

Use of Banana Plants in the Javanese Culture: A Case Study of Banana Bark Craft Industry, East Java, Indonesia

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Use of Banana Plants in the Javanese Culture: A Case Study of Banana Bark Craft Industry, East Java, Indonesia

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Abstract

Indonesia, with its diverse cultural resources and sustainable materials, holds a significant role in revitalizing and preserving traditional crafts. Until recently, there has been an increase in the utilization of banana plants as a sustainable material that is less known as compared to bamboo or rattan. Consequently, the small craft industry using banana bark is now thriving in East Java. In the Javanese traditional culture, banana plants have been used extensively both in daily life and in rituals. Its familiarity is one of the reasons for the insufficient records on the meanings of banana plants in the Javanese tradition.

This study aimed to understand the continuity and changes in the usage and functions of banana plants among the Javanese people. The paper presents the general information about the banana plant, including its origin and botanical description, and the varieties of the plant and their use in Java. The paper then presents and discusses the growth of the banana bark craft industry in the research area of East Java. Data on the development of the local craft industry and on the process of harnessing the potential of banana plants in Bojonegoro East Java, the largest banana producer according to Indonesian Bureau of Statistics, were gathered since 2009. Thus, the present study aimed to uncover the hidden potential of banana plants, to record and to provide information for understanding the traditional knowledge on banana plants in the Javanese culture.

Keyword

banana plants, craft industry, material culture, Indonesia.

ジャワ文化におけるバナナ植物： インドネシア・東ジャワ州バナナ樹皮工芸産業の事例

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要旨

多様な文化資源と持続可能な原材料を擁するインドネシアは、伝統工芸の保存と復興において重要な役割を負っている。持続可能材としてのバナナの木の利用に関しては、竹やラタン材の知名度と比して近年まであまり知られていなかった。しかし、現在東ジャワではバナナの樹皮を

用いた小規模な手工芸産業が興盛している。伝統的なジャワの文化では、生誕から死に至るまでの様々な場面で、日常と儀礼とを問わずバナナの木が寄り添っている。あまりにも近い存在であるため、このバナナの木が持つ意味に関する記録はジャワの伝統にあまり残されていない。

本研究はジャワ人の間におけるバナナの活用と機能の変遷を理解することを目的とする。まずバナナの生物学的概要と栽培起源を概略したあと、ジャワにおける栽培バナナの種類と用法を概観する。そして近年東ジャワで盛んになりつつあるバナナ樹皮工芸産業の一例を紹介し、その成立発展の経緯と活動内容について考察する。東ジャワのボジョネゴロにおける地域の手工芸産業の発展、およびバナナの木の可能性を産業へと結びつける試みに関するデータは、2009年以降の調査によるものである。本研究は、バナナの木のさらなる可能性を明らかにし、ジャワの文化に受け継がれるバナナの木に関する伝統的知識を理解するための情報を記録、提供するものである。

キーワード

バナナの木, 手工芸産業, 物質文化, インドネシア

Introduction

Since its first cultivation, banana plants have been one of valuable crop plants in Indonesian archipelago. The lacking documents about the origins of banana plants led me to find out the manuscripts where the plant is first mentioned. Originated from the South-East Asia and Polynesia regions, banana plants were then spread worldwide. Although the plant itself is widespread throughout the world, the significance of banana plants in cultural practice and customs is crucial in Javanese tradition. In Javanese tradition concerning with life events, banana plants always exist in various ways and meanings. Not only significant in traditional values, but banana plants are also an important element in maintaining Javanese tradition in modernity as a developed and improved artefact, products or goods. Yet, there are still lacks of notice and documentations since banana plant tend to be considered as a common and regular plant in Java, thus people take it for granted.

As the author studies Cultural Resource Management with a background in Industrial

Product Design, this research focuses on relationship between human and banana plants through the lens of material culture, and tries to contribute in Cultural Anthropology and Design theory and practice. The main subject of this research is to unveil the hidden values of banana as a local plant in Javanese tradition, and to show the way of its utilization as sustainable material. The specific research objectives also include:

- Information - Education purpose: to improve knowledge and understanding of banana plants, to assess the potential of banana trees as a sustainable, economically viable resource for farmers;
- Persuasion purpose: to provide findings on the socio-economic and ethno botanical framework related with the relationship between Javanese people and banana plants as a material culture;
- Entertainment purpose: to comprise a summary of sustainable design projects using banana bark in small craft industry through my previous design-research since 2009;
- Ad vocative purpose: to develop a notion

to see banana plants as an indispensable element of Javanese cultural identity for its philosophical value based on in-depth interview data collection.

This research will provide a comprehensive evidences, developments, and state of the art overview of the relationships between banana plants and Javanese people and culture. Unlike publications and research about bamboo and rattan, there are still only a few research documenting the various uses and cultivation practices for bananas. Jean Kennedy (2009) provides an ethno-botanical overview of the use of bananas within traditional societies to show that *Musa* bananas have not been used, or presumably domesticated, solely for food. According to De Langhe et al. (2009), the publications and research related with banana plants are mostly draw on historical linguistics, archaeology, ethno-botany, genetics, bio molecular, and phytogeography, to illuminate regional histories of banana dispersal for Melanesia and Island Southeast Asia (Donohue & Denham 2009b), India (Fuller & Madella 2009) and West Africa (Blench 2009). The utilization of banana plants in small craft industry in East Java also highlights this study; the findings will enrich the literature about the rural craft industry and socio-economic development in contemporary Indonesian context.

Banana Plants Origins

Bananas have undergone a complex domestication history that occurred over thousands of years and involved multiple stages, often separated in time and place, which has only been partially unravelled so far (Careel *et al.* 2002, De Langhe 2000). Bananas constitute the

fourth most important global food commodity (after rice, wheat, and maize) grown in more than 100 countries over a harvested area of approximately 10 million hectares, with an annual production of 88 million tons (Frison and Sharrock, 1999). The all year round fruiting habit of bananas puts the crop in a superior position in bringing the 'hunger gap' between crop harvests (The Biology of Bananas and Plantains, 2007). Although bananas are one of the most important commercial crops in the world, it is estimated that 87% of banana production is for local food consumption (Biodiversity International, 2008). In Indonesia, banana produces one of the most important fruit, as it is available almost in all regions.

Multi-disciplinary evidence for the histories of banana domestication and dispersal enables the crop plant to be used as a marker of human processes and timeline. For example, when archaeo-botanical evidence is taken in conjunction with plant genetics and historical linguistics, robust chronologies of edible banana generation and dispersal can be established, such as the inferred movement of bananas from New Guinea to eastern Indonesia in the mid-Holocene (Denham & Donohue 2009, Donohue & Denham 2009a, Kennedy 2008).

Botanical Description

The term 'banana' is used throughout the text to refer to all types of bananas. Bananas with all its species, varieties or hybrids belong to the genus *Musa*, order Zingiberales, family Musaceae. The plant family Musaceae, composed of bananas, plantains, and ornamental bananas, originally evolved in Southeast Asia and surrounding tropical and subtropical regions including New Guinea. East Africa is

a secondary centre of diversity for highland bananas (Smale, 2006), whereas the low land areas of West Africa contain the largest range of genetic diversity in plantains (Ortiz and Vuylsteke, 1994).

The genus *Musa*'s centre of origin is South East Asia, a region considered as the primary centre of diversification of the crop and where the earliest domestication has occurred (Simmonds, 1962). A great number of important plants are found in the genus. The most significant are those that produce high quality fibres, and those that bear edible fruits. In addition to fruit, bananas and plantains provide many possibility to harness: usage in cooking process, edible parts (flower, stem, roots aside of fruit), as cultures with medicines, as beverages, utilized for fibres, dyes, fuel, processed as steam for cooking, farming composts, as forage or food for cattle, wrapping materials, etc. Most edible or familiar eating bananas are naturally occurring hybrids among the various subspecies of *M. acuminata* and interspecific hybrids between *M. acuminata* and *M. balbisiana*. *M. acuminata* evolved primarily in tropical rainforests in Southeast Asia, whereas *M. balbisiana* originated in monsoon areas in northern Southeast Asia, and southern Asia. Thus, pure *M. acuminata* cultivars developed first in Southeast Asia and its hybrids with *M. balbisiana* arose where distributions of the two species overlapped (Banana and Plantain, 2007).

Several types of bananas that are spread in East Java can be divided into two categories: edible and non-edible. One famous type of non-edible banana is *M. textilis*, or often called *abaca* or 'Pisang Manila', the fibre plant originated in the Philippines. Before the advent of synthetic textiles, *abaca* was the source of one of the world's premium fibres for its soft, silky,

glistening, and fine-textured characteristics. Its fibres were also suitable for other manufactured products such as rayon, cellophane, and newsprint. It was also a constituent in some European and American paper money. Commercial production of this type of banana was greatest in the Philippines and Central America. *Abaca* is a beautiful, tall plant, typical of the Australimusa section, and it is now rare in East Java, thus it is not as popular as other type of bananas to be harnessed in craft industry.

Another type of inedible banana is *M. balbisiana* or Javanese wild banana, often called as "Pisang Klutuk Wulung" in Javanese, which is one of the parents of many edible seedless bananas aside with 'Pisang Batu'. This species is extremely robust, fast growing, and drought-resistant. They can thrive in various natural environments even at low altitude, also as seedy as *M. acuminata*, but has fewer variables. They can hybrid with *M. acuminata* but the hybrids are generally sterile (Simmonds, 1962). However, such vigorous hybrids can easily be propagated in vegetative way, thereby explaining of many edible banana hybrids of *M. balbisiana* and *M. acuminata* throughout Java. These hybrids combine vigour with various fruit pulp qualities that may have attracted early banana growers. Another type of inedible banana in East Java is *M. paradisiaca* or ornamental banana. This dwarf ornamental has bright pink or purple fruiting stems and bud with bright yellow flowers as its notable features.

Plants belonging to the genus *Musa* produce edible bananas, and they are highly diverse. Some of the most variable traits include: plant stature, pigmentation, size of the fruit bunch, shape, colour, and taste. Estimates of the

numbers of cultivars that occur worldwide range from 300 to more than 1000, and around 230 different species throughout Indonesia, 89 species throughout Java, and 15 different species has been located in East Java through my previous ethnographic research. Common names that have been given to some of the cultivars are ambiguous, and there are so many duplicate names and close clone relatives found even amongst different regions within Java Island. The most common group for edible banana that are cultivated are divided into plantains that are needed to be cooked before serving such as 'Pisang Kepok', 'Pisang Barangan Merah/Kuning', 'Pisang Tanduk', 'Pisang Nangka', 'Pisang Siem', 'Pisang Uli', 'Pisang Kapas', and bananas that has extraordinarily sweet, fine quality fruits such as 'Pisang Susu', 'Pisang Lilin', 'Pisang Lampung', 'Pisang Mas', 'Pisang Ambon' (Ambon Kuning, Ambon Lumut), and 'Pisang Raja' which is the most important type of banana used in traditional Javanese rituals.

The presence of several types of "Pisang Raja/Radjah" may be linked to the eastern expansion of Indian civilizations, such as that of the Palava Dynasty from the first centuries AD. 'Raja' means 'a king', and in Java the name 'Pisang Raja' is applied to more than one cultivar i.e. 'Pisang Raja Sere', 'Pisang Raja Bulu', 'Pisang Raja Mas', etc. It seems that Rajas (kings) at different places had their own preference, and that their subjects began to name each cultivar 'Pisang Radjah' (the banana of the Raja/King). This aspect of cultivar nomenclature is potentially a very important subject of investigation for linguists, in collaboration with banana taxonomists, in order to reconstruct the likely processes of 'cultivar expansion' (e.g., Blench 2009, Donohue

& Denham 2009b).

The diversity of banana plants in general, and particularly in Java, can be traced and can be considered as an 'artefact', a collective human product. Various species of *Musa* attracted human interest in such a way that initially unconscious and subsequently conscious selection took place to choose which amongst them to serve important role and meanings in Javanese traditional customs. It is not yet known when this selection and domestication process started. However, we may be sure that early crops are not have always been grown for food. Many parts of the banana plant, like leaves, are used for practical purposes (Kennedy 2009) or potentially for ritual as mentioned in "Serat Centhini". Written in 1814 by Paku Alam V of Surakarta Kingdom, this manuscript describes about Javanese way of life and wisdoms, and also mentions the importance of banana plants in Javanese traditional ceremony and gathered-dining events (or "kenduri"), which accentuates the role of banana plants as a symbol of Javanese heritage. The long history of banana plants domestication is also a result from a co-evolutionary process between human cultural practices and plant biology. Indeed, in this particular case, ritual use has often been the engine for change in the various use and domestication of banana plants, including in East Java.

Morphology and Reproduction of Banana

According to Blomme and Ortiz (2000), bananas are large, perennial, monocotyledonous herbs 2–9 meters in height that arises from large, subterranean rhizomes called "corms". The corm produces aerial shoots that arise from the lateral buds that develop into suckers. The continuous vegetative growth of suckers

perpetuates the corm's life and hence the perennial status of bananas. The aerial shoot is called a pseudo stem and grows to various heights from 2 until 9 meters depending on the variety and the conditions. The pseudo stem consists of large overlapping leaf bases that are tightly rolled around each other forming a cylindrical structure almost 48 cm in diameter. This particular part of the plant is later on developed and utilized as the main material of products in small craft industry.

The corm consists of the apical meristem from which the leaves and the flowers are initiated. On average, each plant produces 35 to 50 leaves in its growth cycle. When a banana plant has formed an average of 40 leaves within 8 to 18 months, the plant will ultimately form flowers that are arranged spirally round the axis and closely overlapping each other forming a tight conical bunch of bananas. Upon flowering, the true stem or growing point emerges from the centre of the tightly rolled bunch of leaves. This odd-looking "flower-cluster" is actually an elongated, plump, purple to green "bud" (usually called "heart" in Javanese culture). About 12–20 flowers are produced per cluster. Banana bunches possess 4 to 12 clusters, each with at least 10 fruits (Purseglove, 1972). Collectively, the flowering parts and fruits are referred to as the bunch. Individual clusters of fruits are known as hands, and individual fruits are known as fingers.

The entire portion of banana plant is not a true woody trunk as in other trees, but a "false trunk" or "false stem" that consists of leaves and pseudo stem. The pseudo stem supports a canopy consisting of 6–20 or more leaves. Meanwhile, the general morphology traits of *Musa* fruits in Java are varied in size, shape, and colour. They are generally elongate-

cylindrical, straight to strongly curved, 3–40 cm long, and 2–8 cm in diameter. According to *Musa* species (banana and plantain) botanical description by Nelson et al. (2006), banana fruit apex is important in identifying their variety; it may be tapered, rounded, or blunt. The skin is thin and tender, to thick and leathery, and silver, yellow, green, or red in colour. Inside the ripe fruit, the flesh ranges from starchy to sweet, and in colour from white, cream, yellow, or yellow-orange to orange. Bananas also vary in peel thickness. Some varieties have a thin peel and more susceptible to damage in transport, whereas others have a comparably thicker peel which allows them to be exported as commercial cultivars, such as Cavendish banana.

Reproduction of banana is relatively easy since they are known for their ability to regenerate rapidly from corms. Banana and plantain are propagated principally by vegetative division and far more rarely by seeds, except for banana breeding, ornamental types, and wild species. Cultivated varieties or edible bananas are typically seedless, but when they are present, they vary among species in shape and morphology. Seeds of *Musa balbisiana*, parent of many commercial edible banana varieties, are dark brown, ovoid, about 4 mm long, with a conspicuous white, powdery endosperm. Fruits of cultivated *Musa* species are typically sterile or have extremely low fertility; they produce fruit pulp without pollination and fruits lacking seed. Through natural somatic (vegetative) mutation, hybridization, and selection over many thousands of years, considerable genetic variability has arisen within the cultivated bananas, giving rise to more than 1000 varieties worldwide (Nelson, et al. 2006).

There are several abilities of banana plants,

which excel them to be sustainable crops. The plants can store a significant amount of water within their pseudo stems and rhizomes, thus they can survive extended periods of drought, although their growth will slow down under such conditions. The ideal temperature for them to grow vegetative shoots is around 26 – 28°C, and around 29 – 30°C for fruiting. They can tolerate high or low temperature depending upon the species. Also, they tolerate wide range of soils, soil acidity, drought area, although they will grow and produce best where rainfall is evenly distributed throughout the year. Because of their water-filled energy reserves, they can survive through long dry periods but will subsequently produce only small bunches.

Banana and plantain thrive in full sun, especially if winds are not high, because strong winds can topple plants when they bear fruit. Steady winds cause significant leaf shredding, leaf drying, and distortion of the crown or sometimes the entire plant. Winds cause more damage if insect pests or disease (by fungus) weakens the underground corm. In windy areas, dwarf ornamental banana varieties are best.

Banana plants produce fruits once in their lifespan – around 6 – 9 months after plantings or regeneration, and the flowering occur year-round although fluctuate seasonally. Although they are almost always tolerate various conditions, fruit production can be delayed by several months if plants are excessively shaded. Also in some special case such as flood, excessive irrigation or poorly drained sites, banana plants can withstand waterlogged soil but will produce fruits poorly.

Banana Plants Variety in East Java

In East Java, there are approximately 15

different varieties of bananas. Some of them share the same type, only in different name. Described below is the general classification of variety or banana cultivars comprised by Rukmana (1999:20) combined with my own ethnographic research based on the characteristic of the fruit and the common usage. The morphology and characteristics are divided into seven types.

1. Type “Pisang Ambon”, also commonly known as Cavendish, with morphology traits as below:
 - a. Banana tree height around 2.5 – 3 meters, with trunk diameter about 0.4 – 0.6 meter (except for category of “Pisang Ambon Badak” which are slightly bigger), and has green with black dots colour shades.
 - b. The length of leaves around 2.1 – 3 meters with width around 40 – 65 cm, sometimes are covered in a thin layer of natural wax.
 - c. The fruit bunch length is around 40 – 60 cm, bowing and downy/fuzzy.
 - d. The “heart” of the flower has an oval shape, with purple on the outside layer, and pink on the inside.
 - e. Each rows of the bunch has 7 – 10 fingers, and each finger has 10 – 16 hands (banana fruits).
 - f. The fruit has cylindrical shape, a bit curvy, long, and seedless. The peel is thick around 2.4 – 3 mm.
 - g. The fruit flesh is soft, white or yellowish in colour, and has a flavourful sweet taste with strong fragrance.
 - h. Produce flowers in the age of 11 – 12 months, and fruits ripe 4 – 5 months after flowering.
 - i. Several types of banana from this

category: "Ambon Lumut", "Ambon Putih", "Ambon Kuning", "Ambon Hijau", "Ambon Badak", "Ambon Angleng", and "Ambon Cavendish".

2. Type "Pisang Raja", which is also a special type of banana for Javanese people. Their characteristic morphology is as below:

- a. Fruit shapes are slightly similar with "Pisang Ambon", but have thicker peels. The fruit colour is varying from light yellow, and dark yellow with reddish shade.
- b. Its tree height around 2.6 – 3 meters, with trunk diameter about 0.4 – 0.5 meter (except for category of "Pisang Raja Sere" which are slightly smaller), and has green with black dots colour shades. The whole "Pisang Raja" tree is an important provision for Javanese traditional wedding.
- c. The length of leaves around 2.4 – 2.8 meters with width around 40 – 65 cm, sometimes are coated in a thin layer of natural wax.
- d. The fruit bunch length is around 40 – 60 cm, bowing and downy/fuzzy.
- e. The "heart" of the flower has an egg-oval shape, with purple on the outside layer of sheath, and red on the inside.
- f. Each rows of the bunch has 6 – 8 fingers, and each finger has 12 – 13 hands of banana fruits.
- g. The fruit has cylindrical shape, a pointed tip round or sometimes a little bit square in shape. The peel is thick around 3 mm.
- h. The fruit flesh is soft; the colour varies from white or yellowish to light yellow to reddish; seedless, and has a flavourful sweet taste with delicate fragrance.
- i. Produce flowers in the age of 14 months,

and fruits ripe around 5 months after flowering.

- j. Several types of banana from this category: "Raja Bulu", "Raja Sere", "Raja Molo", and "Raja Mas". In Javanese culture, "Raja Mas" type is the most important type to be used in rituals or ceremonies, and one most recognisable trait of this type of banana is the sleek texture and shiny fruit peel.

3. Type "Pisang Mas"

- a. Banana tree height around 2 meters, with trunk diameter about 0.2 – 0.3 meter, and has dark green with reddish brown dots colour shades.
- b. The length of leaves around 90 – 110 centimetres with width around 20 – 27 cm.
- c. The fruit bunch length is around 20 – 30 cm, bowing and downy/fuzzy.
- d. The "heart" of the flower has an egg-oval shape, with purple sheath on its outside layer, and red on the inside.
- e. Each rows of the bunch has 4 – 6 fingers, and each finger has 6 – 8 hands of banana fruits.
- f. The fruit has cylindrical shape, a pointed tip around 9 – 10 cm, and seedless. The peel is thin around 1 mm and coloured in yellow gold.
- g. The fruit flesh has cream colour, flavourful sweet taste to coarse texture, seedless, and less fragrant.
- h. Produce flowers in the age of 12 months, and fruits ripe around 3.5 months after flowering.
- i. Several names of banana from this category: "Pisang Lampung", "Pisang Susu", "Pisang Muli", and "Pisang Seribu".

4. Type "Pisang Kepok", the majority of bananas plants in the study area, Bojonegoro, East Java are from this category. Characteristic morphology of this type of bananas are as below:
 - a. Banana tree height around 3 meters, with trunk diameter about 0.4 – 0.5 meter, and has light to dark green colour with less or without brown to black dots colour shades.
 - b. The length of leaves around 180 centimetres with width around 50 – 60 cm, coated with natural wax layer on the inner side.
 - c. The fruit bunch length is around 30 – 60 cm, bowing, not downy/fuzzy.
 - d. The "heart" of the flower has an egg-oval shape, a bit wider on the side, with purple sheath on its outside layer, and red on the inside.
 - e. Each rows of the bunch has 5 – 9 fingers, with each finger has 10 – 14 hands of banana fruits, and each section might have triangle, rounded, or squared shapes.
 - f. The fruit flesh is starchy, with white to yellowish or white to purplish colour, and has sweet taste to coarse texture.
 - g. Several types of banana from this category: "Pisang Kepok Kuning", "Pisang Gajih Putih", "Pisang Gajih Kuning", "Pisang Siem", and "Pisang Kates".
5. Type "Pisang Tanduk", with morphological traits as below:
 - a. Banana tree height around 3 meters, with trunk diameter about 63 – 69 centimetre, and has light brown colour with shades of pink on top part of the tree.
 - b. The length of leaves around 190 – 210 centimetres with width around 70 – 85 cm, and it has pink shades of colour on the stems.
 - c. The fruit bunch length is around 50 – 60 cm, bowing.
 - d. The "heart" of the flower has an egg-oval shape, with purple sheath on its outside layer, and red on the inside.
 - e. Each rows of the bunch has 1 – 5 fingers, with each finger has 10 – 12 hands of banana fruits, and each section might have triangle, rounded, or squared shapes, with length around 23 – 28 cm and thick fruit peel.
 - f. The fruit flesh is starchy, with white to yellowish colour, and mildly sweet to sour taste.
 - g. Several types of banana from this category: "Pisang Agung", "Pisang Galek" which usually have 2 – 3 fingers on each rows of the bunch, "Pisang Karayunan" which usually have 3 – 5 fingers on each rows of the bunch, "Pisang Candi", "Pisang Kapas", and "Pisang Nangka".
6. Type "Pisang Uli". Characteristic morphology of this type of bananas are as below:
 - a. Banana tree height around 2 – 2.5 meters, with trunk diameter about 25 – 35 centimetres, and has pale green colour with reddish shades.
 - b. The length of leaves around 180 – 200 centimetres with pink shades of colour on the stems.
 - c. The fruit bunch length can be up to 1.5 – 1.7 meter, bowing and downy/fuzzy.
 - d. The "heart" of the flower has an egg-oval shape, with purple sheath on its

outside layer, and red on the inside.

- e. Each rows of the bunch has 4 – 8 fingers, with each finger has 10 – 12 hands of banana fruits.
 - f. The fruit is small and slim, around 10 cm length, with a thin white to yellow peel colour. Its flesh is soft and cream coloured, not very sweet to starchy taste and a very subtle aroma.
 - g. Several types of banana from this category: “Pisang Kayu”, “Pisang Lidi”, “Pisang Janten”, and “Pisang Ampyang”.
7. Type “Pisang Klutuk”. Characteristic morphology of this type of bananas are as below:
- a. Banana tree height around 3 meters, with trunk diameter about 60 – 70 centimetres, and has green colour with and without dark brown to black spots shades.
 - b. The length of leaves around 60 – 200 and coated with natural wax.
 - c. The fruit bunch length around 80 – 100 centimetre, bowing and downy/fuzzy.
 - d. The “heart” of the flower has an egg-oval shape, with purple sheath on its outside layer, and red on the inside.
 - e. Each rows of the bunch has 5 – 7 fingers, with each finger has 12 – 18 hands of banana fruits in tight composition, and each section might have triangle or rounded shapes, with thick fruit peel.
 - f. The fruit flesh is starchy, with white to yellowish colour, and subtly sweet taste. It contains a lot of seeds, and is often to harvest the fruit when it is still unripe to be mixed with chilli and other ingredients to make spicy paste in ‘rujak petis’, a traditional Javanese dish.

- g. Several types of banana from this category: “Pisang Batu”, “Pisang Klutuk Wulung”, and “Pisang Menggala”.

All of seven types above are consumable, but the way to consume differs from one another. Bananas with less aroma, subtle sweet taste, and starchy flesh such as ‘Pisang Kepok’, ‘Pisang Uli’, ‘Pisang Tanduk’, and ‘Pisang Klutuk’ are not commonly consumed raw as a dessert fruit. ‘Pisang Klutuk’, especially, which is usually harvested unripe, is not consumed directly. Those above are suitable to be processed in various way of cooking, such as deep-fried, steamed, or mixed with other ingredients as an ingredient for spicy paste.

Bananas with fragrance aroma, flavourful taste, and soft texture such as ‘Pisang Raja’, ‘Pisang Ambon’, and ‘Pisang Mas’ are usually consumed fresh and served as dessert fruits. ‘Pisang Ambon’ is commonly known as a baby’s food throughout Javanese society, due to its soft texture and high nutrition. Although both ‘Pisang Raja’ and ‘Pisang Mas’ have the similar qualities with ‘Pisang Ambon’ as dessert-fruit, ‘Pisang Raja’ has the most importance in Javanese ritual events.

In the research area, the villagers privately own and managed the banana plants production. Neither government nor private company rules the banana plantation in the research area. Banana plants can be found easily in the villagers’ backyard, front yard, the riverbed, and rice field. The banana farmers then collect the harvested fruit to the farmer’s cooperation before sell them in traditional markets or send them to other cities such as Surabaya and Yogyakarta. After harvest time, the craftsmen collect banana trees as the main material in the craft industry, and the cycle continues.

Different soil condition, temperature, and the

amount of rainfall contribute to the differences of banana types that are planted. In the research village area, the farmers mostly plant 'Pisang Kepok', which covers almost 60% of their annual production. The dry climate in the village is most suitable for this type of banana. 'Pisang Kepok' is also the most consumed banana in this village, not only deep-fried as banana fritters for morning or afternoon snacks, but also steamed and brought by the farmers to the rice field as lunch snack. The second dominant production is 20% of 'Pisang Raja' which is considered as rare but irreplaceable banana for traditional rituals. Nowadays, 'Pisang Raja' is often sold as a whole tree and costs highly in the wedding market. The planting area for this type of banana is tended carefully by the farmers, and often surrounded by 'Pisang Kepok' or 'Pisang Ambon' type, which are taller in height and can protect 'Pisang Raja' plants from the strong wind. Other types of banana such as 'Pisang Ambon', 'Pisang Mas', 'Pisang Tanduk', 'Pisang Klutuk', and 'Pisang Uli' share the rest of annual production. They have a relatively constant market demand.

The General Use of Banana Plants in Java

Bananas grow best where rainfall is distributed evenly throughout the year, thus it thrives in East Java where such climate prevails. The life span of individual plants is about 1–1.5 years, and the plants only produce flower and fruit once in its lifespan, and it continually regenerates new plants after they bear fruits and wither. Several usages of banana plants in Java compiled from ethnographic research are summed up as below:

1. As staple food. Bananas are one of the most significant sources of calories for the

human diet, whether consumed cooked or raw. Indonesia acknowledges a healthy diet consists of variety of foods from 5 food groups in correct proportions. These include foods containing starch, fruit and vegetables, milk and dairy food, foods containing protein, and that containing fats and sugar. Bananas are in the fruit and vegetable group as well as the food group that mostly contain starch. Sweet tasted bananas are generally eaten raw as fruits or sometimes processed to become syrup, while cooked bananas and plantains are boiled, steamed, fried, or roasted. Bananas provide a good source of nutrients for both human and animal consumption. Also, as a good source of potassium, bananas are rich in pro-vitamin A and other carotenoids, which is important for protection against anaemia and vitamin A deficiency. Carotenoid-rich foods may also protect against diabetes, heart disease, and certain cancers, which are serious emerging problems in Indonesia.

2. Traditional medicinal purpose. The entire flower bud can be cooked as a vegetable, and it is also known as one ingredients of Javanese traditional herb (or "*jamu*"). Water of the stems can also be used to cure dysentery and as a common antidote.
3. Use in farming. Banana plants produce profuse amounts of vegetative mass that, upon composting, produces a significant amount of natural organic matter. When they grow on steep, soil-covered banks, they can suppress many weeds and bring shade to surrounding plants. Banana tree can also be used as a media planter for vegetables when it is cut and holed up to contain soil and vegetable seeds.

4. Ornamental functions. Bananas are ideally suited for home gardens, and thrive under a wide range of landscapes from backyard to coastal resorts. Dwarf varieties are relatively wind-tolerant and disease-resistant. Some areas also grow bananas as living fences for their rice fields or gardens, since the plants absorb noise well, grow quickly, and can block the view.
5. Forage for animals. Banana fruits, stems, and cut-up pseudo stems (trunks) are suitable for animal fodder for horses, cattle, and goats.
6. Raft making. Banana trunks are occasionally used as raft in the river, as it were also used since long time ago.
7. Fibre extraction. Leaf and banana plant fibre are used to make string, thread, cloth, rope, mats, etc.
8. In food wrapping and eating utensils. Leaves are used in cooking process, packing and wrapping foods, whether in daily consumption or ceremonial use. Banana leaves are also used as plates and tools to pick up foods.
9. Ceremonial use. Banana fruits are important part of offerings in Javanese traditional rituals and ceremony, up to modern days. Javanese traditional wedding requires a whole banana tree, particularly 'Pisang Raja'. Its presence is paramount for the event since it is believed to serve as a crucial offering for the spirits of the village, in order to protect the bride and groom from their wedding day and so forth. Banana plants philosophy according to a Javanese wedding shaman when I interviewed her in a traditional Javanese wedding is as follows:

Bananas only bear fruits once in

its lifespan, and then die. Javanese weddings are supposed to learn the banana plants way of life: bear a fruitful marriage only once in a lifetime until death do they part.

10. Other use. Banana fruit's peel can be fermented to become vinegar for cooking. Some older Javanese people also used to roll dried tobacco inside banana leaf to smoke. Meanwhile, the root can be processed into soda and become the main ingredients for making soap and fertilizer.

Case Study: Banana Plants Craft Industry in Bojonegoro, East Java

Presently, sustainable products with ecological concept emerge rapidly. This, too, generates the emerging of small craft industries using local plants, including banana plants. Despite its abundance in Indonesia, banana plants are still less popular compared to other materials such as bamboo, wood, rattan, water hyacinth, etc. Banana plantations in East Java is the biggest producer of banana annually in Indonesia (Statistics of Annual Fruit and Vegetable Plants Indonesia, Central Bureau of Statistics Indonesia, 2015), and they produce huge mass of banana bark as agricultural waste but still less noticeable than other natural materials. Hence, it became motivation for this research in combining creative process and design thinking in innovation between designer-academic, craftsmen, farmers, and Javanese people in general.

Generally, craft industry fulfils to make man-made things with practical use or functional ends, such as container, cover, support, or otherwise as adornment and decoration objects. Small craft industry in this research area utilizes

banana plants agricultural waste into various objects with functional use or as adornment objects by handmade craft procedure. They also use machinery to some extent, such as to make ropes out of banana barks. However, the role of the machine is only to support crafts people's work.

In usual craft production, the maker and the planner involve a single person completing the entire process, from conceptualisation to fabrication (Fillis, 2008). Meanwhile, in the collaboration process, there are some exchanging ideas between the researcher-designer and craftspeople in creating product innovations. Rees (1997) explained that innovation in design is often led by the market, while in craft it is likely to be led by the maker as the product reflects the maker's choice, self-expression or an experiment with materials and techniques.

In this research, there is a necessity to understand the difference between craftspeople; banana plants farmers, and designer-academia in order to know the nature and needs of each specialty. A reflection on how the designer and craftspeople work and generate ideas is also important to draw up an empowering collaboration. In proposing new product design ideas, the designer naturally works "by planning-inventing-making-doing" (Bruce Archer, 1999 cited in Cross, 1982) starting with exploring ideas through sketches or drawing, followed by prototyping. Meanwhile, the craftsmen naturally work "by making" with exploring ideas through treating material. Both are aiming in the same goals. Upgrading craftwork by the design approach should not be regarded as transforming craftspeople into designers nor eliminating the manual way of making products. In the case of banana bark

craft industry, the participatory approach by designer-researcher considers craftspeople as much as designer in pursuing innovation, because craftsmen are experts in their field. The purpose of the understanding is to find the best way to collaborate while maximizing their unique advantage and disadvantage aiming to the preservation of Javanese culture.

The banana bark craft industry in Baureno village, Bojonegoro was established around 1999 – 2000 following the big political and economic crisis in Indonesia. It was initiated by a group of craftspeople that concerned about the expansions of their youth's overseas migration to find a job as wage labour. This small craft industry started its business in making handmade wedding souvenirs in Bojonegoro.

The craftspeople treat banana bark starting from the drying process for three until four days under the sun, and then wipe the dry banana barks with dry cloth. They then prepare the box for tissue container made of 3-millimetre cardboard paper. They glue the banana bark throughout the surface of the box. Fig. 1 shows dried banana plants that are stored in front of a craftsman's house.



Fig 1. Dried Banana Barks before Production Process

Source: Field survey conducted by author, in Permanasari (2012).



Fig 2. Separating Layers of Dried Banana Bark Sheet

Source: Field survey conducted by author, in Permanasari (2012).

The storing process of dried banana bark is often come with problems such as humidity, and rain splatter may cause fungus to grow on the banana bark sheets. To overcome this problem, in one occasion of the field survey, the author built a storage container made of aluminium sheets using hot-air flowing system, which let loose the cold breeze from its surrounding, and capture the hot-air inside the container, thus it protects the dried banana bark sheets from weather and pests. The craftspeople still use this aluminium container to store dried banana barks alongside the usual storage room outside their house.

After drying process, craftspeople then clean banana bark sheets using dry cloth and separate it per layer. The outer layer of banana bark sheet has smoother yet harder texture and rich in patterns than the inner layer, which is usually softer and plain in colour. Both layers are important: the outer layer is for the exterior of the products, while the inner layer become the interior. Fig. 2 shows the inner layer of banana bark sheet being separated from the outer layer.

The next process is attaching banana bark



Fig 3. Craftsperson Preparing Cardboard Box

Source: Field survey conducted by author, in Permanasari (2012).



Fig 4. Dried Banana Barks Glued onto Cardboard Box

Source: Field survey conducted by author, in Permanasari (2012).

sheets on to cardboard paper-box using white glue. Fig. 3 shows a craftsperson measuring cardboard box before applying white glue to attach banana bark sheet on it.

Almost all part of banana barks sheet is used in the production process, nothing goes to waste. Even small part can be applied as a decorative element on the cardboard box. In Fig. 4, a craftsperson is applying a small part of banana barks sheet to the side of the cardboard box. Afterwards, the unfinished boxes are stacked for last inspection before laminated with varnish coatings, as seen in Fig.5.



Fig 5. Pre-finishing Process

Source: Field survey conducted by author, in Permanasari (2012).

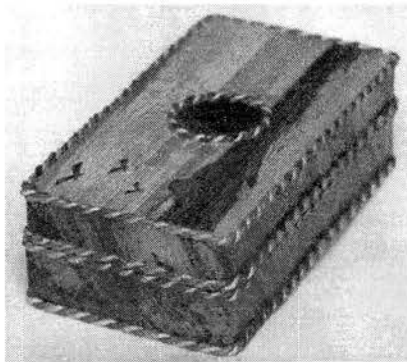


Fig 6. Final Product

Source: Field survey conducted by author, in Permanasari (2012).

The final product as seen in Fig. 6 is ready to be distributed. Each product has unique appearances, as pattern of banana bark sheet is

different one another. Craftsmen also add small rope made of banana bark to cover the edges of the box. It enhances the feature of the finished product, and also shows that banana bark can be processed into sheets and ropes. A rope made of banana bark is strong and durable, and the research village also supply various sizes of ropes due to the high demand from furniture craft industry in other regions such as Yogyakarta and Cirebon, West Java.

Workers are dominantly housewives or dropped-out of high schools in and around the village, as seen in Fig. 7. These people normally get paid per item depending on the orders, but as the economic situation is getting better, most of them are working there not only for the money, but to learn how to make craft product using banana bark that are widely available throughout their village. Usually, the craftspeople come to the leader craftsman's house around 8 in the morning when they already done with the housework errands, and go back to their houses around 11 to prepare lunch for their families. Around 1 until 3 in the afternoon, some of them go back to work in the leader craftsmen's house, some choose only morning time to work.



Fig 7. Workers in Banana Bark Craft Industry

Source: Field survey conducted by author, in Permanasari (2012).

As the majority of the craft makers throughout Java, the banana bark craft industry in Bojonegoro run in a workshop of the leader craftsmen's house. Suyitno, the leader craftsman who is also the head of the non-government organization managing the banana bark craft industry in Bojonegoro, mentioned that the making skills of creating banana bark products can be transferred without any proper training, just enough through observation. He self-taught himself to make tissue boxes and small crafts for wedding souvenirs when eventually the market demand was rising. He needed to train other people to join him in harnessing banana bark into various products with economic value. Nevertheless, since most of the craftspeople in Indonesia are local self-trained workers, they barely know about design trends, marketing strategy, and management. They possess great making and crafting skills, but that does not reflect the worth of their craftsmanship in a monetary term. They often dissatisfy the orders, particularly those from abroad such as Malaysia, Singapore, Australia, and the US, because they find difficulties in organizing and managing the work by themselves in order to cope up with the needed requirements (quality, amounts, punctuality, etc.).

Before I actively engage in the development of this banana bark craft industry, I was invited to come and have sightseeing about their products by one of the initiator of this craft industry. Initially, this craft industry was run by two frontman. One of the initiator is a former manager of a private company who put bigger interest on how to make their products marketable and viable economically. Meanwhile, the other initiator is Mr. Suyitno, a craftsman with only a high school diploma, who put more concern on the educational aspects and social

development of the villagers. As the two leaders had different purposes, later, they went on separated with their own businesses. Personally, I partook in the reform phase of this banana bark craft industry and more involved in the socio-education movement led by Mr. Suyitno with his informal-education teaching methods.

The collaboration between educators from informal sector and academia has opened various projects that might not be vast economically, but in the long run this collaborative project may attract recognition from local government and international organization. Moreover, the educational purpose is open to varieties and opportunities to grow, alongside with the never-ending process of exploring, researching, creating, and innovating. Meanwhile, leaning solely to economical purpose will put the sale targets as a bigger pressure and have obstacle in product development. This was actually proven by the demise of the banana bark craft industry led by a manager who put the sale of the product as the main target.

As Mr. Suyitno actively taught craft subject using banana bark in local high schools and participate in craft exhibitions, the mayor and regent of Bojonegoro area became familiar with him. The local government often asked him to become an ambassador to introduce banana bark crafts of Bojonegoro to other regions either in Java or Borneo, Sumatra, etc. The local newspapers also contributed enthroning Mr. Suyitno and his informal education and socio-development program as a local ambassador with banana bark as a media. The recognition from USAID in this social-development activity started around 2014, where they funded the community led by Mr. Suyitno to construct a multifunction building as a gathering place to facilitate informal education for villagers, and

Mr. Suyito made the building functioning as a kindergarten in some rooms, a classroom to teach illiterate villagers in another room, and also a room as a workshop for banana bark craft industry.

In my previous projects, I conducted several collaboration workshops in this community, including one that involved banana-bark craftspeople and design students. In one workshop around 2009, I participated in the product development process together with Mr. Suyitno and around 19 craftspeople, and introduced alternative techniques to treat dried banana bark and introduced some of my designs, such as weaving the banana bark sheets into a handbag. Around 2010, I received a research funding from Indonesian Ministry of Research and Technology through my university to develop the products of banana bark craft industry. In this collaborative workshop, I stayed about one week in the village with three of my peers from The Faculty of Product Design to assist me in the participatory workshop with 18 craftspeople in introducing innovative designs for the development of banana bark craft product's design.

In management expertise, I applied the knowledge that I obtained from formal education in university such as Product Management, Marketing Management, and Industrial Management into the real cases that were faced by the community at that time, such as the introduction of new designs to overcome the declining demand. With the increase of product design variety with better quality, market demand for the products of their craft again increased, and public's recognition of banana bark craft products were significantly improved through the invitation to

sell the products in INACRAFT (annual craft products exhibition held by Indonesian Ministry of Trade and Industry in Jakarta, Indonesia), which is considered to be the biggest event for Indonesian craft industries, because not only attractive for local visitors but also for international attendees or ambassadors from other countries.

It can be concluded that the workshops had successfully introduce the importance of quality control, proper management system in storing, preparing, and processing the raw material into products, and also some insights about design trends and how to increase the interests from potential buyers, whether local or international. These processes also imply the bargaining position and power of the craft-makers in the context of market demand, and it is important to understand this position to overcome most problems that occurred in banana bark craft industry.

Analysis

In most cases, the buyer is the player who holds most influential power in economic process. Potential buyers may notice the banana bark crafts in exhibitions or other media, and sometimes they may give orders through traders in other area such as Bali or Yogyakarta, the worldly famous tourist spots. Through such process, they contact the leader of banana bark craftsmen community in East Java. As a representative of a craftspeople community, the leader's role here is to communicate with the buyers, receive the orders, pass on messages and allocate tasks to the craftspeople group.

However, as similar as the case of other craft product in Indonesia, around 2010s the demand of banana bark products decreased. Some

problems occurred in the development of banana bark craft industry, which resulted in the sales declining. As stated by other researchers in previous similar studies, rural craftspeople struggle to save their businesses (Cohen, 1998; Dhamija, 2008; Dilley, 2004; Dutton, 1983; Friel & Santagata, 2008; Kamara, 2004; Liebl & Roy, 2004; Rogerson, 2000, in Zulaikha, 2014). The common problems for rural craft industries are the lack of product innovation, management skill, and of marketing strategies, and also the limited access to design and latest technology. In most cases, rural craftspeople depend on traders or buyers coming to the site rather than actively seeking customers. This leads to lower income for the craftspeople although there is a big potential to market the products.

In this research area, the banana bark craft industry was run by two frontman with different purposes. They eventually parted ways and separately became the leaders of two craft industries. One was more concern with socio-development issue, while the other pursued economic profits as utmost ends.

Firstly, problem occurred when bad weather came for days and the rainy season and high humidity disenabled the craftspeople to prepare and process the raw materials normally. This seasonal challenge causes the difficulties in pre-production phase. To overcome this problem, the banana barks industry actively seeks another way to make best of the limited material, for example, to produce small sized souvenirs, or to participate in craft workshops in schools nearby, etc. Meanwhile, the initiator who focuses on the economic profits chose to store the material in a large quantity, which mostly decomposed due to the humidity inside the warehouse and led to wasted materials. In a situation of lacking the main material for production due to weather

condition, the craft industry without a rush of production target has survived.

Secondly, it is most often that the buyers did not understand the situation of the craftspeople whether they would be able to fulfil the orders or not, since most of the workers were Javanese who sometimes put their cultural or communal commitments to attend before work. In this situation, flexibility is an obstacle for the craft industry that struggles to fulfil selling-targets. Meanwhile, industry without a demand of production target in a certain deadline seeks out another way to improve their selling points: for example, they would sell and deliver banana bark as raw craft product material, whether as banana bark dried sheets, or as banana bark ropes, to make ends meet.

Thirdly, it is the leader craftsman who decides the continuation of transactions. Specifically, the leader of craft industry that focuses on informal education sector cancelled orders in several occasions due to the seasonal causes or his personal reason. He admitted that business is not his real passion; his true motivation is to teach and share skills to other villagers about how to realize the most of banana plants potential. His attitude and action affected other craftspeople surround him.

This exact condition has been explained by Fillis (2004) in the research of different attitudes of craftspeople towards their craft business. Fillis classified craftspeople into the following types: (1) the life-styler – who enjoys his or her life without feeling that it is important to expand the business; (2) the idealist – who has a strong commitment to art and seeks to generate a reputation related to the art field and is unwilling to accept the marketing and business philosophy; (3) the entrepreneur – a risk taker in carrying out business, so he or she

is willing to accept the marketing and business philosophy; and (4) the late developer –who comes from a non-creative background, who is less likely to expand the business or accept ‘new’ ideas.

Considering the characteristics of these types, the leader craftsman in this research area belongs to the idealist type and the life-styler. The craft industry itself has a collectivistic system in terms of decision-making process, accompanied by the dynamic interaction among members. There are no pressure related to production targets. The leader also appreciates every member’s ideas to explore on how to treat banana bark in craft industry. As explained by Holton (2001) cited in Zulaikha (2014), the basis for effective organisational team building is collaborative learning, and it requires a level of personal familiarity, intimacy and trust, to allow team members to listen to one another with respect and understanding. The communication process between the leader and members has built stronger connection, encourage the feelings for sharing, thus it also enable the discussion for new product development strategy or innovation, than with control. This craft industry does not recruit new craftspeople, but the villagers express their willingness to join and participate in the craft industry as well as in the informal education sector initiated by the leader craftsman.

Price competitiveness is also a challenge in the current development of banana bark craft industry. In reality, to compete with other attractive cheap items from other competitors, the banana bark craft industry in Bojonegoro is still using cheap adhesives and toxic chemicals to reduce their production costs. The craftspeople are also ignoring the importance of wearing protective masks while working,

although it is provided. Despite the effort and strong will to use sustainability as a solid ground, the matter of economic constraint seems to be a significant factor that influence their performance.

The recent and upcoming challenge for the development of banana bark craft industry is the global economy and free trade market system. While Indonesian government focuses on low-cost skilled labour strategy to attract buyers or investors from overseas, it is crucial to raise the awareness of the importance of marketing management in small craft industries. Eventually, the creative industry and craft sector will thrive to a higher level than commission-based or large-scale industry. Craft-based design will play an important role as a foundation for this rising, and the products will combine innovative design, local craft techniques, and natural materials.

In the research area, banana craft industry is growing steadily, involving a collaborative interaction between around 26 craftspeople with hundreds of farmers and even more numbers from surrounding villages who became craftspeople because this occupation could give them extra income. I believe that the expertise of the local craftsmen in this area will be recognised more if they start to receive overseas orders directly by online trading, not only through traders from Bali or Yogyakarta. However, this way of marketing could be a double-sided blade for the craft industry, because the nature of this community is not in accordance with over demands in their production capacity, and only craftspeople with extraordinary skills focusing on high quality products in large quantity will be able to continue to receive orders, while the majority of craftspeople with average skills could not

cope with the market demands. The community and banana craft industry within it will be sustained by the educational purpose behind the economical reason for villagers' social development.

Besides the economic reason and management, banana bark craft industry holds an important role in creating a self-reliant and creative community in the research area, without damaging the environment and their own cultural values. Mostly because banana plants are ever present in their daily life and also in Javanese traditional practices, and the importance of the plants will make sure of the sustaining life cycle and availability of banana plants in Java. Their craft and design practices will also help to enhance their sense of belonging and nurturing the nature that gives the materials they need, and eventually will grow more employment opportunities through banana bark craft industry. The social relationships within rural communities will affect the village development and also the preservation of local materials needed in order to thrive with their rural craft industry.

Conclusion

The relationship between banana plants and Javanese people is a close-knit connection that affects many aspects of their life. From in-depth interview on how Javanese people perceive banana plants, the author found some common conceptions regarding with the importance of banana plants in Javanese culture, which also implies philosophical meanings and wisdom of Javanese people who perceive the resemblance between banana plants and human beings. Common characteristic of banana plants is that

they thrive wherever it is planted, not only in wet, windward regions but also in dry area. Banana plants always grow in clumps, and they can live in any kinds of terrains without any special treatments until they bear fruits. Banana plants also attain a position of central importance within Javanese culture: as a source of food and beverages, daily life usage, and numerous ceremonial and ritual uses. Banana plants also can endure any weather, and they still grow if we cut them as long as they still have their roots attached to the soil. As they will only die after grow new stems, they show us that they make sure to create new generations before leaving the world. Javanese people also present banana fruits in offerings because it is perceived to be sacred with its purpose in "*Kejawen*" proverb: "*moksartham jagadhita yaca ithi dharma*", which means, "to free the pure self from the world and come back to the soul owner/ God".

Another close-knit relationship formed between Javanese people and banana plants are formed in socio-cultural and economic scope throughout their life cycle. Regarding with this matter, the development of craft industries in Indonesia has put a notion of sustainability as imperative. Thoughts and actions on sustainability have existed within many small craft industry practices including banana bark craft industry in East Java although they still have challenges to overcome. Some solutions regarding this issue are already established but mostly for wood-based industry: for example, re-plantation programs to supply their own needs of materials. There are also fair trade projects initiated or facilitated by non-profit organisations or foundations that mind the concept of sustainability to help craftsmen to respect and enhance their local culture and

environment. These kinds of operations are still limited in large tourism-based area such as Bali. Since Bali is Indonesia's most popular tourist destination, it becomes a great craft outlet, providing products from all over the archipelago including banana bark craft products from Bojonegoro.

In the research study area, Bojonegoro, particularly the craftsmen community group led by Suyitno was once awarded by international non-profit organisation USAID, aiming to educate craft practitioners surround the village. The innovations resulted by my initiating collaborative projects between craftspeople in Bojonegoro and design academia received attention and feedbacks from domestic as well as international institution (Permanasari, pp. 142–143 cited in Peters, 2014). The villagers' awareness of their own local potential is improved, and the self-determination of rural craftsmen is also increased. In addition, it also encouraged more sustainable practices within the creative and small craft industries, supporting the fact that craft-making skills can be transferred and taught easily from one to another, broadly used in association with rural development in socio-economical context.

As stated previously in the analysis section, Fillis (2004) classified craftspeople into the following types: (1) the life-styler; (2) the idealist; (3) the entrepreneur; and (4) the late developer. Considering the characteristics of those types, the leader craftsmen in this research area belong to the idealist type and the life-styler, contrasting with the other leader who's more capital-driven and entrepreneur type. The craft industry split into two bodies with different purposes and approach. Success or fail of such bodies depend on not only the economic but also social conditions, as was

shown by the cases of this research.

Another important value shown by the relationship between banana plants and Javanese culture via banana bark craft products is authenticity. Authenticity can be revealed through the features of the product, maker, and seller (Littrell, Anderson, & Brown, 1993). A product that has special features such as exhibiting a handmade appearance, high quality of craftsmanship, uniqueness with using local materials, may be seen as an authentic product. However, defining an exact meaning of authenticity is difficult, because the market or purchaser also defines it. According to Littrell et al. (Littrell, et al., 1993), for example, a tourist is an active creator of giving the meaning of authenticity in the souvenir purchasing context. To conclude, the relationship between banana plants and Javanese culture encompass various aspects. Not only substantial as a tree of life, banana plants also mark their role and meanings in preserving Javanese culture, whether philosophically, socially, or economically.

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