

Nov 17th, 12:00 AM

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### Citation

Wu, T., Hsu, C., and Lin, R. (2004) The Study of Taiwan Aboriginal Culture on Product Design., in Redmond, J., Durling, D. and de Bono, A (eds.), *Futureground - DRS International Conference 2004*, 17-21 November, Melbourne, Australia. <https://dl.designresearchsociety.org/drs-conference-papers/drs2004/researchpapers/29>

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Taiwan aboriginal art and craft is one of the most beautiful and primitive cultures, which displays a strong characteristic within Taiwan art, especially in its primitive form and symbolic meaning. These characteristics have a potential to generate a unique product to enhance the significant localized culture, among Global market. However, the decline of Taiwan aboriginal cultures makes us rethink its perspective in design for the extension of aboriginal culture.

The motive of this study attempts to extend the Taiwan aboriginal culture by adding cultural value into consumer products and, furthermore to promote its cultural identity in the global market.

A questionnaire is conducted to identify the cognition and perspective of Taiwan aboriginal products among Taiwanese students. The result of the questionnaire then provides a direction to access product design and establish design guideline toward Taiwan aboriginal style.

The aim of this study purposes to collect visual icons from three tribes (Paiwan, Rukai and Tau), to identify the characteristic of form and its meaning among collected visual icons and organize these information with items in table format (including tribe, name of object, type, image, material, color, appearance, usability, pattern, form grammar, form structure, form style, inner content, cultural meaning and original resource), and, at the end, to suggest a design guide line for the development of cultural products.

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## Abstract

Taiwan aboriginal art and craft is one of the most beautiful and primitive cultures, which displays a strong characteristic within Taiwan art, especially in its primitive form and symbolic meaning. These characteristics have a potential to generate a unique product to enhance the significant localized culture, among Global market. However, the decline of Taiwan aboriginal cultures makes us rethink its perspective in design for the extension of aboriginal culture.

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Keywords: Taiwan aboriginal culture, Icons, Product semantic.

## 1. Introduction

Localization approach in product design appears to be more and more important in global market, where the products are losing their identity because of the similarity in product function and form. Cultural content then is considered to be a unique character to embed it into a product for the enhancement of product identity in international market and furthermore to fulfill consumers' individual needs.

The increasing of localized cultural development in Taiwan now demonstrates an ambition of promoting Chinese style to worldwide economic market. For example, Taiwanese Opera, which usually had not been regarded as an official art before, now has increasingly recognized to be a part of art in national level, while the performing has proved the success in National Music Hall in the 90s. The Song of the Rice Harvest, 8 rhythms melody music from Bunun tribe, also demonstrates another successful example in Olympic

Games displaying the most beautiful aboriginal music to the whole world in 1996. Additionally, martial art movies from Bruce Lee to Jacky Chan, and Oscar award movie, Hidden Dragon, have an increment of recognition to the Chinese culture at international profile. Taking advantage of the beautiful and primitive visual art and crafts, Taiwan aboriginal culture should have a great potential to enhance the design value, and be recognized in the market. Thus, all evidences show that the perspective of Taiwan local culture in design has no doubt to become cultural elements in the future design application, especially when we talk about the impression of garments, crafts, decorations, utensils, furniture, ornaments, packages from Taiwan aboriginal culture. Within each object, it has contained a unique character from the different culture root, and represented a special style in a variety of forms and contents. This cultural experience hence has a chance to develop a strong connection to a part of spirit in life. With the integration of this spiritual heritage, we believe that a cultural product plays an important role to increase the soul in human life.

## **2. Aim**

The aim of this study purposes to collect visual icons from three tribes (Paiwan, Rukai and Tau), to identify the characteristic of form and the meaning of these icons in terms of tribe, name of object, type, image, material, color, appearance, usability, pattern, form grammar, form structure, form style, inner content, cultural meaning and citation resource, and, at the end, to suggest a design guideline for the development of cultural products.

## **3. Methods**

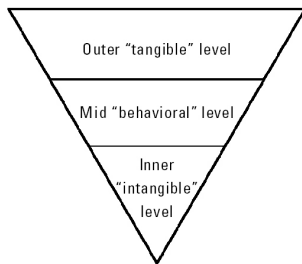
Research method is divided into three stages. The first stage focuses on the literature review related to Taiwan Aboriginal culture. Based on the documents of material civilization in Aboriginal culture, this research has involved with different aspects of visual imagery, contents and formation from visual imagery and, their using scenario in the real life. The research also covers with the design theory such as product semantic, scenario design. The second stage focuses on the study of cognition on Taiwan Aboriginal product through the questionnaire survey among regular students as well as aboriginal students. The third stage will integrate the results of imagery icons data in Table 2, questionnaire, design theory and finally create a guideline for product development with Taiwan aboriginal culture. Hopefully, the result of

this study will benefit design practicing in cultural products.

#### 4. Product with culture

Based on the description of linguistics, anthropology, and sociology, culture deals with the result of civilization evolution process in human, which involves with language, customs, religion, arts, the ways of thought and life behavior. In general, it can be classified into three areas: **‘Material culture’**- including food, garments, and transportation related objects. **‘Social culture’**- including human relationship and social organization. **‘Spiritual culture’**- including art and religion.

Cultural product is a process of rethinking or reviewing the cultural factors and, by design a designer will then redefine it in order to generate a new formation, which can fit into the society and satisfy the spirit of consumers (Ho, 1996). Leong (2003) develops a framework of studying cultural objects (Pic.1). He claims that culture is distinguished from three special levels: outer ‘tangible’ level, mid ‘behavioral’ level, inner ‘intangible’ level. According to this theory, culture objects can be classified into three levels, which can refer to the details of each factor in design practicing as shown in table 1.



Pic. 1 The “spatial perspective” of culture.

#### 5. Taiwan aboriginal culture

Taiwan Aborigines is the original people in Taiwan before the Chinese immigrants from Mainland to Taiwan during Ching Dynasty. They originally derive from Austronesian Language

**Table 1** the attributes of cultural product layers

Layers	Design concerns
Physical/ material	Color, texture, form, pattern, lines, details, elements, constructure
Consumer behavior/ ritual/ customs	Function, operation, usability, safety, joint relationship
Ideal/ spirit	Special meaning, story telling, affection, cultural traits

Family. According to Anthropological study on body feature, customs difference, thoughts assess, language, and verbal narrative history, they are identified with ten tribes: ATayal, Saisiat, Bunun, Tsou, Thao, Paiwan, Rukar, Amis, Puyuma, Tau. Another two new tribes are distinguished from those 10

tribes latterly.

Among these ten tribes, they have different customs and material culture from one tribe to the other, particularly in geographical environment. For instance, the tribes located near ocean emphasis fishing based living, while mountain tribes enhance the animal hunting style. However, in general, traditional tribes have a common living style, which is the dependence on agriculture, fishing, hunting and raising animals as an assistant activity. They basically are self- supported society.

Based on Hu's study, Taiwan Aboriginal material culture can be classified into four main items: foods, garments, living, crafts (Hu, 1996 ; Chang, Taiwan Aboriginal study website). These items are associated with aborigines' daily life and have a strong value for design reference in cultural aspects. This paper focuses on the study of material culture in daily life objects. Specifically, this study tends to explore the meaning of culture and technology and apply to users' lifestyle through product development.

After the investigation of icons on equipments and tools among the ten tribes in Taiwan aboriginal culture, the result shows that containers, furniture, consumer goods, tools, hunting weapons and ritual objects have displayed a remarkable cultural resource. These icons have illustrated the distinct image and are used frequently in Taiwan aboriginal culture. Especially, the icons culture from Paiwan, Rukai and Tau tribes is considered to be the most unique and objects full of variety among these ten aborigine tribes. Therefore, the focus of icons research in this paper is on the collection of icons and their contents among these three tribes.

In Taiwan, the cultural awareness has caught more attention in the design society recently followed with the localization and government promotion. Hence, Taiwan Aboriginal craft, product and activity appear increasingly in the market and academic research also shows the incensement positively. The application in design starts to address this issue, particularly through the application of aboriginal culture at student's designs. The inspiration of Taiwan aboriginal culture has applied to the design to enhance product characteristics. For instance, the CD holder, designed by Tsong-Chi Lee in 2000 shows the beauty of design in terms of creative pattern and the symbolic meaning (Pic. 2). Followed with zigzag body movement, a snake pattern from Paiwan totem is applied to the side panel design of a CD shelf. Wu, M.W. and Chyuan, G.H., students of Ming- Chi college from Bunun tribe, extend their ancient heritage to guitar design (Pic. 3) and demonstrate the

beauty of graphic pattern on music equipments and the strong extension of cultural heritage (Wu, Chyuan, 2001).



Pic. 2 CD Holder



Pic. 3 Electronic Guitar

## 6. Questionnaire in consumer's cognition toward Aboriginal culture

A questionnaire is conducted to have a survey on consumers' cognition toward aboriginal culture in product design. 176 subjects (77 aborigines, 99 regular Taiwanese) from both Junior College and University with age of 18-30 years old were involved with the questionnaire, and 16 subjects were responded with invalid answers. The questionnaire was divided in three sections: the degree of understanding aboriginal culture, the preference and attitude toward aboriginal culture, the user's anticipation to the aboriginal product in design. The result of questionnaire will refer to the establishment of guideline for products with aboriginal culture. The conclusions are as follows:



(1) Subjects responding to the degree of understanding of aboriginal culture agree that three tribes, Tau, Paiwan, Amis, have a significant character other than the other 7 tribes in terms of art and crafts. This result shows that Tau and Paiwan tribes have confirmed the same consequence of literature study in this paper. (2) Subjects responding to the attitude to the aboriginal culture believe that product with aboriginal culture has a potential to promote the quality and extra value in daily life and increase the benefit to the product for a compatative market. (3) Subjects responding to the most significant characters in aboriginal culture agree that decoration, wooden carving, webbing, totan, stone carving, and garment in sequence have a unique style to apply to contemporary product design. (4) Subjects responding to the proper types of objects of aboriginal culture to the product design believe that fashion decoration, package, furniture, hand crafts, appliance, kitchenware, gift and lighting in aboriginal culture have a unique style to apply to contemporary design.

## 7. Establishing an attributes table

The result of the questionnaire leads to construct the attributes and items of data table as shown in table 2. As we know, material culture has illustrated a

strong impact in design application in terms of visual images stimulation and symbolization of the objects. This study, first focuses on data collection from Paiwan and Tau in the aspects of physical, material, usability, customs/ceremonies and spirit among the objects. The collected data, then is identified to different items, based on tribe, name of object, type, image, material, color, appearance, usability, pattern, form grammar, form structure, form style, inner content, and original resource (see table 2). These items have covered 3 levels of cultural characteristics and the basic information such as imagery icon, tribe, and name. We assume that this information will provide designers a reference during design practicing. Table 2 shows an example of attributes of aboriginal culture.

Table 2 attributes of aboriginal culture

Tribe	Paiwan	Tau
Name of object	Panel	Silver Helmet
Type	furniture	Ceremony apparatuses
Image		
Material	Wood	Silver
Colour	Dark Camphor	Silver
Feature	Rectangular panel	Corn
Function	Decoration	Head Protection
Pattern	Heads, Cured snakes	Rectangular strips
Form grammar	Allegory	
Form constructure	Symmetry	Accumulated layer
Formation	The human head with Taro in the mouth symbolized or remained that visitors should not feel hungry on the way home after the party.	Pyramid shape with a window for seeing.
Inner content	Human Head and snakes as symbol of safe	Ceremony purpose
Resource	Chen, Chi-Lu, 1961, Woodcarving of the Paiwan Group of Taiwan, Nan-Tan Publisher, Taipei	Liou, C.W.,1982, The Culture of Lan-Yu Tribe Art, Artists publisher

## 8 Design guide line for cultural product

According to the previous research on Taiwan aboriginal culture, product semantic theory and data table of attributes, the result concludes a design guideline for the development of product with Taiwan aboriginal style. The design process is described as follows:

(1) The first step is to investigate the overall environment such as economic issue, social culture, and technology application from three levels: outer 'tangible' level, mid 'behavioral' level, inner 'intangible' level according to Benny's theory. This step tends to understand the product characters from a



broader view, and then to narrow down to a potential scope such as symbolization, social pattern, and cultural style. (2) This step tends to apply user-centered approach to understand the human cognition toward cultural environment where people live especially with Taiwan aboriginal culture. This step focuses on the user-based observation to explore the social cultural environment in order to define a product with meaning and style derived from aboriginal culture concerns. (3) This step is to display information in texts and pictography through the access of scenario. This process provides a way to confirm or clarify the reason why a consumer needs that product, and how to accomplish the task? This stage can help integrate the product into people's lives and furthermore to predict its perspective in the environment. (4) This step is to define target group based on the above 3 steps. This process allows designers to define consumers who have a preference of particular style and identity to the products features, product meaning, and the ways the product should be. (5) This step, based on step 2,3,4, is to establish a design specification, which will identify the goal, function, target group and the limitation of design. All of these concerns have to match a consumer's anticipation. (6) This step deals with identified characteristics and the context of products. At this stage, it is suggested to list down all cultural characteristics in a matrix table, which can help to organize and check the cultural characteristics in the design process. (7) This step is to find the key feature form data table and to develop a product with these characters. Followed with the last step, the analysis and synthesis will be processed back and forth between specification (refer to step 5) and data table 2 (refer to step 6) in order to determine the key characteristics to represent the product. (8) This step is the concept development and design realization. Based on the result at step 7, product semantic strategy (e.g. metaphor, allegory, analogy, simile) is suggested to use in the concept development. During this process, the modification of scenario generated at step 3 might happen in order to transform the cultural meaning into a product logically correct. (9) An assessment on reasoning, feasibility to the cultural meaning, context and the product display is required. The assessment items are suggested to check 7 dimensions: affection, communication, cognition, aesthetic, appreciation, implication, and function.

## **9 Discussion and suggestion**

(1) The research shows that there is a sophisticated social system, and a complicated religion belief among traditional aborigines after thousand years of

history. The art and craft is the heritage and significant treasure in aboriginal culture. Aboriginal culture in Residential style, Ritual equipments, Garments, Pottery, Leather objects, and Bamboo tools display an outstanding heritage among tribes. (2) Due to the strong cultural root, aboriginal culture has a potential to develop into a commercial object in Taiwan so as to increase the new economic development, whilst labor intensity industrial is gradually switching to Mainland China. The cultural industrial can be a new key factor to bridge the other related industrial based on successful cases in creative culture industry in UK. For instance, to collaborated with craft designers, the UK traditional wax manufacturers has a successful reformation in business structure by adding a new value to the product and have incensement of good profit (Yair , 2001). At this point, it is valuable to enhance the aboriginal culture to our daily lives and to increase the aboriginal culture value in objects, and finally to extend it to the enhancement of life quality. (3) The unique of Taiwan aboriginal culture has a strong and primitive characteristic which has a potential to open to an international market for the local culture value. For example, the webbing art and craft in Atayal tribe, spiritual ceremony in Saisiat tribe, boat with remarkable color pattern in Tau tribe, the significant wooden and stone sculptures in Paiwan, beautiful song from Bunun tribe are demonstrating the cultural differences and beauty in heritage of each tribe. This heritage has a great chance to extend their value to the society and become a part of Taiwan culture. (4) Based on material civilization from Paiwan tribe, Rukai tribe and Tau tribe, 212 icons has been collected in data table. Each icon contains with 14 items of information. These 14 types of information within data table are tribe, name of object, type, image, material, color, appearance, usability, pattern, form grammar, form structure, form style, inner content, and cultural meaning, which a designer can access by simply clicking the icon, read the information directly through screen, and apply to the design practicing. Hopefully, this can help designers to search information easily and efficiently. (5) The design guideline for product with culture is developed based on the research of design theory and culture content. Nine steps of design procedures should provide designers or students a systematic way to approach the cultural product step by step to accomplish the design. (6) For future study, it is recommended to have a workshop to prove the efficiency of design guideline and the data table.

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