

**A STUDY ON THE PORTABLE PLANT CONTAINERS AT THE
PEDESTRIAN PATH IN URBAN SPACE**

By

SITI ASIAH BT. TAIB

(9916172)

**This topical studies is submitted in partial fulfillment of the Bachelor of
Landscape Architecture**

**DEPARTMENT OF LANDSCAPE ARCHITECTURE
KULLIYAH OF ARCHITECTURE AND ENVIRONMENTAL DESIGN
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
53100 KUALA LUMPUR**



الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
بِوَسِيْلَةِ سُنَّتِيْ اِسْلَامِيَّةٍ اَنْبَارًا يَجْنِبًا مِلَّةِيْنَا

INTERNATIONAL SCIENTIFIC LIBRARY	
LIBRARY	
Copy no:	891870 main
Date:	9/6/04 992

16/8/04 HJ
 16/9/04 (RW)

t
 SB
 41804
 9635
 2003

ACKNOWLEDGEMENT

Praise be to the Almighty Allah, because of His willing and permission I finally finished my Topical Study on the topic 'A Study on the Portable Plant Containers at the Pedestrian Path in Urban Space'.

First of all I would like to thank a lot to my supervisor, Bro. Ruzaimi Mat Rani for his guidance and advice that enabled me to complete the final submission. Not to forget also my gratitude to my beloved lecturer and studio master, Madam Amira Mohyuddin for her concern. And also thank you very much to all lecturers from Department of Landscape Architecture for their moral support and concern.

Highly appreciation to all respondents at Maju Junction and Merdeka Square areas for their cooperation in answering the questionnaires. To my beloved parents, thank you for your continuous supports and sacrifice for me and to all my family, I love you all.

Last but not least, thank you very much also to all my beloved friends and course mates for their supports.

ABSTRACT

Portable plant containers have been used since thousands of years ago. There have been an awareness that plant container can solve the problem of poor soil. Nowadays, portable plant container is one of the important landscape elements especially in the congested urban space. This study is mainly to investigate whether the use of portable plant containers in urban space are fully utilize or not. It is because there are many places using portable plant container but improper arrangement and layout make it look untidy. People just thinking portable plant container as growing space for plants and ignore its other functions and their aesthetic value. There are many other functions of portable plant container besides as plant growing space. For example, it can be manipulated in creating sense of direction with proper arrangement and layout. It can also give sense of welcoming if being placed at the entrance area and with suitable design of portable plant container. Basically, portable plant container has more advantages than permanent plant container because it can be moved and rearranged to suite to any seasonal festivity and function. It can also overcome the problem of lack of space and paved area at urban space. If the designer considers on the design and arrangement of the portable plant container with the architectural detail and surrounding condition, it can create an aesthetic image to the urban space.

CONTENTS

Title	i
Acknowledgement	ii
Abstract	iii
Table of Contents	iv
List of Figures	vii
List of Charts	ix
List of Tables	x

CHAPTER 1

1.0 INTRODUCTION

1.1	Portable Plant Container at the Pedestrian Path in Urban Space	1
1.2	Goals	1
1.3	Objectives	1
1.4	Problem statements	2
1.5	Methodology	
	1.5.1 Case study	3
	1.5.2 Data collection	3
	1.5.3 Data analysis	3
1.6	Methodology Flow Chart	4

CHAPTER 2

2.0 RESEARCH TOPIC

2.1	Introduction	5
2.2	Literature review	

2.2.1	Portable plant container	5
2.2.1.1	History	6
2.2.1.2	Type and material	7
2.2.1.3	Function and advantages of portable plant container	11
2.2.2	Urban space	12
2.3	Design Criteria of Portable Plant Container	13
2.4	Conclusion	15

CHAPTER 3

3.0 CASE STUDY & DATA ANALYSIS

3.1	Case Study on the Portable Plant Container in Urban Space	16
3.2	Case Study 1: Maju Junction Shopping Complex Kuala Lumpur	16
3.2.1	Site Location	16
3.2.2	Portable plant container at the Maju Junction	18
3.2.3	Data analysis and assessment	19
3.3	Case Study 2: Merdeka Square, Kuala Lumpur	28
3.3.1	Site location	28
3.3.2	Portable plant container at Merdeka Square	29
3.3.3	Data analysis and assessment	30
3.4	Conclusion	40

CHAPTER 4

4.0 RESULT FINDINGS

4.1	Introduction	41
4.2	Result Findings	41

4.2.1	Maju Junction, Kuala Lumpur	41
4.2.2	Merdeka Square, Kuala Lumpur	42
4.3	Conclusion	43

CHAPTER 5

5.0 CONCLUSION

5.1	Conclusion of the Study	44
5.2	Recommendations	45

BIBLIOGRAPHY

APPENDIX

LIST OF FIGURES

List of figures		Pages
Figure 2.2.1.1	Containers are available in a wide range of shapes, sizes and materials	6
Figure 2.2.1.2.1	A pot type of portable plant container	8
Figure 2.2.1.2.2	Hanging flowerpot type hanging under the trellis	8
Figure 2.2.1.2.3	A window box type of portable plant container	8
Figure 2.2.1.2.4	Cooper plant container	10
Figure 2.2.1.2.5	Clay plant container	10
Figure 2.2.1.2.6	Glazed clay plant container	10
Figure 2.2.1.2.7	Wooden plant container	10
Figure 2.2.1.2.8	Fiberglass plant container	10
Figure 2.2.1.2.9	Concrete plant container	10
Figure 3.2.1.1	Layout plan of Maju Junction shopping complex	17
Figure 3.2.1.2	View towards façade of Maju Junction's building	17
Figure 3.2.1.3	Maju Junction's landmark	18
Figure 3.2.3.1 – figure 3.2.3.4	Four types of portable plant container's design at Maju Junction	20
Figure 3.2.3.5	Portable plant container along the pedestrian path in front of Maju Junction shopping complex. It creates a channel of direction.	23
Figure 3.2.3.6	Portable plant container function to mark the entrance of the building of Maju Junction	24
Figure 3.2.3.7	Portable plant container function to differentiate the different level between pedestrian path and vehicle path	24
Figure 3.2.3.8	During Christmas festival portable plant containers were arranged around the giant Christmas tree	25

Figure 3.2.3.9	Portable plant containers act as boundary and edge to avoid scenery of busy road in front of Maju Junction shopping complex	25
Figure 3.2.3.10	Portable plant container also used to soften the view of the building	26
Figure 3.2.3.11	Portable plant container also used to defined space	26
Figure 3.2.3.12	Location of portable plant containers at Maju Junction as shown in the previous figures	27
Figure 3.3.1.1	Location plan of Merdeka Square	28
Figure 3.3.1.2	View towards Merdeka Square from the corner of the road	29
Figure 3.3.2.1	Hanging flowerpot creates an aesthetic image to the area	30
Figure 3.3.3.1	One of the portable plant container design made of plastic	31
Figure 3.3.3.2	Another design of the portable plant container made of plastic	32
Figure 3.3.3.3	Design of portable plant container made of clay	32
Figure 3.3.3.4	Portable plant containers not well arranged make the area look informal and untidy	35
Figure 3.3.3.5	Well arranged portable plant container but still cannot give strong image to the area because the containers are too small for the space	35
Figure 3.3.3.6	Portable plant container used to channel direction and also create boundary or edge	36
Figure 3.3.3.7	Portable plant container used to define space	36
Figure 3.3.3.8	Portable plant container used to soften the hardscape element. But portable plant containers at the Merdeka Square are not proportion with the plants.	37
Figure 3.3.3.9	Portable plant container used to enframed the scenery	37
Figure 3.3.3.10	Portable plant container can be arranged and remove according to the festival	38

LIST OF CHARTS

List of Charts	Pages	
Chart 3.2.3.1	Percentage of respondents' satisfaction with the design of portable plant container	19
Chart 3.2.3.2	Percentage of respondent's on the suitability of material and color of portable plant container to the surrounding	20
Chart 3.2.3.3	Percentage of chosen colors by respondents for portable plant container in urban space	21
Chart 3.2.3.4	Percentage of chosen materials by respondents for portable plant container in urban space	22
Chart 3.2.3.5	Percentage of satisfaction of respondents with the layout and arrangement of the portable plant container at the Maju Junction area	22
Chart 3.3.3.1	Percentage of respondents' preference to the use of portable plant container to decorate the Merdeka Square	30
Chart 3.3.3.2	Percentage of respondents' satisfaction with the design of portable plant container at Merdeka Square	31
Chart 3.3.3.3	Percentage of respondents' on suitability of material and color of portable plant container to the surrounding	33
Chart 3.3.3.4	Percentage of chosen colors by respondents for portable plant container in the urban space	33
Chart 3.3.3.5	Percentage of chosen materials by respondents for portable plant container in the urban space	34
Chart 3.3.3.6	Percentage of respondents' satisfaction on the layout and arrangement of portable plant container at the Merdeka Square	34

LIST OF TABLES

List of Tables		Pages
Table 2.2.1.2.1	The character of material	11
Table 2.3.1	Minimum soil depth that determined the size of plant container according to the type of plant	14



CHAPTER I : INTRODUCTION

CHAPTER 1

1.0 INTRODUCTION

1.1 Portable Plant Container at the Pedestrian Path in Urban Space

Portable plant container is one of the important landscape elements in the urban space. Portable plant container can be used to create an aesthetic image for urban space by proper design and appropriate arrangement of design principle and elements. Besides that, portable plant container is also an alternative to overcome the problem of limited space in the urban space. It can be a growing space in the paved area. This chapter will discuss the goal and objectives of the study. Problem statement and methodology of the study will also be discussed.

1.2 Goals

This study is to investigate whether the use of portable plant container in urban space are fully utilized or not.

1.3 Objectives

The objectives of the study include:

1. To study human perception about portable plant container at the pedestrian path in urban space.
2. To identify the potentials and constraints of portable plant

container in urban space.

3. To study the layout and arrangement of portable plant container in urban space.

1.4 Problem Statements

1.4.1 Improper Arrangement and Layout

Some arrangements and layouts of portable plant container have been found not being properly arranged especially in pedestrian path. There is no proper consideration on the size of portable plant container and its proportion to the pedestrian.

1.4.2 Ignorance of the Importance of Portable Plant Container

Unfortunately many people tend to ignore and fail to treat plant container as what they do with the plant itself. People are willing to spend a lot of money on the plant and not on the container. Therefore, the plant and the container are not well-designed and blended to represent character of the place and people. Plant container should be functioning according to space and activities.

Methodology of the study consists of three stages, which are:

1.5.1 Case study

Case study will be conducted in the Maju Junction Shopping Complex and Merdeka Square, Kuala Lumpur.

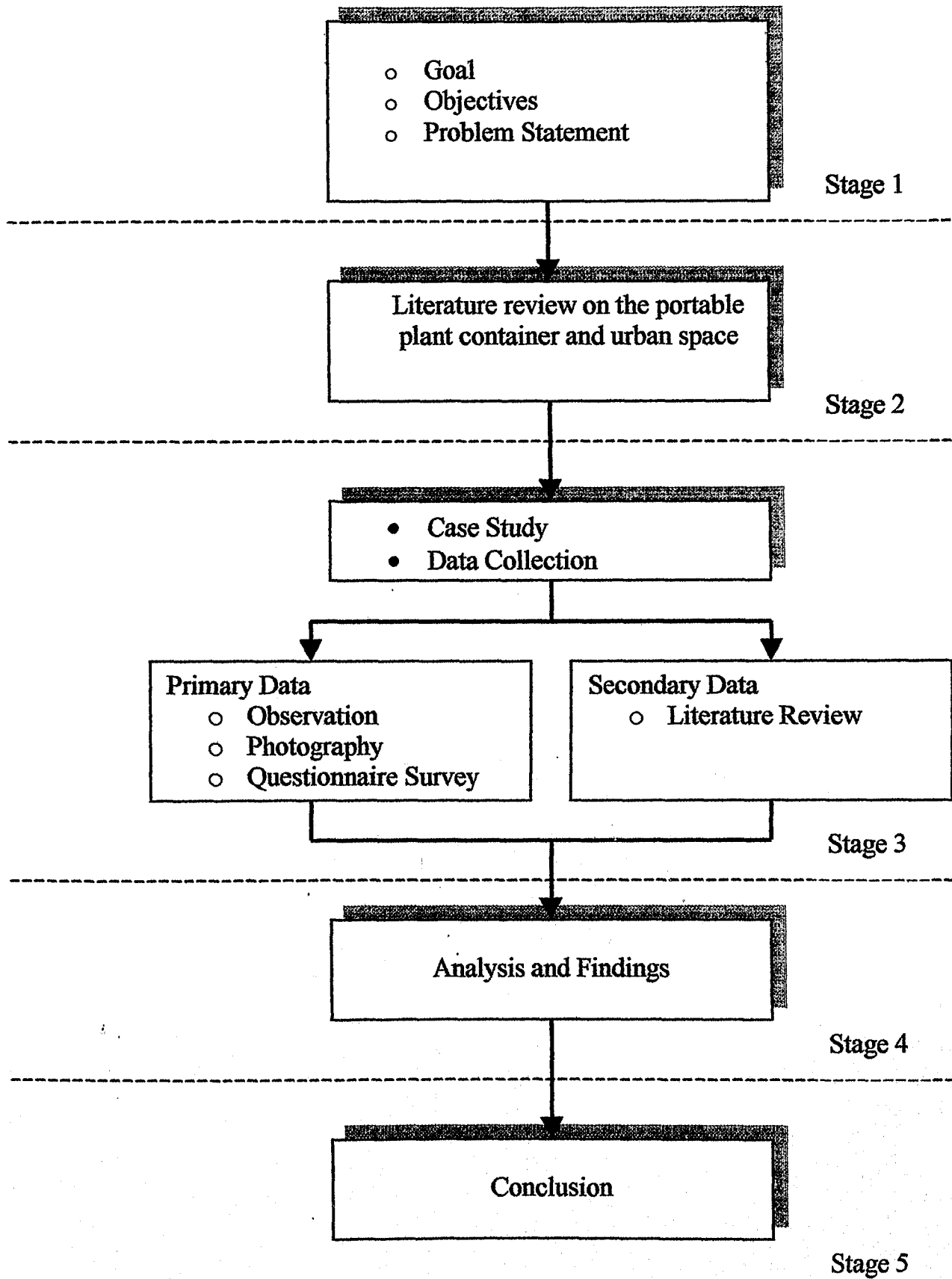
1.5.2 Data collection

Data will be collected through observation, and questionnaire survey. During observation, photograph will be taken to get clear picture of the portable plant container.

Questionnaire will be provided to the public to obtain the information on their opinion about the portable plant container. Questionnaires will be randomly distributed to 30 respondents.

1.5.3 Data analysis

All collected information and data will be analyzed to get the finding and conclusion of the study. For questionnaire, data will be analyzed using SPSS to get statistical data.





CHAPTER 2: RESEARCH TOPIC

2.0 RESEARCH TOPIC

2.1 Introduction

Portable plant container complements the plant with its character of materials, colors, decoration, size, form, configuration and design. The design, detailing and choice of materials of the plant container are important not only for design continuity but also for both durability and ease of maintenance. Appropriate detailing and use of materials for portable plant container in the urban landscape are the primary importance to the success of urban space design.

2.2 Literature review

2.2.1 Portable Plant Container

According to Oxford Advanced Learner's Dictionary, the word 'portable' means 'can be easily carried' or 'not fixed permanently in place'. While plant container can be defined as any pot, box or container made of any material that used to support or hold plant to grow. It is filled with soil or other growth media and incorporated with drainage and fertilizing devices. Portable plant container is usually ready made and can be brought into or out of site. The beauty of these characteristics is the opportunity to create aesthetic image. The advantages of portable plant container are more versatile and may be moved and rearranged for special or seasonal displays.

It can be placed in a variety of locations to add interest and color to urban areas. The following figure shows the variety design of portable plant containers:



Figure 2.2.1.1: Containers are available in a wide range of shapes, sizes and materials. (Source: Wilson, J.)

2.2.1.1 History

No one really knows when the first person put a plant in a pot and willed it to grow, but drawings carved on the wall of an Egyptian temple 3500 years ago depict people digging up and potting frankincense trees for the enjoyment of Queen Hatshepsut. Other early renderings show urns, jardinières, calabashes, and woven baskets filled with soil and planted with food crops and ornamental trees and vines (Wilson, J., 1990) According to Hillier M. (1991), plants have been grown in decorative and utilitarian containers for thousand of years. For early mosaics and writing, we

know that the ancient Egyptians, Greeks and Romans grew aromatic plants, such as myrtle, box and bay, in clay pots. They were aware that it was a practical and efficient growing technique especially in areas where the soil was poor or shallow. In Southern Spain, during the early part of the second millennium, the Moors created wonderfully decorative, enclosed and intimate gardens using many containers. Two famous gardens lay out in the middle of the fourteenth century, at the Alhambra and the Generalife in Granada, survive to this day. They have now been restored and although they are not completely accurate reproductions of the originals, they still contain the essence of their early design and planting.

2.2.1.2 Type and material

There are several types of portable plant containers such as pot, window boxes and hanging flowerpot. The following figures show several types of plant containers:



Figure 2.2.1.2.1: A pot type of portable plant container. (Source: Wilson, J.)

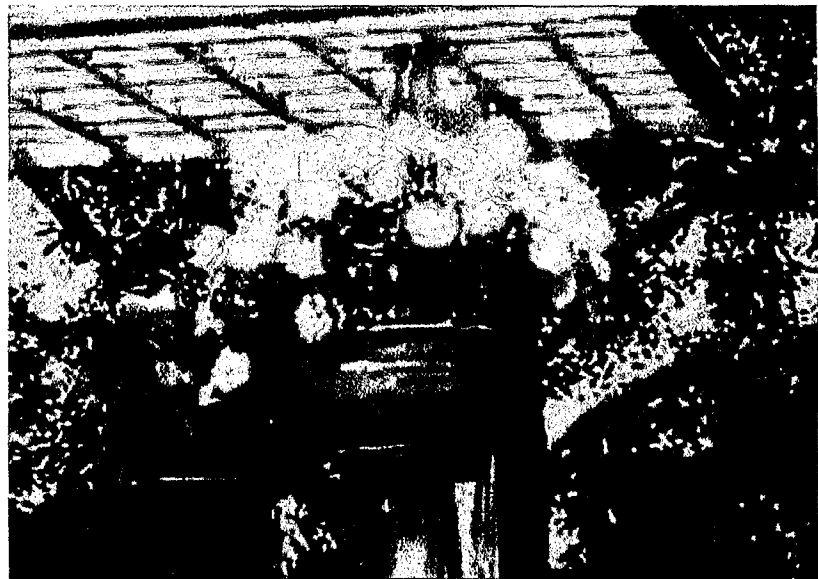


Figure 2.2.1.2.2: Hanging flowerpot type hanging under the trellis. (Source: Wilson, J.)



Figure 2.2.1.2.3: A window box type of portable plant container. (Source: Hillier, M.)

Many materials have been used to make the container including clay, brick and concrete, timber, fiberglass, and plastics. Clay container is the most natural looking but fragile. Rough handling can chip or crack them, and freezing and thawing can destroy them entirely. The natural color of red clay lightens with exposure to the sun. Concrete containers are only slightly more expensive than clay ones and more durable. Fiberglass containers are even lighter in weight and are reasonably durable. It looks good in modern settings but is not suitable for natural surrounding setting. Wood is an attractive natural material for plant container. Wood containers have a limited life unless they are made from hardwood. Molded plastic containers have the advantage of being inexpensive as well as lightweight. It comes in several color, with the basic ones are brown, black, green and white. White absorbs the least heat; therefore, plants grown in them suffer less root damage from heat caused by sunlight. The following figures show different types of materials of portable plant container:

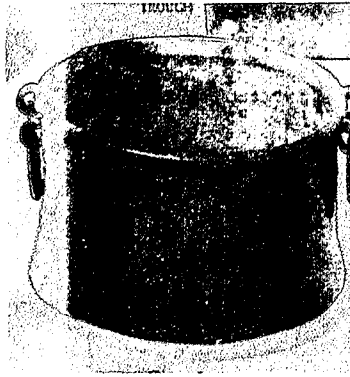


Figure 2.2.1.2.4: Copper plant container.
(Source: Hillier, M.)



Figure 2.2.1.2.5: Clay plant container.
(Source: Hillier, M.)



Figure 2.2.1.2.6: Glazed clay plant container.
(Source: Pavey, G.A.)

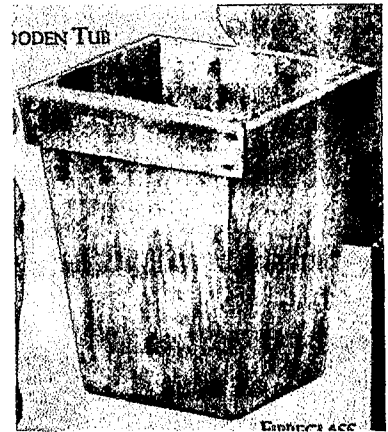


Figure 2.2.1.2.7: Wooden plant container.
(Source: Hillier, M.)



Figure 2.2.1.2.8: Fiberglass plant container.
(Source: Hillier, M.)

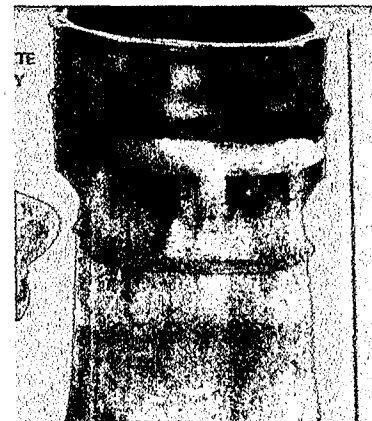


Figure 2.2.1.2.9: Concrete plant container.
(Source: Hillier, M.)

The type of material should also suit to the surrounding.

Character	Material
1. Compatibility	Respond to adjacent or nearby building or streetscape by using the same similar material, detail and proportion.
2. Color	A number of colors used should be kept in a minimum number.
3. Texture	The type of material used and the finishing technique contribute the desired texture.
4. Durability	Material must tolerance to climate and vandalism proof.

Table 2.2.1.2.1: The character of material
(Source: Harris and Dines, 1988, Mohammad, 1998)

2.2.1.3 Functions and advantages of portable plant container

Generally, portable plant container functions in two ways:

1. As conventional usage such as at houses and building.
2. Dual function usage, which provides a growing space and aesthetic values such as sculpture.

Portable plant container offers some advantages such as:

1. Soil type of any growth media can be controlled.
2. Easy maintenance such as watering, fertilizing, pruning and weeding.