

ETHNOBOTANY OF PACE (*Morinda citrifolia*) AS IDENTITY FLORA IN PACITAN REGENCY, EAST JAVA

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Abstract

Ethnobotany study in Pacitan on pace (*Morinda citrifolia*) as identity flora is very important to be done as knowledge for Pacitan community. This study aims to study and reveal the potential of pace (*Morinda citrifolia*) as identity flora of Pacitan. This study was conducted descriptively with combination of survey methods and document studies. The results of study show that the form of utilization of pace (*Morinda citrifolia*) as identity flora of Pacitan that is currently being carried out and running is as batik pattern known as batik pace and the name of contemporary creative dance, there are pace batik dance and mbabar pace. Ethnobotanical research of pace (*Morinda citrifolia*) in Pacitan has broad practical implications for cultural preservation, strengthening local identity and developing the creative economy through batik and dance.

Keyword: *Ethnobotany; Pace (Morinda citrifolia); Identity; Pacitan*

Abstrak

Kajian etnobotani di Pacitan tentang pace (*Morinda citrifolia*) sebagai flora identitas sangat penting dilakukan sebagai pengetahuan bagi masyarakat Pacitan. Penelitian ini bertujuan untuk mengkaji dan mengungkap potensi pace (*Morinda citrifolia*) sebagai flora identitas Pacitan. Penelitian ini dilakukan secara deskriptif dengan kombinasi metode survei dan studi dokumen. Hasil penelitian menunjukkan bentuk pemanfaatan pace (*Morinda citrifolia*) sebagai flora identitas Pacitan yang saat ini sudah



dilakukan dan berjalan adalah sebagai motif batik yang dikenal dengan batik pace dan nama tari kreasi kontemporer yaitu tari batik pace dan mbabar pace. Penelitian etnobotani tanaman pace (*Morinda citrifolia*) di Pacitan memiliki implikasi praktis yang luas bagi pelestarian budaya, penguatan identitas lokal, dan pengembangan ekonomi kreatif melalui batik dan tari.

Kata kunci: *Etnobotani; Pace (Morinda citrifolia); Identitas; Pacitan*

I. INTRODUCTION

Ethnobotany is branch of knowledge studies the use of plants for daily needs and usually passed down from generation to generation (Sholichah & Alfidhdhoh, 2020). Ethnobotany is purely scientific research includes all studies that study the reciprocal relationship between plants and society (Cotton, 1996) using traditional knowledge experiences in advancing quality of life, not only for humans but also for environment quality. Ethnobotany studies doubly beneficial because in addition to being beneficial for humans and environment, it also useful for protecting certain types of plants (Helmina & Hidayah, 2021).

Pacitan is one of the regencies in East Java Province that has potential for superior natural resources, one of which is pace or mengkudu fruit (*Morinda citrifolia*) which is also a historical icon of the founding Pacitan Regency. It is stated in suarajatim.id (2021) that the origin name of Pacitan comes from Javanese called Pacewetan. Pace means mengkudu fruit and wetan is direction of the wind which means east.

Pace (*Morinda citrifolia*) is herbal fruit contains natural compounds beneficial for health. Also known as noni fruit, pace (*Morinda citrifolia*) has distinctive taste, aroma and tends disliked many people because of its bitter and pungent odor. The uniqueness of pace (*Morinda citrifolia*) lies in its taste, aroma, and extraordinary health benefits. Despite its sharp odor and bitter taste, pace (*Morinda citrifolia*) holds significant health benefits. It symbolizes the philosophy of life Pacitan people: simplicity, not always attractive from the outside but rich in value and benefits. Pace (*Morinda citrifolia*) serves as metaphor for the importance of perseverance, patience, and the noble values hidden behind simplicity.

Pace (*Morinda citrifolia*) has strong connection with cultural and natural identity of Pacitan Regency, including as symbol of resilience nature and society. Pace (*Morinda citrifolia*) plants grow wild and abundantly in Pacitan, even in karst

lands that are difficult to cultivate. This reflects character of Pacitan people who are tenacious, tough and able to survive in limited conditions. In addition, Pace (*Morinda citrifolia*) also inspires culture and visual identity. In several art products or regional branding, Pace (*Morinda citrifolia*) is used as symbol of locality and regional identity. In fact, Pace (*Morinda citrifolia*) is also regional economic potential where many MSMEs in Pacitan utilize it as product to support economic development based on local potential.

Research results conducted by Mulyati et al. (2008) showed that in addition to having historical value for the people of Pacitan Regency, pace or mengkudu fruit (*Morinda citrifolia*) is able to improve community welfare through its use as an agro-industrial plant based on home industry. So in this case role of pace or mengkudu fruit (*Morinda citrifolia*) is still maintained by the people of Pacitan Regency. By looking at potential of plants and community in utilizing pace or mengkudu fruit (*Morinda citrifolia*) shows that there is interaction between the community and this plant.

Local community knowledge about management and utilization of natural resources, especially plants needs to be revealed (Amboupe et al., 2019) to find out their relationship and role in everyday life. Uniqueness in utilizing plants is due to the cultural diversity of Indonesian society (Setyowati et al., 2005). Ethnobotanical knowledge of the community usually occurs from generation to generation orally and is unwritten (Kurniati et al., 2022). The development of increasingly modern life and the absence of written ethnobotanical knowledge has reduced community knowledge.

Ethnobotanical knowledge needs to be developed into written knowledge (Kurniati et al., 2022) so that the chances of local knowledge becoming extinct will be smaller. Efforts to preserve local knowledge require the integration of community knowledge into written reading materials. In the future, these reading materials can become supplement to teaching materials that can be media for producing potential human resources. Therefore, this study was conducted as a way to collect local knowledge through ethnobotanical studies.

This study aims to examine ethnobotany of pace or mengkudu fruit (*Morinda citrifolia*) in relation to its role as identity flora in Pacitan Regency and to reveal the potential of this flora in people's lives of Pacitan Regency.

II. RESEARCH METHOD

This research is descriptive study with combination of survey methods and document studies. The initial survey research procedure was conducted to find out initial information from the community in Pacitan Regency about the use of pace (*Morinda citrifolia*). Furthermore, research activities were carried out to collect data on ethnobotany of pace (*Morinda citrifolia*) by the community in Pacitan Regency.

Data analysis in this study was conducted descriptively through an ethnobotanical approach. Observation data are presented in the form of tables and figures, then analyzed and synthesized descriptively.

III. RESULTS AND DISCUSSIONS

A. Morphology of Pace (*Morinda citrifolia*)

The classification of pace (*Morinda citrifolia*) according to Conquist (1981) is follows:

Kingdom	: Plantae
Divisi	: Magnoliophyta
Subdivisi	: Angiospermae
Kelas	: Magnoliopsida
Subkelas	: Asteriidae
Ordo	: Rubiales
Family	: Rubiaceae
Genus	: Morinda
Spesies	: Morinda

Figure1. Morphology of pace (*Morinda citrifolia*)citrifolia, L.



Source: google.com

Pace (*Morinda citrifolia*) is tree-shaped plant with height of 4-8 cm. The stem is woody, round, and has monopodial branches. Single leaves with pointed tips and bases with length of 10-40 cm. It has compound flowers, shaped like a tuber, stalked and stamens. The fruit is tuber with an irregular surface, fleshy, 5-10 cm long, yellowish green (Syamsuhidayat & Hutapea, 1991). Currently, pace (*Morinda citrifolia*) is still spread in Pacitan and its existence is maintained. The distribution of pace can be seen in Table 1.

Table 1. Statistics on the distribution of pace (*Morinda citrifolia*) in Pacitan

	Year	
	2021	2022*
Crop production	21.793 kg	42.813 kg
Harvest area	3.282 trees	3.277 trees
*temporary figures		
Source: BPS, Statistik Pertanian Hortikultura SPH-TBF		

Table 1 shows that pace production increased by 21,020 kg over a year. This shows that enthusiasm of Pacitan community in maintaining the existence of this plant is very high. So it can be assumed that Pacitan community indirectly carries out in situ conservation as an effort to maintain flora as regional identity.

B. History of Pace (*Morinda citrifolia*) as Flora Identity of Pacitan Regency

Morphology of Pace (*Morinda citrifolia*)

Pace (*Morinda citrifolia*) is known in history of the naming Pacitan city which comes from the word "Paceweta", namely pace is the name of fruit or which means giving strength and wetan which means east. This history comes from legend of the Mangkubumen war or Palihan Mangarai war (1746-1755 AD) which occurred when Prince Mangkubumi from Surakarta Palace in his war reached the southern coastal area of Pacitan. At that time when there was a guerrilla war against the Dutch, Prince Magkubumi was defeated and retreated to the south with 12 of his followers. Because of his defeat, Prince Mangkubumi used strategy of escaping into forest with tired and weak body because their supplies were running out. But in the end, Prince Mangkubumi regained his strength thanks to the help of his servant named Srtraketipa by giving him drink of pace fruit that had been soaked in coconut oil. The area was then remembered as Pace Sepangetan and in everyday

conversation was often shortened to Pacetan, then became the name Pacitan (Santosa, 2004).

Based on this history, currently pace (*Morinda citrifolia*) has become the identity of Pacitan Regency which is raised in batik pattern, known as batik pace. This was emphasized by the head of Pacitan Regency Deskransda that characteristics of pace only belong to Pacitan (Pacitankab.go.id, 2019). Therefore, it can be said that pace is local potential of the region whose existence is maintained as identity of Pacitan through local wisdom of batik pace. In every batik pace ornament there is always pace pattern which contains the meaning that the pattern describes identity of Pacitan. In addition, adding pace ornaments to each batik pace is a form of conservation in the form of written art.

This is important to do because by maintaining local wisdom, especially in the era of globalization like today, it can create positive local culture and motivate people to appreciate and preserve local wisdom (Adiwijawa et al., 2024). Preserving local culture is very important to do as an effort to maintain cultural identity and prevent the loss of ancestral traditions that have high historical and philosophical value (Hasan et al., 2024).

To maintain its existence, name of this plant is also often used as a term for several communities in Pacitan such as the Pacitan Cerdas (PACE) community which is engaged in education and the Pacitan Audio Community Engineer (PACE) which is engaged in entertainment. The use of this term can be one way to maintain the local wisdom pace and form of appreciation for this plant as flora of Pacitan's identity.

C. Ethnobotany of Pace (*Morinda citrifolia*) in Pacitan Regency

The form utilization pace as flora identity of Pacitan that is currently being done and running as batik pattern and the name of contemporary creative dance. Although in this case the pace plant is not utilized directly in terms of anatomy, but morphologically the pace plant is utilized as symbol of prosperity and welfare. This can be seen from its usefulness in developing the regional economy through the pace plant symbol which is raised in handwritten artwork, known as batik and used as medium in beautiful dance.

Pace as Batik Pattern

Batik pace is an original handwritten artwork from Pacitan Regency and is the spearhead of Pacitan's development in the international arena. In its historical development, in 2012 batik pace was officially patented as belonging to Pacitan. In addition to being an effort to protect regional cultural wealth, patent rights are also provision for optimizing the development of batik crafts themselves (Pratiwi, 2022).

History of batik pace in Pacitan began with the initiative of Pacitan residents who wanted to preserve name of fruit that was origin of the word Pacitan in a work form of Pacitan batik with characteristic of pace motifs in its patterns. The natural beauty of Pacitan also inspired the decorative variety and motifs of pace batik without eliminating its distinctive motif. Pace (*Morinda citrifolia*) motif not only beautifies fabric but also rich in meaning. The use of pace (*Morinda citrifolia*) icon in batik serves as form of cultural preservation and an expression of local identity. The motif reflects Pacitan people's connection to nature, as well as their pride in region's rich biodiversity and herbal traditions.

Batik pace has several unique features that represent strong historical values about Pacitan. According to Indonesian Cultural Forum, batik pace motif is inspired by the origins of Pacitan. The meaning of pace motif is symbol of sincerity, loyalty and devotion as well as a sense of mutual cooperation. This meaning and philosophy are closely related to the principles of life of the Pacitan community who uphold the attitude of mutual cooperation. Batik pace also has competitive advantage in terms of color because in manufacturing process it uses natural materials so that its appearance looks very soft.

Batik pace has various motifs including pace motif, ceplok motif, pace galaran motif and pace sido mulia motif. Batik with pace motif will provide insight to the public about relationship between pace fruit and history of naming the city of Pacitan (Rosady, 2022).

Figure 2. Pace pattern on batik cloth produced by Saji batik center (a) and Puspita batik center (b)



(a)

(b)

Source: instagram.com

Research conducted by Nugraha (2019) shows that in 2019 there were 17 batik centers spread across 4 sub-districts in Pacitan, there are Pacitan sub-district, Ngadirojo sub-district, Sudimoro sub-district, and Pringkuku sub-district. Batik activities in Pacitan have grown along with the popularity of batik cloth. In encouraging batik centers in Pacitan to be more creative and innovative, Pacitan Regency government routinely provides human resource development guidance every year through training activities, providing revolving capital, participating in marketing events and integrating batik into the school curriculum.

Although pace (*Morinda citrifolia*) motif has begun to be developed by several batik centers in Pacitan Regency, several limitations remain that require attention in efforts to develop and preserve it, including limited infrastructure and production facilities. Several batik centers in four districts in Pacitan still use traditional and simple equipment. Limited access to modern technology such as electric canting and automatic dyeing tools slows down the production process. Furthermore, the majority of batik artisans in several centers are still dominated by older generations. Interest among the younger generation in getting involved in the batik industry, especially those using distinctive patterns such as the pace (*Morinda citrifolia*) motif, remains low. This impacts the sustainability of production and the potential for innovation in batik design.

Although pace (*Morinda citrifolia*) motif has begun to be known, the variety of motifs and designs is still limited. Many artisans have not dared to explore the artistic forms of pace (*Morinda citrifolia*) leaves, flowers, or fruit in variety. In

addition, the ideal natural dyes for pace (*Morinda citrifolia*) batik are still rarely used due to limited materials and techniques. Pace (*Morinda citrifolia*) batik ideally uses natural dyes from pace (*Morinda citrifolia*) fruit, but in practice the availability of raw materials is not always sufficient. The lack of an organized pace (*Morinda citrifolia*) cultivation system as part of the batik industry chain makes it difficult to maintain the continuity of natural dye production.

Through various training and coaching programs as well as capital assistance, the government is trying to improve Pacitan batik into an economically profitable business unit. The increasing development of Pacitan batik with increasing production levels and expanding market reach is one of the government's efforts in developing and optimizing the batik craft industry in Pacitan (Setiyoko, 2022). Synergy between artisans, local government, educational institutions, and the private sector is necessary for Pacitan's pace batik to develop into a widely recognized, superior product. By incorporating pace (*Morinda citrifolia*) into its batik, Pacitan not only preserves its rich biodiversity but also conveys the message that beauty can arise from natural, local, and philosophical elements.

Pace as the Name of Contemporary Creative Dance

Batik pace dance is the name of contemporary dance originating from Pacitan. Created by Anang, the founder of Sanggar Blarak Pacitan to introduce batik pace and fruit pace to the world through beautiful movements packaged in a dance. The choreography of batik pace dance depicts batik process starting from applying wax using a canting to the cloth to the movement of coloring and drying the cloth. This dance is performed by five dancers. The five dancers wear batik pace cloth with agile movements and line up while holding batik. This dance is accompanied by music with two percussionists and two slenthem players. This combination produces melody that supports the attractive batik pace dance movements (Indonesia Kaya, 2022). Batik pace dance is a form of local wisdom to preserve the natural potential as well as batik pace culture from Pacitan through cheerful and agile dance.

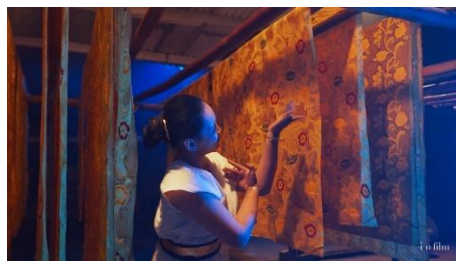
Figure 3. Batik pace Pacitan's dance



Source: indonesiakaya.com

In addition to batik pace dance, there is dance that is also inspired by batik pace which also inspired creation of mbabar pace dance work initiated by Alicya Margaretha Rusadi. The philosophy of this dance is related to gratitude. Just as in this world there are no perfect humans, everyone has their own advantages and disadvantages. However, God has truly created humans as the most perfect creatures. So humans should always be grateful for the gifts given by God and be able to provide benefits and be useful to the environment and spread (mbabar) goodness as widely as possible like the pace which provides a myriad of benefits (Pacitanku.com, 2022).

Figure 4. Mbabar pace's dance



Source: Kominfo,jatimprov.go.id

Mbabar Pace dance has succeeded in becoming the best creative dance performance in East Java and has successfully won a bronze medal in the national

competition in National Student Arts Festival and Competition (FLS2N) in creative dance category for high school level which was held online from August 1 to September 16, 2022.

As the name of Pacitan's signature dance, "Pace" represents identity of Pacitan people: they are simple, strong in facing challenges, and possess high local wisdom. This dance not only depicts the beauty of movement, but also conveys message of cultural resilience, the resilience of coastal and mountain communities, and the spirit of mutual cooperation passed down through generations. The pace fruit (*Morinda citrifolia*) also grows wild but is beneficial, reflecting the humility yet full of meaning—values that are intended to be instilled in the souls of the younger generation through this dance. Therefore, these dances are not only form of performing art, but also medium of cultural education that strengthens Pacitan's identity as region rich in life philosophies, natural uniqueness, and traditional heritage.

Although pace (*Morinda citrifolia*) has strong philosophical and historical value as icon of Pacitan Regency's identity, its use as inspiration in dance has several limitations. Visually, the asymmetrical shape of pace (*Morinda citrifolia*) and its sharp aroma are difficult to translate aesthetically into graceful and rhythmic dance movements. This makes it difficult to create movement symbolizations that represent the physical characteristics of fruit without creating an unattractive impression for audience. Furthermore, public understanding of philosophical meaning of pace (*Morinda citrifolia*) as symbol of toughness and endurance is not yet fully widespread, so that cultural interpretations in dance can be unclear or not fully conveyed. Another limitation is lack of literature and artistic references that elevate pace (*Morinda citrifolia*) as main element in performing arts, causing choreographers to work harder in developing strong narratives and artistic concepts.

Another limitation is, in context of stage visualization, the natural color of pace (*Morinda citrifolia*) which tends to be dull and its simple shape also does not support the creation of visually appealing costumes. Therefore, although pace (*Morinda citrifolia*) has the potential as local symbol, its use as dance inspiration requires mature creative and conceptual approach so as not to lose its aesthetic appeal and the cultural meaning it wants to convey.

Ethnobotanical studies in Pacitan on pace (*Morinda citrifolia*) as an identity flora are very important to be carried out as knowledge for Pacitan community. This aims to document knowledge (Nurhidayah Z., 2023) and can be passed on to next generation. Ethnobotany as an interdisciplinary science in its definition clearly describes interaction between humans and plants and their environment as culture that is reflected in reality of life. This interaction has long been described as one of the factors influencing human civilization (Rukmana et al., 2021). Ethnobotanical studies have potential to unite and integrate local and scientific knowledge to advance goal of achieving biocultural conservation (Gaoue et al., 2017). With ethnobotanical study of pace (*Morinda citrifolia*) as an identity flora in Pacitan Regency, it is hoped that it can become knowledge in the form of written documents that can be reference and knowledge for next generation.

IV. CONCLUSION

Pacitan Regency has diverse natural resources, one of which is pace (*Morinda citrifolia*) which is also a historical icon of the founding of Pacitan. Pace (*Morinda citrifolia*) is known in history of the naming of Pacitan which comes from the word Paceweta. Pace is the name of fruit or which means giving strength and wetan which means east. Ethnobotany of pace (*Morinda citrifolia*) in Pacitan is carried out not in terms of morphology or anatomy. However, it is seen from its usefulness in developing the regional economy through the symbol of pace (*Morinda citrifolia*) which is raised in handwritten artwork, there is batik and used as medium in a beautiful dance. Synergy between various parties is needed so that pace (*Morinda citrifolia*) can develop into a widely known superior product.

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