

# Research on the package design of longan product based on the theory of 'locality'

Xinyi Mao<sup>1\*</sup>, Hao Wu<sup>2\*</sup>, Shan Chen<sup>3</sup> and Zhi Li<sup>4</sup>

<sup>1-4</sup> College of Fashion and Design Art, Sichuan Normal University (SICNU), Chengdu, Sichuan, P.R. China

**Abstract.** An appropriate package design could illustrate the use of product and its origin, as well as the respect to the customers. This paper explores investigation research and the design method of cultural symbols of agricultural products in Guandu Village, Luzhou City, Sichuan Province using the theory of 'locality'. To develop the agricultural products and the package design, authors investigated in Guandu Village locally and analysed the current situation of longan fruit by conducting in-depth interviews and exploring the local environment. The design method in this paper based on the theory of 'locality', authors deeply investigated the local people and culture. Then selected and translated the local symbols and patterns into design elements. The illustration of longan product and its package design – Guanduyuan, the brand name is shown at the end. Authors also proposed the innovated solutions to the sales of Guanduyuan brand.<sup>1</sup>

Keywords: theory of locality, agricultural product design, package design

## 1 Introduction

Guandu Village covers an area of 6.05 square kilometres. There are 1,298 farming households, with a total population of 4,312, a resident population of 2,326. Guandu community longan sales are facing difficulties, according to online sales, the data shows that longan sales are declining year by year, the dilemma for the villagers are most worried about the problem. At present, the best-selling longan in the market is Fujian longan, with monthly sales of up to 100,000+, while Guandu longan has a maximum monthly sale of only 1,000 units.



**Fig. 1.** Workflow of design in this paper.

The workflow of this paper is shown in Figure 1. The art form of local design is inseparable from the environment, and it allows people to feel the connection between the history, culture and reality of the region, and serves as a carrier of the humanistic environment that carries the spirit of the locality. In a fiercely competitive market environment, packaging

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\* Corresponding author: [h\\_wu@sicnu.edu.cn](mailto:h_wu@sicnu.edu.cn)

design is crucial for product sales. Innovative packaging not only brings convenience to consumers, but also profits to producers [1]. In the market, unique brand packaging can make it easier for consumers to notice and choose the product, thereby enhancing the market competitiveness of the enterprise [2]. The 'Design for Poverty Alleviation' programme was launched, with packaging design for agricultural products as the main means of support. Improve and upgrade the traditional packaging of agricultural products, promote the creation of new agricultural management bodies, promote the development of agricultural modernisation, and improve the economic income of farmers [3]. Locality is integrated into the packaging design, and the main localised elements highlighted in the packaging design are 'Guiyuan', 'Luzhou' and 'Guandu Village'.

## 2 Theory of Locality

Usually, the design methods, such as the waterfall approach, Collaborative design approach, and Double Diamond method are used to conduct the product design. For example, the waterfall model allows a complete product development task to be broken down into a number of well-defined sub-tasks and processed in a continuous flow from one step to another [4]. It strictly follows a process consisting of a series of consecutive phases from the definition phase to the design phase and the implementation phase, and its overall resemblance to a waterfall process requires the completion of process tasks in each phase before the next phase of development can be carried out, in order to achieve the purpose of implementing the entire product development task [5]. Collaborative design approach is an important direction of the current design industry technology update, but also the inevitable trend of the development of design technology [6], through the collaborative design to establish a unified design standards, including layers, colours, line-types, print styles, etc., based on which all the design professionals and personnel in a unified platform for the design, so as to reduce the existing between the various professions (as well as within the profession) due to miscommunication or untimely communication led to the error, leakage, touching, lack of, and truly realize the singularity of the information element of all the drawings to achieve a modification of the other automatically modified, to enhance the efficiency of the design and the quality of the design [7]. The Double Diamond model, which depicts the process of divergence and contraction in the design process, was proposed by the British Design Council as a mode of thinking used by designers [8]. At the heart of this design model are: identifying the right problem and discovering the right solution. It is generally applied in the requirements definition and interaction design phases of the product development process [9]. In addition to the exploration of 'locality' in the field of architecture, there are also thoughts and explorations of 'locality' in the fields of film and television industry, local exhibition industry, community cultural and creative industries, and so on [10].

Exploration and application of locality design in domestic art and countryside construction: The local nature of the countryside provides a reference for the formulation and implementation of artistic rural construction. From the perspective of regional culture, through the refinement and summary of cultural symbols and visual symbols, the unique cultural cohesion in the design, so that the audience to produce better associations, enhance the audience's brand adhesion, explore the brand in the modern fusion of multiple symbols of the narrative ideas and reconstruction path, to promote the transformation and development of the brand culture and promote the excellent traditional Chinese culture [11].

The value of locality At the level of cultural value, local culture is a manifestation of a people's unique living habits and cultural traditions formed by specific geographical environment, climatic conditions, natural resources and other factors. Taking this as an opportunity, the authors can stimulate the vitality of rural art construction and promote the development of the countryside and the sustainable development of the countryside [12]. In June 2006, the 'bamboo paper making technique' of Sichuan Jiejiang was included in the first batch of national intangible cultural heritage list announced by the State Council. The complexity of the process is closely related to the unique natural conditions of the region and the various

craft processes, and is the result of the accumulation of experience passed down from generation to generation and the continuous invention and improvement in the process of labour practice [13].

### 3 A survey

The specific investigation contents are: population size, residents' living conditions, specific characteristics of speciality industries, and the impact of ecosystems on speciality industries. In the choice of location and object of the survey, the location is Guandu Community, Jinlong Town, Luzhou City, Sichuan Province, and the object is villagers of Guandu Community. The investigation methods were field survey method, image recording method and participant observation method.

After arriving at Jinlong Town, Guandu Village, Luzhou City, and entering the Guandu Community Service Centre, the first activity was a presentation of the government policy [14] (as shown in Figure 2). Then the teaching about TikTok was conducted.



**Fig. 2.** Field survey and Dried longan on the tree.

Based on the fieldwork as well as the interview survey, it was concluded that the biggest problem currently facing the Guandu Village area is that a marketing solution regarding grafted longan in the area has not yet been implemented. They are faced with a new and difficult problem: the production has increased, but they cannot sell it, so they cannot do anything about it but let it die out on the trees, which makes their hearts ache with pain.

### 4 Analysis of solutions

The main business idea is to understand the market, enter the market, operate the market. Market research, understand the main needs of today's market, the product of each season, and compare. The initial stage of the business is publicised in a certain way to increase awareness. Through the initial information on the market, figure out what kind of sales you want to do at that time, make full use of the funds accumulated in the early stage, and start to realise independent production.

## 4.1 Design process

### 4.1.1 Translation of cultural symbols



**Fig. 3.** Sketches of translation of cultural symbols and Instructions for illustration.

The main purpose of this project is to design longan packaging, so it combines the transformation of longan cultural symbols with the creation of elements of longan and embodies the theme in modern language. The transformation of cultural symbols is based on photos taken by documentary photography, and representative forms are selected - the ripe and full state of longan and the half-peeled state of longan, and the graphic transformation of cultural symbols is completed through the process of image sampling and line drawing transformation. An excellent graphic symbol will not only make the brand more vigorous, but also attract the audience, increase the communication strength and promote consumption [15].

**Table 1.** Embodiment of the significance of traditional patterns integrated into modern logo design teaching [16].

Presentation	Description
The traditional culture	Contribute to the modern dissemination and inheritance of traditional culture
Education	It can improve the efficiency and quality of education

### 4.1.2 Graphic Design

These three cartoon paintings depict three ways to use longan (as shown in Figure 3). The design elements emphasise abstraction, simplicity and symbolism. One of the advantages of flat style is that it can display the information and the way things work in a more simple and direct way, and reduce the cognitive barrier[17]. Narrative design can make the work more emotional, cultural and able to show personal style[18]. Narrative design is a design technique that presents the content of a design in a way that tells the story the creator wants to tell, rather than just designing for function. Narrative elements are incorporated into the design to create an emotionally resonant and engaging user experience by conveying the storyline through multiple mediums such as images, text, audio and video [19].

The graphic design includes the localised design of the cinnamon elements, the brand logo design and the drawing of the instructions for use.



**Fig. 4.** Element design with Luzhou as the symbol 、 Production information and production license and Colouring cultural symbols.



**Fig. 5.** Graphic Design.

#### 4.1.3 Packaging design dimensions and illustration

The gift box packaging is made of thicker cardboard material with a thickness of 3mm and a size of 320\*260\*40mm. The express packaging material is made of corrugated cardboard material, thickness is 3.5mm, size is 640\*260\*200mm. The product packaging bag is made of OPP plastic bag material, the size is 260\*150mm.



**Fig. 6.** Packaging design illustration.

## 5 Conclusion, limitation and the future work

In this paper, the theory of 'locality' was applied into longan product and package design. Authors firstly investigated Guandu Village, interviewed the people and the community, and selected the design features locally. The product and package design illustration were shown. Taking Guandu Village as an example, by solving the problem of its longan sales and thus increasing the villagers' income, it has injected a strong kinetic energy to promote the overall progress of rural areas and increase farmers' production and income and led the villagers to build a better life together. This paper has limitations. In the future, the final designs are required an evaluation from the customers as well as the experts. The improvement of the professional level of product packaging design will also greatly improve the economic development of rural e-commerce, innovate the local economic and cultural development, strengthen the optimisation of the business environment, improve the commercial value of products, and thus strengthen the core competitiveness of rural areas [20].

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