



LANDSCAPE ETHNOBOTANY: STUDY ON PLANT  
MATERIALS USED IN MALAY TRADITIONAL  
POSTPARTUM BATH

BY

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## ABSTRACT

*Mandi serom*, a Malay traditional postpartum bath prepared with a wide variety of plants, is a conventional method used among Malay midwives (*bidan kampung*) for postnatal recovery and rejuvenation therapy. This study documents the knowledge regarding medicinal plants and traditional uses pertaining to *mandi serom* (Malay traditional postpartum bath) in the Malay culture. Field investigations included face-to-face interviews and field trips with 15 Malay midwives in different areas within three districts in Kedah. *Mandi serom* comprises 40 plant species belonging to 26 families, most of which are native species. The most common group of plants is trees, followed by zingibers, herbaceous, shrubs, and climbers. Only three species are similarly used by all the midwives which are *Cymbopogon nardus* (*serai wangi*), *Lawsonia inermis* (*inai*) and *Pandanus amaryllifolius* (*pandan*). The majority of Malay women in Kedah put their trust in midwives to conduct *mandi serom* during the postpartum confinement period. The plants are used to rid the body of odour, for spiritual cleansing, for hygienic purposes, and to ward off mystical forces known as *makhluk halus* in the Malay culture. They believe that without proper formulation from the midwife, *mandi serom* may not be healing and effectual. This is the first systematic study of Malay postpartum bath (*mandi serom*) in northern Malaysia. This study helps to preserve traditional knowledge of Malay midwifery practice and protect Malay natural heritage, and at the same time these new ethnobotanical records can be subjected to clinical studies and serve as a guideline for women healthcare in Malaysia

## ملخص البحث

حمام النقاهاة (*Mandi serom*) حمام ما بعد الولادة الماليزي التقليدي يجهز من عدد كبير التنوع من النباتات، وهو طريقة تقليدية معروفة بين القبالات، وذلك لانتعاش النفساء، وهو بمثابة علاج لاستعادة الحيوية والنشاط، هذه الدراسة توثق المعرفة بشأن النباتات الطبية واستخداماتها التقليدية المتعلقة بحمام النقاهاة الماليزي التقليدي للنفساء في الثقافة الماليزية. اشتملت الدراسات الميدانية على مقابلات شخصية، ورحلة ميدانية بصحبة خمس عشرة قابلة ملايوية من مختلف المناطق داخل ثلاثة قطاعات بولاية قدح. يتكون حمام النقاهاة من أربعين صنفا من النباتات تنتمي إلى ستة وعشرين أسرة أغلبها نباتات محلية. الأشجار هي أغلب مجموعات النباتات شيوعا، يليها نبات الزنجبيل، والنباتات العشبية، والشجيرات، والنباتات المتسلقة. ثلاثة نباتات فقط تستخدم بطريقة مماثلة بين كل القبالات وهي الإذخر (نبات طيب الرائحة) والحناء، والبندان (*pandanus amaryllifolius*). الغالبية العظمى من النساء الملايويات في قدح تثقن في حمام النقاهاة التي تقوم به القبالات أثناء فترة النفاس، تستخدم النباتات لتخليص الجسم من الرائحة غير المرغوبة، وللتطهير الروحي، والنظافة ولأغراض صحية، ودرء القوى الغامضة المعروفة في الثقافة الماليزية باسم المخلوقات الروحية. وهناك اعتقاد بين الملايويين بأنه ما لم تكن التركيبة المكونة من النباتات من قبل القبالات سليمة فإنها قد لا تساعد على الشفاء وتكون غير فعالة. تعد هذه الدراسة أول دراسة منظمة عن حمام النقاهاة في شمالي ماليزيا. تعمل هذه الدراسة على الحفاظ على معارف ممارسة التوليد (القبالة) التقليدية الملايوية، وحماية التراث الطبيعي الملايوي، وفي الوقت نفسه فإن هذه السجلات الاثنوباتية الجديدة (أعشاب خاصة بالشعوب) يمكن أن تخضع لدراسات إكلينيكية تكون بمثابة دليل توجيهي للرعاية الصحية للمرأة في ماليزيا. الكلمات المفتاحية: ممارسة القبالة التوليدية، الحمام التقليدي ما بعد الولادة، الأعشاب الخاصة بالشعوب، الثقافة الماليزية، المعرفة التقليدية.

## APPROVAL PAGE

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## DECLARATION

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# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND OF STUDY

Traditional medicine is an integral part of the practice of ancient civilizations to improve the health and well-being of people besides maintaining God given beauty and wellness. A multicultural country like Malaysia has rich traditional practices. The various modalities currently practiced are based on theory, beliefs, and experiences that are indigenous to the different cultures and derived from socio religious beliefs passed on for generations by traditional healers through oral communication and apprenticeship (Hassan and Shaaban, 2005; Samuel *et al.*, 2010; Kim and Lean, 2013). Among these modalities, there is the use of medicinal plants in traditional medicine used for treatment in midwifery within the Malay communities. The fact that Malaysia's flora and fauna are among some of the world's richest and most varied biophysical resources (Premilla, 2002), promotes the use of plants to form the essence of ethnobotany. This exciting diversity of plants is commonly used as a source of food, medicine, utilities, cosmetic, dye, and ritual. Moreover, the World Health Organization (WHO) reported that approximately 80% of the world population relies on traditional medicine to cure ailments. The plants used in traditional medicine play a significant role during pregnancy, birth, and postpartum care within the Malay community and many rural areas of the world (Gibson, Powrie and Star, 2001; Rahman *et al.*, 2008; Law *et al.*, 2009). Despite the fact that plants have played an important role in midwifery in many cultures, there are very few in-depth studies on the plants traditionally used by local midwives. This knowledge, if wisely utilised, could offer promising herbal leads.

Ethnobotany can make contribute positively towards alternative treatment in modern medicinal practices by identifying locally available plant resources, indigenous knowledge, and traditional healers (Schultes, 1995).The ethnobotanical study pertaining to Malay traditional postpartum bath (*mandi serom*) among Malay midwives helps to preserve traditional knowledge and protect Malay natural heritage and at the same time as part of a systematic study baseline data for future pharmacological and phytochemical studies and reference in Malaysia.

## **1.2 PROBLEM STATEMENTS**

Water has been regarded as a spiritual cleanser throughout the history. Water is believed to be a vital and sacred origin of life. It is believed to flush away diseases and is viewed as an essential element in traditional healing, both practicality and symbolically (Buckley, 1985; Hallgren, 1988; Rinne, 2001). Traditional bathing in Malay culture means a total body bath from head to toe. It is designated for specific purposes and occasions, and mainly conducted by the Malay traditional midwives (*bidan kampung*). Midwives (*bidan kampung*) in the Malay culture are often old respected skilful women who hold a respected place in the community. She possesses a unique range of knowledge and skills relating to pre and postpartum practices, and is regarded a specialist doctor in attending to childbirth, assisting woman, and advising young ladies (Wazir-Jahan, 1984). Not only trustable in childbirth, her duty also concerns weddings, pregnancies, pre and postnatal care, nursing and weaning, infant and childcare, family planning, menstrual cycle conditions, abortion, treatment of muscular aches, and pain and bone setting (Chen, 1981). Traditional midwives are usually uneducated and not formally trained, however they acquire knowledge through matrilineal transmission within the family, from either mother to daughter or grandmother to granddaughter



(Manderson, 1981; Merli, 2010). Their knowledge is secretly kept within the family circle, thus it is regarded as sacred and cryptic. Such traditional forms of midwifery are commonly found in traditional societies with limited access to biomedicine. However, today the role of Malay midwives has been commercialized as an alternative treatment and is in higher demand due to limited expert practitioners (Yahaya, 2003). In Western societies, midwifery continues to play an important role as alternative medicine in providing healthcare to women and children (Browner, 1985; Viisainen, 1991; Bourdy and Walter, 1992; Arvigo and Balick, 1993; Parra, 1993; Barret, 1994; Bhuyan, 1994; Coe and Anderson, 1996; Liulan *et al.*, 2003; Coe, 2008). Traditional medicinal knowledge by indigenous healers is not only useful for the conservation of cultural traditions and biodiversity, but also for community healthcare and drug development (Pei, 2001).

Sadly, there are few studies of plants utilisation in traditional midwifery in Northern Malaysia to be used to assess the actual trend of cultural attributes towards Malay medicinal practice. Proper documentation of the use of plants in the traditional Malay medicinal practice is limited with the exception of Ridley (1907), Gimlette (1913:1931) Gimlette and Burkill (1930), Gimlette and Thomson (1939), and Burkill (1935). Apart from that, the new generation, especially in urban areas no longer depend on the traditional ways of using plants. They are incapable of distinguishing between the roles of plants and possess very little knowledge and understanding on ethnobotany (Adnan and Othman, 2012). As a consequence, only the elder people possess the knowledge and are capable of applying traditional medicinal knowledge. Some knowledge has passed from this earth due to the lack of interest among the present generation. Since it is hardly passed on to the younger generation, this directly erodes ethnobotanical knowledge. Moreover, there is a general lack of research on this theme,

especially in urban areas. The function of traditional healers such as midwives has been overlooked. They constitute important representatives of the Malay culture. Studying the relationship of traditional healers within a culture helps in gaining a better understanding of the cultural landscape. Therefore, a comprehensive study is needed to form a clear view about the cultural landscape of the Malay identity through a study of the cultural practice that is *mandi serom*. This study aims to document the traditional knowledge of medicinal plants used in *mandi serom* (Malay traditional postpartum bath) among Malay midwives in Kedah. It serves to add to the existing records of plant resources utilisation of *mandi serom* by Malay traditional midwives in Kedah that is presently lacking and far from complete. With this interdisciplinary approach, the correlation between plants, people, and Malay culture help to preserve the integrity of the culture and create a better understanding on the value of traditional plants knowledge which can lead to potential herbal contribution in woman healthcare sector.

### **1.3 RESEARCH QUESTIONS**

Based on the problems discussed, the research questions are:

1. What is *mandi serom* (traditional Malay postpartum bath)?
2. What types of plant species involved in the practice of *mandi serom*?
3. How to intergrate *mandi serom* plants into landscape design?

### **1.4 RESEARCH OBJECTIVES**

The research questions can be translated into the following objectives:

1. To document the midwives' knowledge regarding medicinal plants and traditional uses regarding *mandi serom*.

2. To identify plant species used in *mandi serom* in Malay traditional midwifery practices.
3. To study the influence of locality and cultural factors towards plant species selection in *mandi serom* for softscape selection in landscape design.

### **1.5 SIGNIFICANCE OF STUDY**

Traditional knowledge acquisition through the ethnobotany approach is beneficial for understanding culture and human relationships with plants in a certain area. It is an effective tool for investigating the environmental and cultural factors of Malay traditional knowledge in *mandi serom* towards conservation and preservation of knowledge. Knowledge of Malay midwives is known as esoteric and highly secretive, and is only shared within the family. Most of the midwives are old with their younger descendants having little interest to continue the legacy. Many of them are fond of modern Western medicine rather than learning their traditional knowledge. Without proper documentation, this knowledge will vanish. Therefore, the documentation of this Malay traditional midwifery knowledge is an important effort to uphold valuable possession of Malay culture. Proper documentation and awareness of Malay traditional medicine could indirectly attract the community's attention on the expertise of midwives and help them earn more income. Similarly, it might encourage the youth to show interest in learning traditional Malay midwifery thereby preserving this important heritage. Malaysia's healthcare system also might consider integrating Malay midwifery practices in hospitals. Therefore people would be able to choose their mode of treatment and recognise traditional practice as a trusted remedy. Furthermore, these new ethnobotanical records are a rich source for preserving traditional knowledge of plants and can be subjected to clinical studies and serve as a guideline for women healthcare

in Malaysia. Traditional medicinal knowledge by indigenous healers is not only useful for the conservation of cultural traditions and biodiversity, but also for community healthcare and drug development (Pei, 2001). A comprehensive programme of R&D, cultivation, production, trade and appropriate use in the community and healthcare sectors must be encouraged and supported in promoting the proper use of Malay traditional medicinal products. By coordinating effort among scientists, manufacturers, traders, health care professionals and regulatory authorities, traditional herbal products that comply with customer expectations of quality, safety and efficacy could be successfully driven in Malaysia.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 ETHNOBOTANY**

Ethnobotany exposes the interrelationship of many different aspects of local people's knowledge of the environment. Ethnobotanical fieldwork was originally regarded as an art and skill practiced by outsiders who travelled to distant lands to document customs and beliefs (Martin, 2010). However, at present, many people have adopted ethnobotanical methods to carry out studies of their own communities. Ford (1978) stated that modern ethnobotany is concerned with the totality of the place of plant in culture. This was supported by Cotton (1996) that ethnobotany studies encompass the concern on mutual relationship between plants and traditional people with particular emphasis on traditional tribal cultures. Most of the studies that have been carried out in rural settings among traditional people are concerned on how different cultural groups perceive, use and manage plants in their local environment (Balick and Cox, 1996; Schultes and Reis, 2003; Bennet, 2005).

Ethnobotany is on the rise. In today's developing world, ethnobotany is shaped by an explicit concern that will contribute to the development of all nation's classes especially in development planning of a region (Alcorn *et al.*, 1992). Most countries are aware of the importance of conserving their traditional knowledge as it has significant practical value especially when conducted in cooperation with the locals, which will cast towards community development and consequently leading to conservation of biodiversity. Other than that, the main reasons documentation of traditional knowledge on medicinal plants is ongoing in many parts of the world is because of poor

transmission of the knowledge to younger generations, the potential use of this knowledge in the exploitation of plants pharmaceutical industries, and the need to conserve rare or highly demanded plant species in traditional medicine (Ong, Zuki and Milow, 2011).

Knowledge of medicinal plants in the Malay culture is seldom recorded in a written form by the villagers but is mainly based on oral history and cultural traditions passed down through the generations or from master to student. Interestingly, there are variations among Malay villages and between each traditional healer in terms of the total number of species used, medicinal uses of each plant, and methods of preparation and application of the plants. In fact, villages which are not very far apart can show differences in the species of plants used, and in some cases, similar species have different medicinal uses in different Malay villages (Ong and Norzalina 1999; Ong and Nordiana, 1999; Ong, Chua and Milow, 2011; Ong, Mojiun and Milow, 2011; Ong, Ahmad and Milow, 2011).

Sadly, today Malay traditional botany shares the same fate of other ancient knowledge and is slowly disappearing (Longuet, 2000). Some of the traditional medicinal information is lost with the passing of the older generation. This implies that the local government and village authorities need to double their efforts in executing conservation activities to preserve the ethno-medical knowledge among Malay traditional healers, and preserve medicinal plants, in addition to recording ethnobotanical knowledge. The preservation of these herbs along with the traditional knowledge of how to use them is an indispensable obligation for sustaining traditional medicine as a medicinal and cultural resource. Numerous clinically investigated plant compounds or extracts which have been discovered through the research of traditional medicinal systems are used in mainstream medicine today (De Smet, 1997). Thus,

future extensive research of these plants in this locality is recommended to identify and assess their ethno-medical claims (Samuel *et. al.*, 2010).

## **2.2 TRADITIONAL MALAY MIDWIFERY PRACTICES IN MALAYSIA**

Evidence of midwifery as a profession has been documented since the beginning of recorded history. The first midwifery knowledge was bestowed by Allah the Almighty upon Prophet Adam and was practiced by his wife, Siti Hawa (Barakbah, 2007). Historically, midwives have always been around to help women give birth using natural procedures by involving medicinal plants. Such traditional procedures were the primary form of treatment among traditional peoples with limited access to biomedicine.

Before physicians, midwives were the primary healers in the societies. They are often part of a local community, culture, and tradition, and continue to have high social standing in many places, exerting influence on local health practices. Their knowledge of medicinal plants has played a major role in pre and postnatal care in many rural and urban areas (Whitaker, 2003; Gollin, 2004; Hamilton, 2004; McNeely, 2005; Green *et al.*, 2006). Midwives from various ethnic groups all over the country use diverse groups of plants in their practice of midwifery to treat many health issues pertaining to fertility problems, birth control, pregnancy, parturition, postpartum care, neonatal care, and primary healthcare of women, infants, and children (Nigenda *et al.*, 2005; Coe, 2008). Various modalities of traditional knowledge about the use of these plants is often held by midwives and elderly women, who pass it among their family members usually based on theory, beliefs, and experience that are indigenous to the different cultures and handed down from generation to generation (Cosminsky, 2001; Davis-Floyd, 2003; Nettleton *et al.*, 2007; Cuerrier and Arnason, 2008; Hassan and Shaaban, 2005). It is

worthwhile exploring their expertise in folk knowledge as well as considering the possibilities of engaging them in primary healthcare and training them accordingly.

In the Malay community, midwives are commonly known as *bidan*, *bidan kampung* or *mak bidan*. Traditional midwifery is an exclusive female occupation compared to many other traditional healers in Malay folk medicine such as clairvoyant (*nujum*), shaman (*bomoh*) and medicine man (*dukun*) which tend to be dominated by men. According to Chen (1981), *bidan kampung* is most frequently an old respected woman who has through apprenticeship acquired considerable skill as a midwife and who is well versed in all aspects pertaining to the belief system surrounding pregnancy, childbirth, and the diseases associated with the reproductive life of women. Her concern is not merely with the actual birth itself but with the care of the mother from pregnancy through to the forty-fourth postpartum day. Her unique skills relating to pre and postpartum practices render her a specialist doctor in attending childbirth, assisting women, and advising young ladies. Not only trusted in childbirth, her duty also concerns weddings, pregnancies, pre and postnatal care, nursing and weaning, infant and childcare, family planning, menstrual cycle conditions, abortion, treatment muscular aches, and pain and bone setting. According to Wazir-Jahan (1984), a *bidan kampung* who is married and who has acquired much experience in her trade is generally more respected than one who is unmarried and inexperienced.

*Bidan* (midwife) is a bloodline gift rather than a studied practice. Their knowledge is seldom recorded in written form but is mainly based on oral history and cultural traditions passed down through the generations. According to Laderman (1989), it is believed that some of them gained their power to cure the illnesses from the dream and divine inspiration. However, it takes some of the practitioners' effort to identify and understand the real facts of the illness. Natural ingredients have been used