

# Research on Culture Code Deployment in Product Design

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## Abstract

This research discusses how products utilize culture codes in order to establish their cultural characteristics and achieve product differentiation. From relevant theories and literature, we have determined the items for analysis, analyzed the cultural model space of products, the locations of the usage of culture codes in products, and discussed their internal aspect, middle (behavioral) aspect, and external (appearance) aspect based on where a product is located. In the end, we determined that the alcoholic products delivered by the Shin-Yi Hsiang Farmers' Association utilized (1) traditions of the Bunun people, (2) traditional alcohol-making techniques, (3) abundant crops, and (4) ethics for expressing the local features of Shin-Yi Township's products, to make an impression upon consumers about the local cultures, and to establish a unique product image that is youthful and energetic. The designer of this product has utilized the above-mentioned affect codes, identification codes, style codes, and transmission codes to create an entirely new image of alcoholic products.

Key words: culture codes, product design

## I. Foreword

Culture is the foundation on which designers unleash their creativity, and a design that lacks culture is just like a tree without its roots. The word "culture" has a rather broad meaning in contemporary science. It is the sum of politics, economy, religion, morality, art, literature, customs, and any social capacity or practice. Culture is not just about individuals; it can include attitude in terms of creativity, education, or living (Cheng-Neng Kuan, 1994). Culture includes all types of explicit or implicit behaviors, and it is learned or passed on through the use of signs (Kroeber, A.L.). Culture is a set of codes that are shared by people to guide individual behaviors or to achieve group acceptance. Culture allows people to share a set of codes and allows people

who use different codes to form different groups (Chen & Starosta, 1998).

"Codes" have the implications of "deciphering" and "interpretation" (Yu-Fu Yang, 1998). "Codes" refer to the "rules" in the coding system (Hung-Bo Li, 2003) and are composed of signs and common practice (John Fiske). "Communication" does not only rely on a single sign but also its combination rules and how it is interpreted by people in a certain group. As all communication tools are placed in a single cultural system, we call these tools the "code system". McDermott (1997) believes that future designs need to return to the humanistic and aesthetic perspectives, and technology cannot be used to lead design as it is just a supplementary tool. Future designs would be an integration of art,

culture, and science in order to solve the problems of society and readjust our lifestyle. In the 21<sup>st</sup> century, where there is a focus on digital technologies, it is more important to have designs that are based on “humanity” and expressed through “culture”; this leads to the so-called “cultural creativity design” (Lin et al.,2005).

“Culture codes” are the result of analyzing culture through a generalized semiology. The results include all the rules and features of all forms of expression other than language. The culture codes in design especially focus on the meaning and stories behind signs (folklores) (Yu-Fu, Yang, 1998).

In this study, we mainly discuss how to utilize culture codes to establish cultural characteristics and achieve product differentiation; the products of Shin-Yi Hsiang Farmers’ Association are the focus of our study. Viewing themselves as the “culture promoters of Shin-Yi Township,” Shin-Yi Hsiang Farmers’ Association is actively involved in the development of plum products. They have also utilized many local cultural elements in product design, achieving great popularity among consumers. Consumption is no longer just an economic behavior but a differentiated form of code consumption. How to use culture codes to express one’s features has become an important topic.

## II. Related Theories

### 2-1. Cultural Model and Orientation of Products

“Cultural identification” is aimed at creating cultural qualities in a product to achieve differentiation, and the point is to understand and utilize a culture that is relevant to the product and to give the product an appropriate cultural presentation so it will have certain meanings among its users. The development of “product culture model” proposed by Ming-Chyuan Ho et al. contains three axes: time, space, and cultural

differences. Considering market characteristics, product orientation can either be “creating new culture” or “conforming to existing culture” which lead to 12 different kinds of product culture patterns (Fig. 1).

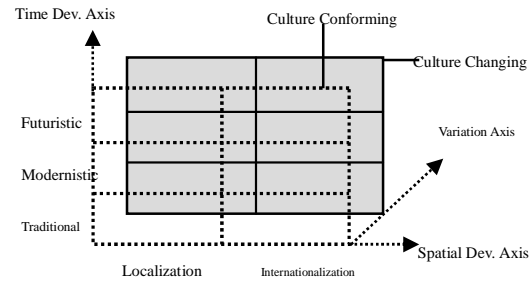


Fig. 1: Product culture model

The establishment of this product’s cultural pattern helps clarifying the meaning of the product; this not only satisfies the commercialized and socialized product demand but also helps designers find the appropriate cultural strategies and models for their products. Moreover, we can understand a product’s cultural background through its maker, designer, and user (Ming-Chyuan Ho, 1997) (Fig. 2).

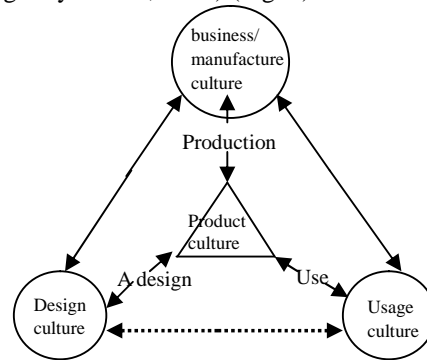


Fig. 2: The construction of product culture

### 2-2 The Characteristics of the Design of Cultural Products

The framework of cultural product design proposed by Leong (2003) is shown as the inverted triangle in Fig. 3 that contains external, middle, and inner cultural spaces. Based on this framework, Hsu et al. added the design factors that should be considered in product design, which

is “the design attribute of cultural products”. In other words, they include (1) external or shape-related aspects – including color, texture, and shape; (2) middle or behavioral aspects – including functions, usage, and convenience; (3) inner or psychological aspects: including special meanings, stories behind a product, and affect (Hsu et al. , 2004). These elements are described in more details below (Fig. 3):

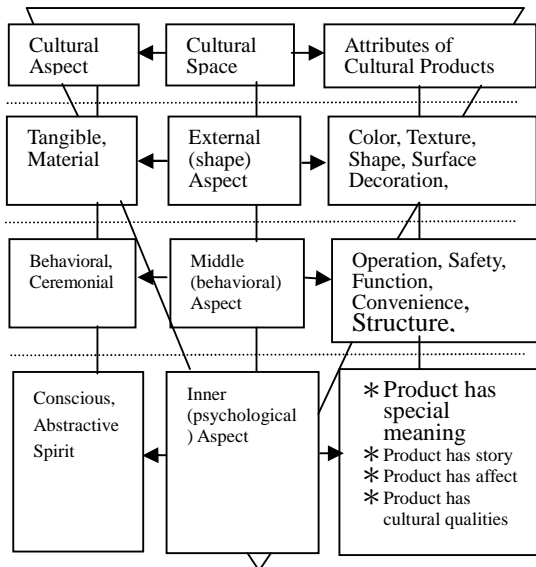


Fig. 3: The design attribute of cultural products

### 2-3. Contemplation of the Concept of Product Semantics

Looking at the theories proposed by semiologists such as Pierce and Saussure, the “codes” are defined by the former as a media-induced transmission that starts from nothing, and all the perspectives and results are just a way for codes to be interpreted. The latter defined codes in terms of “signifiers” and “signified,” and pointed out that it is not just a physical manifestation but also a psychological experience or impression that turn codes into meaningful entities. Nevertheless, both of them have stated that the function of codes is to express meanings. Moreover, based on Pierce’s research, Morris proposed that the function of codes are

rooted in “surface features,” “evaluation,” and “conditions/orders”; he divided codes into the three aspects of patterns, semantics, and usage. Chou and Guan believe that codes are generated from certain images, words, and rules. By looking at the evolution of images, they can be divided into: the items that images represent (patterns), how images are interpreted (semantics), and how images are used (usage). The relationships between these components are expressed in Fig. 4.

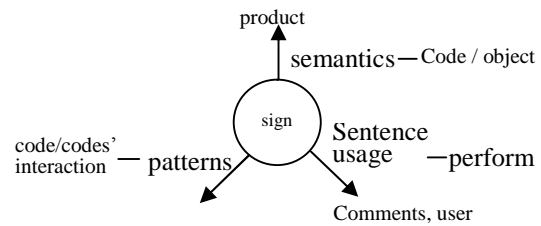


Fig. 4 : The interaction among patterns, semantics and usage.

Chou and Guan also believe that product designers often focus more on actual functions and ignore communicative functions. Chou and Guan thus propose three aspects through which they look at products: they are the context of individual structure, the context of relationship operation, and the context of interpretation: (Wan-Ju Chou \ Cheng-Neng Kuan , 2001)(Fig. 5)

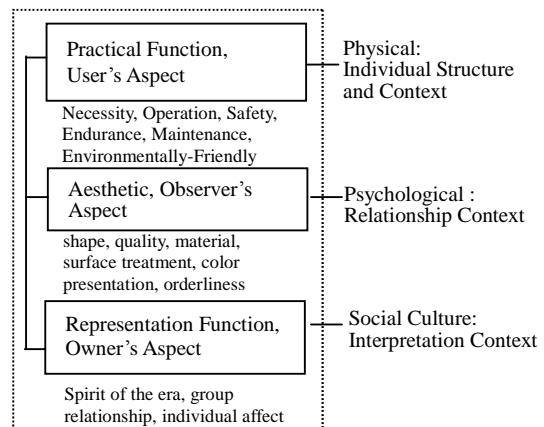
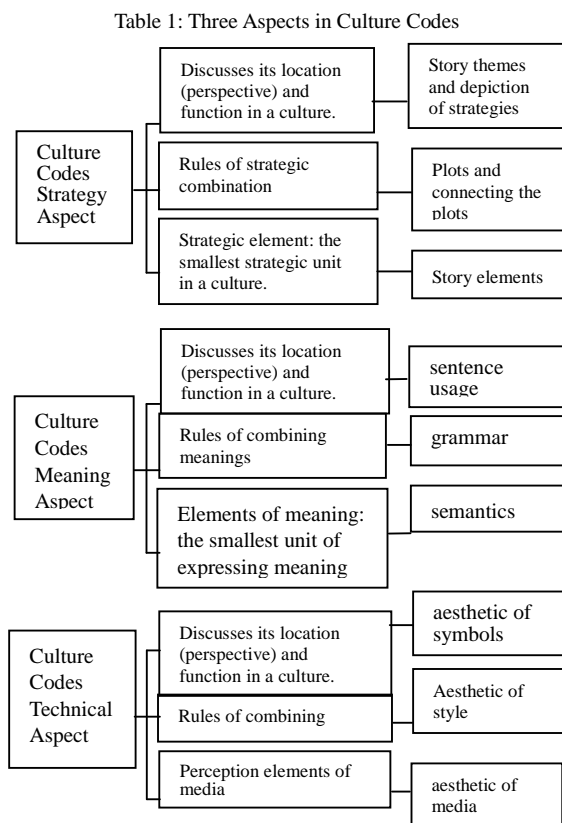


Fig. 5 Observing Common Products

### 2-4. Three Aspects in Culture Codes

After reconsidering the meaning of codes through the perspectives of communication and Roland Barthes’s semiology and

post-structuralism, Yang proposed that “culture codes” are not only limited to the research of material codes (sound and images) and the smallest elements of meanings (morphemes). Yang also studied how these morphemes are combined and the “locations” of the combined “sentences” in a culture. Based on this, culture codes are divided into the aspects of strategy, meaning, and techniques:



### 2-5 Codes

Codes are categorized differently in different domains. Barthes summarized five types of literary codes: plot codes, interpretation codes, meaning codes, symbolization codes, and culture codes. In his study of how codes are used in design within our daily routine, Lin Ming-huang viewed “codes” as the smallest unit of design that determines the characteristics of signs. He also divided codes into functional codes, affect codes, and transmission codes to correspond with

the concepts in design such as modernism, post-modernism, and product semantics. Function codes are mostly placed in indexical signs, and affect codes and transmission codes may be seen in indication signs, iconic signs, and symbolic signs (Lin Ming-huang, 2000). Christine divided codes into perception codes, identification codes, transmission codes, color codes, representation codes, representational codes, fun and sensation codes, and unconscious codes. Sut Jhally believes that all advertisements are composed of product codes, environment codes, and people codes. John Fiske believes that the common practices in our daily routines are all produced by codes, and they can be divided into behavior codes (i.e., laws, behaviors, attitudes), and signifying codes (code system) which are further divided into digital codes, analytical codes, on-scene codes, sophisticated codes, general codes, broadcasting codes, narrow-broadcasting codes, arbitrary codes, and aesthetic codes. The characteristics of different types of codes are listed below:

Table 2 : Codes in different domains

Proposed by	Code	Characteristics
Roland Barthes :  Literary Codes :	Plot Codes	Abstract words are used to name a series of plots. They are shown on a list and have variable numbers and orders. Some derive from trivial daily behaviors, and some derive from story patterns that are already used.
	Interpretation Codes	During the reading process, different methods are used to state, ask, and form questions.
	Morpheme Codes	These codes tell us special features of roles and people around us.
	Representation Codes	Use “contrasts” to show meanings such as cold and heat.
	Culture Codes	Congregation of different

		knowledge		
Lin Ming-huang :	Function Codes	Clearly point out objects' features.		
	Affect Codes	These codes mostly exist in representation and iconic code; they are strongly related to representation ones.		
	Transmission Codes	This refers to the transmission of messages such as "how to use a product," "where is this product from," and "what kind person is this". These codes may also include the stories, legends, and philosophies a product tries to convey.		
Christine : Code	Perception Codes	Specify valid conditions for perception.		
	Identification Codes	These codes turn perception conditions into morphemes which allow us to identify targets.		
	Transmission Codes	These codes allow us to confirm how to convey a feeling. They are related to an image message's aesthetic qualities, and during the process, tone codes, fun codes, style codes, and unconscious codes are generated.		
	Hue Codes	1. Poetic qualities (such as tension) conveyed by signs that have special tones. 2. Stylized systems that have conservative meanings (e.g., aesthetic, expressionism)		
	Iconographic Codes	These are usually based on perceivable ingredients which are actualized through transmission codes. These codes are connected to words, signs, and meanings.		
	Iconic Codes	These are enhanced iconographic codes that embody more complicated and culturalized meanings (not limited to only people or horses but the horse of Alexander the Great)		
	Fun and Sensation	A method that is full of changes is sued to establish		
			Codes	the embodiment generated by the morphemes in the above categories. (Greek Temples are the embodiment of "harmonized beauty", "Greek ideologies", and "ancient traditions.")
			Rhetoric Codes	These are generated from common practices. They are not yet clear iconic codes but are adopted by society and function as communication models or regulations. For example: metaphors.
			Style Codes	These are codes produced through rhetoric devices or are the unique codes that are used only once. They represent the achievement of certain styles and the qualities of certain writers.
			Unconscious Codes	These codes compose iconographic, iconic, stylistic, or rhetoric structures. Based on common practice, people view them as something that allows synchronization or projection and can be used in media that preach to people.

Table compiled by the researcher of this study.

### III. Analysis of Culture codes

This study is aimed at discussing how products utilize culture codes in order to establish their cultural characteristics and achieve product differentiation. The findings are compiled based on theories discussed earlier:

1. Product culture models have the three axes of time, space, and cultural variations that form 12 spaces, which determine the locations where culture codes are used in products. Each space can be further divided in order for us to analyze whether a product is a new culture produced by a user, corporate culture, or a designer.

2. Based on the locations of products, we can discuss the three aspects that promote a product: Based on Fig. 3, which depicts the “culture product design attribute” proposed by Leong and Fig. 5, which depicts “observations on common products,” we can see that the three aspects established by these two correspond to each other. By making reference to the “three aspects of culture codes” in Table 1 and “codes in different domains” in Table 2, we can make the following initial summary:

Table 3: Product Attributes

Cultural Space	Product Features	Three-aspect	Code
Inner Aspect	Represents: * Social culture—Context of interpretation (spirit of the era, group relationship, individual affect, etc.)	Meaning	Affect Codes Transmission Codes Identification Codes
Middle (behavior) Aspect	Practical Functions * Physical—individual structure and context (necessity, operation, safety, etc.)		Function Codes Transmission Codes
External (behavior) Aspect	Aesthetic Functions * Psychological—relationship operation context (shape quality, material usage, etc.)	Technical Aspect	Aesthetic Codes Transmission Codes Style Codes Hue Codes

#### IV. Case Analysis

Focusing on Shin-Yi Hsiang Farmers’ Association, our research discusses the cultural codes adopted by designers:

##### 4-1 Features of Shin-Yi Township

Shin-Yi Township has a population of about 18,000 residents, and the ethnic groups include prairie Fukienese, Hakka, and aboriginals. Most of the aboriginals are Bunun (95%). “Bunun” means “people”, as hunting and agriculture are part of traditional Bunun lifestyles. The Bunun tribe has typical large families. They respect the elderly and even more so for nature. They have frequent religious festivals; the biggest among which is “Malahodaigian”, which is a religious festival that

involves shooting deer ears. Other activities include cultivation, transplanting rice seedlings, harvesting, weeding, and holding harvest festivals. These activities represent their gratitude toward the gods.






##### 4-2 The Transformation of the Market Direction of the Products of Shin-Yi Hsiang Farmers’ Association

Viewing themselves as the “culture promoters of Shin-Yi Township,” Shin-Yi Hsiang Farmers’ Association had already started including processed-plum products when plums were semi-finished exports in the earlier days. Upholding the principle of health, their process plants deliver more than ten types of healthful plum products.

In the early days (prior to 1997), their main product was saline plums, which were exported to Japan. The product package was designed for easy transport and thus lacked marketing and design. After the export market was monopolized by mainland China between 1997 and 1999, they returned to the Taiwanese market and started making different types of plum products such as plum wine. The initial packaging focused on cost-saving, so it was mostly printed with single color on cheaper materials that have interchangeable components. The concept of “commercialization” did not begin until 1998, and plum wine was sold as a specialized agricultural product. Due to government laws, the word “wine” was not allowed to be part of the name of an alcoholic product, thus the plum wine was sold under the names of “Wilderness,” “Soft Water,” and “Being Drunk Amongst the Flowers”. Since 2000, Shin-Yi Township based their efforts on excellent marketing strategies and focused on “localization” by looking for their local stories and

features. The package design then included a series of story-telling and hand drawn characters and texts to depict their originality and local features. Additionally, aboriginal phrases were used to name the products such as “Singing Millets” and “The Elder Speaks”. The wine bottles include pyramid, cone, and cube shapes. Gift sets were also available. The story-telling products are listed below:

Table 3. Alcoholic Products that Have Local Features Delivered by Shin-Yi Hsiang Farmers’ Association

Alcoholic Products	Product Stories
 <p>Forgetting to Return Home</p>	<p>This is also called the “Blood of a Warrior” as it is like a hunting rifle that accompanies a warrior to withstand the trial of time, nature, and physical hardship. This wine is used to depict tribal members' praises and honor after hunting is over.</p>
 <p>The Boar that Lost Its Way</p>	<p>An old lady during the Japanese dominance era worked on fermentation in the night and threw away the leftover ingredients on a hill. A boar was attracted to her house by the smell. People then called this wine “the Board that Lost Its Way”.</p>
 <p>Dancing Plums</p>	<p>Plums are the most well-known fruit of Shin-Yi Township. When it is harvested in April, the sound of throwing plums in baskets can be heard all over, and the dogs nearby would dance to the rhythm. This is as if the plums were also dancing to celebrate the harvest.</p>
 <p>Singing Millets</p>	<p>This is also called the Rainbow Spring. It is the main feature in aboriginal celebrations; this wine gives you the experience of feeling a delicious breeze in the corn fields.</p>
 <p>The Elder Speaks</p>	<p>Whenever someone says “the elder speaks” in an aboriginal festival, the people would quiet down and listen because the elders represent power.</p>

#### 4-3. Analysis of Shin-Yi Hsiang Farmers’ Association Products

Based on the understanding of the above alcoholic products, we conduct the following analysis:

1. Their products are mostly focused on “localization” in which local features and stories are included. Modern characters are also used to depict their stories, and the style of drawing is of a comic nature. This belongs to the categories of “localization” and “modernization”.

2. Their product features in terms of cultural space and context, the adopted cultural orientation, and culture codes are analyzed below:

Cultural Space	Product Symbolizes:	Adopted Cultural Orientation	Utilized Culture Codes
Inner Aspect	<ol style="list-style-type: none"> <li>1. Warriors’ blood represents the tribal members’ praises and honor.</li> <li>2. The lost boar represents the old lady’s fine wine.</li> <li>3. The dancing plum represents great harvest of plums.</li> <li>4. The singing millet represents the gentle feeling of crops that sway in the wind.</li> <li>5. The speaking elder represents the elegant status of the alcoholic product.</li> </ol>	<p>Customs</p> <p>Ancient Techniques</p> <p>Abundant Harvest</p> <p>Abundant Harvest</p> <p>Ethics</p>	<p>Affect Codes</p> <p>Transmission Codes</p> <p>Identification Codes</p>

Cultural Space	Practical Functions	Cultural Orientation	Aesthetic Codes
External Aspect (Shape)	x	x	Transmission Codes

Cultural Space	Aesthetic Functions	Cultural Orientation	Aesthetic Codes
External Aspect	<p><b>1. Packaging:</b> Each product’s Chinese name is limited to 4 Chinese characters. The stylish fonts and comic-styled characters who wear aboriginal clothing provide a modern</p>	Youthful and exciting	Style Codes

(Shape)	<p>and youthful sense which is greatly different from the solemn packaging of common alcoholic products.</p> <p><b>2. Bottle design:</b> The pyramid- and cube-shaped bottles have simple geometric designs that have limited decorations.</p> <p><b>3. Color:</b> The color scheme is mostly of black or darker color tones.</p> <p><b>4. Combination rules:</b> The layout is focused on the main title. Methods included large-small contrasting, centered layout, and diagonal layout.</p>		
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#### V. Conclusion

The alcoholic products delivered by Shin-Yi Hsiang Farmers' Association have utilized Bunun traditions, traditional wine-making techniques, rich crops, and ethics to depict their local features, evoke consumers' passion towards this land, and utilize an exciting style to differentiate each product. The designer of this product utilized affect codes, identification codes, style codes, and transmission codes to create a refreshing image of alcoholic products.

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