



**STUDY ON PLANT MATERIALS SELECTION IN  
TRADITIONAL MALAY MIDWIFERY  
PRACTICES AS POTENTIAL SOFTSCAPE  
ELEMENTS IN MALAY GARDEN**

**BY**

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**A thesis submitted in fulfilment of the requirement  
for the degree of Master of Science (Built  
Environment)**

**Kulliyyah of Architecture and Environmental Design  
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**AUGUST 2012**

## ABSTRACT

Traditional Malay midwifery practices exhibit a wide variation in plant materials selection. This study established that plant materials composition selection differs greatly with respect to stage of Malay midwifery practices, locality, environmental factors and culture. A total of 13 types of Malay midwifery practices were observed in 11 different states of Malaysia from 31 traditional midwives in Kelantan, Terengganu, Pahang, Johor, Wilayah Persekutuan Kuala Lumpur, Selangor, Perak, Kedah, Perlis, Negeri Sembilan and Sarawak. Two practices were performed during prenatal treatment which is the process of lenggang perut and also prenatal diet confinement. 11 other practices were performed during postnatal treatment which can be classified into 4 categories; herbs treatment, heat treatment, massage and abstinence (pantang). The influence of plant materials composition of east coast over west coast in Malaysia or locality x culture x midwifery process x plant materials selection, in relation of creating Malay garden identity established that each factor had an effect on the composition of plant materials selection. However, the most influential factor appeared to be stage of Malay midwifery practices. Each practice has specific purposes and functions which later determine the accumulation of plant materials selection. Of all the Malay midwifery practices studied in this research we found that mandi serom is the most diverse plant species used which portray the habitat or type of environments in which these plant species origin or found. There may be similarities of some species due to similar knowledge, culture or environment; however the magnitude of these effects is not as great as plant materials composition selection and usaga. By identifying the key factors controlling plant materials selection and usage a greater understanding of how certain midwifery practices influence plant species selection and composition in response to interactions with environmental factors as well as culture, belief and taboos will emerge as potential softscape elements tools and indicator in creating identity of Malay landscape for specific culture and locality.

Keywords: Malay midwifery, plant material, Malay landscape

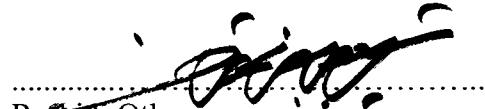
## خلاصة البحث

الممارسات التقليدية للقبالة الماليزية تحمل تباين واسع في اختيار المواد النباتية. أنشئت هذه الدراسة بأن اختيار مصنع تركيب المواد يختلف كثيرا بالنسبة لمرحلة ممارسات القبالة الماليزية، المحلية، العوامل البيئية والثقافة. قامت الدراسة بملاحظة 13 نوعا من ممارسات القبالة الماليزية في 11 ولاية مختلفة في ماليزيا من 31 قبالة تقليدية في كيلانتان، تيرينجانو و باهانج، جوهور، ولاية كوالا لمبور، وبيراك، ولاية قدح، بيرليس، نيغيري سيمبلان وساراواك. تم تنفيذ اثنين من الممارسات: اثناء فترة العلاج قبل الولادة وهي عملية لف المعدة وايضا حبس الحمية ما قبل الولادة. تم تنفيذ 11 من الممارسات الأخرى خلال فترة العلاج بعد الولادة والتي يمكن ممارسة الحياة الزوجية لتصنيفها إلى 4 فئات، علاج الأعشاب، المعالجة الحرارية، التدليك، والامتناع عن الثقافة × الجنسية. تأثير تركيب المواد النباتية من الساحل الشرقي على الساحل الغربي في ماليزيا و المحلية عملية القبالة × عملية اختيار المواد النباتية، بالنسبة لخلق هوية للحديقة الماليزية انشأت وأثبتت أن كل عامل له تأثير على تكوين اختيار المواد النباتية. ومع ذلك، بدأ أن العامل الأكثر تأثيرا هو مرحلة الممارسة للقبالة الماليزية. كل ممارسة لديها أغراض محددة ووظائف تحدد لاحقا تراكم اختيار المواد النباتية. من كل ممارسات القبالة الماليزية التي درست في هذا البحث وجدنا أنه تم استخدام ماندى سيروم وهو نوع من النباتات الأكثر تنوعا و يصور مواطن أو نوع البيئات التي يوجد فيها أصل هذه الأنواع النباتية. قد يكون هناك تشابه بين بعض الأنواع بسبب مماثلة الثقافة والمعرفة أو البيئة؛ لكن حجم هذه الآثار ليس كبيرا كاختيار تركيب مواد النبات واستعمالاته. من خلال تحديد العوامل الرئيسية المسيطرة على اختيار مواد النبات واستخدامه يتم فهم أكبر لكيفية تأثير بعض ممارسات القبالة في اختيار انواع وتكوين النبات ردا على التفاعل مع العوامل البيئية، فضلا عن الثقافة والمعتقد والمحرمات ستظهر كأدوات للعوامل المحتملة للبيئة الطبيعية وكمؤشر في خلق هوية الطبيعة الماليزية لثقافة معينة ومكان معين


كلمات البحث: القبالة الماليزية، والمواد النباتية، المناظر الطبيعية الماليزية

## APPROVAL PAGE

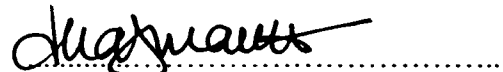
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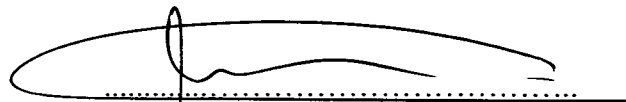
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## DECLARATION

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## ACKNOWLEDGEMENTS

Alhamdulillah, I grateful to Allah SWT as this thesis is successfully finished. Here, I would like to express the highest gratitude to my dedicated supervisor, Asst. Prof. Dr. Rashidi Othman for constantly helping me in giving valuable ideas, time and guidance throughout the research. I really appreciate for every comments and his thought for my thesis as it is a platform to learn how the research should be conducted. I also like to thank the external examiner, the former Head Department of Landscape Architecture, Asst. Prof. Dr. Jamilah binti Othman, Head of Department, Asst. Prof. Dr. Mazlina Mansor and Dean of Kulliyyah of Architecture and Environmental Design. Very special thanks to my beloved parents and family who always give me support and encouragement as I went through all the difficulties in completing my research. Last but not least, I would also like to thank for my classmate, Sister Norliza Muhammad and juniors especially sister Nurul Illani Abdul Razak, Sister Nurul Azlen Hanifah and Sister Razanah Ramya, I really appreciate for all the cooperation and assistance. Only Allah SWT can give the reward for you. I thank you all with my sincere heart.

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# CHAPTER 1

## INTRODUCTION

### 1.1 RESEARCH BACKGROUND

Relationship between man and plants had been an interesting discussion and debating ever since the beginning of the man civilization. Nevertheless, plants have plays such an important role in every aspect of human life. From the revealed usage of plants in medicinal field, plants also have its significance in the human built environment (Coe and Anderson, 1997). Especially in enhancing the identity of a space and beautify the distinctive landscape. Ethno-botany might be the suitable words to describe the roles of plants in relationship with daily human life and activities (Coe, 2008; Cunningham, 2001). Ford (1994) described that ethno botany is the study of the relationship between humans and plants including the way plants is manipulated for the usage in the human local environment and in the spiritual world of the community. Ethno-botany can be classified into utilitarian, food/ dietary, cosmetic or dye, medicinal and ritual. There are approximately 300 000 species of higher plants in the world today (Cotton, 1996). Over 30% of which has been estimated been used in plant based remedies for some time (Weston, 1994). In fact, in Malaysia, about one-third of the world's flowering plants including at least 25 000 species of flowering trees are found and abound in botanical riches in peninsular Malaysia, Sabah and Sarawak (Soepadmo, 1999). Today, millions of traditional people still use plants as a source of food, clothing, shelter, fuel and medicine. This exciting diversity of plants and vegetation provide us with not only timber, food and medicine but a variety of other useful products.

The rapid growth of urban populations not only required economic and social adjustment and transformation but also a change in the way of landscape setting and design character. As they increase to benefit mankind, they have at the same time come to threaten the environment (Mayer, 1986). The globalization and socio-behavior changes in Malaysia might be driven to refurbishment of the valuable cultural performances and in result, affected the Malay originality and formation. Concurrent with the modern trend of increasing urbanization, there is a general awareness of the Malay communities that they need to protect the biodiversity and well being of their local ecosystems. These studies are important in order to explore and create an identity of Malay cultural landscape through the uniqueness of the Malay *nusantara* elements (Malay Archipelago) focusing particularly on beliefs, rituals and also customary practices of Malay midwifery in birth (delivery) during pre and post natal stages.

## **1.2 PROBLEM STATEMENT AND ISSUES**

Traditional midwives have been involved in delivering babies, and providing a broad range of other services to women for hundreds of years. They are usually local women with little formal education. As they are well known in their communities they are often called to assist women at the time of delivery. It is a well-known that traditional midwives or *bidan kampung* normally comes from a family whose ancestors were also *bidan kampung*. It is an acquired skill and the knowledge can be acquired even without any direct association with the ancestors. It is more like a talent or gift which is bestowed to a particular individual. As a matter of fact, not everyone in the family has the ability to be *bidan kampung*. In the older days, *bidan kampung* were available in almost every village and they were sought after for all women-related problems

including confirmation of pregnancy, monitoring the condition of the fetus, deliveries, gynecological diseases and postnatal care. Usually a pregnant mother will go and see a *bidan kampung* as soon as she misses her period to confirm her pregnancy. Regular visits to *bidan kampung* are done throughout her pregnancy to ensure the health of both baby and mother. *bidan kampung* also helps in cases of difficulty to conceive. This is normally solved through massage and intake of herbal. Similarly, her advice is sought after in cases of pregnancy planning. This again is done through massage and herbal intake. In cases of gynecological problems the treatments would vary from case to case. *bidan kampung* was once also involved in home-made herbal products for the women. This knowledge has been passed down from generation to generation and has been kept within the family. In cases of delivery, *bidan kampung* is brought to the pregnant mother's house to help in her delivery as well as new mother's caretaker. She will come to the house every morning for a few hours to help the new mother with her massage, *tungku* (point massage), herbal bath, herbal treatments and *bengkung* (body girdle). She will also bathe the baby and treat him or her with warm herbs or *tuam* to tone the stomach muscles and reduce the chances of flatulence. For babies (boy), this treatment is particularly concentrated around the sex organs to prevent hernia (*angin pasang*). This normally goes on for about a week. After the first week, when the mother is expected to have recovered to a certain degree, she will have to perform *tungku*, herbal treatments and *bengkung* itself. The *bidan kampung* will only come back at the end of the confinement period (after 44 days) to give the new mother her final three days of massage, thus marking the end of her confinement. In those days, according to Barakhbah (2007) *bidan kampung* were offered maternity courses at local hospitals and they were given certificates to enable them to serve hand in hand with hospital midwives. However, with development and modernization, the

villages are now well equipped with maternity clinics, with hospital midwives on duty round the clock. The *bidan kampung* is no longer allowed to handle deliveries, and all the general check-ups are done at the government clinics. As a result, the role of *bidan kampung* is becoming less and less important, and is mainly concentrated on care during confinement. The number of *bidan kampung* has greatly decreased over the last few years. The demand for *bidan kampung* is still very high, especially in postnatal care. However, their scarcity allows them to be involved only in body massage. Thus, many are also losing their traditional skills in herbal treatments and production. These traditional treatments are now only available within the family and are limited to practices that are known to the immediate parents.

The use of plants as ethno-botanical uses such as food, utility and herbal medicine has a long tradition amongst Malay community in Malaysia. It involves a diversity of indigenous knowledge and cultural beliefs and constitutes an important basis for the development of Malay society. Due to rapid changes in socio-economic, environmental and cultural beliefs in Malaysia, the use of ethno-botanical plant species as herbal medicine is in transformation (Hamilton, 1997). Ethno-botany can make a positive contribution to alternative treatment in modern medical practices by identifying locally available plant resources, indigenous knowledge and traditional healers (Schultes and Reis, 2003). Development activities which put indigenous knowledge into the context of natural resource management are particularly important. Therefore, future studies are needed in order to establish a medicinal plant information database in order to educate young people especially and Malaysian about the importance of ethno-botany functions and uses and to prevent this knowledge to become history. According to Martin et al. (2002), the impact on societies of traditional medicines and modern medical systems has varied, but the facts are:



1. Traditional knowledge of herbal medicine is disappearing
2. Traditional healers are becoming rare and less respected
3. Medicinal plants are over-harvested

Therefore the conservation of medicinal plants and traditional medicinal knowledge must run in parallel because these two factors are important and interrelated.

### **1.3 RESEARCH QUESTIONS**

- i) How many stages or process involved in Malay midwifery practices?
- ii) What are the plant materials used by the Malay midwifery practices in every stages or process?
- iii) How the locality or geographical factors influence the plant materials used in every stage or process in Malay midwifery practices?

### **1.4 RESEARCH AIMS AND OBJECTIVES**

This aim of the research is to document wide array of plant materials used in Malay midwifery practices in Malaysia to enhance landscape planting designs that portray Malay landscape identity. In order to achieve this, the following objectives had been formulated:

- i) To study the stages and process involved in Malay midwifery practices
- ii) To identify plant materials used in every stages or process in Malay midwifery practices
- iii) To analyse on the influence of locality or geographical factors and culture towards plant materials selection in every stage or process in Malay midwifery practices

## **1.5 HYPOTHESIS**

Different locality or environmental factors with different culture will influence plant materials selection in every stages or process in Malay midwifery practices.

## **1.6 SIGNIFICANCE OF RESEARCH**

The themes of cultural landscapes are earthbound, focusing on human features imposed upon or created from the natural landscape to investigate the cultural origins and environmental implications of human communities and to formulate differences and similarities among cultures and areas (Wagner and Mikesell, 1962). Cultural landscape studies, in turn, have begun to question the meanings embedded within these features and to view the landscape as a social expression of symbols, icons, and metaphors (Barnett, 2002). For example, one new perspective examines the landscapes of long-subordinate, sub-cultures within the greater cultural landscape of an area. Therefore the bonding of the natural landscape and social formations are really strong. Social formation may affect the cultural landscape development and expressions. Studies on Malay's cultural-ethnics landscape are important to express and articulate meanings of symbolic landscape in both ethnics. A cultural landscape is fashioned from a natural landscape by a culture group. Culture is the agent; the natural area is the medium, the cultural landscape is the result. Through their form, features, and the ways they are used, cultural landscapes reveal much about our evolving relationships with the natural world. According to the Islamic worldview, man's rights over the environment and sustainable used based on the moderation, balance and conservation and should be safe from every misuse and destruction (Spahic, 2006).

Midwifery is the practice of assisting a woman through childbirth using natural procedures. It was practiced primarily among traditional peoples with limited access

to biomedicine. However, today in Malay community, midwifery continues to play an important role and still being practiced as an alternative to biomedicine in providing health care to women and children. In both traditional and modern cultural settings, midwifery is involved with providing health care, during pregnancy, childbirth and postnatal care to both mother and newborn. Most midwifery plant species are wild, but many important species are native to certain location or area. The use of plants as ethno-botanical uses such as food, utility and herbal medicine has a long tradition amongst Malay community in Malaysia. It involves a diversity of indigenous knowledge and cultural beliefs and constitutes an important basis for the development of Malay society. Due to rapid changes in socio-economic, environmental and cultural beliefs in Malaysia, the use of ethno-botanical plant species as herbal medicine is in transformation. Knowledge about the use of ethno-medicinal resources and the resources themselves appeared to be threatened by rapid changes in traditional lifestyles and cultural practices particularly by the spread of Islam, formal education and emphasis on reliance of modern medical care. Plants recognized to be of medicinal value by the community appeared to be equally threatened by a myriad of factors particularly land use changes. The facts are traditional knowledge of herbal medicine especially among Malay community is disappearing, Malay midwives are becoming rare and less respected and the more crucial is plant materials used by these Malay midwifery are not well documented and vanishing. This study is important because it is the first systematic study of plant species identification and preservation used by Malay midwifery in Malaysia.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 ETHNO-BOTANY**

Encapsulate in the word itself: ethno, the study of people, and botany, the study of plants (Balick and Cox, 1996). So that, ethno-botany is considered to encompass all studies which concern the mutual relationship between plants and traditional people (Cotton, 1996). Ethno-botany is the study of how people of a particular culture and region make use of and conceptualizes indigenous plants in their local environment. Ethno-botany is concerned with how different cultural groups perceive, use and manage plants. It is a field-based area of inquiry, and most studies have been carried out among ‘traditional’ people in rural settings (Martin, 2004). It will explore the plants used as food, medicine, shelters, beliefs, utilitarian and also as cosmetic and dye materials. Robbins (1916) began to introduce new theories and methodology in the science of ethno-botany and he suggested that ethno-botany is more than collecting plants and procuring native names, but it is more to scientific work based on the scientific methods of investigation. The understandings of the plant life and plants relationship are important in order to explain the significant value of the ethno-botanical studies to the community. In early 1895, Botanists of this period considered ethno-botany to be the study of scientifically identified data and therefore focused on utilitarian matters and the cultural importance and significance of plants in the lives of people (Ford, 1965). Therefore, many botanists were already including the use of plants by people within their studies according to their disciplines because of all human cultures depend on plants in different ways, without exception.

According to Cotton (1996), ethno-botany is considered to encompass all studies which concern the mutual relationship between plants and traditional people. It is the study of the interaction between plants and people, with a particular emphasis on traditional tribal cultures. It is a branch of botany, the study of plants, and is closely related to cultural anthropology, the study of human societies and also related with any field of studies. The statement was supported by Schultes and Reis (2003) that ethno-botany is about the interaction of people with all aspect in life, such as people interaction with the natural environment, including plants and animals, landforms, forest, soil types and many others. It is a discipline that studies the knowledge and traditional practices of indigenous and ethnic societies of the world. Ethno-botany is a term used to refer to the academic discipline that deals with people's interaction with plants and was also a term first suggested by John Harshberger in 1896. Prior to the use of the term ethno-botany and as an academic discipline, the definition of ethno-botany is varied but there are some common elements in the concept. The popular prefix 'ethno' refers to the study of people while 'botany' is the study of plants (Harshberger, 1896). It has been advanced that the prefix 'ethno' means "that is the way other people look at the world" (Martin, 2004).

According to Ford (1994), over the century the field of ethno-botany has moved from the natural history of plants used by primitive people as observed by western scientists to a wide range of interest of plants in cultural and ecological contexts. It was supported by the statement from Balick and Cox (1996) that the two major parts of ethno-botany are encapsulated in the word itself: ethno, the study of people, and botany, the study of plants. As manifested in Harshberger's 1896, the early definitions of ethno-botany constrained the field to the study of how aboriginal people use plants (Clement, 1998). This intricate and fundamental relationship

between plants and people is a phenomenon that has intrigued scientists for a long time and is the focus of ethno-botany. However, according to Minnis (2000), there are two fundamental misconceptions about ethno-botany. One is that it is the study of how a given tribe uses a specified plant for a particular purpose, and the other is that it only applies to non- industrialized, non-western and non-urbanized societies. Even, the studies on plants are discovered in 1942, when the identification of several plants for economy prospect was observed by native people. Although ethno-botany is distinctive as an academic field of study, it maintains a multidisciplinary character in both theory and methods: the theoretical distinctions are clear. Ford (1994) also stated that modern ethno-botany is concerned with the totality of the place of plant in culture. Plants and plant uses are the focus, although ecological patterns, plant dispersals, resource utilization, and horticultural and agricultural patterns have become popular avenues of study among botanists (Bye, 1976; Cardenal, 1993). A more fundamental issue in relation to knowledge, however, is found within the discussion of the relationship between knowledge as practice and knowledge as heritage (Borofsky, 1987; 1994). The term ethno-botany can also be defined as folk botany or the description of the various methods by which local peoples utilize plants by using their own traditional methods of utilizing a particular plants (Kokwaro, 2003).

Ethno-botany can play a major role in facilitating the study of human ecology (Alcorn, 1995). Ecological relationships within the plant community are central to ethno-botany studies as well as the larger plan and human relationship in terms of community economics. Here anthropological economic theory plays an important role in that it helps the ethnobotanist assess and quantify human requirements and their impact on a local environment. The botanical data served as linchpins for theories

about the way of life, social and economic history and health of people who live in the past. Human ecology and ecological anthropology are concerned with human adaptation to natural, social and physical environments through knowledge and culture (Bennett, 2005). By providing data about the plants of the ecosystem under anthropological study, ethnobotanist can contribute to more sophisticated analyses of human ecological relationship (Brush and Edward Taylor, 1981). By providing details about the people, plants and environments, anthropologists can in turn, add to the understanding of the ethno-botanical dynamics (Boster, 1984). It is interesting that ethno-botany has moved its focus from the *use* of plants by people to the relationship between people and plants which include the use, cognition and ecology. In comparison, economic botany has maintained a narrow focus on use while expanding its definition to include all people (Balick and Cox, 1996; Cotton, 1996). The most widely employed explanation is 'the use of plants in primitive societies' as opposed to the term economic botany, which normally meant to indicate the study of plants used in advanced agroindustrial societies (Scultes, 2003). In view of the many fast-developing specific subdivisions of this interdisciplinary field, it seems necessary to adopt a wider definition. A more inclusive definition might be: the study of the uses, technological manipulation, classification, agricultural systems, magic-religious concepts, conservation techniques and general economic and sociological importance of plants in primitive or pre-literate societies (Atran, 1990; Clement, 1998).

It is evident that people who have lived in one locale for a long time have particularly rich sets of knowledge about and cognition of plants and local ecology (Berkes, 1999; Berlin, 1992). According to Reis (2003), in every culture and probably very early, there were men or women especially knowledgeable in the properties of plants. These individuals will diagnose and 'treat' illness, determine the cause of

death, assure good harvest through rituals, explain climatic and natural phenomena, control methods of hunting and fishing are the repository of tribal mythology and history and usually are the specialist who manipulate and control hallucinogenic drugs that are held to be sacred. It was based on their own belief that a broader definition is desirable and will be proposed to consider the term of the study of human evaluation and manipulation of plant materials, substances and phenomena, including relevant concepts and was based in term of inter-disciplinary aspects such as botany, anthropology, archeology, photochemistry, pharmacology, medicine, history, religion, geography and numerous pertinent in sciences and art (Schultes and Reis, 2003). It was supported by Reis (2003) that the study of ethno-botany and research on it has undergone changes and has significantly amplified in the century since the term was first used in 1895. Then, it is constant growth resulted in the necessary proliferation of terms to describe specialized subdivisions of the study such as ethno-botany, ethnopharmacology, paleoethno-botany, ethnoecology, ethnomedicine, ethnomycology, socioethno-botany and others (Schultes and Reis, 2003).

In the early days, ethno-botany was implicitly shaped by imperialist motives (Brockway, 1979). In today's developing world, ethno-botany is shaped by an explicit concern that will contribute to the development of all nations' classes especially in development planning of a region (Alcorn, 1992). Alcorn also added that changes in the use of plants influence human strategies and new plant-human interactions will be initiated as 'using' changes. The roles played by plants reflect the biological and physical properties of the plants, the biological and perceived needs of humans, the natural and anthropogenic communities of which the plants are a part and the genetically limited response of plants to human disturbance. For many years the important science has been concerned primarily with cataloging the numerous uses of