UNIVERSITI PUTRA MALAYSIA

RELATIONSHIP BETWEEN VISUAL LANDSCAPE PREFERENCE AND RESTORATIVE POTENTIAL OF URBAN LANDSCAPE

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RELATIONSHIP BETWEEN VISUAL LANDSCAPE PREFERENCE AND RESTORATIVE POTENTIAL OF URBAN LANDSCAPE

By

MAHDIEH ABKAR

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia in Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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DEDICATION

To my Husband, Seyed Rasoul and my Daughter, Delara

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

RELATIONSHIP BETWEEN VISUAL LANDSCAPE PREFERENCE AND RESTORATIVE POTENTIAL OF URBAN LANDSCAPE

By

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August 2011

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The role of scenic landscapes in restoring human mental fatigue has begun to receive attention from landscape researchers. However, little is known regarding the role of urban preferred landscapes in increasing their restorative potential to reduce mental fatigue. This study aimed to understand the role of visual preferred landscape on restorative environments. In this experimental study, 120 students from Universiti Putra Malaysia rated 12 color slides of Urban Built Landscape (UBL) and 12 color slides of Urban Natural Landscape (UNL) scenes for 4 restorative components (Being away, Fascination, Coherence, Compatibility), 4 predictors of preferences (Coherence, Complexity, Legibility, Mystery) and 2 criterion variables (PRP and Preference).

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Results of this study indicated that only three predictors of Preference (Coherence, Complexity, and Mystery) positively explained Preference in UNL and UBL while Legibility did not predict Preference. Coherence was considered as predictor of preference whereas did not predict PRP. Furthermore, the result showed the role of urban natural landscape in increasing restorative potential and Preference of urban environments.

Result also showed that only three predictors of preference (Coherence, Complexity, and Mystery) positively explained the restorative components (Being away, Fascination, Compatibility). Theses predictors also positively explained PRP without restorative components in UNL and UBL while "Legibility" negatively explained PRP in UBL; however effect of predictors of preference on PRP in the presence of restorative components reduced and these reductions were in line with mediation.

The result of path analysis indicated that effect of "Coherence" and "Complexity" on PRP was fully mediated by the restorative components and Mystery was partially mediated in UNL. In UBL, "Coherence" was fully mediated while "Complexity" and "Mystery" was partially mediated in UBL by the restorative components.

This study revealed the role of urban natural landscapes and visual preference for urban landscapes in increasing restorative potential of urban environments that led to reduce mental fatigue. The results of this study can aid city planners, landscape architects and

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developers with regards to the influence of landscape characteristics in increasing the restorative potential of urban environments. Furthermore, it can is considered for designing new landscapes or improving existing landscapes in cities where we live, work, learn, and go for healing or help.

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Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

HUBUNGAN ANTARA VISUAL LANDSCAPE PREFERENCE DAN RESTORATIVE POTENTIAL BAGI KAWASAN BANDAR

Oleh

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Ogos 2011

Pengerusi: Prof. Mustafa Kamal Bin Mohd. Shariff, PhD

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Peranan pemandangan landskap dalam memulihkan keletihan mental manusia telah mula mendapat perhatian penyelidik landskap. Walau bagaimanapun, tidak banyak yang diketahui mengenai peranan *landscape preference* dalam meningkatkan *restorative potential* untuk mengurangkan keletihan mental. Tujuan utama kajian ini ialah untuk mengenalpasti peranan *visual landsape preference* terhadap pemulihan alam sekitar. Dalam kajian eksperimental ini , seramai 120 orang pelajar Universiti Putra Malaysia telah ditugaskan untuk menilai pemandangan 12 keping slaid berwarna tentang *Urban Build Landscape* (UBL) dan 12 slaid berwarna tentang *Urban Natural Landscape* (UNL) untuk 4 komponen pemulihan (*Being away*, *Facination*, *Coherence*, *Compatibility*), 4 *predictors of preferences* (Coherence, Complexity, Legibility, Mystery) dan 2 kriteria pembolehubah (PRP dan Preference).

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Hasil kajian menunjukkan bahawa hanya tiga *predictors of preferences (Coherence, Complexity and, Mystery*) yang positif menjelaskan *preferences* dalam UNL dan UBL manakala *Legibility* tidak menunjukkan *preference.* "*Coherence"* dianggap sebagai *predictors of preference* sedangkan tidak meramalkan PRP. Selain itu hasil kajian juga menunjukkan peranan UNL dalam peningkatan *restorative potential dan preference* terhadap alam sekitar kawasan bandar.

Hasil kajian juga menunjukkan bahawa hanya tiga *predictors of preference* (*Coherence, Complexity and, Mystery*) yang positif menerangkan komponen *restorative* (*Being away, Facination, Compatibility*). *Predictors* ini juga positif menjelaskan PRP tanpa komponen *restorative* di UNL dan UB L sementara "*Legibility"* secara negatif menjelaskan PRP dalam UBL; Walau bagaimanapun kesan daripada *predictors of preference* terhadap PRP dalam kehadiran komponen *restorative* kurang dan pengurangan ini adalah selaras dengan pengantaraan.

Hasil analisis laluan pula menunjukkan kesan "Coherence" dan "Complexity" pada PRP sepenuhnya teragih oleh komponen *restrorativ*e dan "*Mystery"* adalah sebahagian yang teragih dalam UNL. Dalam UBL, *"Coherence"* telah diselesaikan dengan sepenuhnya manakala *"Complexity*" dan *"Mystery"* adalah sebahagian yang teragih dalam UBL oleh komponen *restorative.*

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kajian ini mendedahkan peranan *urban natural landscapes* dan *visual perference* untuk landskap kawasan bandar dalam meningkatkan *restorative potential* persekitaran bandar yang membawa kepada mengurangkan keletihan mental. Hasil kajian ini boleh membantu perancang bandar, arkitek landskap dan pemaju bandaran mengenai pengaruh ciri-ciri landskap dalam meningkatkan *restorative potential* terhadap persekitaran bandar.Tambahan pula, ia boleh dipertimbangkan untuk merekabentuk landskap baru atau memperbaiki landskap yang sedia ada di bandar-bandar tempat kita tinggal, bekerja, belajar, dan tempat mendapat rawatan perubatan.

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APPROVAL

I certify that and Examination Committee has met on date of viva to conduct the final examination of Mahdieh Abkar on his PhD thesis entitled "THE RELATIONSHIP BETWEEN VISUAL PREFERENCE AND RESTORATIVE POTENTIAL OF URBAN LANDSCAPES" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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DECLARATION

I declare that the thesis is on my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or other institution.

_____

MAHDIEH ABKAR

Date: 24 August 2011

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