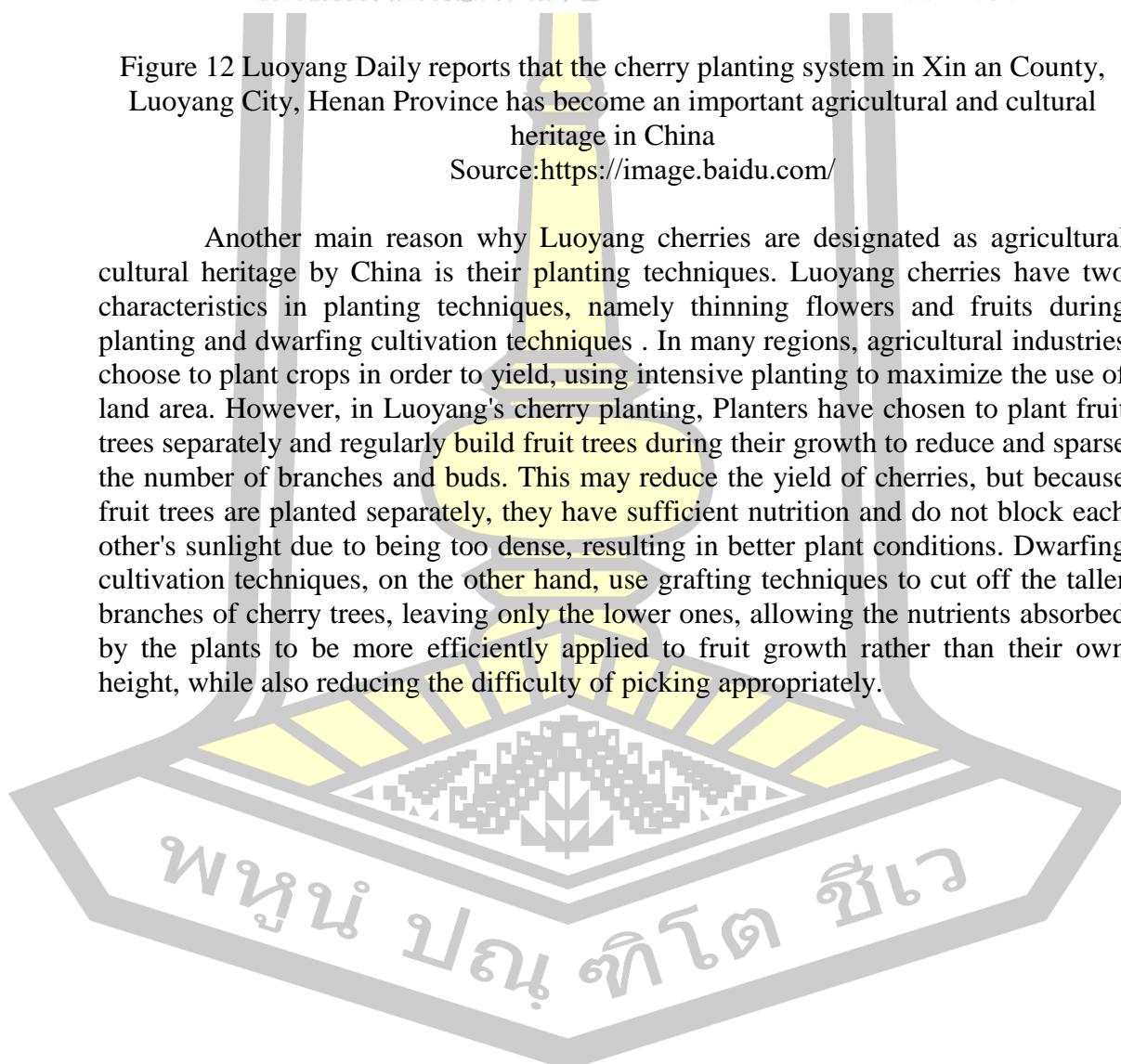




Figure 13 The technique of thinning flowers and fruits (there are traces of being built on the cherry branches in the picture); Dwarfing cultivation technology (by pruning the branches and leaves at the top of seedlings to ensure that cherry trees do not grow too high during fruit growth)

Source:<https://image.baidu.com/>

As mentioned earlier, agricultural cultural heritage is not only a wisdom or custom passed down by ancient people, but also an effective carrier for cultural inheritance. With the passage of time, the variety of cherry cultivation has gradually enriched, and even foreign varieties of cherries have gradually been accepted by Chinese consumers. Farmers in Xin'an County, Luoyang City use grafting technology to combine cherry varieties from other regions with those from Luoyang City itself,

absorbing the advantages of cherries from other regions and cultivating a variety of cherries with different flavors.(Shuai Yuanyuan 2018)

4.1.2 The relationship between agricultural cultural heritage and regional economic development

As a major agricultural country, even in the era of information development, China's agriculture is still one of the indispensable and important industries. According to the 2022 China Statistical Yearbook, the total population of Chinese farmers is about 1.36 billion, accounting for 90% of the total population. Therefore, the Chinese government also attaches great importance to the development of agriculture, which is generally located in rural areas and has regional and transportation restrictions, so the existence of agricultural cultural heritage can provide certain opportunities for local agricultural development.

Due to the fact that agricultural cultural heritage is a living heritage that is the result of coordinated evolution and adaptation between agricultural communities and their environment, it cannot be protected in isolation like urban architectural heritage, otherwise it can only cause damage to agricultural cultural heritage and sustained poverty in agricultural cultural heritage sites. Agricultural cultural heritage should adopt a dynamic protection approach, which means that it should be "protected during development". The protection of agricultural cultural heritage sites should ensure that farmers can continuously obtain economic, ecological, and social benefits from the protection of agricultural cultural heritage, so that they are willing to participate in the protection of agricultural cultural heritage. That is to say, multi-party participation, especially the establishment of community participation mechanisms, plays an important role in the protection of agricultural cultural heritage. The pilot construction of a multi-party participation mechanism for the symbiotic agricultural cultural heritage of rice and fish in Qingtian, Zhejiang, China has achieved good results. At present, there are three main ways to dynamically protect agricultural cultural heritage in China: organic agriculture, ecotourism, and ecological compensation. These measures are mainly used to increase the source of protection funds for agricultural cultural heritage sites and form a long-term self-sustaining mechanism for agricultural cultural heritage.

Due to different regions, the development and management methods of China's agricultural cultural heritage also vary. Adaptive management refers to the protection and management of agricultural cultural heritage tailored to local conditions, which is also an important requirement for the protection of agricultural cultural heritage. Generally speaking, agricultural cultural heritage mostly exists in backward, remote, and relatively poor natural conditions areas , and these agricultural systems are well adapted to the local special environment, with small and scattered scales. Due to the different environments in which agricultural cultural heritage exists, the methods of protection and management are also different. In the long-term historical development, residents of agricultural cultural heritage sites have provided a foundation for adaptive management of agricultural cultural heritage in resource poor environments. In addition, the dynamic protection and adaptive management of agricultural cultural heritage are inseparable, and different dynamic protection measures should be considered based on the actual local situation. At the same time, adaptive management of these systems can better achieve the protection of agricultural cultural heritage.(Zhuming 2023)



Figure 14 The terraced fields of Ankang Fengyan in Shanxi province, as an agricultural cultural heritage, have been destroyed.

Source:<https://image.baidu.com/>

From the concept and connotation of globally important agricultural cultural heritage, it can be clearly seen that this type of heritage "can meet the needs of local socio-economic and cultural development, and is conducive to promoting regional sustainable development". In fact, the difference between agricultural cultural heritage and other types of heritage lies in its relevance to the core of sustainable development - people. Agricultural cultural heritage focuses on the current survival issues of humans in the system, as well as the future survival issues of humans both inside and outside the system. The reason why the Food and Agriculture Organization of the United Nations has separated the category of "globally important agricultural cultural heritage" is mainly because of the impact of modernization and industrialization, and a large number of precious traditional agricultural systems are facing the threat of disappearance. The limited number of World Heritage applications each year makes it difficult to achieve timely protection of these agricultural systems, thus threatening the sustainable development of humanity. In addition, the protection of agricultural cultural heritage should also follow the principle of sustainable development, and establish a long-term self-sustaining mechanism for agricultural cultural heritage sites through dynamic protection and adaptive management, in order to better promote the protection of agricultural cultural heritage and achieve the goals of dynamic protection and adaptive management of agricultural cultural heritage.

Culture plays an important role in the transition from developing to developed countries. From the perspective of social development, as society progresses from underdevelopment to development, the welfare of all members of society should be significantly improved accordingly. The welfare here not only refers to economic aspects, but also many non economic aspects, such as social security, cultural prosperity, and so on. The example of the rapid development of Japan's national economy in the 1960s gave us a positive inspiration: during times of economic backwardness, economic development attached great importance to culture, especially the protection and development of traditional excellent culture. This not only resulted in a high per capita economic level in Japan, but also was conducive to

social fairness and maximizing social welfare. From the 1960s to the 1980s, Japan's Gini coefficient decreased year by year, and the wealth gap gradually narrowed, becoming one of the countries with the smallest wealth gap among developed countries. However, the economic stagnation in Japan in the 1990s also taught us that as the economy developed, attention should be paid to the protection of traditional and excellent culture .



Figure 15 Japanese traditional culture Kabuki (1990s); Traditional Japanese Kabuki (Modern)

Source:<https://image.baidu.com/>

However, African countries such as Nigeria did not attach great importance to cultural development due to colonial reasons, resulting in the loss of culture as a pillar of thought for their people during development. This tells us that in the process of modernization, a society lacking cultural heritage will encounter various obstacles when transitioning to developed countries. If the protection of excellent culture is not taken seriously at this time, the poverty situation of the country may become increasingly severe.

Therefore, when developing countries transition to developed countries, the law of coordination between culture and economic development is: when paying attention to protecting culture, especially traditional excellent culture, the social and economic development of developing countries in the process of transition to developed countries will be rapid. At the same time, when the economy is developed, attention should also be paid to the protection of traditional excellent culture. And for those decadent cultural dross, they should be mercilessly abandoned.

In Luoyang City, Henan Province, the tourism industry itself is very developed, with a large number of scenic spots and ancient ruins. There are many tourism bloggers who will create local travel strategies for Luoyang . If it can be combined with agricultural cultural heritage to achieve the goal of cultural and tourism integration, it will further accelerate agricultural cultural heritage and promote local economic development.



Figure 16 The picture shows a screenshot of a Luoyang tourism guide created by a certain tourism blogger.

Source:<https://www.xiaohongshu.com/>

4.1.3 Survey on Farmers Inheriting Cherry Planting Techniques in Luoyang City

In Luoyang City, China, there is a very large cherry planting area. According to incomplete statistics, only in Mengjin District of Luoyang City, there are up to 200 farmers planting cherries, with a planting area of over 2000 acres and an annual output value of over 7 million yuan. Seasonally, it drives more than 2000 people in the surrounding areas to work. After conducting a survey on the benefits, most farmers stated that the current sales of cherries are mostly distributed to other regions through retail or wholesale. Considering the short shelf life of cherries themselves, they can be stored for approximately 2-8 days under ventilated and dry conditions at room temperature.

In November 2022, the author personally communicated and exchanged ideas with Mr. Xiao, a cherry grower in Luoyang. The grower has a complete sales chain and has 12 years of experience in planting and selling cherries. After the cherries mature each year, they are sold offline and online. Offline, they are processed or packaged for sale to designated merchants who provide product processing, while online, they are retail and mailed through their own WeChat social software.

During the investigation, Mr. Xiao was mainly asked three questions.

Question 1: As a distributor of cherries, what are the key considerations for the packaging information used when selling cherries?

Answer: Firstly, the brand value of cherry packaging. The cherries I usually sell are usually provided to local reputable fruit specialty stores. Although the price given to them may be lower, the stable sales status is a guarantee for the main sales volume of the product. Secondly, it is the aesthetic level of the appearance.

When selling cherries myself, I choose the appropriate packaging on e-commerce platforms. The current popular packaging style is simple, presenting basic packaging information without excessive decoration or colorful decorations. The last is the packaging cost. Because the shelf life of cherries is very short, the packaging in the market is usually shipped in foam boxes or paper boxes, and the packaging cost is generally not considered when the appearance is satisfactory.

Question 2: Do you think the future development of Luoyang cherry industry will mainly focus on derivative foods or continue to focus on direct edible fruits?

Answer: Mainly for direct consumption of food, taking canned food as an example, any processed cherry derived food will be added with preservatives, resulting in a much worse taste. Moreover, the taste of cherries is not particularly distinctive in fruits, mainly with sour and sweet flavors. The main characteristics of cherries are the appearance and the taste brought by the flesh, which cannot be replaced by derived food.

Question 3: Is the Chinese cherry industry competitive compared to imported fruits of the same type from abroad?

Answer: The cherry industry in China has a certain degree of competitiveness. Cherries do not have a long period of fruit production like apples. In Luoyang, the local cherry varieties have a peak production period of about a month, and customers are very concerned about the freshness of cherries. Nowadays, China's logistics and transportation are well-developed. After customers purchase cherries online, they can usually receive them within China the next day. Five years ago, I also wholesale some imported cherries from abroad for sale, such as Chilean cherries. However, these were all popular in a short period of time. In the past two years, customers have generally expressed that Chinese cherries have a better taste because they have inherited agricultural cultural heritage, and the taste and taste of cherries are very good. Another advantage is that in the city of Luoyang, with the improvement of planting technology, different varieties of cherries have been studied. Currently, there are fifteen varieties of cherries in Luoyang, while imported cherries from abroad have fewer options due to high transportation costs. Customers will quickly lose interest in imported cherries. Therefore, I am very confident in the market competitiveness of Luoyang cherries.

Question 4: What are your expectations for packaging design in promoting the development of Luoyang cherry in the region?

Answer: I hope to create a brand exclusive to Luoyang, just like Coca Cola. When customers think of cherries as a fruit, they immediately think of Luoyang cherries and emphasize agricultural cultural heritage information in packaging. The packaging style can be simpler, which can widen the visual gap with the packaging on the market, allowing customers to see at a glance that this is Luoyang's agricultural cultural heritage. Social development is rapid. Although the planting area of cherries in Luoyang is large, there are fewer and fewer inheritors of true agricultural cultural heritage. Many growers are paid by local farmers, and the wisdom of agricultural cultural heritage needs to be recorded and inherited.

After visiting older local farmers and consumers who came to purchase cherries, combined with the interview content, it was found that there is great potential for the development of the cherry industry in Luoyang. For farmers, most of

they have a very limited understanding of the packaging methods of cherries when selling and planting them. In their understanding, Cherries are simply packaged in paper boxes or put into foam boxes for refrigerated packaging. They care more about whether cherries can be sold in a fresh state than packaging design.

4.1.4 History of cherry packaging in Luoyang city

The development of cherry packaging in Luoyang can be mainly divided into three stages.

Firstly, in the early stages, consumers did not attach great importance to the packaging of cherries and mainly sold them in retail stores in various regions. Since the end of the last century, traditional cardboard boxes and a layer of plastic bags have been used for packaging , and no shock absorbers have been inserted into the packaging, resulting in the entire box of cherries being squeezed and rotted due to bumps during transportation, ultimately resulting in low transportation efficiency and high transportation costs. In addition, at the end of the last century, China's transportation was not developed, and many regions require a considerable amount of time to transport cherries, When cherries are transported to their destination and have exceeded their shelf life, and when a large number of cherries are placed together, some cherries will rot and others will also spoil.(Yue Huixin 2021.02)



Figure 17 The packaging method of early cherries was difficult to avoid fruit damage during transportation.

Source:<https://www.xiaohongshu.com/>

Next comes the mid-term, where sellers hope to improve cherry shipping efficiency. Until 2005, cherry sellers began to pay attention to the need to ensure the quality of cherry transportation, and as a large number of foreign brands entered China , they began to develop brand awareness. Sellers began to improve the packaging appearance and interior, choosing richer colors on the exterior to create visual impact, Choose foam boxes to transport seafood and pad foam paper inside the package to reduce the vibration of cherries during transportation. At the same time, in

some remote areas, cold fresh transportation has been started. Because cherries mature in summer, ice cubes will be placed in the transportation space to cool down and prevent cherries from decaying too quickly.



Figure 18 The picture shows the imported cherries mainly sold on Chinese e-commerce platforms

Source:<https://ai.taobao.com/>

Finally, the approach that has been adopted until now is to choose packaging boxes and arrange shock absorbers inside, which has more aesthetic value in terms of appearance. With the development of society, people's lives are becoming increasingly prosperous, and consumers' purchasing power has increased. The cherry industry has also further expanded, and derivatives based on cherries have emerged, such as cherry wine and cherry juice. The packaging of cherry products has also been divided into high-end and ordinary products. The cherry fruits of high-end products are generally larger, bright in color, and are artificially screened, so the packaging cost is higher, ordinary products, on the other hand, are affordable in price. Fruits are simply transported and transported to merchants for sale, resulting in lower packaging costs or simple labeling on the packaging design.





Figure 19 Shock absorption measures inside the packaging box;Cherry juice
Source:By mobile;<https://detail.tmall.com/>

With the development of the times, the appearance of packaging will change according to the aesthetic preferences of the current society, but manufacturers and marketers still care more about the safety and shock absorption issues of this packaging, and have not invested a lot of energy in the design of the appearance.

The current packaging is to wrap a piece of aviation ice with bubble film at the bottom of the foam box to maintain the temperature of the foam box. Then use a plastic bag to cover the bottom of the foam box, add a piece of absorbent paper, or directly seal the cherry. The function is to absorb the moisture in the box to the maximum extent, and if the cherry is packaged, it is to avoid the cherry directly combining with the moisture in the box. If the humidity inside the box is too high, it will accelerate the decay of large cherries. After loading the cherries, cover the top layer with absorbent paper, seal the plastic bag, and then seal the foam box. It should be noted that there must be no gaps in the cherries in the foam box. If there are gaps, the cherries will bounce to the customers all the way, which will most likely cause the cherries to rot.



Figure 20 Encapsulated cherries inside the packaging box
Source:<https://ai.taobao.com/>

The development of Luoyang cherries is a complete system. From the cultivation methods of cherries to the formation of cherry markets, further development requires the importance of packaging. Producers and marketers pay more attention to profit conditions because of their daily needs. As an agricultural cultural heritage, its cultural value also needs to be further disseminated to society, while consolidating the cultural foundation and promoting regional economic development.

4.2 The current situation and problems of packaging in the marketing of Luoyang cherry industry

Although cherries are an important crop industry in Luoyang, the inheritance of agricultural cultural heritage still needs to be taken seriously. Due to rapid economic development, Luoyang has gradually transformed from an agricultural city to an industrialized city in the past decade. Luoyang has a large number of factories and workshops to comply with the trend of development, resulting in a large number of employment opportunities, many descendants of farmers who grow crops in rural areas have chosen to seek employment in cities, resulting in the migration of labor, leaving Luoyang cherries as an agricultural cultural heritage with insufficient inheritors.(Li Honghong 2021)



Figure 21 A large number of passengers at the station travel from the countryside to the city with luggage to work.
Source:<https://image.baidu.com/>

The significance of agricultural cultural heritage not only has agricultural and cultural value, but also has certain ecological value. For example, China's national level key protected wild animal - the crested ibis. The crested ibis faced endangered extinction in China in 1981, when only 7 crested ibis were left in the entire country. One of the main reasons for the extinction of the crested ibis was the destruction of the ecological environment of its habitat, due to the development of the national economy, many regions have chosen to transform large areas of paddy fields suitable for feeding Crested Ibis into dry fields. Tall tree forests suitable for nesting Crested Ibis have been cut down and reclaimed as industrial foundations, resulting in the inability of Crested Ibis to forage and reproduce. So the ecological value of agricultural cultural heritage cannot be ignored. When a large amount of labor migrates, it leads to the abandonment of the planting industry, which in turn leads to the destruction of a complete ecological environment and ultimately leads to uncontrollable extinction of animals and plants.



Figure 22 China's first level key protected wild animal, Crested Ibis; A large number of labor migration has led to the already formed agricultural waste
Source:<https://image.baidu.com/>

The economic development of Luoyang City can be seen as a microcosm of China's development. Under the influence of economic globalization and industrialization, the culture and values of developed industrial countries have strongly entered the vast number of developing countries, and the traditional culture and art of countries around the world have been unprecedentedly impacted, and China is no exception. As foreign investment, technology, and a large amount of goods continue to pour into China, foreign culture also continues to enter China, filling the streets with various new ideas, concepts, and popular culture. There are also supermarkets in China that specialize in selling international goods .



Figure 23 Beverages from various countries sold in Changshen International Supermarket in Luoyang City
Source:By mobile

In China, McDonald's and KFC have replaced traditional century old stores and occupied the most prominent locations in every city; Luxury Hollywood blockbusters have replaced traditional Chinese Peking Opera shadow puppetry and become a popular topic of conversation after meals ; Whether one has visited major brand stores and their level of understanding of global brands has also become the basic criteria for judging whether an individual is keeping up with fashion trends. Faced with the sudden massive amount of information and excessively rich material life, people have not had time to slowly adapt and savor, but are immersed in the neon light and shadow, standing in the dazzling array of goods at a loss. As time passed, people's surprise and ecstasy towards the great changes gradually disappeared, leaving behind deep contemplation. The rapid development of the Chinese economy is closely linked to China's manufacturing industry, with products printed with "MADE IN CHINA" sold to every corner of the world, making China a true "world factory". However, over thirty years of development experience can tell that simply becoming a world factory is not enough, and the existence of cultural heritage still needs to be taken into account. China's development of modern industry and market economy is far behind that of developed countries in the world, and there is still a certain gap between the overall level of industry and technology and the world's advanced level. This has led to most cities in China, such as Luoyang, neglecting the development of agricultural culture when pursuing industrial and technological development, and even suppressing the development of agricultural cultural heritage due to social conflicts. However, in order to enhance the competitiveness of Chinese products, in

addition to strengthening the technological content and quality of the products themselves, there is also a way to fully leverage the role of packaging design, organically integrate Chinese culture with industry, provide economic development for the industry, increase the added value of the industry, and spread the cherry culture of Luoyang to other places.



Figure 24 The first McDonald's in Luoyang; The linen bags jointly launched by KFC and Luoyang; The foreign film and television elements erected at the entrance of China Film City.

Source:<https://www.xiaohongshu.com/> ; <https://www.xiaohongshu.com/> ;
<https://image.baidu.com/>

In the fiercely competitive market economy, everything needs to be packaged, with celebrities needing packaging, concepts needing packaging, and product promotion needing packaging even more. At present, packaging and commodities have become integrated, especially in today's international commodity economy. Packaging, as a means of realizing the value of goods and their use, is increasingly playing an important role in the fields of production, circulation, sales, and consumption. Becoming a highly concerned issue in both the business and design communities. Especially in the food retail industry, packaging has shown unparalleled importance. Due to the fact that food is one of the most closely related commodities to people's lives, its packaging has received a lot of attention from people. The various foods on the huge shelves in supermarkets and stores are hard to find where to start. These foods are often carefully arranged according to their types and brands for the convenience of consumers to choose from, and this classification arrangement results in a large number of similar foods appearing in front of consumers at the same time. When customers are faced with hundreds of candy and Dim sum of various brands and can't try them one by one, the selection criteria is the first impression of the packaging in addition to the brand awareness .



Figure 25 The appearance packaging of bulk candies in Chinese shopping malls plays an important factor in whether consumers can purchase them because they cannot try their taste.

Source:<https://image.baidu.com/>

However, China has long neglected the importance of food packaging design, and it was not until the 1980s that China introduced modern packaging design that the situation improved. The level of food packaging design in China has significantly improved with the development of the commodity economy, which in turn has stimulated the development of the commodity economy and become a

"catalyst" for the consumption era. However, in the rapid development of China's food packaging design, it seems that it has started to lose its direction, showing an increasingly serious phenomenon of "westernization". As is well known, the concept of packaging design was introduced from Western countries, and it is still an emerging industry in China. Its design concepts and methods are more or less influenced by Western culture.



Figure 26 Packaging Design Drawing of "Peony Biscuits" in Luoyang, China in the Early 1980s

Source:<https://image.baidu.com/>

However, when this westernized design style conflicts and conflicts with traditional Chinese aesthetic habits, if we do not find a solution to the contradiction, it will lead to blind imitation and plagiarism in China's food packaging design, causing it to lose its spiritual foundation and cultural connotation, resulting in serious homogenization of product packaging , failure to resonate and create a sense of familiarity among people will ultimately hinder the development of the commodity economy.(Zhuming 2023)



Figure 27 The packaging design style of most agricultural products in China

Source:<https://image.baidu.com/>

After more than 20 years of development, Chinese food packaging design has gradually become aware of this phenomenon, realizing that design should be based on its own culture and guided by traditional culture and art in order to achieve more long-term and healthy development. The exchange of economy and culture with various countries around the world has further promoted people's awareness of cultural return. "The phenomenon of cultural return in design is manifested as a sense of return, root-seeking, and a combination of national consciousness and design consciousness, reflecting the continuation and development of national psychology, as well as the strengthening of national aesthetic characteristics." Designers from Hong Kong were the first to explore localized design, Hong Kong is a place where Eastern and Western cultures converge, with the most advanced technology and traditional culture, making it the best soil for the development of localized design. After Hong Kong, the design community in mainland China has also conducted a series of explorations and achieved many results. Chinese style food packaging design has won numerous awards worldwide, attracting widespread attention from the design community in various countries. But just as software piracy is rampant in China, the Chinese style nationalized food packaging design has also been "pirated". Many designers abuse traditional Chinese graphics, neither verifying the meaning of the graphics nor whether the graphics match the nature of the product, solely for the purpose of highlighting the visual effect of "Chinese flavor" (Figure 36). Such packaging works only focus on form, making traditional Chinese culture superficial. Over time, this will not only cause visual fatigue for consumers, but more importantly, mislead people's understanding of traditional Chinese culture, leading to cultural variation and abnormal development. Improving the quality of life through packaging design is the purpose of design, and it is the responsibility of designers to ensure that their design works play a positive role in society. This positive role is not only reflected in material aspects, but also in spiritual and cultural aspects. This requires designers to have good cultural qualities and a correct understanding and grasp of traditional culture and art. Only in this way can China's modern food packaging design have more rich connotations.(Hou Chu 2023)

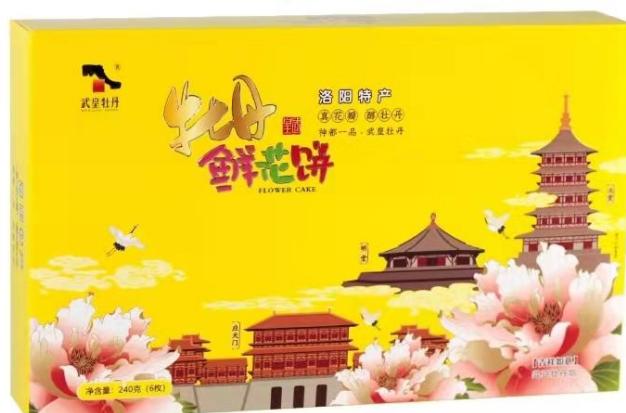


Figure 28 The packaging design of Luoyang peony pastry has too many irrelevant cultural elements on the cover.

Source:<https://image.baidu.com/>

In 2004, China conducted a census on cultural heritage and found that a large number of agricultural cultural heritage or folk art have been lost or are on the brink of loss. Many traditional folk foods with local cultural characteristics have gradually lost their market due to ineffective packaging and promotion. The packaging of most foods is simple and outdated, and there is even no packaging design, which does not meet the needs of the modern market. Local specialty cuisine can only be purchased locally, and the traditional food circulating nationwide is only a small portion, so the huge market continues to be ignored. With the strong entry of foreign food, the living space for traditional food and traditional packaging will become increasingly narrow, which is extremely detrimental to the development of traditional art, economy, and culture in China. So, in order to further promote traditional food and dietary culture, it is necessary to leverage the power of modern packaging design.(Xiqiu 2023)



Figure 29 The simple food packaging design in China, where the former is instant noodles and the latter one is potato chips.

Source:<https://image.baidu.com/>

4.2.1 Marketing methods for agricultural cultural heritage related industries

The current situation of food packaging related to Chinese culture mentioned earlier is insufficient, and the packaging of Luoyang cherries also has the same problem. Marketers seem to focus on whether the internal packaging can effectively ensure the quality of cherries during transportation, without paying attention to whether the packaging appearance of cherries is combined with current aesthetics.

Secondly, in the cherry industry in Luoyang, there are derivatives such as cherry wine, cherry juice, and canned cherries, including the cherry itself, which is mostly sold offline. Online sellers, in addition to direct sales, also choose to cooperate with fruit supermarkets and others to transport fruits to merchants for sale.

Regarding the marketing methods for agricultural cultural heritage, with the support of the government, various sales platforms are needed for agricultural cultural heritage related industries to go hand in hand. With the development of transportation in the world, the transportation problem of agricultural products has been well solved. The next step is to enhance the importance of agricultural cultural heritage related products. In recent years, with the continuous improvement of internet infrastructure, its popularity has rapidly increased, Even in rural areas, the

penetration rate has significantly increased, providing strong support for the implementation of online marketing for agricultural products. The number of netizens is constantly increasing, and more and more people are enthusiastic about online shopping. Online consumption has gradually become mainstream, which can achieve rapid dissemination of agricultural product related information and attract more and more customers. In recent years, farmers' awareness of the Internet has increased, and they have gradually begun to use the Internet to obtain information. More and more farmers are participating in e-commerce to accelerate product sales. Driven by relevant national policies that benefit farmers, e-commerce marketing of agricultural products has achieved rapid development.



Figure 30 Recommended specialties of the Academy of Agricultural Sciences sold on the Taobao e-commerce platform in China

Source:<https://image.baidu.com/>

However, the rapid development of marketing methods will also bring economic competition pressure. China has a vast territory and different cultural industries with regional characteristics in various provinces and cities. Currently, online marketing methods, namely e-commerce marketing, still have shortcomings. From the perspective of agricultural product sales, e-commerce marketing can effectively accelerate agricultural product sales and improve product sales revenue, becoming a new model for agricultural product marketing in the context of rural revitalization. However, for the vast majority of farmers, e-commerce marketing is an emerging thing, and their understanding of it still has limitations. They have long been influenced by traditional ideas and find it difficult to accept e-commerce marketing in a short period of time. Especially some older farmers have a lower level of understanding of online marketing. Agricultural product operators believe that the initial cost of e-commerce marketing is high and they need to bear significant risks, resulting in a lack of understanding of the role of e-commerce in agricultural product marketing. However, the government's promotion of online marketing of agricultural products is also inadequate. The cherry industry in Luoyang still relies mainly on traditional sales models. If the market share of this industry is low, it will be difficult

to effectively improve farmers' income, and thus the regional economic development of Luoyang will be restricted.

Among them, in the development process of agricultural cultural heritage, China's agricultural development has a long history, and various regions have formed unique agriculture. The variety of agricultural products is rich and diverse, and the continuous development of the Internet allows people to purchase characteristic agricultural products from various regions through online shopping. However, in some regions, the popularity of characteristic agricultural products is relatively low, mainly due to inadequate brand building of agricultural products. Brands largely represent quality and reputation. With the continuous development of the economy and society, as well as the continuous improvement of income and living standards, people are increasingly valuing agricultural product brands. Most agricultural product distributors in China are self-employed individuals who place too much emphasis on short-term benefits and lack long-term planning. In addition, their own financial strength is relatively weak, making it difficult to create successful agricultural product brands. This process must be successfully completed through multi-party collaboration. However, due to a low level of education and a relatively backward ideological awareness, it is difficult to form synergy in brand building, resulting in some high-quality and distinctive agricultural products being difficult to enhance market awareness. In addition, some e-commerce platforms have not conducted in-depth research on online marketing of agricultural products, and are basically sold in a primary form without deep processing. In addition, the brand influence is insufficient, which reduces the added value of agricultural products and greatly reduces economic benefits.(Hu Zhongying 2023)

4.2.2 The current status of packaging styles for cherry products

The current cherry products are mainly divided into fruit itself and fruit derivatives, and there are three main issues with their style and current situation.

Firstly, the packaging style is inconsistent due to insufficient brand building or the lack of leading brands in the local area . In Luoyang City, cherries have various positioning due to their status as agricultural cultural heritage. Cherries can not only be sold as fruits, but also serve as a symbol of Luoyang's agricultural culture for promotion. For example, as a specialty or a gift for tourists, the cherry industry has great potential for development, but there is no brand that focuses on the cherry industry chain, The result is that when cherries are transported or sold as derivatives, their packaging style is commonly used for fruit packaging on the market, such as transparent packaging boxes or fruit gift boxes. Therefore, the visual gap between cherry related products and packaged fruits sold in regular supermarkets cannot be widened. At the same time, due to the lack of brand building, the cherry industry is difficult to recognize in the fruit industry, which means that the added value of goods will decrease. Because farmers who grow cherries mainly sell them as individual businesses, even if the government in Luoyang wants to help support the cherry industry, they can only provide assistance from the planting aspect due to the lack of brand, and the marketing efficiency of the cherry industry will also be greatly reduced.



Figure 31 Cherry packaging box
Source:<https://image.baidu.com/>

Secondly, the packaging appearance did not effectively distinguish between different consumer groups. For different consumer groups, products are mainly divided into affordable products and high-end products. Among them, affordable products are products that are suitable for ordinary consumers, have high production capacity, are convenient to purchase, and focus on cost-effectiveness. These products do not require excessive packaging ; Another high-end product is a brand that targets the high-end market. By offering excellent product quality and excellent brand image, we aim to attract consumers with low price sensitivity, high brand loyalty, strong purchasing power, and a pursuit of fashion and experience , thereby sacrificing the mass market and obtaining a higher brand premium. However, in the current cherry industry in Luoyang, there is no clear distinction in appearance between the fruits themselves or their derivatives. When consumers purchase cherries in supermarkets or online, the first thing that catches their attention is the appearance of the packaging, and then they choose cherries in different price ranges. In comparison, when consumers choose different fruits, they will express interest in foreign imported products, Due to its high price, it is subconsciously believed that imported fruits are a high-end product that is not available in China. Although cherry products can meet consumers' daily needs for this food, they have lost a portion of the market due to the lack of packaging that clearly distinguishes high-end products.(Zhuming 2023)



Figure 32 The food in the picture is mooncakes sold in a dessert shop; The food in the picture is a special hairy crab from Yangcheng Lake, China
 Source:<https://image.baidu.com/>

Finally, the appearance of the packaging did not integrate agricultural cultural heritage. Culture is the embodiment of packaging connotation, and a good packaging design must have a certain cultural connotation. The process of artistic design requires recombining objects, and it is even possible to leverage the combined objects from various aspects. Design is the darling of modern culture, and its development must be based on modern life, modern industry, and modern economy. The cultural elements in packaging design should pay attention to their aesthetic characteristics, that is, they should conform to the public's aesthetic taste and laws. The consumer target of packaging design is ordinary consumers, with public characteristics. Overly personalized design deviates from the scope of public aesthetics, and even with extremely high artistic value, it is difficult for ordinary consumers to accept it. The aesthetic characteristics that conform to mass

consumption are the aesthetics that must be in line with the development of the times. Consumer groups from different eras, cultural backgrounds, ages, professions, and regions all have their own different consumption concepts and aesthetic characteristics. These aesthetic characteristics and consumption concepts are not fixed, but they develop forward with the development of the times. This is the popular characteristic of culture, and packaging culture should reflect this popular characteristic. As mentioned earlier, the aesthetic object of packaging design is consumers, so its element characteristics should conform to consumers' aesthetic habits. Popular elements are also an important carrier for emotional communication between packaging design and consumers. Therefore, packaging design should constantly adjust with the characteristics of the times and changes in popular culture, which is very important.(Peng Guanqi 2023)



Figure 33 The picture shows Chinese coconut juice, which has an excellent reputation and a unique packaging style. Although four colors with visual impact are mainly used, the overall packaging is not uniform.

Source:<https://image.baidu.com/>

4.2.3 Current status of brand development

In the development process of the cherry industry in Luoyang City, farmers who produce cherries have continuously improved their planting techniques and achieved remarkable results in yield. However, throughout the entire Chinese fruit market, the number of well-known fruit brands is very rare, and some brands are not primarily sold as fruits or fruit derivatives, however, searching for the Cherry brand on China's largest e-commerce platform yielded nothing.



Figure 34. The Chinese Taobao e-commerce platform did not find any cherry related brands after searching for keywords related to the cherry brand

Source:<https://image.baidu.com/>

Through in-depth research on the Luoyang agricultural product market, it was found that most agricultural products lack a systematic brand image design, without clear identification, only simple text image design, and brand colors are chaotic. Some companies do not realize the importance of brand image design and the economic benefits that brand added value can bring, but only understand it as actual functional packaging. Therefore, it is difficult to expand the sales market of pollution-free, green and healthy agricultural products, even due to the lack of appropriate packaging and promotion, and the inability to prioritize the sale of agricultural cultural heritage, which hinders the development of Luoyang's agricultural culture and is not conducive to the economic development of cherry farmers in Luoyang. The core of agricultural product brand building is product quality, and the brand image design of products is crucial. A good brand image design is like an invisible salesperson who can promote agricultural products and bring considerable economic income.

In recent years, under the joint operation of multiple factors, agricultural cultural heritage has gradually occupied an important position in enhancing the country's cultural soft power and improving the level of social and economic development. In the context of strong national advocacy, it has quickly entered a positive development stage and deeply integrated with other industries, providing sufficient backbone for promoting the transformation and upgrading of traditional agricultural development models. However, from the current development path of the national agricultural cultural heritage industry, there are many integration and application problems between the current development status of agricultural cultural heritage products and the rich agricultural cultural resources possessed by the country. As a result, the design and production process of agricultural cultural heritage products are difficult to fully meet the complex needs of contemporary consumers, thereby affecting the sustainable development of agricultural cultural heritage products in the new era. Specifically, in the new era, there are still the following shortcomings in the actual development of agricultural cultural heritage products. Firstly, agricultural cultural resources cannot be equivalently and reasonably allocated in cultural heritage products. Against the backdrop of the rapid development of the emerging industry of cultural creativity, various sectors of society have realized the new business opportunities for developing cultural and creative products, and have begun to use corresponding methods and means to carry out the design and

production of cultural and creative products. As an important basic industry that supports the progress and development of the country's social economy, the agricultural industry naturally joins the team of cultural and creative product design and development with the development situation of the times. However, in reality, although the agricultural industry has rich and diverse cultural resources that provide excellent development conditions for the design of agricultural cultural and creative products, when people apply these agricultural cultural resources to the corresponding agricultural cultural and creative product design process, they fail to achieve the goal of equal and reasonable distribution, resulting in the lack of substantive cultural connotations and a relatively single form of expression in the final agricultural cultural and creative products.

Secondly, the current agricultural cultural heritage products are difficult to fully meet the diverse and complex consumption needs of modern people. At present, in the process of designing agricultural cultural heritage products in the agricultural field, in order to ensure that more economic benefits can be quickly obtained in the short term, the focus of design and production is only on the overall form and market investment channels of agricultural cultural heritage products, seriously ignoring the timeliness of agricultural cultural and creative products and their compatibility with the market, which is the drawback of lacking brand support.

Finally, the development qualifications of agricultural cultural heritage products are still shallow, and many systems and systems are not fully developed. Due to the limited development history and time of the integration of product and packaging design, the overall situation is still in the initial stage of development. Although agricultural cultural heritage products have gained new development in the new era, their development in real society still lacks mature and complete systems, or the appearance design of agricultural cultural heritage products is currently in an outdated state, resulting in unsatisfactory specific development effects of agricultural cultural heritage products. So even though the cherries in Luoyang have strong local cultural characteristics, due to the lack of brand image design awareness in the local area, agricultural products are only sold through crude packaging or unpackaged methods, without brand logo design, and even less original design. The entire packaging does not reflect the characteristics of the product and cannot establish an emotional communication bridge between consumers and the product brand.

4.3 Guidelines for promoting economic development through packaging

Tan Youjin believes in his article "Exploration of Nationalization and Implementation Approaches in Packaging Design" that the realization of nationalization in packaging design requires the use of three ways: 1. The expression of the connotation of national artistic creation should return to the abstract expression of freehand brushwork in traditional Chinese art, starting from the creative connotation of freehand brushwork rather than realism, abstract rather than concrete, guiding modern packaging design with the concept of freehand brushwork, and integrating other visual elements with the context of freehand brushwork, The nationalization of packaging design is the fundamental guarantee. 2. Innovative application of ethnic graphics. Starting from product attributes, select traditional ethnic graphics related to product attributes. After selecting typical symbolic figures that are related in connotation, modern meanings must be given on the basis of

traditional and ethnic elements. 3. Combining with modern new technologies. For example, when combined with computer technology, it can provide unparalleled visual effects in freehand drawing. When combined with new printing technologies, it provides another possibility for the emergence of new forms of ethnic graphics: when combined with network technology, massive information resources can be shared.

4.3.1 Combining regional policies

The success of rural revitalization is related to social stability and harmony, which determines whether the great rejuvenation of the Chinese Dream can be achieved. Rural cultural and creative products should be committed to the goal of rural development, highlighting rural cultural characteristics and cultural creativity in product packaging design, and using the development of cultural and creative products to drive the realization of the strategic goal of rural revitalization.

In Luoyang City, the government also has the task of rural revitalization. Therefore, vigorously developing agriculture during such a period of time will not only receive government assistance, but also develop together with other agricultural products. The development of a large number of products will bring market and opportunities, as well as competitive relationships. Therefore, to enhance competitiveness, it is necessary to cleverly combine packaging design with agricultural cultural heritage to create a unique brand, And increase awareness in subsequent development.

4.3.2 How to choose the key points of cherry packaging at present

The packaging design of rural cultural and creative products requires them to be committed to the purchasing needs of consumers. In the process of cultural transmission, it further drives product consumption and creates more economic benefits for the local area. This is the value reflected in product packaging design. Therefore, it is necessary to have a reasonable positioning, planning, and design of product packaging design, highlighting the uniqueness of packaging design, and further expanding the value space of packaging design.

When designing packaging, designers need to consider not only the aesthetic appearance of the product, but also the local cultural heritage of Luoyang. Therefore, there are several key choices for packaging methods.

(1) Stimulating consumption needs, with the continuous development of the socialist market economy, the strategy of rural revitalization has been comprehensively implemented, which further drives consumption. People are increasingly paying attention to the outer packaging of products when choosing and purchasing. To increase the market share of rural agricultural products, it is necessary to design excellent packaging that showcases the beauty and values of the products themselves, in order to better cater to consumers. On the contrary, if the product does not pay attention to design concepts in packaging, it cannot attract the attention of consumers, let alone drive the development of rural economy. At the same time, a complete packaging will also leave a visual memory for consumers, who will perceive the excellence of the product and its cultural value after consumption, thus having a high probability of repurchase. Therefore, packaging belongs to the added value of products and can effectively improve product strength and market competitiveness.

(2) Highlighting product advantages, the deepening promotion of rural revitalization strategy has provided a broader stage for agricultural cultural heritage related products, constantly generating various products. As a result, people's vision

has gradually expanded. Those who have built a broader stage for rural cultural and creative products in terms of artistry and creativity have emerged, and various cultural products have entered people's vision. Exquisite packaging with artistic and attractive features can better showcase the advantages of cultural and creative products, presenting the core concepts of the products to consumers.

(3) Enhancing product value, packaging as an important carrier can further increase the added value of agricultural cultural heritage products, highlighting brand culture and visual tone. With the help of packaging design, product transformation can be achieved, making the packaging of the product more in line with its own product characteristics and more creative, forming the unique artistic charm of cultural and creative products. Moreover, the exquisite outer packaging can also provide consumers with a strong first impression and enhance the overall value of the product through the extraction of visual symbols. Therefore, for rural cultural and creative products, packaging positioning must be based on the product, reflecting the differences and uniqueness of the product, and endowing the product with more value.

4.3.3 Innovative suggestions for the brand

After completing the design focus selection of packaging, it is necessary to establish a brand. If you want to have a more appropriate integration with local culture, designers need to ensure that the product packaging can more stably convey the agricultural cultural heritage of Luoyang cherries to consumers. Therefore, in terms of brand establishment, the following points need to be used as references.(Xu Fei 2023)

(1) According to this survey, consumers are mainly divided into impulsive, emotional, rational, and sensitive types in terms of consumer psychology, targeting different target groups and facing different consumers.

Consumers with impulsive consumption psychology are easily stimulated by packaging, leading to purchasing behavior. Generally speaking, bizarre packaging designs will first attract impulsive consumers. Therefore, for such consumers, they can choose packaging designs with special materials, contrasting colors, or unique shapes. In the packaging design process, traditional thinking should be broken, and the selection of materials should be trendy. Newly developed new materials or materials that are highly compatible with the product style can be chosen; Breaking the traditional color scheme in packaging colors, one can choose contrasting shades of light and dark to highlight the product's style. In terms of form selection, one can focus on highlighting the inherent characteristics of the product, or divert attention, focusing consumers' attention on the packaging form, creating a visual stimulus for consumers.

Emotional consumers are easily influenced by external emotional factors and attach more importance to the special meanings extended by product packaging. Therefore, through emotional rendering, consumers' desire to purchase can be stimulated. For emotional consumers, it is important to seize the common emotional memory of this consumer group, showcase product features through product packaging design, and possess elements that awaken the collective memory of emotional consumers, or provide them with a friendly sense of familiarity. For example, consumer groups represented by the '90s generation' have a lot of memories

of the Internet era, and can reflect mobile game elements with the characteristics of the Internet era on their packaging, attracting the attention of emotional consumers and increasing their desire to consume.

Rational consumers pay more attention to the product itself, and eye-catching packaging colors or unique packaging forms cannot strongly stimulate their purchasing intention. Rational consumers pay more attention to the overall effect of their products, and will comprehensively consider the applicability, economy, safety, reliability, aesthetic level, purchasing convenience, usage convenience, and after-sales service effect of the products, which puts forward strict requirements for packaging design. Therefore, in the packaging design process, product performance can be demonstrated by adding product performance elements, and using packaging materials and color combinations that conform to trend aesthetics, with a focus on highlighting the safety and reliability of the product, creating a sense of trust for consumers. Combined with text explaining various channels of after-sales service, it can dispel consumers' worries and improve their overall satisfaction, thereby promoting their willingness to purchase and generating purchasing action.

The packaging design scheme for sensitive consumer psychology is susceptible to fluctuations in the surrounding environment. It is also inevitably influenced by the packaging design style of the product. Sensitive consumer psychology may be either innate or influenced by the acquired living environment. These consumers are more conservative, and the impact of new creative packaging on them is uncertain. In the face of such consumers, packaging design can choose a stable style, with dark colors as the main color, packaging materials to protect the ecology, suitable for products as the main focus. In terms of product form design, circular or square shapes can also be chosen to highlight product characteristics, and sharp product shapes should not be used to avoid stimulating consumers' sensitive psychology.

Taking into account the consumer psychology mentioned above, it is an important design basis in the packaging of agricultural cultural heritage products, and the age of consumers is divided into different levels, mainly divided into middle-aged and elderly people with purchasing power. The middle-aged consumer group is the main consumer group, and they pay more attention to the added value of products when purchasing and eating for families or giving them as gifts on a daily basis, for example, whether it can be used as a gift as a souvenir for tourism, or whether the product can be given as a gift to friends or colleagues around us. When this consumer group chooses cherries as a gift, different occasions require products at different prices, and the external value of the packaging will be further reflected; Among the elderly population, they place more emphasis on the practical value of products, so there is no need to over design packaging design. After highlighting the information that the product should have on the packaging, it is necessary to consider the packaging cost of the product. Therefore, in the process of brand building, the packaging style needs to be appropriately changed due to facing different consumers.

(2) Displaying ecological and environmental friendliness is mainly divided into two aspects. The first point is that the product content reflects ecological and environmental protection; The second point is that packaging design itself reflects ecological and environmental protection. One of the major advantages of agricultural cultural heritage is its ecological value. At the same time, due to the inheritance from

ancient China, cherry cultivation has the characteristics of safety and pollution-free. As an important industry in Luoyang, a detailed analysis of agriculture from its essential concept shows that the sustainable development of agriculture and the construction of ecological culture are in one continuous line, the reason for saying this is because the ecological environment and agricultural production can have a certain interaction with each other. Firstly, analyze the essential concept of sustainable development in agriculture. From its development to present, agriculture has gone through several stages: traditional agriculture, petroleum agriculture, ecological agriculture, and ecological cultural agriculture. The basic concept of sustainable development refers to minimizing the input of industrial factors while developing agricultural production, while avoiding extremely serious damage to the ecological environment, on this basis, we will comprehensively achieve sustainable development of agriculture. Secondly, the basic concept of ecological culture construction is analyzed. Ecological culture construction mainly aims to create a harmonious and unified state between people's daily production, life, work, and the natural environment, ultimately forming a basic situation of mutual benefit and win-win situation.

In terms of product content, due to China's industrial development, it has caused harm to the ecological environment, reduced resources, and frequent pollution problems. In addition, there may be illegal businesses in China who do not pay attention to food hygiene, and in order to improve their own profits, they greatly discount the production costs of products. In terms of hygiene, the selection of raw materials for products will be cut corners, and such news has emerged in China in recent years, most consumers are very concerned about the safety of the production process when purchasing edible products. On Chinese e-commerce platforms, there are many products that use "pollution-free" as a food promotion gimmick. As an agricultural cultural heritage, Luoyang Cherry itself has natural advantages, so this advantage should be reasonably used when innovating brands.



Figure 35 The price of pollution-free food on China's Taobao e-commerce platform will be appropriately higher than the price of pollution-free food without any remarks on the market

Source:<https://image.baidu.com/>

Next is the embodiment of packaging design itself for ecological and environmental protection. More than half of the packaging waste in China's household waste belongs to over packaging and luxury packaging, which is one of the important reasons for causing severe environmental pollution problems. At present, the advocacy of green packaging is somewhat gimmicky and superficial, without achieving true "green". Instead, the design concept of green ecological packaging is completely forgotten, with no constraints on behavior and arbitrary thoughts. However, what remains on the surface is only a paper form or a decoration. The book called "Green" is based on the spirit of the report of the 19th National Congress of the CPC "accelerating the establishment of legal systems and policy guidance for green production and consumption, establishing and improving economic relations for green and low-carbon circular development. It advocates a simple, moderate, green and low-carbon lifestyle, opposes extravagance, waste and unreasonable consumption, and carries out actions such as creating conservation oriented institutions, green families, green schools, green communities and green travel", detailed guidance and interpretation have been provided on the concept of packaging ecological design. The book 'Green' rigorously and profoundly points out that it is necessary to scientifically define the 'green' of ecological packaging and achieve true 'green' development. The connotation of green packaging previously defined by academia and the industry was relatively one-sided, which may only lead people to stay at the basic understanding of "low-carbon and environmental protection" in their thinking. As an extension and expansion of green packaging, ecological packaging cannot only stay at the original basic functions of green packaging. It also needs to fully consider human health and resource recycling and recycling, in order to be more inclusive and accurate, It can better reflect the trend and demand of green packaging development. Therefore, "green packaging" refers to it as "ecological packaging" that is more comprehensive, reasonable, and able to meet the current needs of humans and nature, thus achieving sustainable and long-term coordinated development. Liu Wenliang also pointed out that for ecological packaging, whether the packaging materials are green and environmentally friendly, whether the packaging structure is reasonable and simple, and whether packaging storage saves space are important measurement indicators.

Green ecological design is people's thinking and exploration for the future. As written in the book "Green", "safety" is considered another key connotation of ecological packaging, and the safety intelligent design that embodies "people-oriented" is the wing that leads ecological packaging to fly higher. According to the development plan of the "13th Five Year Development" of China's packaging industry, it is essential to actively use science and technology to accelerate the development of intelligent design of ecological packaging, reasonably implant the design concept into the "Internet plus" thinking, improve the quality of ecological packaging, and increase the safety, functionality and reliability of intelligent packaging today. In the combination of intelligence and security, modern packaging design has played a role in adding to the "ecological concept" to achieve true "green packaging". Therefore, in order for the ecological packaging design concept to achieve sustainable development, the importance and feasibility of "green" and "safety" must be widely disseminated and promoted, making the concept more deeply rooted in people's hearts.

(3) Displaying innovative thinking and packaging design for agricultural cultural heritage is not only for economic benefits, but also for promoting cultural development. Therefore, innovative thinking is needed in packaging to break consumers' consistent views on agricultural product packaging. In the same type of goods, packaging can further capture consumers' attention.

The selling points of agricultural cultural heritage products not only include product practicality, but also their external packaging is an important element that attracts consumers' attention. Therefore, the design of agricultural cultural heritage products should not only ensure product practicality, but also pay attention to the optimization design of their external packaging.

Firstly, based on the original appearance packaging of agricultural cultural and creative products, from the perspective of product material characteristics and storage requirements, targeted improvement design should be implemented on the packaging of agricultural cultural heritage products to improve product packaging level. Secondly, based on contemporary public value orientation, emotional experience, and aesthetic taste, innovative design of agricultural cultural and creative products should be carried out to strengthen the functional characteristics of product packaging. In this regard, people can improve and innovate the packaging design of agricultural cultural and creative products, fully highlight local agricultural culture, and create agricultural cultural and creative product brands with strong landmark images.

Secondly, deeply control and explore the local agricultural cultural resources and regional characteristics of Luoyang City, and attach importance to the inheritance and innovative development of agricultural culture. The creative inspiration for the design of agricultural cultural heritage products comes from enriching agricultural culture. Therefore, to ensure the efficiency and innovation of agricultural cultural heritage product design, designers should conduct in-depth exploration of local cultural resources in advance, search for new and valuable creative design inspirations, and leverage the development advantages of local agricultural culture to encourage various social organizations to actively participate in cultural innovation activities. To ensure that the design level of agricultural cultural and creative products is effectively strengthened. In addition, the design of agricultural cultural heritage products should also attach importance to the inheritance and innovative development of agricultural culture, and should not blindly imitate. Instead, it is necessary to view the optimization and reform of agricultural cultural and creative product design from the perspective of inheritance and innovation, deeply integrating new fashion elements with traditional agricultural cultural elements, and thus enabling traditional agricultural culture to be inherited and innovatively developed in the constantly changing times.

Thirdly, clarify the importance of sustainable development and optimize the design of agricultural cultural heritage products under the guidance of this concept. Sustainable development is an important development concept in contemporary society. The application of this concept in the design of agricultural cultural heritage can not only effectively avoid the waste of agricultural cultural resources, but also facilitate the integration of national rich agricultural culture into winter agricultural cultural and creative products, quickly enhancing the overall brand image of agricultural cultural and creative products. Therefore, in the context of the

continuous improvement of modern people's living standards, in order to promote the long-term and stable development of agricultural cultural and creative products, while ensuring the overall quality of agricultural cultural and creative products, people need to have sufficient understanding of the current social development situation and changes in public aesthetic taste, and strive to improve the secondary use efficiency of products from the aspects of product packaging and brand characteristics, so that products can withstand long-term tests, and agricultural cultural heritage products have sufficient strength to sustain development in the new era.

Show practicality. The packaging of Luoyang cherries is a necessary consideration in terms of practicality, such as whether changing the packaging can fully utilize space, or whether changing the packaging can be more convenient for storing cherries as garbage after consumption. Overall, it is a combination of aesthetic needs and practicality in packaging. From the perspective of design history, what we pursue is the form of the Baroque and Rococo periods. However, in the Qing Dynasty of China, furniture design favored the use of complex lines for decoration, in order to display beauty in visual effects. However, we did not analyze the essence of the product, that is, practicality. For this type of product, there is one thing in common, which is to allow visual enjoyment without paying attention to the value of the product, resulting in formalism and waste of various resources such as materials, craftsmanship, and manpower. The 'golden mean' that China refers to is not completely neutral, but rather emphasizes grasping the right balance. In other words, it is a matter of degree. We should pay attention to the beauty of packaging, as well as the simplicity of packaging for sales and transportation. For artistic design, it is fundamentally analyzed as practical design, in order to better meet people's needs for life. An excellent and practical design product should first clarify the design object, especially the contradiction between practicality and aesthetics. Secondly, achieve harmony and unity in the design.

The unity of aesthetics and practicality in packaging is inevitable. According to this survey, designers have shown that with the development of society, people's aesthetic psychology has changed. For packaging design, there are many aesthetic issues. Due to people's different needs, designers need to conceive through corresponding designs. When productivity and living standards are relatively backward, the analysis of packaging design focuses on the practicality of packaging. With the improvement of material and cultural living standards, people's needs are also constantly increasing. At this time, packaging design mainly changes from the focus of design. For designers, it is necessary to develop the design towards aesthetic aspects, so that packaging design can achieve consistency in aesthetics and practicality, which is determined by people's consumption concepts. Nowadays, with the improvement of social living standards, people have a higher pursuit of material culture and changed their consumption concepts. Therefore, it is of great significance to strengthen the unity of aesthetics and practicality.

It should be emphasized that the aesthetic and practical aspects of packaging cannot be simply combined. By integrating form and function, the relationship between practicality and aesthetics can be actively adjusted. However, such a combination may not necessarily produce beautiful designs, and sometimes it can cause harm to people's psychology and physiology, especially in food packaging as a cultural industry. Beauty, as a manifestation of internal and external consistency,

should enable the design of products to achieve aesthetic value. From this, it can be seen that for the treasures that have been passed down to today in the history of human design in the past, they are both aesthetic masterpieces and meet practical requirements.

In summary, in order to achieve consistency in practicality and aesthetics, in line with the current development trend of packaging design, the demand for packaging design should not only achieve moderation in design, but also meet the aesthetic requirements of consumers, adapt to the needs of the consumer market, and promote the realization of economic and social benefits. Design and produce based on the principles of practicality and aesthetic consistency, in order to meet the requirements of consumers.

Integrating personalized packaging brands. One of the major characteristics of agricultural cultural heritage is its long history. Combining history and culture can further enhance packaging design. In packaging design, incorporating personalization does not mean stacking design elements. It not only needs to be connected to the product, but also needs to conform to the trend of the times, that is, the personalization of packaging needs to have specificity. The following reference schemes can be incorporated into the packaging design of agricultural cultural heritage.



Figure 36 Kiwi, a special product of Dujiangyan Irrigation Project, China, has adopted a distinctive illustration design in packaging design, but it can be used as long as it is kiwi, and has no design specificity.

Source:<https://image.baidu.com/>

Firstly, it is necessary to establish a brand logo, which is the starting point for shaping brand value, the most important visual core in brand communication, the leading force for information dissemination, and the concentration and concrete symbol of brand spirit. An excellent logo not only accurately conveys the brand's characteristics within a limited space, but also leaves a deep memory in people's hearts. Brand products are trusted by quality, and trademarks are a guarantee of reputation, giving people a sense of integrity. Through logos, the quality of goods can be more quickly and accurately identified and judged.

An excellent logo has a distinct personality and visual impact, making it easy to recognize and remember, guiding and promoting consumption, and generating beautiful associations, which is conducive to standing out among numerous products .



Figure 37 The picture shows the logos of Apple and Nike; The picture shows fruits under the Nike brand; The picture shows milk under the Apple brand

Source:<https://image.baidu.com/>

Next is font copywriting design, where appropriate font design can present the information to be displayed in a simple and clear manner while showcasing Chinese agricultural culture to the public. This allows people to quickly create a deep impression of the product and understand the connotation of the advertisement through the fonts in the printed work at the first moment of viewing it. The diversity of font design is the best form to present the unique charm of advertising , and different fonts can also assist consumers in positioning their products more clearly. To some extent, a graphic work can have no graphics, but it must never have no text. Although graphics can also convey the designer's demands and ideas, due to different levels of audience acceptance, it must be clearly expressed in words to avoid ambiguity. And through font design, cultural misunderstandings can also be effectively avoided, as there may be cultural differences in different regions of China. When tourists travel in Luoyang, they need to be aware of and accept Luoyang's cultural content in a short period of time, and carry out appropriate cultural output. Packaging design is a medium for businesses to display products to consumers. Many consumers pay more attention to products with unique design or perfect integration with sales content during the purchase process, especially in the fast-paced era of life. The quality of packaging design to some extent affects the sales volume of products. Among them, the quality of packaging design cannot be separated from the font design on the packaging. Excellent packaging design not only expresses the product information clearly, but also brings beauty to consumers. A prominent product name can better help consumers identify or purchase products. By using the font on the packaging, consumers can quickly understand the relevant information and scope of

use of the product, and can build a communication bridge between consumers and the product. Although font design plays a very important role in packaging design, it is not advisable to blindly pursue the visual effect of fonts in the process of packaging design, while neglecting the connection between font design and products. Excessive artistic design of fonts on packaging should not affect their information transmission.



Figure 38 The four pictures show the packaging designs of four different Chinese mooncakes. Although the products are consistent, the font style also leads to different impressions.

Source: <https://www.51miz.com/>

Finally, there is mascot design. As an abstract spokesperson for the product, the necessity of mascots can be determined based on the product's own situation. Currently, there are some practical problems in mascot design in China's agricultural and food packaging design. Firstly, there are similarities and differences in material selection and content, with many similarities and a lack of local cultural connotations. In the current mascot design in China, mascot design often appears in the image of a child. However, if the origin is not specified, it is difficult to distinguish which region the mascot belongs to based on its own characteristics, and the lack of integration into the story of related products makes the brand light and thin. Secondly, the selection of elements in the design is too detailed. It can easily cause visual fatigue. In the later application, less consideration is given to practicality and aesthetics, resulting in a less significant brand effect of agricultural cultural heritage mascots in the consumer market.



Figure 39 Agricultural product mascot in Foshan, Shandong Province, China;
Kumamoto City Mascot, Kumamoto Kumamoto, Japan
Source:<https://image.baidu.com/>

4.3.4 Packaging design proposal

In packaging design, brand support is indispensable. Therefore, this article simulates a design approach with cherries as the brand, and uses the brand logo to showcase a series of products such as cherry fruit itself and cherry derivative cherry wine. The aim is to provide design inspiration for the subsequent development of agricultural cultural heritage through the author's own poor design skills.

Firstly, there is logo design. In the selection of logo design, cherries are used as the main design subject, combined with the production of seals in Chinese culture, to create a logo similar to cherry seals. Because in the current development of China, cherries as the main logo have not yet been registered, as pioneers in the field of cherries, it is necessary to use simplified logo design as the design purpose in logo selection, for example, in sports brands that use simple symbols as their design philosophy, both Nike and Tebu brands choose simple logo design. However, since there is currently no competition from cherry brands in China, there is no need to deliberately differentiate design from other fruit logos, which can fully utilize the blank space in the cherry brand market. Luoyang cherries have the characteristic of having larger fruits, but if a single cherry is chosen as the design object, because the appearance outline of cherries and the reduced appearance outline of apples have similarities, the cherry logo is chosen based on the unique "multi floral arrangement" feature of cherries, with two cherries on the same branch as the reference object, and combined with the circular seal feature to present the final effect.



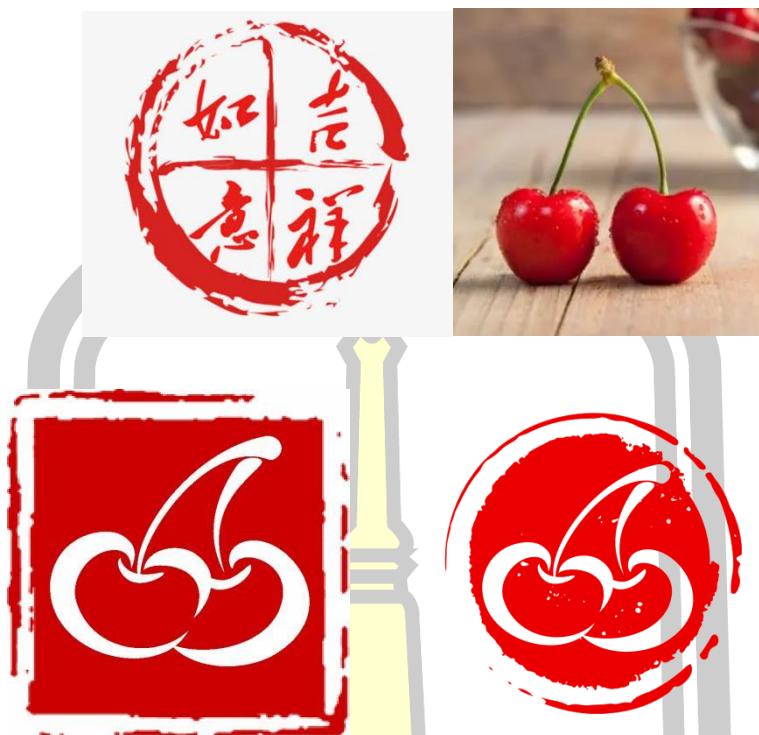


Figure 40 Chinese style seal; Prototype cherry for logo design
;logo of Luoyang cherry

Source:<https://image.baidu.com/>;From researcher

Secondly, there is the selection of fonts. In terms of English, the design of this article is transformed in bold font, aiming to highlight the atmospheric design temperament. In contrast, in Chinese, the font selection is made by changing the brushstroke with brush calligraphy, which more clearly highlights the ancient Chinese agricultural culture corresponding to Luoyang cherries. There are white lines in the design diagram as a summary of the content, which requires the brand enterprise to add the product information that the enterprise wants to express. In terms of product information content, it can be divided into three aspects: 1. The main information that the product needs to reflect according to national requirements. 2. The cultural characteristics of the product itself, such as the unique technology of cherry cultivation in Luoyang. 3. The relevant information of other co branded brands is used as a secondary manifestation, as a brand that can drive the development of Luoyang Cherry or as a win-win strategy after combining with Luoyang Cherry.

In terms of packaging design, we have chosen the current popular simple packaging style. In China, people work hard every day and the workload is large. Therefore, we choose a simple packaging style to create a certain relaxation effect for the visual experience. The design itself is divided into two modules, one is the decoration of packaging elements, and the other is the overall packaging. In terms of packaging embellishments, the design features of Japanese designer Yasushi Kusama were selected, and two cherry hand-painted designs were designed with dots as the unit. In terms of hand-painted object selection, several common cherry branches were selected as prototypes, which were reflected in two forms: complete and cut. The hand-painted technique chose the embodiment of design sketch, and did not

completely follow the complex drawing method of sketch when painting. Instead, it leans more towards the simple embodiment of sketch, and simply combines a single cherry leaf with the leaf vein for texture design, presenting the image of two clusters of cherries. The composition of two cherries complements each other to create a complete hexagonal shape, and the reason for choosing a hexagonal shape is to facilitate the splicing and stacking of subsequent elements. In the final draft, a group of cherries consists of two plants, two cherries and three cherries, as the final draft .

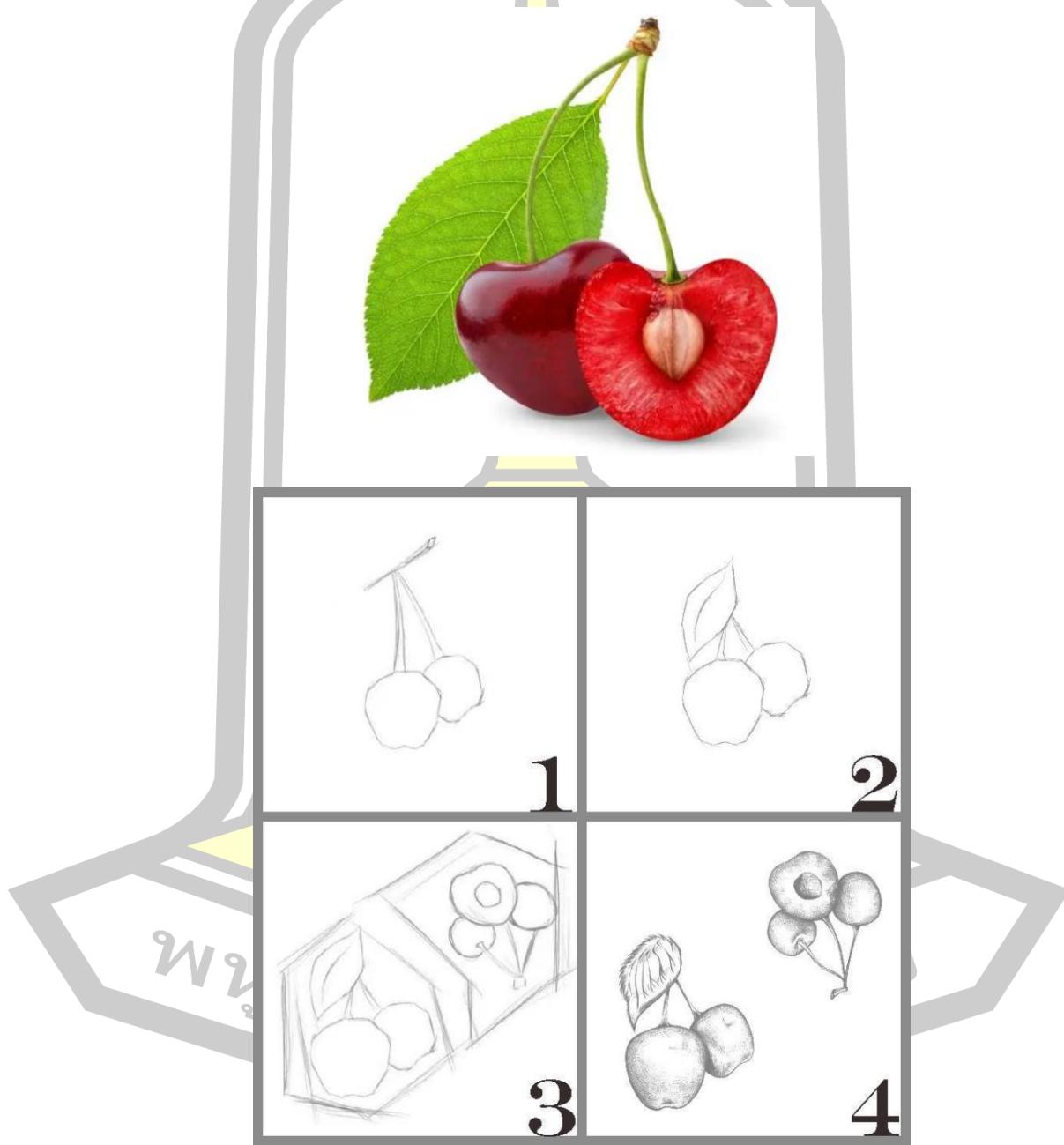


Figure 41 Source of inspiration for packaging elements;Packaging element design drawing

Source:<https://image.baidu.com/>;From researcher

In terms of overall design, a combination of "points" and "faces" was chosen. On the left side of the theme design, cherry colors were used as a reference for cherry fruits, while on the right side of the design, hand-painted cherries were added as elements of points to the overall design, avoiding visual fatigue caused by dense design. At the same time, cherry colors that occupy a large proportion of the screen were chosen to leave a visual memory for consumers, when consumers see such a red color, they will associate it with the brand of Luoyang Cherry. They use similar color patterns for decoration in a large proportion of colors, and in terms of pattern selection, they choose the five largest Buddha statues in the Longmen Grottoes, the most famous scenic spot in Luoyang, as the main body of the pattern . The intention is to repeatedly arrange their silhouettes as the background, with the intention of not wanting the regional elements in the packaging to be too dominant, so the selection of patterns is only to enable consumers to quickly associate the origin of the product when choosing it. The image position left on the left side of the packaging can be used as an open display window design. Consumers also pay attention to the freshness of the product when purchasing fruits, so they chose to use the left side of the product as a transparent display window, so that consumers can clearly see the freshness of the products inside the packaging when purchasing the product.(Song Yuankai 2023)



Figure 42 Pattern design drawing
Source:From researcher



Figure 43 Overall packaging design diagram(Length:210mm Width:50mm Height:297mm)
Source:From researcher

Due to the fact that Luoyang cherries are not only a single variety, but also have a rich variety and diverse colors, which is one of the main reasons why Luoyang cherries can be a local characteristic. Taking the variety "Huangmi" as an example , with a complete packaging design, different types of cherries can be distinguished by changing the main color of the packaging design, while distinguishing by color, it is also possible to serialize products, making the product categories more diverse and providing consumers with more choice space, thereby gaining a larger market share in the cherry fruit market.

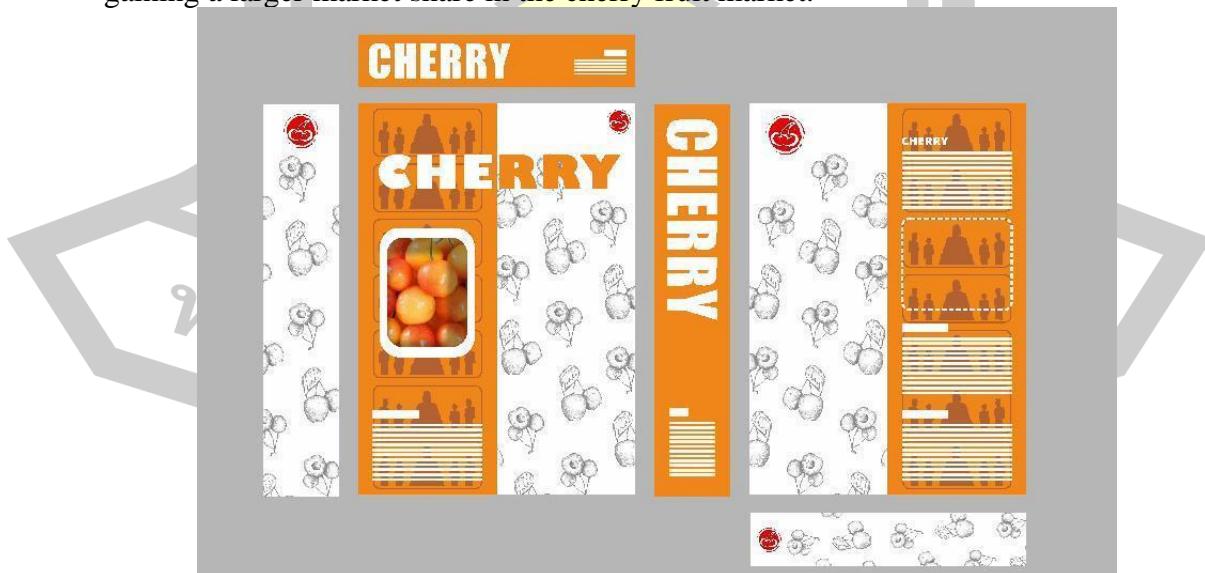


Figure 44 Overall packaging design diagram(Length:210mm Width:50mm Height:297mm)
Source:From researcher

CHAPTER V

Conclusion , discussion and suggestion

This chapter provides a brief summary of the conclusions of this study by summarizing the previous text. After completing the explanation of the conclusions, it provides an outlook for the future development of Luoyang cherry and agricultural cultural heritage. By planning and summarizing the research process and purpose of this article, and completing a flowchart for the development of agricultural culture, it is hoped that this study can provide reference value for subsequent related research.

1. Purpose of research
2. Conclusion
3. Discussion
4. Suggestion

5.1 Purpose of Research

Luoyang cherries play an important role in the agricultural and cultural industry. Although they have made some progress in the economic development of Luoyang, at present, the development of Luoyang is mainly industrial, and the agricultural and cultural industry is neglected. In the long history of the past, the development of agricultural and cultural heritage in the world has been filtered by the times, and some agricultural and cultural heritage has been eliminated due to the development of the times, however, there is still a large amount of agricultural cultural heritage that has been passed down to this day due to its unique nature and value.

Cherry packaging design needs to promote the economic development of Luoyang city, and the way to protect the agricultural cultural heritage is to promote the regional development of Luoyang city. If the economic development of a region lags behind, the development of that region will inevitably be deformed. Therefore, it is necessary to inherit the cherry planting technology in Luoyang and vigorously develop the regional economy to promote the income of farmers through the development of agricultural cultural heritage, after the income of farmers increases, the local economic development will improve efficiency. Efficient economic development can in turn drive the development of agricultural cultural heritage. In the process of agricultural cultural heritage development, packaging design is the main channel for consumers to come into contact with this culture, highlighting the advantages of agricultural cultural heritage in packaging design. At the same time, combined with visual design, consumers can gain consumer memory of the brand of agricultural cultural heritage, promoting and protecting agricultural cultural heritage while increasing the added value of agricultural products is beneficial for the development of the local economy and the protection of agricultural cultural heritage. After combining the local social conflict theory in Luoyang, as well as the gradient theory of regional economic development and the radiation theory of regional economic development, it is hoped that this article can focus on promoting the economic development of agricultural cultural heritage products through packaging

design to drive the development of local regional economy, and provide good reference for subsequent research on agricultural cultural heritage.

5.2 Conclusion

This article uses literature research, interviews, observation methods, and other methods to collect the development history and current development status of packaging design for agricultural cultural heritage. Combined with the social situation of Luoyang City, China, it provides development guidance for packaging design as a channel for Luoyang cherry agricultural cultural heritage, and further builds local brands to improve local economic benefits.

The result of the research found that the feasibility of the brand provides new design ideas and promotion models, driving local economic development, and achieving the revitalization of China's agricultural industry and rural revitalization under the poverty alleviation strategy. Under this influence, the packaging of agricultural products is combined with regional culture, reflecting the local customs and cultural connotations of Luoyang City. More packaging with regional colors and cultural individuality are designed to meet the different spiritual needs of different consumers and drive the local consumption situation.

On the basis of investigation and research, this article analyzes the impact of agricultural product packaging on product sales, designs the brand image and packaging of Luoyang cherry agricultural products, and extracts significant cultural and visual elements from the local area for packaging innovation. From the perspective of brand image design, innovative design using cherry fruit as a reference prototype: In packaging design, incorporating local historical and cultural heritage, it not only caters to the aesthetic needs of contemporary consumers, but also meets the innovative requirements for the development of agricultural products under the promotion of poverty alleviation policies, making society and nature more harmonious. This article conducted simulation design in terms of design and applied it to the cherry industry and its derivatives. The packaging design of agricultural products full of regional culture is a huge task that requires triple support of manpower, material resources, and energy to complete. It is not an easy task to promote the local economic development through the sales of agricultural products. More contact and research visits are needed, and even the government and other parties need to assist in promotion and publicity. I hope this article can inspire more designers to enter Chinese villages, help those backward villages promote their local agricultural cultural heritage, and thus more effectively protect China's agricultural cultural heritage.



Figure 45 Overall packaging rendering
Source:From researcher

This article studies three research objectives. Firstly, it studies the cultural background of Luoyang cherries. Secondly, by combining the historical and cultural background with the current packaging status of Luoyang cherries, it simulates the guidance needed to establish a cherry brand in Luoyang. Luoyang cherries are not just a local specialty, but have the name of agricultural cultural heritage, so their development background is not just a planting background, but also has a lot of research value in culture and ecology; After studying the packaging status of Luoyang cherries, it was found that there is no exclusive brand for cherries in Luoyang or even in China. Even cherry packaging is still simple in ordinary cardboard boxes, and cheap packaging methods are chosen for packaging. Due to the perfunctory packaging, the agricultural culture of Luoyang cherries itself is also ignored; In the packaging design guidelines, appropriate packaging methods were selected and brand building was used as a medium to enhance the added value of Luoyang cherry products. The following three conclusions serve as an overview at the end.

5.2.1 The social value of Luoyang agricultural cultural heritage

By studying the historical background of Luoyang cherry as an agricultural cultural heritage, it can be concluded that as a developing city, Luoyang has a large number of factories and a mature subway system. However, its rapid development has led to a sudden shift from an agricultural society to an industrial society. As a result, Luoyang's agriculture has even been affected or neglected in the process of development. Agricultural cultural heritage has a significant cultural and scientific value, in Luoyang city, it can also serve as a landmark culture to enhance the cultural confidence of the local people, and as an agricultural cultural heritage, Luoyang cherries have three main values.

Firstly, it is the value of scientific research. The content of agricultural cultural heritage archives covers knowledge from multiple disciplines such as agriculture, ecology, folklore, and history, demonstrating the interdisciplinary nature. Agricultural cultural heritage archives provide an important source of information for a long period of time in the study of traditional handicrafts, famine relief herbs, agricultural technology, and water conservancy engineering facilities. They are a highly valuable knowledge carrier with high scientific research value and are worth exploring in depth.

Studying the changes in land resources, mineral resources, and wildlife resources in agricultural cultural heritage archives can help us understand the historical changes in the natural environment and population of villages during historical periods, and has certain guiding significance for the "conservation" development of heritage sites in the future. The scientific research value of agricultural cultural heritage cases needs to be explored in subsequent sorting and utilization, and its value should be maximized through relevant scientific research to serve different disciplines and achieve the use of ancient knowledge by modern people. The most obvious scientific research achievement is the dwarfing cultivation technology still in use in China, In the planting of cherries in Luoyang, dwarfing cultivation technology is used to reduce the height of the cherry tree, reduce the nutrients required for the fruit tree to grow to maturity, shorten the time from seedling to maturity, shorten the planting cycle of cherries, and increase yield. In 2023, China utilized dwarf cultivation techniques to cultivate mature, short yield, and abundant dwarf cultivated durian , and achieved good results. This is not only a progress in China's planting industry, but also a reproduction of the value of China's agricultural cultural heritage.(Yushen 2007)





Figure 46 Dwarfing cultivation of durian
Source:From researcher

Next comes the value of education. Agricultural cultural heritage is different from natural heritage and cultural heritage in general. It is a systematic and active heritage closely related to people's production and life, and the educational value still plays an important role in the current process of agricultural development. In addition, the agricultural techniques and rural customs in agricultural cultural heritage archives can provide rich materials for classroom education, which is conducive to students' understanding of traditional agricultural culture, learning cultivation experiences, enhancing ecological and environmental protection concepts, and establishing cultural confidence for future generations, with a greater recognition of their own country's culture.

Finally, there is economic value. The unique agricultural landscape and biodiversity provide potential cultural and tourism resources for heritage sites, and agricultural cultural heritage archives that record the style of heritage sites have potential economic value. Reasonable development and utilization of agricultural cultural heritage archives is conducive to promoting the development of tourism in agricultural cultural heritage sites. On the one hand, showcasing the spiritual outlook of the living groups in heritage sites through the tourism industry is conducive to promoting the dissemination of agricultural culture and the inheritance of agricultural cultural heritage in heritage sites; On the other hand, driving local economic development through tourism can effectively increase the economic income of residents in heritage sites, which in turn can strengthen their awareness of protecting local agricultural and cultural heritage.

5.2.2 The Necessity of packaging agricultural cultural heritage

If the products corresponding to agricultural cultural heritage want to achieve certain economic benefits, brand promotion is necessary. An excellent brand can not only bring good economic benefits, but also bring faster channels of

dissemination for agricultural cultural heritage. Luoyang has a superior geographical location, located in the hinterland of the Central Plains of China, and together with the Yellow River, Funiu Mountain, and Taihang Mountain, it forms a unique landform and ecological environment. The seven counties and seven districts of Luoyang City almost cover the Heluo Basin, and the distance from surrounding cities is also reasonable, making it a complete urban circle. It is precisely because of such a complete urban agglomeration that its economic development chain is also complete, and for the development of agricultural products, there is only a lack of a development entry point.

The product packaging design for Luoyang cherries, an agricultural cultural heritage, has two major problems while addressing transportation and cost issues. Firstly, the packaging design positioning is not clear, the visual elements are simple, and the packaging is only for selling cherries, without incorporating differences in product quality, cultural attributes, and product grade that consumers can choose from in the design. The second point is the lack of regional cultural identity and the lack of brand guidance. With the development of time and the accumulation of cultural characteristics in local regions, each region has its own unique regional culture and folk art cultural characteristics, and agricultural cultural heritage is a manifestation of essence. In the packaging of agricultural products in Luoyang, there is a lack of refining and application of regional culture, especially the cultural and folk elements of the packaging of Luoyang cherries. Decision makers in agricultural and sideline product related enterprises are limited by funding costs and cultural aesthetics. When choosing packaging design solutions, they usually use low-cost packaging forms as the packaging of agricultural products, ignoring the regional cultural characteristics and local cultural style related to the products. As a result, the packaging of agricultural cultural heritage products in the current market has poor viewing and cultural experience, and cannot meet the needs of the high-end agricultural product consumption market. The design style is disorganized, and the design elements are pieced together, which has not played a promoting role in establishing the brand's visual image of agriculture. So in the current development, the agricultural cultural heritage of Luoyang cherries requires a sustainable packaging design solution.

5.2.3 Brand development guidance for Luoyang cherry

In terms of packaging design guidance for Luoyang cherries, the design presented in this article is only an example, as the development of the brand requires multiple efforts, such as government policy support, consumer recognition, and a complete local industrial chain. In packaging design, we should follow the current design trend, improve product recognition through packaging design, and leave a visual impression on consumers with our own characteristics, in order to broaden the development field of the industry and make Luoyang cherries not only famous in China, but also further enter the international market.(Lishi 2023)

For the main body of Luoyang Cherry, the appearance of the design is not the most important aspect, and all design purposes are based on the successful establishment of the brand. However, it is difficult for a single brand to expand its influence to the world like the Japanese Red Fuji Apple. The Japanese Red Fuji Apple has a long history of development, and its excellent reputation has been formed, so its development is relatively stable. However, if Luoyang cherry wants to complete the

complete image of the brand in people's hearts in a short period of time, it not only needs design in terms of appearance, After having a complete design, it is necessary to leverage other forces in society to create momentum. Firstly, e-commerce sales. Currently, Chinese e-commerce platforms have combined live streaming as a promotional medium in their development, and a large number of products are promoted to various households through the influence of anchors. The reasonable promotion of anchors can not only intuitively promote the sales of Luoyang cherries, but also increase the popularity of Luoyang cherries. Cherry should be added as a prefix when promoting, not only can it effectively distinguish cherries from other regions, but it is also beneficial for brand names to quickly establish a proper noun memory in consumers' minds.

Secondly, there is local promotion because in Luoyang City, Cherry Valley exists as both a planting area and a scenic spot. Many consumers choose to visit Cherry Valley in Luoyang and experience the pleasure of picking cherries themselves. However, when consumers pick cherries, they face the choice of independently built cherry picking gardens by growers. Although a large-scale picking market has been formed, there is still non benign competition among various growers. One is the inability to balance prices, and the other is geographical factors, which cause consumers to overcrowd some planting areas due to price choices or location choices when picking cherries, while others are sparsely populated, creating a bad experience for consumers to play, so when the brand construction has sufficient scale, it is possible to choose to collaborate with local growers and treat the entire cherry ditch as a harvesting entity, allowing consumers to choose suitable planting areas for picking through official reasonable recommendations when picking in person.

Finally, there is a collaboration with other local brands. The short duration of cherry fruit ripening has led to a large number of consumers only thinking about cherries during the fruit ripening period. Therefore, the brand needs to collaborate with other local industries to provide consumers with relevant cherry derivative options outside of the cherry fruit ripening period. There are many local tourist attractions in Luoyang, and the method of co naming with the attractions is adopted, so that consumers can still learn about the brand and products of Luoyang cherries in other attractions, even if they do not play in Cherry Valley. For example, they can co name with the Luoyang Museum or launch drinks or pick coupons with the Sui and Tang Luoyang City ruins. The advantage of this approach is that it can avoid consumers' monotonous gaming experience, while also improving the brand and co branded parties' visibility.

In the previous description, taking Luoyang Cherry as an example, the development guidance of the brand was mainly selected from two directions: brand development and cultural tourism integration. In rural China, which accounts for 57.59% of the total land area of China, it can be seen that China's agriculture still accounts for a large proportion of development, and many cities have their own unique specialties as agricultural cities, however, due to the fact that the focus of a large number of rural development is on how to use industry to provide new avenues for rural economic development, there is little emphasis on establishing a complete brand for agricultural product development. So the same development model can still be applied to other cities in China with their own agricultural and cultural heritage.

For example, the chestnut composite cultivation system in Qianxi County, Hebei Province. As one of the origins of chestnut, many regions in China have chestnut industries, but the composite cultivation system is only available in Qianxi County, Hebei Province. Therefore, if you want to stand out in China's chestnut industry, Hebei Qianxi chestnut can also use the same brand development model as Luoyang cherry.

Firstly, establish one's own brand positioning, whether chestnuts have the potential to be made into high-end products, what class are the majority of consumers of chestnuts, and what cultural role chestnuts have played in the history of the chestnut industry in Qianxi County, Hebei Province. Therefore, after conducting appropriate field investigations, choose packaging designs that are suitable for the current chestnut, and incorporate famous geographical indications in Hebei or the surrounding areas of Qianxi into the design. At the same time, by leveraging the local economy to establish a chestnut brand, choosing to promote on e-commerce platforms after the industry has formed its scale, and combining with other local cultures or attractions for collaborative creativity, not only can the sales platform of chestnut be expanded, but also can bring promoting effects to the economic development of Qianxi County, Hebei.

In summary, the current agricultural development in China not only requires the careful cultivation of growers, but also requires the creation of appropriate packaging designs for the products themselves and derivatives in combination with local policies. Packaging design, as one of the most intuitive consumer experiences, is very necessary, and whether the packaging design is excellent directly affects the popularity of products and the recognition of similar products, after improving the packaging design, choose a promotional platform based on the development of the product itself. Whether it is an e-commerce platform anchor for sales or seeking endorsers to promote, the required product packaging must be unique or in line with the public's aesthetic. Finally, combine local or peripheral regions or other brand enterprises that hope to cooperate for joint promotion, which can not only achieve a win-win effect, it is also possible to increase product recognition and awareness in areas outside the industry where the product is located.

5.3 Discussion

5.3.1 Development and improvement of food packaging

At present, food packaging design is mostly limited to flat packaging. In the later development of packaging design, interactive experience design can be appropriately combined. Packaging design combines bionics or augmented reality technology to further highlight materials. Conceptually, interactive experience design mainly lies in the bidirectional transmission relationship between consumers and products, through the packaging process of the product, more information can be presented to consumers in a short period of time on the appearance, development background, and potential value expansion of the product. Consumers can also provide feedback to the product manufacturer through packaging on a series of emotional resonance or purchasing desire generated by the product.

There are various packaging designs, but the information conveyed on the packaging is limited. The main significance of packaging lies in the brand's consumption memory of the consumer group. In terms of regional characteristic

culture, the efficiency of this output is the key to whether the packaging is suitable for the current market, and how to combine regional characteristic culture with product information to transmit to consumers through packaging, providing consumers with a unique purchasing experience that sets them apart from other brands during shopping, creating a certain level of word-of-mouth through unique purchasing experiences, and then spreading this word-of-mouth in the market, is the use of interactive experience design.

At present, China's technology is developing rapidly. In 2015, the arrival of the 4G era brought about the growth of live streaming and self media platforms. These two industries are still important modules for promotion and development, and the 5G era has become popular. The impact of 5G on the market has not yet been fully explored, and the current augmented reality technology called AR has strong adaptability to 5G technology. By utilizing the high-speed traffic of 5G reasonably, integrating unlimited information into limited packaging, the interaction between consumers and packaging is not only about selecting and identifying products before purchasing, but also requires consumers to generate expectations and purchasing desires for the subsequent "subsequences" of the product or related derivatives of the same IP.

In terms of packaging, the original design of packaging, packaging body shape design, materials used in packaging, and font design on packaging are all presented from a two-dimensional direction, presenting visual and tactile intuitively to consumers. However, if combined with three-dimensional aspects, multiple senses can be utilized through AR. For example, when consumers are interested in packaging, scanning the packaging QR code can enter the product introduction interface, a product with a profound development background can be presented to consumers in a more three-dimensional manner, and products with regional characteristics not only contain the cost value of current products, but also play the role of rich historical and cultural carriers. By studying design strategies, the two-way interaction of interactive experience design can be more perfect, and combined with a series of cultural and creative works, the products will be scaled and integrated from both historical and market value perspectives, maximizing the cultural image. By maximizing the use of packaging space, art and consumer emotional guidance for products are integrated into packaging design.

5.3.2 Brand development combined with local culture

In the development of a brand, there will be competition from similar brands, and at the same time, it will not always be at its peak during the development process. Taking Luoyang Cherry as an example, from April to May of each year is a period of abundant harvest. However, once this period is passed, the marketing of Luoyang Cherry will only be limited to cherry derivatives, because for consumers, a large part of the consumption impulse for cherry sales comes from the freshness of the fruit, when fruits enter the growth stage, sales will definitely be affected. However, due to the long interval between cherry fruit stages, in order to drive the revenue of cherry related products even when cherries are not mature, it is necessary to choose appropriate methods to increase the popularity of cherry products when there is a marketing gap, that is, to choose suitable local cultural industries for joint sales.

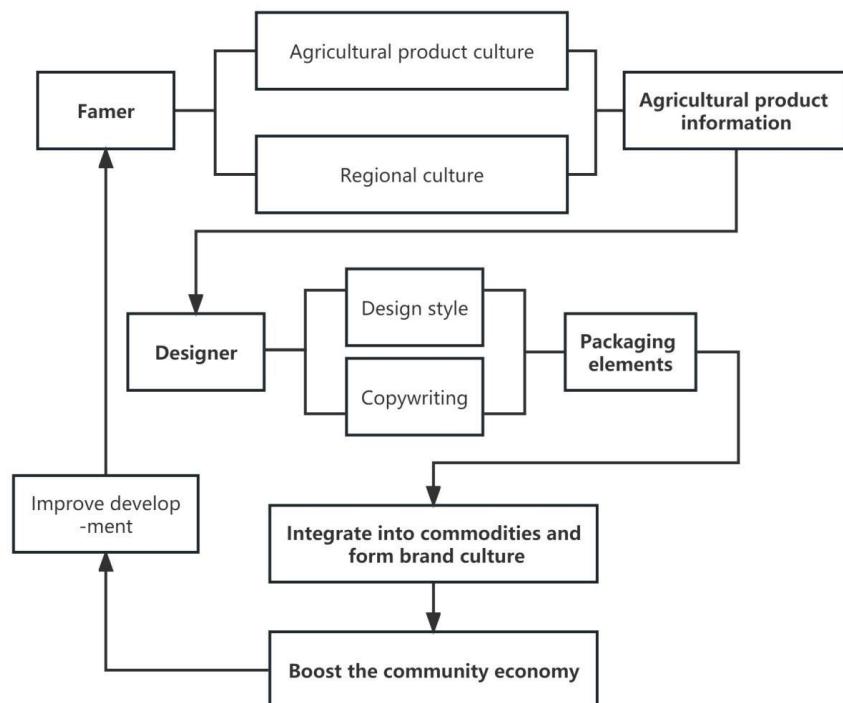
In the city of Luoyang, there is an extremely rich history and culture. As the capital of ancient China, it not only has rich history and culture, but also has a

large number of historical relics. The development of Luoyang is carried out in multiple threads simultaneously, and there is no exact positioning in agricultural cities, industrial cities, and tourist cities. Therefore, when promoting local tourism, cherry related derivatives can serve as local specialties and hand gifts to enrich tourism experiences.

According to the research conducted in this article, integrating packaging design into the development of agricultural cultural heritage can bring benefits to the local economy. (He Xiaorong 2023) The development model can be summarized as follows

Table 3 Development model

Source: made by researcher.



5.4 Suggestion

5.4.1 Packaging development of cherry packaging combined with regional economy

In the development of Luoyang, the development of agriculture needs to demonstrate obvious economic value in order to have a suitable promoting effect on farmers and other growers. In combination with the regional economy, the following four points need to be achieved.

(1) The government strongly supports farmers in planting cherries locally. Farmers are more concerned about whether they can provide sufficient fruit production and whether the market has sufficient demand for the cultivation of agricultural cultural heritage. Therefore, with government assistance, farmers will be more willing to stay in the local area to plant cherries instead of choosing to work in developed cities, ensuring sufficient production of raw materials. At the same time, the government can also choose to intervene in the industrial chain, the government

purchases cherries and distributes them to specialized brand companies for operation, in order to solve farmers' worries. While ensuring the production of raw materials, the government can no longer intervene when the brand is mature, allowing the brand to gradually grow.

(2) Enhance the cultural confidence of cherries among the people of Luoyang city. As an important development brand in the local area, it is first necessary to establish a good brand reputation among the local people. After improving the cultural confidence of the people of Luoyang in the development of cherry, they can promote the cherry brand more naturally through the travel of the people of Luoyang. When the local people of Luoyang understand the cultural development, they will have stronger confidence in the local area and more effectively enhance the cohesion of the people of Luoyang and even the region.

(3) The subsequent development will draw on the development experience of foreign fruit brands. Through the subsequent development of the cherry brand, it is necessary to experience market progress, that is, transitioning from the domestic market to the international market. The Red Fuji Apple brand built in Japan has been recognized by consumers around the world, and its taste can meet the different needs of consumers in the market. The reason is that Japan has adopted a brand differentiation strategy when building regional brands for Red Fuji Apple, which can make the desired brand more distinctive in the development process.

(4) Reasonably utilizing other forces to integrate local characteristic development industries with agricultural cultural heritage, preferably local characteristic enterprises, can strengthen the economic development of local industries. Whether it is combined with local tourism economy or other local specialties, the ultimate goal is to increase product awareness. If local industries are unable to drive due to insufficient influence, they can collaborate with other regional industries on the premise of gradually improving brand development, and reasonably utilize the development advantages brought by influence.

5.4.2 Suggestions for the development and utilization of agricultural cultural heritage

According to the definition of FAO, The globally important agricultural cultural heritage is a unique land use system and agricultural landscape formed under the long-term synergistic evolution and dynamic adaptation of rural areas and their environment. These systems and landscapes have rich biodiversity and can meet the needs of local socio-economic and cultural development, which is conducive to promoting regional sustainable development. The definition of important agricultural cultural heritage is inherently interrelated and complementary to the protection and development of agricultural cultural heritage. China is not only one of the four birthplaces of global civilization, but also a traditional agricultural power. China has a long agricultural history, and the rich farming methods and unique agricultural civilization created over thousands of years are unparalleled by any other country. Therefore, the development and utilization of agricultural cultural heritage must prioritize protection as the principle, and protection is the purpose. Only by fully protecting agricultural cultural heritage can we ensure its complete inheritance. Protecting the authenticity and integrity of agricultural cultural heritage is of great strategic significance for China's social, economic, political, and cultural development. Based on protection as the premise, make limited and reasonable use,

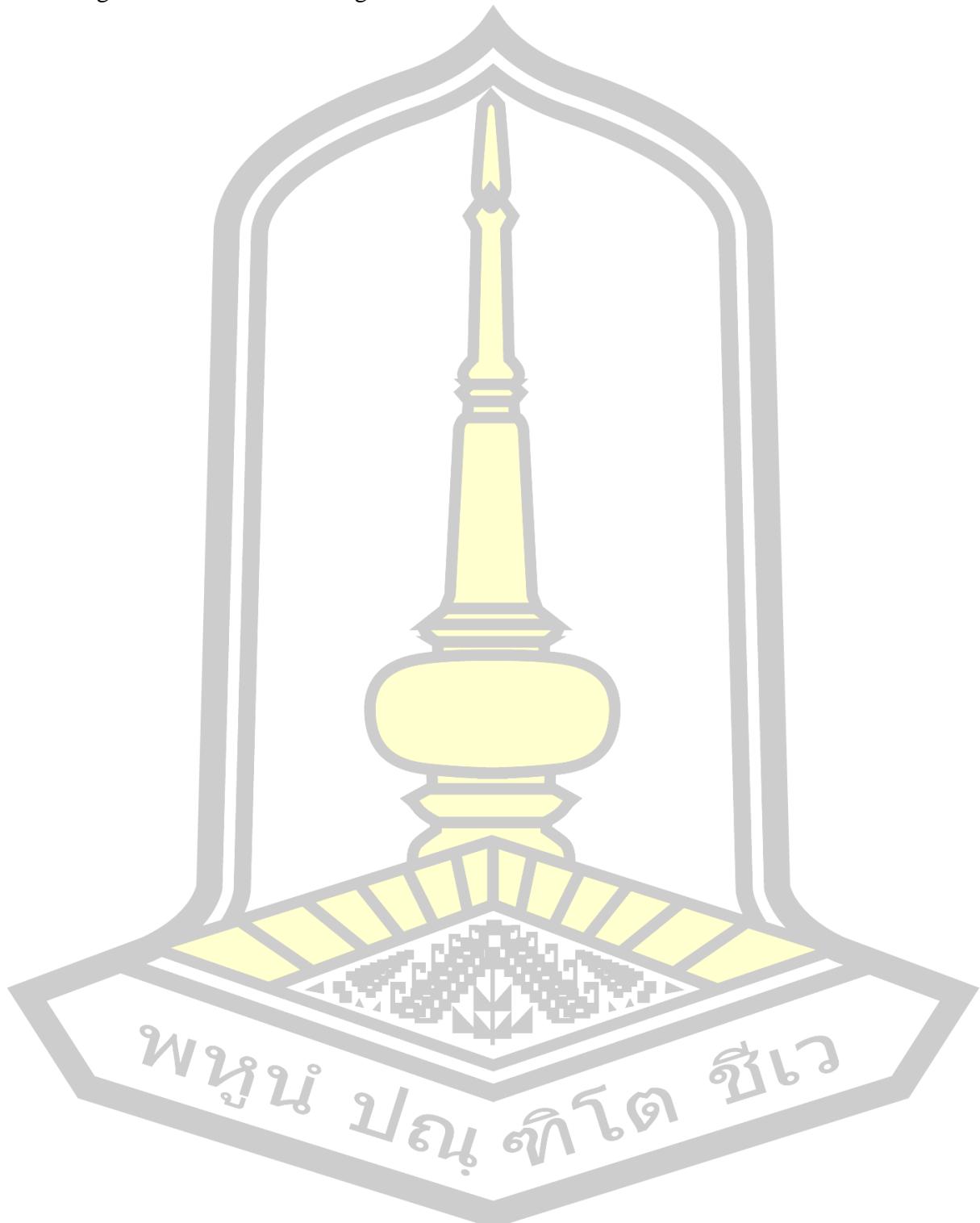
handle the relationship between protection and utilization, and the purpose of development is to better protect.(Xiaohui 2023)

So in the subsequent development of agricultural cultural heritage, it is first necessary to adhere to the principle of scientific development. The protection and development of agricultural cultural heritage are still in the initial stage of development at home and abroad, and although a complete system has not been formed, there is already some accumulation. In the relevant research currently known, most scholars consider agricultural cultural heritage as a resource, evaluate its value, and then propose development and utilization strategies. The development and utilization of resources must follow the principle of scientificity. Therefore, the protection, utilization, planning, decision-making, and management of agricultural cultural heritage must be based on scientific research. Only in this way can appropriate heritage development methods and approaches be selected based on the specific conditions of agricultural cultural heritage under the premise of resource and value protection.

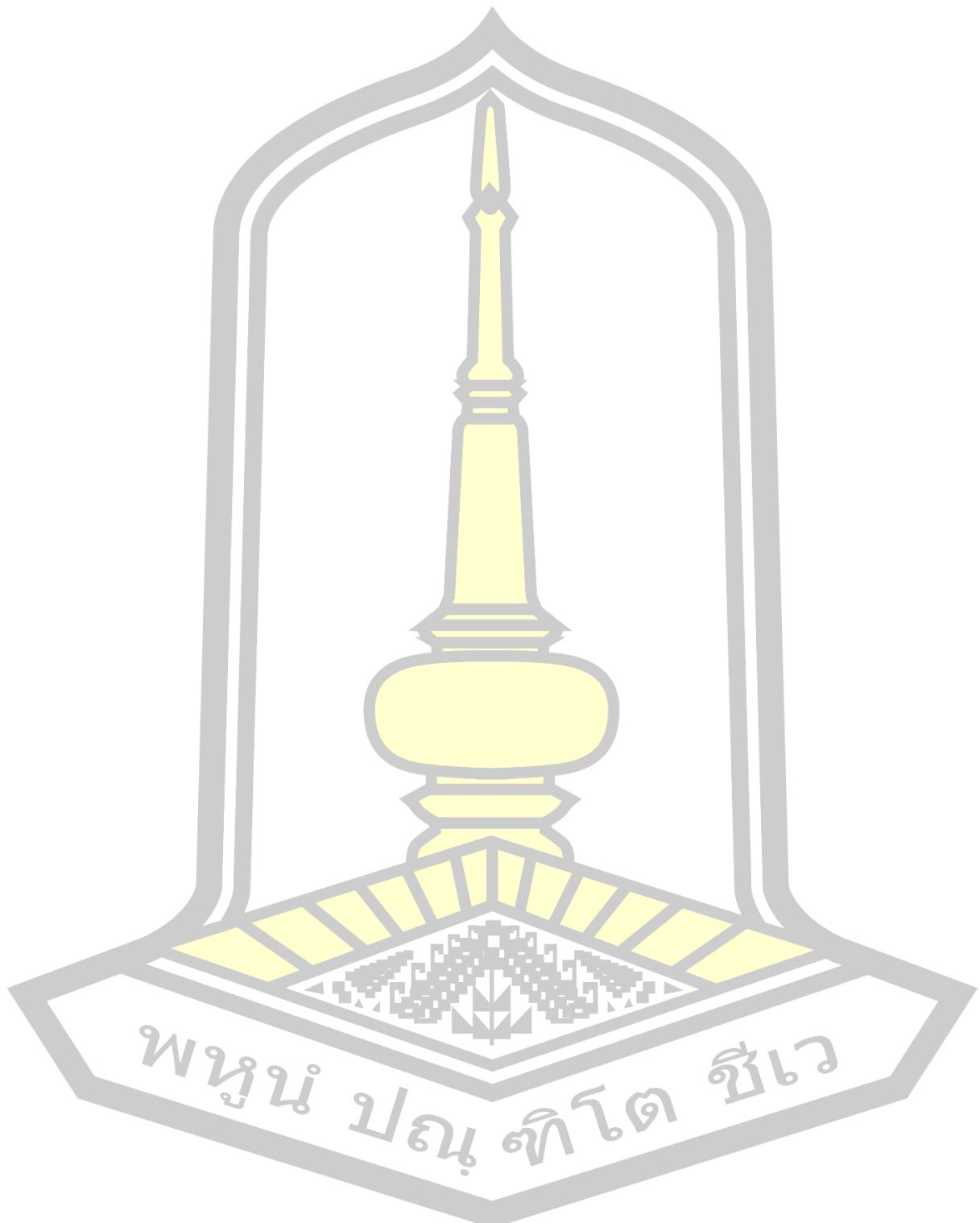
Under the premise of scientific development, the development of agricultural cultural heritage can further use its own cultural value as a medium to establish an ecological museum of agricultural cultural heritage. The development model of ecological museums is also one of the effective ways to develop and utilize agricultural cultural heritage. However, there is currently little research on ecological museums, and there is no systematic development of ecological museums. Only basic research has been conducted on the concept and characteristics of ecological museums. Teacher Ma Cunli pointed out that ecological museums are "living museums" without walls, emphasizing the authenticity, integrity, and originality of cultural heritage, protecting natural and cultural resources within the community, and serving residents of agricultural cultural heritage sites as well as visitors. Teacher Wang Jiou pondered on the value of ecological museums in the protection of agricultural cultural heritage and the establishment of ecological museums. He proposed that the ecological museum model is conducive to promoting the protection and inheritance of agricultural cultural heritage and achieving resource aggregation. Teacher He Jianwu takes the Longsheng Longji Terrace in Guilin as an example and proposes that the establishment of an ecological museum should be based on an agricultural ecological composite system, combined with the local ethnic minority culture, to showcase the local living cultural heritage.

Agricultural cultural heritage not only has economic value, but also has cultural and educational value. By establishing an ecological museum, systematically exploring the historical, cultural, educational and other social values of agricultural cultural heritage, making great efforts in live display, promotion, and scientific research utilization, exploring sustainable utilization models and multi-party participation and benefit sharing mechanisms, and strengthening the capacity building and social participation level of agricultural cultural heritage protection. At the same time, we will increase publicity efforts, continuously enhance the protection awareness of the whole society, and actively create a favorable atmosphere for the protection, inheritance, and development of Dapu Agricultural Cultural Heritage. Develop the agricultural cultural industry, systematically organize traditional agricultural knowledge and technical materials, and build agricultural cultural heritage ecological museums and research and education demonstration bases with local

characteristics, providing a stable protection foundation for the inheritance of agricultural cultural heritage.



REFERENCES



REFERENCES

Degang, W. (2013). "Tourism Survival and Industrialization Development: A Study on the Protection and Utilization Models of Agricultural Cultural Heritage." *Journal of Shandong University (Philosophy and Social Sciences Edition)*: 9.

Deng Feifei, W. L. (2023). "Research on the Development of Agricultural Cultural Heritage Research Travel Curriculum - Taking the Traditional Breeding and Utilization System of Freshwater Pearl in Deqing, Zhejiang as an Example." *Zhejiang Agricultural Science*.

Gong Chengwei, H. T., Li Shan, Li Meng (2023). "Research on packaging design of local characteristic agricultural products under the background of rural revitalization strategy." *Daguan*: 3.

He Xiaorong, S. J., Xu Haichao (2023). "A Study on the Driving Mechanism of Agricultural Cultural Heritage Tourism on Rural Revitalization." *Resources and Environment in Arid Areas*: 8.

Hou Chu, L. J. (2023). "Research on Ecological Design Strategies for Agricultural Product Packaging in the Context of Rural Revitalization." *Footwear Technology and Design*: 3.

Hu Zhongying, T. C. (2023). "The Narrative Expression of Regional Culture in the Design of Specialty Food Packaging: A Case Study of Guizhou." *Design*: 4.

Li Honghong, R. H., Yang Yameng, Zhang Guotai (2021). "Introduction performance and cultivation techniques of 'Qizao' cherry in the hilly area of Luoyang." *Journal of Fruit Tree Resources*: 3.

Lin Xiaoxian, L. W., Zhang Zheng, Lyv Weibo (2023). "Analysis of research hotspots and trends in the protection of agricultural cultural heritage." *Journal of Agriculture*: 8.

Linzhi, J. (2023). "Exploring the Application of Art Elements in Food Packaging Design." *China Food*: 3.

Lishi, Z. (2023). "Rural Food Packaging Design under the Background of Cultural and Tourism Integration." *Food and Machinery*: 1.

Peng Guanqi, L. T. (2023). "Research on Food Packaging Design from the Perspective of Emotional Experience." *Journal of Jilin Agricultural Science and Technology College*: 4.

Qiu Jianmin, T. J. (2023). "Building a Thinking Path to Assist in Solving Comprehensive Agricultural Problems - Taking the Protection and Utilization of Agricultural Cultural Heritage as an Example." *Teaching Examination* 36: 5.

Ren Hongwei, W. X., Zhang Guotai, Liu Xinli, Ding Mitian (2012). "Investigation Report on the Development of Big Cherries in Luoyang City." *Friends of Fruit Farmers*: 2.

Shuai Yuanyuan, Y. Y. (2018). "Key points of cultivation techniques for large cherry in Luoyang area." *Agricultural Engineering Technology*: 2.

Song Yuankai, S. M., Song Zhenyuan (2023). "Analysis of Color Psychology in Food Packaging Design." *China Food*: 3.

Wang Bojie, H. S., Min Qingwen, Yang Lun, Shu Xinyue, Yang Xiao (2023). "Research on the Development Potential of Agricultural Cultural Heritage Research Travel: Taking the Traditional Freshwater Pearl Breeding and Utilization System in Deqing, Zhejiang as an Example." *Zhejiang Agricultural Journal*: 16.

Xiaohui, X. (2023). "Continuously Strengthening the Brand Effect of Agricultural Cultural Heritage Sites." *China Agricultural Resources and Zoning*: 2.

Xiqiu, W. (2023). "Research on the Application and Design of Yimeng Regional Culture in Agricultural Product Packaging." *Shandong Institute of Arts and Crafts*.

Xu Fei, J. J., Zheng Peng (2023). "Research on Food Packaging Design and Practicality Based on Traditional Culture." *China Food*: 3.

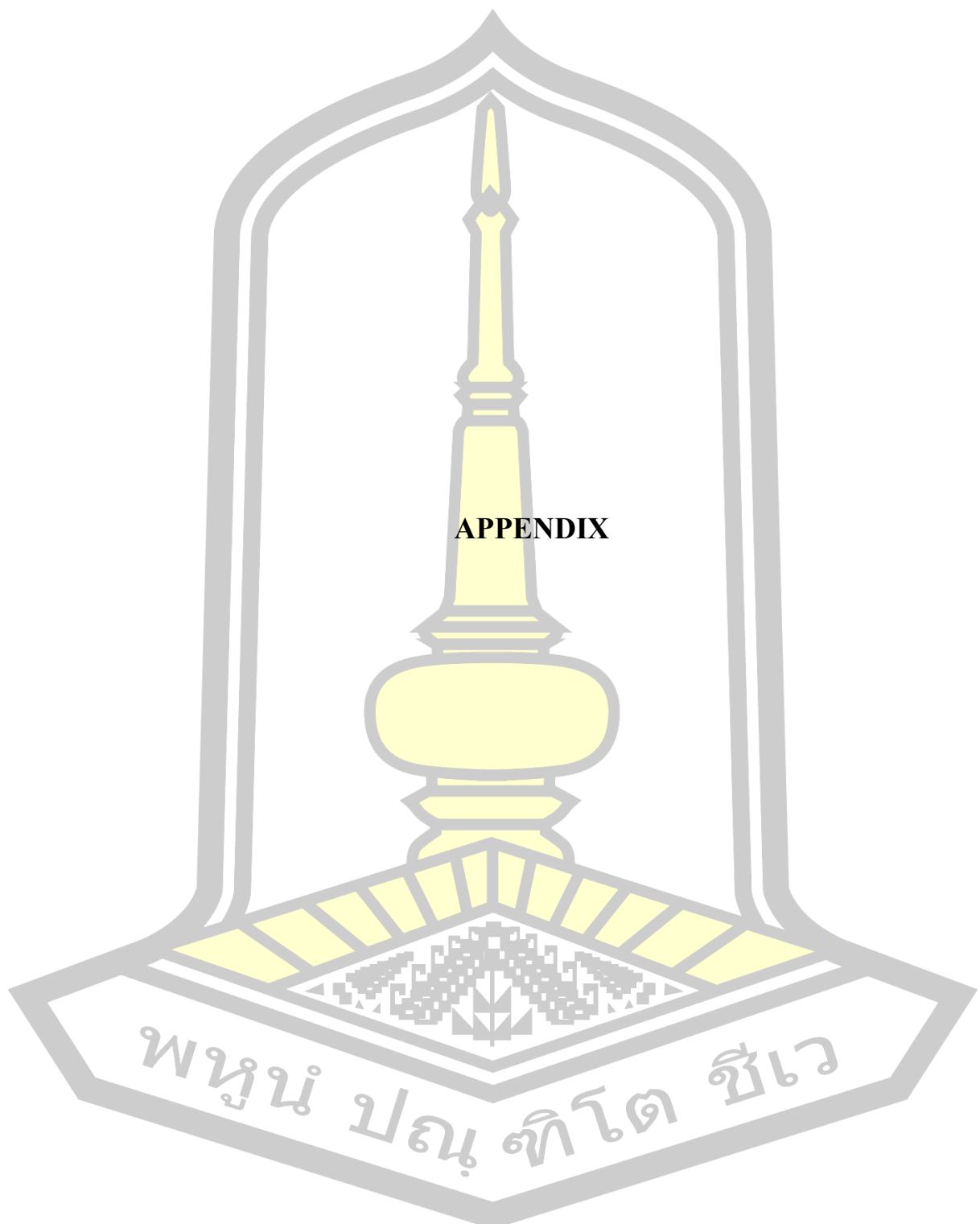
Yuanyuan, D. (2023). A Study on the Co creation of Tourism Value of Hani Terraced Agricultural Cultural Heritage Site in Yuanyang. *Yunnan University of Finance and Economics, Yunnan University*.

Yue Huixin, C. D., Wu Hao, Fu Hanjun, Yang Yingjun (2021.02). "Quality and Benefit Analysis of Cherry Facilities and Open Field Cultivation in Luoyang." *Hubei Agricultural Science*: 4.

Yushen, L. (2007). "Research on Key Techniques for Efficient Cultivation of Early Fruit of Big Cherry in Luoyang Area." *Anhui Agricultural Bulletin*.

Zhuming, H. (2023). "Research on the packaging design of characteristic agricultural products under the strategy of rural revitalization." *Packaging Engineering*: 5.

Zou Ailei, Y. J. (2023). "Exploring the Mechanism for Realizing the Ecological Value of Global Important Agricultural Cultural Heritage - Taking the Rice Fish Symbiosis Model in Qingtian County as an Example." *Zhejiang Land and Resources*: 3.



Name	Age	Gender	Living City	Profession	Date
01	Do you purchase cherries when cherry fruits are on the market?				
02	If the price is suitable, will you purchase cherry fruits when you see the packaging you like?				
03	Would you purchase products with higher prices for cherry derivatives?				
04	Would you purchase cherry products as a gift for others?				
05	What conditions do you value more for food packaging?				
06	Which type of food packaging do you prefer?				
07	Do you usually purchase fruits through online or offline platforms?				
08	If Luoyang cherries launch a specialized brand, would you prefer to purchase cherries with brand guaranteed quality (slightly expensive) or bulk cherries sold by merchants alone (relatively cheap)?				



Name	Age	Gender	Living City	Design Field	Date
01	Do you often come into contact with food design during your daily design?				
02	What do you think is the current popular style for food packaging design?				
03	Do you often come into contact with fruit packaging design in your daily work?				
04	What positive role does a brand have in the value of packaging design?				
05	Do you think the cherry product has value in packaging design?				
06	If you need to combine the concept of agricultural cultural heritage, how would you design it?				
07	Do you think the packaging design of cherries has any significance for the development of local brands in Luoyang?				
08	Can packaging design promote regional economic development?				



Name	Age	Gender	Living City	Time to Plant Cherries	Date
01	What is the biggest concern about cherry cultivation on weekdays?				
02	Are you satisfied with the government's subsidies for agricultural cultivation?				
03	Do you care about the sales channels of cherries, or do you need stable sales channels?				
04	Can it be accepted for enterprises to purchase cherries in a relatively low but stable manner?				
05	What are the customer's requirements for high-quality packaging of cherries when shipping? Please list the requirements.				
06	If there are exclusive cherry supply enterprises in the local area to expand the planting scale of cherries, are they willing to participate?				
07	Are you willing to let your descendants continue planting cherries?				
08	Do you think that in the future development, the cherry planting industry will be replaced by other agricultural industries?				

The above questionnaire survey is mainly distributed to three categories.

1. Consumers with purchasing power.
2. Designers engaged in design work.
3. Farmers who grow cherries.

អនុវត្តន៍ បន្ទាន់ ខ្សោយ

Name of Interviewee

List of interviewees

Key Informants			
Number	Name	Age	Career
01	Guo Yun	37	Doctor
02	Wang Xilong	27	Teacher
03	Chen Ao	38	Full-time designer
04	Chang Shaoxian	36	Advertising designer
05	Ding Zhaofei	45	Cherry grower
06	Li Fan	42	Cherry grower

Casual Informants			
Number	Name	Age	Career
01	Li Jiaxiang	35	Lawyer
02	Liu Mengmeng	32	Merchant
03	Pan Siyu	34	Teacher
04	Sun Xingzhou	29	Doctor
05	Wan Jiabao	34	Nurse
06	Wang Guoxiang	29	Teacher of design
07	Jia Junyi	31	Teacher of design
08	Qiao Yuan	29	Font advertising designer
09	Zhang Jiawei	32	Illustrator
10	Liu Kai	33	Illustrator
11	Huang Tianyin	33	Cherry grower
12	Yuan Yixin	35	Cherry grower
13	Wang Jiahao	30	Cherry grower
14	Zheng Xiangwen	32	Cherry grower
15	Liu Jun	30	Cherry grower

General Informants			
Number	Name	Age	Career
01	Wu Na	32	Teacher
02	Xu Yuan	34	Teacher
03	Mr.Zhang	29	Doctor
04	Zhao Shijie	34	Merchant
05	Zhou Shuyu	27	Nurse
06	Zhang Zihao	38	Advertising designer
07	Lu Yun	36	Advertising designer
08	Zhong Wanyu	45	Advertising designer
09	Tao Zhenghao	31	Full-time designer
10	Bai Weihao	33	Font advertising designer
11	Du Wenyu	25	Farmer
12	Liu Jicheng	35	Farmer
13	Lyu Shaoqin	29	Cherry grower
14	Xu Heyu	31	Cherry grower
15	Ma Wenbo	28	Cherry grower

BIOGRAPHY

NAME

Mr. Mengke Lyu

DATE OF BIRTH

October 11, 1999

PLACE OF BIRTH

Henan Province, China

POSITION

Teacher of design

EDUCATION

2017 Nanyang No.2 High School
2021 Luoyang Institute of Science and Technology
2023 Master of Arts Degree in Cultural Science (M.A)
Major in Cultural Science Mahasarakham University in Thailand

Research grants & awards

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Research output

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