

THE DEVELOPMENT OF PERANAKAN INFLUENCED PACKAGE DESIGN USING PALM PAPER

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ABSTRACT

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In South East Asia today, Peranakan is one of the most important yet almost forgotten cultures among new generations. The designation of Peranakan means descendant in Malay language which generally refer to those with Chinese origin who have established settlements primarily in Malacca and then Penang during the time of British colonial rule in Malaya. In securing their livelihoods, the Peranakan community has contributed greatly to the economy by pioneering trades with China as well as the Europeans. Therefore, in pursuit of trade opportunities, the Peranakans owned commercial crops and plantations from gambier, pepper, rubber to later, oil palm. The Peranakans are known as luxuriant, flamboyant and elaborate in their lifestyles with the adoration of ornamental art. They developed embroidery crafts uniquely influenced by the Qing, Malay and European styles. The aim of this study is to investigate the acceptance level of public consumers in the development of palm paper for Peranakan influenced package design. This study used quantitative research and material test methods. A total of 399 respondents from different demographic background in Klang Valley of Malaysia participated in this study and the results indicated significantly high level of knowledge towards material use. Results from the survey shows that more than 87% of Malaysians highly accepted the use of palm paper package as an alternative to plastic and pulp paper package. On the viability of material, more than 80% of Malaysians agreed that palm paper usage is ideal for package design. Moreover, more than 80% of Malaysians supported the benefits of palm paper package to the society, environment and economy. In general, majority accepted the idea of palm paper as a material for package design but pricing remains a sensitive issue.

Keywords: Peranakan; embroidery; palm paper

1. INTRODUCTION

Cultural integration of indigenous people, Malay, Chinese and Indian, dated more than 500 years ago, has developed Malaysia into a well-known multicultural country today. As a country that has gone through modernisation during the past decades, new generations of Malaysians have forgotten the legacy of Peranakan culture, which led to the beginning of the nation. The Peranakan community is known as the earliest Chinese

descendant in South East Asia (Mahmood and Seri, 2004). They are the Chinese who migrated to Malacca since the 15th century, who also adopted the culture of South East Asia rather than Chinese, as shown in Figure 1 below. The Peranakan male is referred to as Baba and female is known as Nyonya, as shown in Figure 2 below (National Museum, 1989). The term Peranakan, Baba Nyonya, Peranakan Chinese, Straits-born Chinese or Straits Chinese refers to the people of the same community (Khoo, 1998).



Figure 1: Early Peranakan Family

Source: Khoo (1998)



Figure 2: Couple of Baba and Nyonya

Source: Khoo (1998)

Generally, the Peranakans are Hokkien people from the Fujian Province of China with minority from Cantonese and Teochew ancestries, in which they own a unique hybrid of Sino-Malay culture (Wee, 2015). They absorbed many cultures from the Malays, adopted the European approaches and embraced more of the British way of life, at the same time practiced the Chinese religion beliefs and rites (Khoo, 1998). Many of them were educated in classical Chinese until the early 20th century, due to close ties with the British, they began to accept English education and received foreign opportunities, in which later had greatly contributed to many community developments (Lee and Chen, 2012). As the trade leaders of South East Asia, the Peranakans associated themselves in many ways with the British especially the authorities, as well as the European entrepreneurs, in which contributed to their adoption of western lifestyles. Although the Peranakans was known as the ally among the British, they maintained close ties with the Chinese business association known as Kongsi, with the largest formed by the 5 big surnames, Khoo, Cheah, Tan, Yeoh and Lim in Penang during 1800 (Khoo, 1998).

Throughout the centuries, the wealth of Peranakan was mainly gained from agriculture, followed by tin and port trades (Lee and Chen, 2012). During the 18th to 19th century, most Babas were into growing spice, opium, plantations and mining. Also, with the growing port commercial opportunities, the Peranakan community has expanded to places such as Penang, Indonesia, Thailand and Singapore (National Museum, 1989). Then, from the early 20th century onwards, the Babas ventured into properties and rubber plantations with prominent names such as Tun Tan Cheng Lock, Tan Sri Tan Chin Tuan, Sir Song Ong, Lee Cheng Yan, Tan Beng Swee and Tan Kim Seng (Wee, 2015). The rubber commodity promised lucratively due to industrial demand until the mid of 20th century, which the economy trend moved towards oil palm. This has influenced

many rubber plantation owners to convert their trade to oil palm (Shevade and Loboda, 2019).

The glorious days of Peranakan flourished until the depression in 1930, World War II in 1941, formation of Malaya Federation in 1948 and most of all, the end of British Colonisation in 1963 (Khoo, 1998). Without the British support on the Peranakan race status, this has resulted in the return of Peranakan back into the common Chinese culture (Wee, 2015). With the realisation that they could no longer depend on the British due to the change of political situation in Malaya, they continued to grasp opportunities with their existing revenues, societal inclination, education status and knowledge (Keong, 2006). Although the Peranakan community faced decline since post British era, they remained habitants of Malaysia with a more Westernised and modern lifestyle (Wee, 2015). Today, the new generation of Peranakan continues to manage existing equities, investments and expand towards the international market with the financial support from revenues acquired through government granted privileges during earlier period of economic development (Kuronuma, 2014).

2. CULTURE

Though the Peranakans is of Chinese origin, but they seem to distance themselves from their eastern background specifically on conception and speech, only certain cultural practices were kept such as religious rituals and festivals (National Museum, 1989). Earlier, the Peranakans practised Buddhism or Taoism but by the 20th century, some have adopted Christianity (Wee, 2015). The most fascinating characteristics of the Peranakans is their ability in retaining Chinese traditional practices with adaptation of influences from foreign cultures such as Malay, Dutch, Portuguese, and British (Lee and Chen, 2012). The unique blend of Chinese and mainly Malay cultures into their lifestyle could be observed from their daily eating custom, language, and female attires (National Museum, 1989).

In Peranakan culture, most of the Nyonyas were instilled fine domestic skills since young, particularly known as *sulam*, embroidery works in which expected of a Nyonya, as shown in Figure 3 (Khoo, 1998). The Peranakan embroidery works were very different from the Chinese designs in the context of materials and methods. It was mainly knitted using the Western and Malay approaches with glass bead, gold and silver thread known as *songket*. All these works were applied on accessories such as footwear, pouch, scarf, and specific attire (Khoo, 1998). The foreign culture influences are much more noticeable on the attire of the Nyonyas, transcended from original Malay styled *baju panjang*; relaxed cut long blouse worn with fitted *sarong* to *kebaya* blouse; fitted top made of lace-embroidered transparent cotton voile and tulle, paired with batik *sarong*, introduced by the Dutch of Indonesia in the late 19th century, a style that was very much accepted since then, as shown in Figure 4 (Wee, 2015).

The embroidery patterns used on the *kebaya* were commonly flowers, shapes and figurines with the employment of four different types of stiches such as zig zag, straight, satin and buttonhole, as shown in Figure 5. In the early 20th century, the predecessor of *kebaya* known as the *kebaya sulam* was introduced in which displayed only simple embroideries (Mahmood and Seri, 2004). The interest of intricacy begun with its growing popularity among the young Nyonyas, who started to sew exquisite laces from Europe onto the hemlines, in which these ornaments make one *kebaya* different from another. Later, the Nyonyas combined the hand sewn embroidery with *lace* to enhance the refinement of the *kebaya sulam* (Chan, 2011). If there is anything to differentiate a Nyonya from a Chinese lady, it would be her attire (Chan, 2011). The Nyonya attire is special and impressive, notably the embroideries on *kebaya sulam* which serves as the creative inspiration of this study. Also, throughout recent years, few creative contributions were created with the *kebaya* inspiration such as postal stamps by POS Malaysia, modern attires by renowned local designers Khoon Hooi, and many more, as shown in Figure 6 and Figure 7.



Figure 3: Embroidery Works
Source: Mahmood and Seri (2004)



Figure 4: Embroidered Kebaya
Source: Mahmood and Seri (2004)

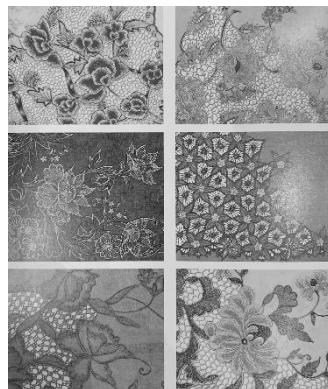


Figure 5: Patterns of Embroidery
Source: Mahmood and Seri (2004)



Figure 6: Postal Stamps by POS
Source: Mahmood and Seri (2004)

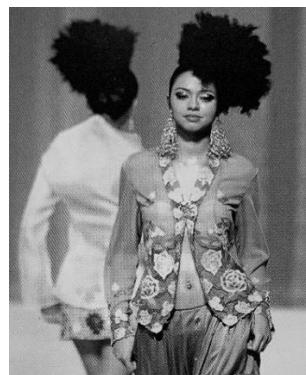


Figure 7: Kebaya by Khoon Hooi Malaysia
Source: Mahmood and Seri (2004)

3. MATERIALS AND METHODS

In this study, material such as paper made from oil palm tree leaves is used, which is available throughout the year during the process of pruning, harvesting or replanting of the oil palm. With biodegradable material in mind, the oil palm leaf is able to provide a great solution to the environment. According to the World Intellectual Property Organization (2016), oil palm fibre is a biodegradable, safe, clean, and pesticide free source, which has been used to produce consumer products and industrial goods. This approach uses natural fibre materials from renewable resources, in which at the end of its lifecycle will decompose into water, carbon dioxide, and biomass that are non-toxic to the environment (Song et al., 2009). Oil palm frond is the highest produced solid waste in the oil palm plantation compared to empty fruit bunch and oil palm trunk, as shown in Figure 8 (Nordin et al., 2016). Oil palm waste can provide remarkable benefits as it is economical, biodegradable, harmless to the environment as well as derived from renewable resources, as opposed to manmade materials (Schaschke and Audic, 2014). According to Thompson and Thompson (2013), materials derived organically are biodegradable, renewable and durable.

According to Malaysian Palm Oil Board (2017), oil palm frond is used to develop animal food due to its richness in nutritional minerals. It is also suitable for medium density fibreboard production, providing great strength and smooth external texture. In addition, it has also been developed into paper pulp products which helps reduce deforestation, solving the waste issues in oil palm industry and to develop efficient environmental practices, as shown in Figure 9 (Singh et al., 2013). Products made from the oil palm waste are gaining significant attention globally, where more people are moving towards sustainable direction (Ng et al., 2012), not to dismiss that it can be used to create many varieties of products as the supply is consistent, poses high functionality and adaptability characteristics (Abdullah and Sulaiman, 2013).



Figure 8: Oil Palm Frond



Figure 9: Palm Paper

In this study, 2 types of research methods were used, namely the quantitative method and technical testing. The Quantitative method is used to ensure the palm paper is acceptable to the public consumers and technical testing is done on the palm paper to examine the applicability of the material for package design.

The first method used was the quantitative method, in which a social survey was used to determine the influential factors of public consumers' perception towards palm material. The survey results were obtained from simple random sampling conducted on 399 public consumers of prominent hypermarkets such as Giant and Tesco in the Klang Valley, which comprises Kuala Lumpur, Petaling Jaya, Subang Jaya, Shah Alam and Klang. Klang Valley is known as the main commercial hub of Malaysia. The survey targets were chosen

from different cultures and backgrounds to achieve a non-bias and optimal result. The total population in Klang Valley is 4,196,391, according to the Population Distribution by Local Authority Areas and Mukims (Department of Statistics Malaysia, 2010). The sample size for Klang Valley was decided at 400 with 40 samples per site although only 384 samples were required based on the following justification. There were only 399 samples collected in total instead of 400 samples as 1 sample was missing. According to Krejcie and Morgan, for population size of 4,196,391, which is between 2,500,000 and 10,000,000, with 5% of margin error, sample size required is 384 (Chua, 2006).

The tool used to analyse the data in this study is Statistical Package for the Social Sciences (SPSS) application. This is to evaluate the significance of the data and correlation between the variables through Descriptive Statistics, Correlation, Reliability Test, Normality Test, and T-Test. The survey questionnaire used in this study has been tested for validity and reliability. In addition, the questionnaire used during the pilot test for validity was conducted on 15 samples. In the 15 fully answered questionnaires, Likert scale was applied on 27 questions, with Cronbach's Alpha coefficient measured at 0.764.

After obtaining the results from the quantitative method, the second method, which is material test, was conducted. The importance of this material test is to examine the characteristics of the palm paper material under various required approaches, which will be used in concept creation of art and design perspectives. The results obtained can also be used to determine the suitability of material for other applications and to predict capabilities of the material based on its structure. In this study, 230gsm palm paper was tested using cutting, folding, printing and embossing techniques.

4. RESULTS AND DISCUSSION

In this part, findings from the analysed data obtained through the survey as well as other information gathered from various resources will be reported according to specific topic and sub-topic. This will subsequently give clearer view on public consumers' acceptance level on the usage of palm paper in development of Peranakan influenced package design. The findings based on the analysed data from the quantitative method are shown in Table 1, Table 2, Table 3, Table 4 and Table 5 below. The materials test findings included below shows applicability of palm paper on package design using various related approaches. This is important in order to determine suitable application technique for selected concept. The material test findings are shown in Table 6.

Table 1: Palm Paper is a Better Material Compared to Pulp Paper and Plastic

Category	Frequency	Percentage
Strongly Disagree	1	.3
Disagree	1	.3
Neutral	46	11.5
Agree	203	51
Strongly Agree	147	36.6
Missing	1	.3
Total	399	100.0

Table 1 above shows that 0.3% of the respondents is missing from a total of 399 respondents. 0.3% of the respondents strongly disagreed, 0.3% of the respondents disagreed, 11.5% of the respondents were neutral, 51% of the respondents agreed and 36.6% of the respondents strongly agreed that palm paper is a better material compared to pulp paper and plastic. Higher percentage of respondents agreed that palm paper is better compared to pulp paper and plastic material while lower percentage of respondents strongly disagreed and disagreed with this statement. The total number of respondents from the agree and strongly agree categories show that 87.6% of the respondents support the statement that palm paper is a better material compared to pulp paper and plastic.

Table 2: Palm Paper is Ideal to Be Used on Package

Category	Frequency	Percentage
Strongly Disagree	0	0
Disagree	2	.6
Neutral	50	12.1
Agree	186	46.6
Strongly Agree	160	40.4
Missing	1	.3
Total	399	100.0

Table 2 above shows that 0.3% of the respondents is missing from a total of 399 respondents. 0.6% of the respondents disagreed, 12.1% of the respondents were neutral, 46.6% of the respondents agreed and 40.4% of the respondents strongly agreed that palm paper is ideal to be used on green package. Higher percentage of respondents agreed that palm paper is ideal to be used on package while lower percentage of respondents were neutral on this factor. The total number of respondents from the agree and strongly agree categories shows that 87% of the respondents support the statement that palm paper is ideal to be used on package.

Table 3: Palm Paper Package is Beneficial to the Society, Environment and Economy

Category	Frequency	Percentage
Strongly Disagree	0	0
Disagree	6	1.5
Neutral	63	15.8
Agree	219	54.9
Strongly Agree	111	27.8
Total	399	100.0

Table 3 above shows that 1.5% of the respondents disagreed, 15.8% of the respondents were neutral, 54.9% of the respondents agreed and 27.8% of the respondents strongly agreed that palm paper package is beneficial to the society, environment, and economy. Higher percentage of respondents agreed that palm paper packages are beneficial to the society, environment and economy. The total number of respondents from the agree and strongly agree categories shows that 82.7% of the respondents support the statement of palm paper package is beneficial to the society, environment and economy.

Table 4: Palm Paper Package is Highly Acceptable by Consumers

Category	Frequency	Percentage
Strongly Disagree	0	0
Disagree	3	0.8
Neutral	56	14
Agree	186	46
Strongly Agree	156	39.2
Total	399	100.0

Table 4 above shows that 0.8% of the respondents disagreed, 14% of the respondents were neutral, 46% of the respondents agreed and 39.2% of the respondents strongly agreed that palm paper package is highly acceptable by consumers. This indicates that higher percentage of respondents agreed that palm paper package is highly acceptable by consumers while lower percentage of respondents disagreed with this statement. The total number of respondents from the agree and strongly agree categories show that 85.2% of the respondents support the statement that palm paper package is highly acceptable by consumers.

Table 5: Palm Paper Package is Affordable to Consumers

Category	Frequency	Percentage
Strongly Disagree	2	.6
Disagree	16	4
Neutral	84	21.1
Agree	181	45.3
Strongly Agree	116	29
Total	399	100.0

Table 5 above shows that 0.6% of the respondents strongly disagreed, 4% of the respondents disagreed, 21.1% of the respondents were neutral, 45.3% of the respondents agreed and 29% of the respondents strongly agreed that palm paper package is affordable to consumers. Higher percentage of respondents agreed that palm paper package is affordable to consumers while lower percentage of respondents strongly disagreed with this statement. The total number of respondents from the agree and strongly agree categories shows that 74.3% of the respondents support the statement that palm paper package is affordable to consumers.

Table 6: Material Test Results Table - Palm Paper 230gsm

Methods	Results	Remarks
Laser Cut	Average	Possible for moderate designs, but not too detail as paper burns easily. Leaves burn stain at cut edges.
Fold	Good	Good for rigid folding, has the ability to retain stiffness and shapes. Doesn't break easily.
Print	Average	Colour stays even with fine text print but looks dull due to its original paper colour. Goes well with most hues.
Emboss	Average	Works well with shallow blind emboss, doesn't break at 2-3mm.

Table 6 above shows results of the test conducted on the 230gsm palm paper. This test is done in order to ensure that the material can be used for package design or even for other decorative crafting purposes. There are 4 different types of approaches used such as laser cut, fold, print, and emboss. Laser cut provides accurate cut using heat, which leaves burnt marks at the edge of the cut areas when applied on the palm paper. Therefore, it is only suitable for moderate patterns and must provide larger void areas between patterns. As for fold, the palm paper provides good rigidity results and is able to retain its shapes with the use of score to create crease on its fibrous surface thus avoiding breakage. In the context of print, the retainment of colour is good even with small prints without colour smear. Although the material goes well with most colours but dark colours or colour with red tones stands out better due to its unbleached natural colour. For the emboss approach, blind emboss were used on the palm paper and provided sufficient results, with 2 to 3mm raised or recessed relief patterns. To create more protruding patterns, deeper dies are required. Overall, from the results above, palm paper can be used as working material for crafting and design works. Documented visuals of the test are shown in Figure 10, Figure 11, Figure 12 and Figure 13.



Figure 10: Laser Cut



Figure 11: Fold



Figure 12: Print



Figure 13: Emboss

Based on the results obtained from the quantitative and material testing research methods, palm paper is used on few working prototypes with Peranakan inspired embroidery concept. The embroidery crafts of the Peranakans, which are mostly applied on *kebaya sulam*, are applied on package design such as *bakul sial*, clutch

and case as shown in Figure 14, Figure 15 and Figure 16 accordingly. Given the opportunity to work on the concept, ongoing development continues towards the area of decorative art such as bangles shown in Figure 17 below. The bangles consist of geometric folds with additional sub concept of Constructivism, which allow endless development in the bangles' appearance such as colours, motifs, forms and even functions. New applications and approaches will be expected in the future especially in the aspect of stitching, combination of methods, and collaboration of materials.



Figure 14: Container

This container is inspired by Bakul Sial or a carrier in the Peranakan community which was used to contain gifts for auspicious occasions such as new year, birthday, and wedding ceremonies. It was made of bamboo and wicker, with 1 to 3 tiers to contain food such as traditional delicacies, wax food and fresh produce.



Figure 15: Purse



Figure 16: Pouch

The concept of these purse and pouch are inspired by the lace works on of *kebaya sulam* together with the adornment of *sarong batik*. The Nyonyas had a different version but similar, known as Oh Pao or Beg which was used by the Nyonyas to contain money. They usually come in small sizes with many shapes, made from silk or velvet as well as other types of materials such as embroidery, beads, silver and gold threads. Originally, these items were used as a tradition to complete the bridal's attire in a wedding ceremony, but later became a daily use ornamental piece.



Figure 17: Assorted Bangles

The bangles are created with the concept of Constructivism. The concept allows endless development in the bangles' appearance such as colours, motifs, forms and even functions. New applications and approaches can be expected in the future especially in the aspect of stitching, combination of methods, even the collaboration with other materials being considered.

5. CONCLUSION

The Peranakan heritage has been forgotten among the new generations as well as the young Peranakans along the process of cultural evolution. The Peranakan culture is an important homegrown culture to Malaysians and many neighbouring countries of South East Asia. Cultural heritage such as the Peranakan culture mirrored in modern arts and crafts is an essential connection for a nation, which echoes the tradition and culture of a specific country. Currently, many are looking into ways to preserve the community's identity through special events, museum organization, heritage preservation, cuisine promotion and movie production, all done through private funding and initiatives. In this study, the concept of using palm paper is to provide a strong heritage connection with the Peranakans through agriculture development, which brought them stability in making Malaysia their home. Although the older generation of Peranakans may be gone today, but their oil palm plantations are still maintained by their descendants.

In addition, the research developed through this study is to investigate the acceptance of public consumers on the application of palm paper on packages. While establishing this research, it appears that current public consumers are getting more awareness and concern over materials. With the positive acceptance and receptiveness of public consumers, few working prototypes are developed using palm paper. The findings of this study also show the importance of producing package made from palm paper, considering the increasing social and environment responsibilities in public and their inclination towards natural products. Therefore, the ability to combine the usage of palm paper with Peranakan arts and crafts can provide better depth and make it more meaningful for the heritage. The Peranakan crafts of this study are marketable as collectables or memorabilia at exhibitions, heritage museums and galleries to expand legacy towards younger generations. Looking at the Peranakan culture in the context of decorative arts, there are plenty of elements to research such as furniture, porcelains and jewellery designs, which are of great interest as heritage products because they are usually accompanied with great stories for people of different culture and the newer generations.

Generally, the development of products using local heritages or even resources are largely untapped, which could generate great opportunities in the creative arena. By pushing the boundaries in natural product development, this concept can be expected to flourish in near future. Moreover, the support and use of locally available biodegradable and natural resources such as petroleum or other agriculture based materials can provide additional value to the society, environment, and economy.

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