



**EFFECTS OF INSTAGRAM ON VISITORS' ATTACHMENT TO
REVITALISED HISTORIC CITY CENTRES IN GEORGETOWN, PENANG,
MALAYSIA AND CHINATOWN, SINGAPORE**

By

TUGCE ERTAN

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

August 2022

FRSB 2022 28

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia



DEDICATION

I dedicate this work to:

Those who have a special place in my heart: my parents, my sister, my
beloved and outstanding husband,
and
all the people in my life, who have touched my heart.



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

**EFFECTS OF INSTAGRAM ON VISITORS' ATTACHMENT TO
REVITALISED HISTORIC CITY CENTRES: THE CASE OF GEORGETOWN,
PENANG AND CHINATOWN, SINGAPORE**

By

TUGCE ERTAN

August 2022

Chair: Norsidah Binti Ujang, PhD
Faculty: Design and Architecture

Modern cities are experiencing the challenging consequences of rapid urbanization, such as decay, problems concerning safety, aesthetics, loss of urban identity, social life, and physical deterioration in the built environment. Historic city centres, which are the core elements of cities' identities, are particularly faced with abandonment and decline, resulting in the danger of cultural heritage and identity loss. Therefore, revitalising historic city centres and converting them to healthy living environments has become an urgent issue. Despite the fact that most regeneration and renovation practices concentrate on creating more human-friendly environments, they mostly focus on physical enhancements and less on the psychological element of attachment formed between people and places. Another modern world fact is the undeniable role of social media in our daily lives. This also affects how users experience places and form attachments to place, since it has become integrated as a digital layer to how people experience the world today. Even though place attachment provides continuity over time and a sense of belonging in historically significant places, social media usage is ever-increasing and there is not much research on the use and effect of popular social media tools on rehabilitated urban spaces and how they may work as a place-attachment tool for such rehabilitation projects. The objective of this thesis is to explore the effects of Instagram on visitors' place attachment to revitalized historic city centres. For this purpose, a case study approach was chosen employing a mixed methodology. The quantitative method sampled 421 respondents from two cases, Georgetown historic city centre in Penang, Malaysia, and Chinatown historic city centre in Singapore. Data were collected through questionnaire surveys as the main method and supported by a netnography method, which was conducted online. The questionnaires measured how Instagram played a role on place attachment formation through destination image, place involvement, and collective memory,

and the results were analysed by conducting a mediator analysis. The netnography method collected the Instagram posts of visitors and then analysed the data by content analysis within a hermeneutic approach. Using a mixed methodology from multiple case studies allowed the researcher to gain rich data and make comparisons. After the individual analysis of the cases, a cross-case analysis was done to see if the initial hypotheses were supported. The last step was to discuss the findings and respond to the research questions. The findings revealed that Instagram usage has a significant positive effect on destination image, place involvement, collective memory, and place attachment. Furthermore, it was seen that destination image and collective memory played a mediating role between Instagram usage and place attachment. Although place involvement was not found to be a predictor for place attachment or a mediator between Instagram usage and place attachment quantitatively, the netnographic study interpreted this from the Instagram posts. The study suggests that destination image and collective memory plays the most vital role in the effect of Instagram usage on place attachment to historic city centres. Furthermore, enhancing visitors' place attachment to historic city centres will support stronger place identity that could turn decayed historic city centres into frequently used and embraced responsive environments. The findings provide a wholesome view of how Instagram usage shapes the place attachment process before, during and after visiting a place. The central message of this study is that integrating Instagram usage into historic city centre revitalisation will generate and enhance place attachment and will help strengthen the place identity of cities.

Keywords: Place Attachment, Historic City Centres, Destination Image, Place Involvement, Collective Memory, Instagram Usage, Georgetown, Chinatown

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

**KESAN INSTAGRAM KE ATAS IKATAN PELAWAT TERHADAP PUSAT
BANDAR BERSEJARAH YANG DIPULIHKAN DI GEORGETOWN, PULAU
PINANG, MALAYSIA DAN CHINATOWN, SINGAPURA**

Oleh

TUGCE ERTAN

Ogos 2022

Pengerusi: Norsidah Binti Ujang, PhD
Fakulti: Rekabentuk dan Senibina

Bandar moden sedang mengalami kesan yang mencabar akibat dari pembedaan pesat, seperti keterhakisian, masalah berkaitan keselamatan, estetika, kehilangan identiti bandar, kehidupan sosial, dan kemerosotan fizikal dalam persekitaran alam bina. Pusat bandar bersejarah, yang merupakan elemen teras identiti bandar, khususnya berhadapan dengan pengabaian dan kemerosotan, mengakibatkan kepada bahaya kehilangan warisan budaya dan identiti. Oleh itu, merevitalisasi pusat bandar bersejarah dan mengubahnya kepada persekitaran hidup sihat telah menjadi isu yang mendesak. Walaupun pada hakikatnya kebanyakan amalan pembaharuan semula dan pengubahsuaian menumpukan kepada mewujudkan persekitaran yang lebih mesra manusia, kebanyakan mereka menumpukan kepada peningkatan fizikal dan kurang kepada elemen psikologi keterikatan yang terbentuk di antara manusia dan tempat. Satu lagi fakta dunia moden ialah peranan media sosial yang tidak dapat dinafikan dalam kehidupan seharian kita. Ini juga mempengaruhi bagaimana pengalaman pengguna di sesuatu tempat dan membentuk keterikatan terhadap tempat, memandangkan ianya telah disepadukan sebagai lapisan digital kepada cara orang mengalami dunia hari ini. Walaupun terkeikatan tempat memberikan kesinambungan dari semasa ke semasa dan rasa kekitaan di tempat yang penting dari segi sejarah, penggunaan media sosial semakin meningkat dan tidak banyak kajian mengenai penggunaan dan kesan alatan media sosial yang popular pada ruang bandar yang dipulihkan dan cara ia berfungsi sebagai alat keterikatan tempat untuk projek pemulihan tersebut. Objektif tesis ini adalah untuk meneroka kesan Instagram terhadap keterikatan tempat pengunjung ke pusat bandar bersejarah yang direvitalisasi. Untuk tujuan ini, pendekatan kajian kes telah dipilih menggunakan metodologi campuran. Kaedah kuantitatif mengambil sampel 421 responden daripada dua kes, pusat bandar bersejarah Georgetown di Pulau Pinang, Malaysia, dan pusat bandar bersejarah Chinatown di Singapura. Data dikumpul melalui tinjauan soal selidik sebagai kaedah utama dan disokong oleh kaedah netnografi, yang

dijalankan dalam talian. Soal selidik mengukur bagaimana Instagram memainkan peranan dalam pembentukan keterikatan tempat melalui imej destinasi, penglibatan tempat, dan memori kolektif, dan hasilnya dianalisis dengan menjalankan analisis mediator. Kaedah netnografi mengumpul siaran Instagram pengunjung dan kemudian menganalisis data dengan analisis kandungan dalam pendekatan hermeneutik. Menggunakan metodologi campuran daripada pelbagai kajian kes membolehkan penyelidik memperoleh data yang kaya dan membuat perbandingan. Selepas analisis individu kes, analisis silang kes dilakukan untuk melihat sama ada hipotesis awal disokong. Langkah terakhir ialah membincangkan penemuan dan menjawab persoalan kajian. Penemuan menunjukkan bahawa penggunaan Instagram mempunyai kesan positif yang signifikan terhadap imej destinasi, penglibatan tempat, memori kolektif, dan keterikatan tempat. Tambahan pula, ia dilihat bahawa imej destinasi dan memori kolektif memainkan peranan mediator antara penggunaan Instagram dan keterikatan tempat. Walaupun penglibatan tempat tidak didapati sebagai peramal untuk keterikatan tempat atau mediator antara penggunaan Instagram dan keterikatan tempat secara kuantitatif, kajian netnografi menafsirkannya daripada siaran Instagram. Kajian menunjukkan bahawa imej destinasi dan memori kolektif memainkan peranan paling penting dalam kesan penggunaan Instagram terhadap keterikatan tempat di pusat bandar bersejarah. Tambahan pula, meningkatkan keterikatan tempat pengunjung ke pusat bandar bersejarah akan menyokong identiti tempat yang lebih kukuh yang boleh mengubah pusat bandar bersejarah yang terhakis menjadi persekitaran responsif yang kerap digunakan dan diterima pakai. Penemuan ini memberikan pandangan menyeluruh tentang bagaimana penggunaan Instagram membentuk proses keterikatan tempat sebelum, semasa dan selepas mengunjungi sesuatu tempat. Mesej utama kajian ini ialah mengintegrasikan penggunaan Instagram ke dalam revitalisasi pusat bandar bersejarah akan menjana dan meningkatkan keterikatan tempat dan akan membantu mengukuhkan identiti tempat sesuatu bandar.

Kata kunci: Keterikatan Tempat, Pusat Bandar Bersejarah, Imej Destinasi, Penglibatan Tempat, Memori Kolektif, Penggunaan Instagram, Georgetown, Chinatown

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to both of my supervisors, Associate Professor Dr. Norsidah Ujang and Associate Professor Dr. Jamie MacKee for their infinite support and supervision to complete this study. Thank you for all your patience, help and motivational support throughout this journey. I am eternally grateful for everything I have learnt from you. I would also like to express my sincere thanks to the rest of the supervisory committee: Associate Prof. Dr. Suhardi Maulan and Dr. Shamsul Abu Bakar for their thought motivating questions and encouragement during my PhD.

A note of appreciation also goes to my close friends in the Universiti Putra Malaysia for always helping me throughout this research, specifically Forough Ali.

I also want to extend my gratitude to my beloved parents, my dear sister İpek and my soul mate, best friend and husband Gökay, who have greatly supported me and loved me unconditionally for all my life.

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Norsidah binti Ujang, PhD

Associate Professor Ts.
Faculty of Design and Architecture
Universiti Putra Malaysia
(Chairman)

Suhardi bin Maulan, PhD

Associate Professor, LAr.
Faculty of Design and Architecture
Universiti Putra Malaysia
(Member)

Shamsul bin Abu Bakar, PhD

Senior Lecturer, Lar.
Faculty of Landscape Architecture
Universiti Putra Malaysia
(Member)

Jamie MacKee, PhD

Associate Professor
School of Architecture and Built Environment
University of Newcastle
(Member)

ZALILAH MOHD SHARIFF, PhD

Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 8 June 2023

TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	iii
ACKNOWLEDGEMENTS	v
APPROVAL	vi
DECLARATION	viii
LIST OF TABLES	xii
LIST OF FIGURES	xv
LIST OF ABBREVIATIONS	xviii
CHAPTER	
1 INTRODUCTION	1
1.1 Introduction	1
1.2 Background of the Study	3
1.3 Statement of Issues	6
1.4 Research Questions	10
1.5 Research Objectives	11
1.6 Research Assumptions	11
1.7 Scope and Limitations of the Study	12
1.8 The Significance of the Study	13
1.9 Definition of the Key Terms	14
1.10 Structure of the Thesis	15
2 LITERATURE REVIEW	16
2.1 Introduction	16
2.2 Sense of Place	16
2.3 Place Attachment	17
2.4 Place Identity	21
2.5 Temporal Process	22
2.6 Destination Image and Place Attachment	23
2.7 Place Involvement and Place Attachment	25
2.8 Collective Memory and Place Attachment	26
2.9 Instagram and Place Attachment	27
2.10 Theoretical Framework of the Study	30
3 RESEARCH METHODOLOGY	32
3.1 Introduction	32
3.2 The Methodological Approach	32
3.3 The Research Design	34
3.4 Choice of Methodology	35
3.4.1 Case Study Approach	37
3.4.2 Case Study Selection	38
3.4.3 Case One: Georgetown, Malaysia	40
3.4.4 Case Two: Chinatown, Singapore	41
3.5 Methods Employed	42
3.5.1 Survey	44

	3.5.2	Netnography	55
	3.6	Ethical Consideration	64
	3.7	Reporting Findings	64
	3.8	Cross Case Analysis	64
	3.9	The Research Process	65
	3.10	Reliability and Validity	67
4		RESULTS AND ANALYSIS	70
	4.1	Introduction	70
	4.2	Case One: Georgetown, Malaysia	70
	4.2.1	Results from the Questionnaire Survey	70
	4.2.2	Results from the Netnographic Study	99
	4.3	Case Two: Chinatown, Singapore	109
	4.3.1	Results from the Questionnaire Survey	109
	4.3.2	Results from the Netnographic Study	137
	4.4	Summary of the Main Research Findings	146
5		DISCUSSION	157
	5.1	Introduction	157
	5.2	Main Research Findings	157
	5.2.1	Visitors' Place Attachment Expression on Instagram	157
	5.2.2	The Pattern and Role of Instagram Usage in Experiencing Historic City Centres	161
	5.2.3	Attributes of Instagram Usage That Influence Place Attachment to Historic City Centres	163
	5.2.4	The Relationship Between Instagram Usage, Destination Image, Place Involvement, Collective Memory, and Place Attachment	165
	5.3	Final Remarks	170
6		CONCLUSION AND RECOMMENDATIONS	173
	6.1	Introduction	173
	6.2	Theoretical Contributions of the Findings	173
	6.3	Practical Contributions	175
	6.4	Limitations and Recommendations for Future Research	177
		REFERENCES	179
		APPENDICES	200
		BIODATA OF STUDENT	282
		LIST OF PUBLICATIONS	283

LIST OF TABLES

Table		Page
1	Model Fit Indices	55
2	The categorization hierarchy of the Instagram posts	61
3	Validity and Reliability of Case Study Research by Yin (2003)	67
4	Characteristics of Respondents in Georgetown	71
5	Familiarity Patterns of Respondents in Georgetown	72
6	Frequency Distribution of Indicators of Instagram Usage in Georgetown	73
7	Frequency Distribution of Indicators of Destination Image in Georgetown	75
8	Frequency Distribution of Indicators of Place Involvement in Georgetown	81
9	Frequency Distribution of Indicators of Collective Memory in Georgetown	84
10	Frequency Distribution of Indicators of Place Attachment in Georgetown	87
11	Descriptive Statistics and Correlation Coefficients of Variables (Georgetown Survey)	91
12	Threshold Values and Model Fitness Indices of Instagram Usage	268
13	Threshold Values and Model Fitness Indices of Destination Image	268
14	Alpha Coefficients and Convergent Validity of Destination Image Measurement Model	268
15	Threshold Values and Model Fitness Indices of Place Involvement	269
16	Alpha Coefficients and Convergent Validity of Place Involvement Measurement Model	269

17	Threshold Values and Model Fitness Indices of Collective Memory	269
18	Threshold Values and Model Fitness Indices of Place Attachment	269
19	Alpha Coefficients and Convergent Validity of Place Attachment Measurement Model	270
20	Cronbach's Alpha Scores for Measurement Models (Georgetown)	97
21	Hierarchical Regression Analysis for the predictors of place attachment (Georgetown)	274
22	The Bootstrap Test Results of Full Mediator Model (N = 210) (Georgetown)	274
23	Characteristics of Respondents in Singapore	110
24	Familiarity Pattern of Respondents in Chinatown	111
25	Frequency Distribution of Indicators of Instagram Usage	112
26	Frequency Distribution of Indicators of Destination Image	114
27	Frequency Distribution of Indicators of Place Involvement	120
28	Frequency Distribution of Indicators of Collective Memory	122
29	Frequency Distribution of Indicators of Place Attachment	125
30	Descriptive Statistics and Correlation Coefficients of Variables (Chinatown)	129
31	Threshold Values and Model Fitness Indices of Instagram Usage	275
32	Threshold Values and Model Fitness Indices of Destination Image	275
33	Alpha Coefficients and Convergent Validity of Destination Image Measurement Model	275
34	Threshold Values and Model Fitness Indices of Place Involvement	276

35	Alpha Coefficients and Convergent Validity of Place Involvement Measurement Model	276
36	Threshold Values and Model Fitness Indices of Collective Memory	276
37	Threshold Values and Model Fitness Indices of Place Attachment	276
38	Alpha Coefficients and Convergent Validity of Place Attachment Measurement Model	277
39	Cronbach's Alpha Scores for Measurement Models (Chinatown)	135
40	Hierarchical Regression Analysis for the predictors of place attachment	281
41	The Bootstrap Test Results of Full Mediator Model	281
42	Summary and Comparison of Netnography Results from Each Case	147
43	Attributes of Instagram Usage That Influence Place Attachment	150
44	Hypotheses Testing Results	154
45	Place Attachment Expressions on Instagram	159

LIST OF FIGURES

Table		Page
1	Tripartite Conceptual Model for Place Attachment	21
2	Theoretical Framework, by the author	31
3	The Research Design	34
4	Georgetown Core Zone	39
5	Chinatown Historic City Centre	39
6	Case Study Design Inspired by Yin (2003)	43
7	Measurement model for the variable of Instagram usage	52
8	Measurement model for the variable of destination image	52
9	Measurement model for the variable of place involvement	53
10	Measurement model for the variable of collective memory	53
11	Measurement model for the variable of place attachment	54
12	Hypotheses testing model	54
13	The Research Process	66
14	Instagram Usage Measurement Model CFA (Georgetown Survey)	271
15	Destination Image Measurement Model CFA (Georgetown Survey)	271
16	Place Involvement Measurement Model CFA (Georgetown Survey)	272
17	Collective memory Measurement Model CFA (Georgetown Survey)	272
18	Place Attachment Measurement Model CFA (Georgetown Survey)	273

19	Beta Coefficients Indicating The Mediator Effects of DI, PI and CM between IU and PA	98
20	Instagram posts categorized under Spatial Presence, Spatial Imagery and Travel Environment categories (Georgetown, Malaysia)	100
21	Instagram posts illustrating Historic Attraction theme (Georgetown, Malaysia)	100
22	Instagram posts illustrating different festivals in Georgetown	101
23	Instagram posts illustrating the Instagram posts under Infrastructure and Accessibility sub-categories in Georgetown, Malaysia	102
24	Instagram posts under Place Attachment Category (Georgetown, Malaysia)	103
25	Instagram posts illustrating the Instagram posts under Attraction sub-category	104
26	Instagram posts categorized under Social Bonding sub-category (Georgetown, Malaysia)	104
27	Instagram posts categorized under Identity Expression sub-category in Georgetown	105
28	Instagram posts categorized under Place Attachment category in Georgetown	106
29	Instagram posts categorized under Collective Memory category in Georgetown	107
30	Instagram posts categorized under Place Attachment category in Georgetown	108
31	Instagram Usage Measurement Model CFA (Chinatown Survey)	278
32	Destination Image Measurement Model CFA (Chinatown Survey)	278
33	Place Involvement Measurement Model CFA (Chinatown Survey)	279
34	Collective memory Measurement Model CFA (Chinatown Survey)	279

35	Place Attachment Measurement Model CFA (Chinatown Survey)	280
36	Beta Coefficients Indicating the Mediator Effects of DI, PI and CM between IU and PA (Chinatown)	136
37	Instagram posts categorized under Spatial Presence, Spatial Imagery and Travel Environment categories	138
38	Instagram posts illustrating Historic Attraction theme	138
39	Instagram posts illustrating different festivals in Georgetown	139
40	Instagram posts illustrating the Instagram posts under Infrastructure and Accessibility sub-categories	139
41	Instagram posts under Place Attachment Category	141
42	Instagram posts illustrating the Instagram posts under Attraction sub-category	141
43	Instagram posts categorized under Social Bonding sub-category	142
44	Instagram posts categorized under Identity Expression sub-category	143
45	Instagram posts depicting Place Attachment	144
46	Instagram posts categorized under Collective Memory category	144
47	Instagram posts categorized under Place Attachment category	145
48	The role of Instagram usage in experiencing historic city centres within the temporal process	149
49	The Relationship Between Instagram Usage, Destination Image, Place Involvement, Collective Memory and Place Attachment	166

LIST OF ABBREVIATIONS

IU	Instagram Usage
DI	Destination Image
PI	Place Involvement
CM	Collective Memory
PA	Place Attachment



CHAPTER 1

INTRODUCTION

1.1 Introduction

Urban spaces that have acted as stages of collective memory, places of daily gatherings and venues for memorable past events preserve significant elements of urban identity for that particular city. Such places may be ordinary and daily urban gathering points as well as historical buildings or historical urban centres. These places play an important role in the formation of a city's identity and urban character because they possess both tangible and intangible aspects of collective memory and the users generate a sense of belonging and attachment to these places. Cities generally rely on these urban places for keeping their identities alive.

However, due to the industrial revolution and after World War II, a very rapid urbanization and development occurred in cities. New developments had positive effects on cities but the negative consequences affected cities in social, cultural and physical contexts. While new urban centres were forming, the old ones experienced abandonment and decay. This has led to physical deterioration of the historic city centres and brought about safety issues. Moreover, the fundamental elements of the cities' identities started to diminish. Today, this is a worldwide urban problem that concerns governments, residents, and local authorities. Such historic city centres need a comprehensive rehabilitation process because they preserve important aspects of city identity.

Comprehensive rehabilitation processes for historic city centres are complex and challenging procedures. They cannot depend on solely physical improvements. They also have to consider the city's social, cultural, economic and historical aspects. This can be achieved via place attachment and generating a sense of belonging, in addition to physical improvements to the tangible structures. As Scannel and Gifford (2010) stress, place attachment provides continuity over time and a sense of belonging in places that are historically significant. As a result, such important urban *spaces* can turn into *places* and be protected and revitalized, at the same time becoming a part of the users' daily life once again.

In order to avoid losing urban place identity, decaying historic city centres that have significant importance for inhabitants' collective memory should be rehabilitated by bringing back the sense of place they once had for users. Therefore, rehabilitated historic urban areas need to be perceived as attractive by both locals and visitors in order to be actively used and embraced as living places. This way, they will be fully revived and they will indirectly provide economic benefits for their residents as well. Attractive destinations lead to place attachment, which results in significant national income increases (Dredge,

2010). In this context, visitors' place attachment to historic city centres matters.

A person's perception of the outer world is formed by the information one gathers. Today, most of the information regarding the events and things that are outside of one's immediate environment is provided via media tools. The information that people gather via media tools highly influences their perceptions. Meyrowitz (1985) claimed that e-media unitizes how people perceive a place and its uniqueness. For the last decade, with the help of popular social media tools such as Facebook and Instagram, almost everyone has become a source of information. The number of active social media users exceeded 4 billion in 2021 (Johnson, 2021). Information shared via these popular social media tools influences other people. In the context of places, visuals and opinions about a place that are posted on popular social media tools form potential visitors' ideas/images of a place.

Memory is the mental capacity of humans to revive impressions, past events, facts, etc., or to remember previous experiences (Ardakani & Oloonabadi, 2011). A considerable number of affectionate memories about an attraction point in a city form the collective memory of a group of people who share meaningful previous experiences about that place. With the increase in usage of smart devices such as mobile phones and tablets today, sharing these meaningful memories via popular social media tools has also increased dramatically. With the help of mobile devices, visitors can easily upload visuals of new, interesting places, and their thoughts about these places, to popular social media platforms, and these quickly reach their audiences. Visitors and users of an urban space, and even people who have never been to that place, engage in forming a collective memory, a sense of place attachment about that place by the use of these tools. While an indirect place attachment forms during this process for the audience, the visitors who have actually visited the place can express their feelings of place attachment through these social media instruments. Sharing their memories and expressing their emotional bonds with the place adds to the interaction between people and places.

This direct and indirect interaction between people and places through popular social media tools has a considerable effect on how people perceive a place and generate a kind of place attachment. Therefore, the identity, the meaning of that place and the formation of place attachment are deeply transformed due to these social media tools. Nevertheless, the lack of understanding and research about social media's effects related to the urban context and place attachment is surprising. Therefore, this study intends to explore the effects of popular social media tools, namely Instagram, on place attachment to build better-developed rehabilitation strategies for historic urban centres. Such popular social media tools may attract more visitors and may also create better interaction between people and that place, resulting in people embracing the project more readily, more income for locals, and faster acceptance of rehabilitation projects.

1.2 Background of The Study

"The space where life takes place is the place; the place is the space with clear characteristics" (Norberg-Schulz, 1993). Human settlements are not only shelters, they are also spaces with a meaningful sense of place (Norberg-Schulz, 1993). It is experience that turns spaces into places (Tuan, 1977). Therefore, the sum of people's experiences about a place lead to sense of place resulting in familiar surroundings and sense of belonging. Drawing from this, space is the tangible, visual part of the place's spirit, and the builder's duty is to produce meaningful places (Liang & Chiou, 2017).

A historic area is a group of places that possess heritage values (Litvin, 2005) and they are places that remain familiar in a rapidly changing urban settlement, and thus, they are the essence of city identity and sense of place (Orbasli, 2000; Dameria et al., 2018). Although historic areas are stages for the past experiences of people, they also affect the current perceptions of people. Therefore, a historic area can be a representation of self-identity and belongingness (Smith, 2006). Such heritage sites have special meanings and cultural elements in addition to being physical structures, which is particularly crucial for creating a sense of place and urban identity (Dameria et al., 2018). Sense of place is one of the urban qualities in the context of historic cities (Davis, Huang and Liu, 2010).

Generally, the objective of conservation is to create a link between people and the past and activate a sense of place in order to extend the life of historic assets while integrating them into life in the present day (Liang & Chiou, 2017). The main reasons for conserving a historic place are "memory, identity and continuity". Continuity provides stability in a constantly changing world, and memories arise from historic places and enhance group and individual identities (Mayes, 2013). It is essential to preserve historic heritage sites in cities in order to sustain the unique identity of place (Rypkema, 2003). The physical presence of a historic site becomes powerful when it serves as a platform that can present the past and share stories so that it can be a part of the place's identity.

Place attachment research has gained attention due to the effort of multiple fields to understand the issues in the context of visitor-place relationships (Halpenny, 2006). Place attachment has a significant effect on visitors' behaviour and therefore impacts socio-economic elements (Su et al., 2014; Marles & Watkin, 2003). Place attachment may be mostly about emotions, but it also has behavioural outcomes, such as the desire to protect one's place and its meaning (Scannel & Gifford, 2014). Therefore, place attachment is a vital aspect in the context of heritage sites and in sustaining the meaning of places because it improves the value of a place (Ujang & Zakariya, 2015).

Social media is a huge development in the history of the internet (Van Dijck, 2013). It has caused a major change in the way the World Wide Web is used (Van der Hoeven, 2019). A basic definition of social media is the sum of internet-

based applications that let users create content and share it with other users (Kaplan & Haenlein, 2010). Social media tools have made it very easy for users to present their ideas and identities, in addition to generating and sharing online content (Van Dijck, 2013). New media technologies have a certain influence on the way people comprehend places and form social networks (Houghton, 2010).

Social media usage is growing in the South-East Asia region by 34% each year (Kemp, 2017). Therefore, the number of social media users in urban areas is significant (Duggan & Brenner, 2013). Instagram is a fast-growing social media network with one billion monthly users, and more than 500 millions of them use the network daily (Clarke, 2019). Instagram also allows users to categorize content with the help of hashtags and locations, as well as share their content on Facebook (Criswell & Canty, 2014), providing researchers data that is useful for examining the people-place relationships in the social media realm.

Social media's ability to shape people's perceptions can enhance user-place interaction (Dameria et al., 2018). In the context of urban environments, communication and information are two critical aspects of interest and attraction (Abdel-Aziz, Abdel-Salam & El-Sayad, 2016). As a result of their research, Tussyadiah and Fesenmaier (2009) stated that people made plans to visit New York City after watching an online video about the city. The process beneath this is the concept of virtual mobility, in other words, the feeling of being in a place mentally (Escalas, 2004). The self-interpreted consequence of virtual mobility for the mediated experience of place can result in positive emotions (Dameria et al., 2018). People's experiences of urban settlements are highly mediated due to the development of information technology, and this mediatization shapes people's understanding of a place (Tussyadiah & Fesenmaier, 2009). Humphreys (2010) argues that new social networks in the information age have changed spatial and temporal borders and have therefore changed the concept and arrangement of place.

Experiencing a place is one of the ways to understand the meaning of the place (Cresswell, 2004). In the era of social media, interaction with places is a whole new concept because social media tools have changed the way people experience a place. Today, a person's experience of a place builds upon other people's personal thoughts about a place, starting with a virtual experience of place (Dameria et al., 2018). This also affects his/her physical involvement with the place and shapes their place attachment, even after the visit. The current paradigm claims that experience can only happen with physical direct interaction with place (Dameria et al., 2018). Today, visitors do not only gain their perception of place solely with the help of their own activities in that place but are also influenced by other visitors' experiences and reviews as shared on social media platforms (Humphreys, 2010).

Social media provides new ways to engage with historic urban heritage (Paganoni, 2015) and it gives users the opportunity to express their feelings for a destination by posting images and writing narratives (Baksi, 2016). Users can

share their personal perspective on heritage places on social media and engage with other members of the public about this heritage (Gregory, 2014). This shared content on social media applications can create a pre-visit attitude and affection in prospective visitors (San Martin & Rodriguez del Bosque, 2008). According to research findings, a person's digitally shared experience with place on social media turns into other people's desire to experience that place, and this cycle continues indefinitely (UNESCO, 2011).

Digital and social media are rapidly growing, and researchers claim that these will enhance people's bonds to heritage places by improving their interaction with place, by giving them access to more information and by creating new experiences in historic urban areas (Lewi et al., 2015). Social media can reinforce and change people's perception of intangible and tangible heritage values. Such social media tools can act as sharing platforms for people's bonds and stories about tangible heritage sites (Conrad, 2013). Social media, where the creation and consumption of content goes hand in hand and is available to everyone, is a tool that should be considered in heritage conservation (Staiff, 2014). Additionally, social media allow memories to be mobilised and constantly reconstituted, which draws attention to their role in place and person-place bonds (Atkinson, 2007). Generating social memory involves capturing, preserving and sharing tangible entities, which make us remember (Millar, 2006).

Heritage preservation in urban areas involves all users and requires a social dimension (Orbasli, 2000). Stakeholders in such complex projects include inhabitants, businesses, owners and visitors in the area (Orbasli, 2000). Historic structures stand at the intersection of cities' unique identities and visitors' search for new experiences (Frenchman, 2001). Today, heritage areas are tourist destinations in cities and they are attractions for tourists due to their desire to experience and learn about new cultures (Dameria et al., 2018). Since they voluntarily come and experience such places, tourists, in other words visitors, are more likely to develop place attachment, but in a different way to the locals. Visitors' place attachment is generally based on their gathered information and the aesthetic and characteristics of a place (Jiven & Larkham, 2003). Visitors, who have a big potential to generate a strong place attachment, are important stakeholders in historic city centre preservation projects. Thus, the place attachment of stakeholders, particularly the visitors who use social media, is an important aspect to be considered in conservation planning (Dameria et al., 2018).

In the context of heritage, the development of social media allows individuals to have interactions and share their perspectives on this history (Paganoni, 2015). In the context of heritage conservation, narratives are important because they capture place significance and the stories help people identify with a place (Walter, 2013). Stories act as temporal entities that tie together the future, present and past of urban places (Van der Hoeven, 2019). While social media gives space to narratives that reveal meaning and memories about a historic urban place (Pocock, Collett, & Baulch, 2015), it also influences place attachment to urban heritage places.

Utilizing physical and emotional values in order to create place attachment to destinations and places is a trending research area today (Baksi, 2016) leading the researcher to investigate the influence of social media tools on visitors' place attachment to historic city centres.

1.3 Statement of Issues

People's perception and the meaning of their environment builds up place identity (Ujang, 2010). Due to rapid urbanization and uniform planning approaches, modern-day cities are experiencing a loss or weakening of identity (Saleh, 1998). This results in placelessness (Relph, 1976). Therefore, it is crucial to maintain the identity and meaning of place, because these are also part of self-identity, sense of place and community (Hull, Lam & Vigo, 1994). Fast urbanization in city centres has caused place identity to diminish, but this can be restored with the help of place-attachment dimensions. However, urban design research has not paid as much attention to place attachment for place identity as it has to the more physical elements of the urban environment (Ujang, 2010).

Since placelessness has emerged in modern urban areas, it has been understood that sense of place should be strengthened while conserving built heritage, resulting in the integration of meaning and purpose in people's daily lives (Chu & Uebegang, 2002). It is now commonly accepted that emotional attachment to heritage sites has been diminishing due to rapid urban development, and preservation should be focusing on sense of place and identity of place, which is a major step in heritage studies (Yeung, 2013). The main components of place are form, meaning and activity (Punter, 1991). Meaning is tied to the psychological dimension of place experience that leads to place attachment (Ujang & Zakariya, 2015). Most critics of heritage conservation projects stress the importance of focusing on the meaning or, in other words, spirit of the place (Dameria et al., 2018). However, in processing urban places, it is mostly physical elements that are considered, whereas the crucial element of meaning is less focused upon (Ujang & Zakariya, 2015).

The relationships between space, its history and human activities are dependent on each other, and they possess tangible and intangible features. In the context of historic conservation, most charters and doctrinal texts, including documents such as the Athens Charter and the Xi'an Declaration, focus more on the tangible features (Liang & Chiou, 2017). The complexity of historic values in the city have not been truly involved by planners in the context of heritage conservation (Fredholm, 2016). However, it is highly important to consider both tangible and intangible heritage in historic areas and to preserve the place's spirit (ICOMOS, 2008). In reality, projects that only consider the physical aspects fail to meet the dynamic needs of society (Forester, 1988). Conventional preservation, which solely focuses on restoring historic buildings, will not be successful in saving the city's sense of place and, thus, its urban heritage (Idid, 2005). A successful historic urban conservation should not only restore the physical setting but also preserve the urban experience and spirit of the place (Yueng, 2013). However,

it is apparent that urban conservation projects tend to focus more on physical authenticity (Ouf, 2001). Conservation is not only about the physical aspects of a city, but also about establishing a relationship between the intangible and tangible aspects of a place, in which the success of this relationship is crucial for conservation to be sustainable (Coleman, 2004). In the heritage conservation context, the effort to define the sense of a historic place is deemed to be more important than restoring the physical elements (Dameria et al., 2018).

Although much attention is being paid to heritage conservation, it is still a necessity to concentrate on preserving the spirit of place in historic areas by utilizing new directions of thinking (Liang & Chiou, 2017). Heritage conservation projects must focus more on integrating meaning and function on the site in such a way that it can provide a comprehensible image and become a place with identity and cognitive meaning (Yueng, 2013). Applying the concept of sense of place and, therefore, place attachment, is a necessity in urban conservation projects in order to have a strong and sustainable conservation program (Martokosumo & Zulkaidi, 2015). Place attachment is a core element of sense of place, and it is an emotional response to place. In investigating people's responses to places, their way of thinking should be examined as well (Canter, 2001).

Due to advances in technology, social media has been transforming the urban behaviour of people, including their perception of place (Dameria et al., 2018). Public space, in this social media era, is starting to be redefined by the addition of a digital layer to the existing physical urban fabric, allowing the urban experience to be mediatized (Abdel-Aziz, Abdel-Salam & El-Sayad, 2016). This has been named "new social public space" (Dameria et al., 2018). Since urban historic city centres are public spaces, they are also being reshaped as new social public spaces due to the emerging social media usage, and the role of social media in conservation efforts should be examined (Dameria et al., 2018). It is necessary to investigate how social media influences and changes the experience of place, and the place itself, due to the fact that it has been integrated into our everyday lives (Wilken, 2008). Today, the impact of ever-evolving information and communication technology on place perspectives is evident, but how to put this to use in urban planning practices is still a debate (Dameria et al., 2018). If used correctly, can social media tools encourage a deeper engagement with the meanings beneath cultural heritage (Lewi et al., 2015)? It seems like social media tools can enhance meaningful experiences for historic places (Han et al., 2014) and thereby influence the way people construct their individual and communal identities (Dijck, 2007).

Due to the information and communication technology's rapid advancement, the meaning and perception of place have shifted as well (Dameria et al., 2018). The way we gain information, work and socialize has changed due to the new digital technologies (Maldonado, 2005). As a result, the creation of place attachment and sense of place have also changed. The visitor's perspective of heritage places has also shifted due to social media usage, and it can be concluded that their sense of place, as well as their place attachment, has the potential to be

stronger during their direct interaction with heritage sites (Dameria et al., 2018). There is a need to address how these new technologies, such as social media, are influencing person–place interactions in heritage conservation. Such tools can then be integrated into heritage conservation projects by local authorities and urban designers. Although there is a considerable amount of discussion of the new technologies' effect on place, there are very few studies on social media's influence on sense of place and place attachment in the context of urban heritage sites (Dameria et al., 2018).

While giving users the chance to express their thoughts and feelings about a historic place, social media platforms also have the potential to be a resource for understanding how users experience heritage daily. Thus, there is a need to study how social media can enhance urban conservation projects (Van der Hoeven, 2019). For this reason, I aim to explore the influence of social media on place attachment to historic city centres. Instagram is a more location-based, in other words place-based, social media application among other social media applications. Therefore, Instagram is the social media application that will be the main interest of this research.

To sum up, visitors' familiarity with place starts even before a visit, through the digital screen (Humphreys, 2010). In addition to this indirect familiarity, social media also changes visitors' interpretations during their direct interactions with heritage sites (Dameria et al., 2018). In the context of meaning that leads to sense of place, interpretation has an essential place. Social media has changed the way visitors are attracted to a place, experience that place, record that place and communicate about that place (Ponting & McDonald, 2013). As a result, social media also has the power to transform a heritage area into something more than just a historical place. Social media affects the activity (experience) and meaning (interpretation) components of place. Therefore, it can be used practically as the catalyst for a strong sense of place (Dameria et al., 2018).

A place is a physical, constructed reality and is a representation of identity and mental image (Escobar, 2001). As discussed earlier, heritage sites in urban settlements are representations of place identity and place meaning. If place identity weakens, the meaning and emotional attachment to place are also reduced (Arefi, 1999). Since social media can affect the interaction with place, it can improve or reduce this identity as well (Dameria et al., 2018). ICOMOS also encourages the widespread use of recent digital media applications for preserving, promoting and disseminating heritage places and their spirits due to the efficiency and low cost of such technologies. They also claim that modern digital technologies provide opportunities for diversity and documentary updates in the context of spirit of place (ICOMOS, 2008).

Moreover, in 2011, UNESCO's Recommendation for Historic Urban Landscape (RHUL) called for an investigation of the implementation of modern communication technologies into urban heritage conservation projects (UNESCO, 2011). Prior to this, social media's place in urban heritage

conservation projects had not been an important focus (Van der Hoeven, 2019). A UNESCO recommendation is not open to discussion or voting by member states, but it creates new formulas and principles for international regulations, leading to a global standard for urban heritage conservation (Van der Hoeven, 2019). The objective of a RHUL is to preserve urban historic areas from decay that emerges due to the uncontrolled development of cities (Bandarin & Van Oers, 2015). The recommendation acknowledges the major advantages of urbanization, but it is also concerned about how this urbanization may result in the deterioration of place identity (Van der Hoeven, 2019).

UNESCO's RHUL not only focuses on the physical environment but also considers the values that users attach to physical urban areas (Van der Hoeven, 2019). Tangible and intangible layers that co-exist in a complex way are nestled into historic urban areas, and they reflect aspects of belonging and feelings of connection to the past (Mydland & Grahn, 2012). Numerous studies show that media is a central element in the way cities are managed and experienced (De Lange & De Waal, 2013).

It is a very exciting opportunity to explore the new media technologies' effect on the concept of place identity due to the opportunities for collective activities, including new engagement modes with place and with other users, that it creates (Malpas, 2008). When people share what the physical urban heritage means for them, they automatically contribute to the meaning-making process of historic urban places. Additionally, social media shows the strong relationship between remembering and heritage (Silberman & Purser, 2012). It allows individuals to demonstrate their attachment to places of urban heritage, which also relates greatly to collective memory (Van der Hoeven, 2019). Previous studies show that social remembering can build online groups of people who share a past (Gregory, 2014; Simon, 2012). Therefore, social media is greatly beneficial for understanding the various meanings that people attribute to place, which is also parallel to UNESCO's RHUL aims (Taylor, 2016).

For urban heritage, narrative practices on social media have a number of benefits. First, they encourage people to engage with urban places of heritage virtually. As a result, materials such as stories, memories and visuals are brought to public attention and shared with other daily social media users. This enhances people's knowledge and increases their engagement to heritage places. The second benefit of social media is that it allows people to show their attachment to urban areas. This helps to reflect the affective and social values that people attribute to cities (Van der Hoeven, 2019). RHUL also encourages communication between people about the values they give to urban areas (UNESCO, 2011) and social media provide the opportunity to do this. When people share their memories about urban heritage places, their posts preserve elements of people's values about places, and this brings attention to the emotional and social significance of urban heritage places (Van der Hoeven, 2019). Today this act of people is not taking much place in urban conservation projects (Taylor, 2016) even though the real-life experience of heritage places is complemented by digital engagement with place. Therefore, social media should

be considered an important platform in the context of individual and collective attachment to historic urban areas (Van der Hoeven, 2019). Conventional heritage preservation mostly takes physical aspects into consideration and pays less attention to the social and emotional significance of the built environment (Pocock et al., 2015; Sykes & Ludwig, 2015). More research is necessary on how social media can be utilized in urban heritage projects (Van der Hoeven, 2019).

In the context of Malaysia, tourism is now one of the major activities in most big cities. As mentioned before, historic urban areas are generally tourist attractions in cities, and in Malaysia this is not an exception. The Eleventh Malaysian Plan (2016–2020) also supports suitable environments for tourism growth (Ujang, Moulay & Zakaria, 2018). Place attachment is a considerable element in tourists' relationships with destinations, in this case historic city centres. If visitors generate place attachment to a place, there is a possibility that they will revisit the place (Ujang & Shamsuddin, 2008).

The digital platforms in which people are interacting with place and with each other, such as Instagram, will have consequences for the identity, meaning and memory of places (Coyne, 2010). However, there is a lack of knowledge about mobile media's effects on visitors' bonds to places and, in some cases, this has led to the creation of less memorable and less meaningful places (Felasari et al., 2017). Therefore, urban heritage conservation projects must give a place to social media (Dameria et al., 2018) as it has changed the way people perceive places today. Nevertheless, research on new media technologies' relationships to the historic urban heritage conservation approach is almost non-existent (Van der Hoeven, 2019). Therefore, this study aims to explore the influence of Instagram on visitors' place attachment to revitalised historic city centres in order to enhance place identity.

1.4 Research Questions

The main research question is “How does Instagram usage influence visitors' place attachment towards revitalized historic city centres?” This research has addressed the following sub research questions:

- How do visitors express their place attachment to a revitalized historic city centre on Instagram?
- What is the role of Instagram usage in experiencing historic city centres within the timeframe of temporal process?
- Which attributes of Instagram usage influence the formation of place attachment in the context of historic city centres?
- What is the relationship between Instagram usage, destination image, involvement, collective memory, and place attachment towards revitalized historic city centres?

1.5 Research Objectives

The main research objective is: To explore how Instagram usage influences visitors' place attachment towards revitalized historic city centres. This includes the following aspects:

- To examine how visitors express their place attachment to a revitalized historic city centre on Instagram.
- To examine the role of Instagram usage in experiencing historic city centres within the frame of temporal process.
- To determine the attributes of Instagram usage that influence the formation of place attachment in the context of historic city centres.
- To determine the relationship between Instagram usage, destination image, place involvement, collective memory, and place attachment towards revitalized historic city centres within a structural model.

1.6 Research Assumptions

This study examines the causal linkage between Instagram usage and visitors' place attachment in the context of revitalized historical city centres. There are three important aspects that should be considered in the process of place attachment, which are destination image (formed in the anticipatory phase), place involvement (formed during the experiential phase) and collective memory (formed during the reflective phase). Drawing from the literature review, ten hypotheses were developed, as follows, in order to investigate the causal relationship between the variables:

Hypothesis 1: Destination image positively influences visitors' place attachment to revitalized historic city centres.

Hypothesis 2: Physical involvement with a place positively influences visitors' place attachment to revitalized historic city centres.

Hypothesis 3: Collective memory positively influences visitors' place attachment to revitalized historic city centres.

Hypothesis 4: Instagram usage, as a second-order factor, positively influences visitors' destination image of a revitalized historic city centre.

Hypothesis 5: Instagram usage, as a second-order factor, positively influences visitors' place involvement with a revitalized historic city centre.

Hypothesis 6: Instagram usage, as a second-order factor, positively influences visitors' collective memory of a revitalized historic city centre.

Hypothesis 7: Instagram usage, as a second-order factor, positively influences visitors' place attachment to revitalized historic city centres.

Hypothesis 8: The effect of Instagram usage on visitors' place attachment is mediated by destination image.

Hypothesis 9: The effect of Instagram usage on visitors' place attachment is mediated by place involvement.

Hypothesis 10: The effect of Instagram usage on visitors' place attachment is mediated by collective memory.

1.7 Scope and Limitations of the Study

This study investigates the influence of Instagram usage on visitors' attachment to revitalised historic city centres through the mediating roles of destination image, place involvement, and collective memory, within the temporal time frame. Thus, the thesis covers the following scope and limitations.

(a) Study Area

This study focuses on historic city centres due to their importance for the city's identity. The chosen areas for this research are Georgetown, Penang, in Malaysia and Chinatown in Singapore. This choice is due to the unique and still functioning historic city centres of the cases. Both places have a long history and distinct character, and they have both undergone revitalisations. Additionally, both areas have significant presence on Instagram and they are both popular historic attraction points for visitors. The chosen study areas act instrumental and provide the opportunity to observe and examine the hypotheses of this study.

(b) Visitors' Place Attachment

Place attachment is a multidimensional complex concept that attempts to define the bonds between people and places. This study focuses on place attachment from the urban perspective and takes into account six dimensions of the concept. Although place attachment is mostly attributed to residents of a place, this study focuses particularly on visitors' place attachment to revitalised historic city centres.

(c) Temporal Time Frame

In order to examine the role of Instagram usage on visitors' place attachment, this study observes the formation and enhancement of place attachment in three phases of experiencing a place, which are before, during and after visiting a place. This approach is beneficial in understanding the concept in a progressive way by following the step-by-step development.

1.8 The Significance of the Study

As mentioned earlier, the revitalization of historic city centres that possess significant elements of urban identity is a crucial and urgent issue for many cities around the world. For a successful revitalization, place attachment is a vital tool, and it is evident that popular social media tools, namely Instagram, have an effect on how people experience a place and form a bond with the place.

This research is important for improving revitalization approaches to historic city centres in order to enhance place identity. The research is also timely because of the increasing usage of mobile media in our daily lives and its inevitable influence on people's relationships with places. It is urgent and vital to establish the key effects of popular social media tools such as Instagram on place attachment to revitalized historic city centres so that the urban practice can effectively use present-day tools to prevent the diminution of place identity. The findings will provide practical answers about how to utilize social media tools, namely Instagram, in revitalizing historic city centres in order to generate place attachment and therefore keep the city's identity alive. This will carry the current heritage conservation approaches beyond the physical dimension and help urban designers and conservation projects to realize the psychological dimension of a powerful and positive concept of place attachment. The research is significant for the development of a revitalization strategy for historic city centres in which people find meaning and value that can contribute to the city's identity. This approach can later act as a theoretical guide to better utilization of popular social media tools in order to evoke positive emotions and form place attachment in the case of revitalization projects for historic centres and indirectly contribute to economic development. In addition, the research provides an insight into how people perceive their surroundings in the new media age, and this insight is very valuable for urban practice. Urban design practice will also improve due to this research because it raises awareness among urban design researchers about the significance and value of place attachment for enhancing place identity in the context of historic city centres and how modern-life internet usage changes this psychological concept. It is hoped that the findings will be useful for developers and urban practice professionals for developing better future revitalization projects for historic city centres, as well as local authorities when developing policies and guidelines. This research can also be utilized as a reference for other urban places in a similar context.

The study will contribute to knowledge by proposing a comprehensive theoretical model of the causal relationships between destination image, place involvement, collective memory and place attachment. Besides the contribution to place attachment literature, the study can also add to environmental psychology literature by creating a new framework for investigating the effects of Instagram usage on person-place bonds. Very few studies investigate the role of social media tools on destination image, place involvement and collective memory and how they relate to place attachment dimensions in the context of revitalized historic city centres. Tourism literature is also thought to benefit from this research. The research approach contributes to the existing framework for

revitalizing historic city centres by implementing a psychological dimension in order to enhance place identity. Furthermore, this research can provide a method for similar research in other cases in the future.

In summary, the contribution to knowledge made by this study includes:

- Filling a knowledge gap by examining Instagram's influence related to the urban context and place attachment.
- Developing a measurement strategy based on existing theories of destination image, place involvement, collective memory and place attachment.
- Contributing to environmental psychology literature and place attachment literature by establishing a bridge between theories of destination image, place involvement, collective memory and the formation of place attachment.
- Making recommendations by specifying the key factors that influence place attachment towards revitalized historic city centres on social media for better revitalization strategies.

The outcomes of this study are expected to:

- Ultimately, create successful places with meaning and shared values for everyone.
- Directly or indirectly benefit professionals, architects, designers, and planners when developing strategies for better utilizing social media tools to form or strengthen place attachment for revitalized historic places.
- Provide valuable information for research in terms of understanding the effects of social media tools on place attachment with reference to its psychological aspects.

1.9 Definition of the Key Terms

Visitors' Place Attachment is defined as an emotional bond between visitors and a place. This research uses the dimensions of place identity, place dependence, affective attachment, social bonding and interactional bonding of place attachment to investigate the psychological process of visitors' attachment to historic city centres.

Temporal Process is defined as the time frame, in which an experience happens. It consists of three phases, which are anticipatory phase, experiential phase, and reflective phase (Zakrisson & Zillinger, 2011).

Instagram Usage is defined as sharing visuals and narratives on Instagram platform in addition to exploring other members' profiles for the purpose of pleasure or getting information.

Destination Image is defined as a person's thoughts, feelings and impressions about a certain place (Baloglu & Mcleary, 1999) formed during the anticipatory phase.

Place Involvement is defined as experiencing a place and being involved in activities that happen in that place during the experiential phase.

Collective Memory is defined as remembering a place and cherishing memories about that place during the reflective phase.

Historic City Centres are central historic urban areas that has significant value and meaning due to their role in the history of the city.

1.10 Structure of the Thesis

Chapter 1 provides the general outlines of the research. It gives a perspective of the background followed by the problem statement. The formulation of research questions and objectives are discussed in this chapter.

Chapter 2 provides the latest body of knowledge about place attachment in the context of heritage conservation as well as other key variables used in this study. A theoretical framework based on the presented literature is given at the end of this chapter.

Chapter 3 explains the research methodology used for this study.

Chapter 4 presents the results and analysis of the collected data regarding the influence of Instagram on visitors' attachment to historic city centres.

Chapter 5 discusses the findings of the study linking them to the objectives of the study. A thorough discussion about the relationships between the variables and the findings lead to the testing of the model based on the theoretical framework.

Chapter 6 provides the conclusions drawn from the study as well as the practical and theoretical implications of the study in the urban context. In addition to the knowledge contribution of the study, recommendations for future studies are also presented.

REFERENCES

- Abdel-Aziz, A., Abdel-Salam, H. and El-Sayad, Z. (2016). The role of ICTs in creating the new social public place of the digital era. *Alexandria Engineering Journal*, 55(1), pp.487-493.
- Abrahams, R. (1986). Complicity and Imitation in Storytelling: A Pragmatic Folklorist's Perspective. *Cultural Anthropology*, 1(2), 223-237. doi: 10.1525/can.1986.1.2.02a00070
- Aho, S. (2001). Towards a general theory of touristic experiences: Modelling experience process in tourism. *Tourism Review*, 56(3/4), 33-37. doi: 10.1108/eb058368
- Altman, I. and Rogoff, B. (1987). World views in psychology: Trait, interaction, organismic and transactional perspective. In: D. Stokols and I. Altman, ed., *Handbook of environmental psychology*. New York: Wiley, pp.1-40.
- Ardakani, M. and Oloonabadi, S. (2011). Collective memory as an efficient agent in sustainable urban conservation. *Procedia Engineering*, 21, pp.985-988.
- Arefi, M. (1999). Non-place and placelessness as narratives of loss: Rethinking the notion of place. *Journal of Urban Design*, 4(2), pp.179-193.
- Atkinson, D. (2007). Kitsch Geographies and the Everyday Spaces of Social Memory. *Environment and Planning A: Economy and Space*, 39(3), pp.521-540.
- Avraham, E. and Ketter, E. (2008). *Media strategies for marketing places in crisis: Improving the Image of Cities, Countries and Tourist Destinations*. Amsterdam: Butterworth Heinemann.
- Baksi, A. (2016). Destination bonding: Hybrid cognition using Instagram. *Management Science Letters*, pp.31-46.
- Baloglu, S. and McCleary, K. (1999). A model of destination image formation. *Annals of Tourism Research*, 26(4), pp.868-897.
- Bandarin, F. and Van Oers, R. (2015). *Reconnecting the city: the historic urban landscape approach and the future of urban heritage*. Oxford: Wiley-Blackwell.
- Baron, R., & Kenny, D. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal Of Personality And Social Psychology*, 51(6), 1173-1182. doi: 10.1037/0022-3514.51.6.1173
- Bickel, R. (2007). *Multilevel analysis for applied research*. New York: Guilford Press.

- Blichfeldt, B.S. and Marabese, M. (2014) "A Life Posted: 'Netnographic' approaches to tourists studies," in J.W. Megeed et al. (eds) *Tourism Methodologies - New Perspectives, Practices and Procedures*. Copenhagen Business School Press, pp. 61–76.
- Boeije, H. (2010). *Analysis in qualitative research*. Sage.
- Boğaç, C. (2009). Place attachment in a foreign settlement. *Journal of Environmental Psychology*, 29(2), pp.267-278.
- Boellstorff, T., Nardi, B., Pearce, C., Taylor, T. and Marcus, G. (2012). *Ethnography and virtual worlds: A Handbook of Method*. Princeton: Princeton University Press.
- Borden, I., Kerr, J., Pivaro, A. and Rendell, J. (2002). *The Unknown City: Contesting Architecture and Social Space*. Cambridge: The MIT Press.
- Bott, S. and Banning, J. (2008). The Use of Psychometric Scales to Measure Spirit of Place Relevance to Heritage Conservation Efforts from Ninewa Province, Iraq. In: *16th General Assembly and Scientific Symposium of ICOMOS*.
- Bott, S., Cantrill, J. and Myers, O. (2003). Place and the Promise of Conservation Psychology. *Human Ecology Review*, 10(2), pp.100-112.
- Bowlby, J. (1973). *Attachment and loss, Vol. 2: Separation*. New York: Basic Books.
- Bowen, D. and Clarke, J. (2009). *Contemporary tourist behaviour – yourself and others and tourists*. Wallingford, UK: CABI.
- Bowler, G. (2010). Netnography: A Method Specifically Designed to Study Cultures and Communities Online. *The Qualitative Report*, [online] 15(5), pp.1270-1275. Available at: <https://nsuworks.nova.edu/tqr/vol15/iss5/13> [Accessed 21 Apr. 2019].
- Boyer, P. (2009). What are memories for? Function of recalling cognition and culture. In: P. Boyer and J. Wertsch, ed., *Memory in mind and culture*. New York: Cambridge University Press, pp.3-33.
- Bricker, K. and Kerstetter, D. (2000). Level of Specialization and Place Attachment: An Exploratory Study of Whitewater Recreationists. *Leisure Sciences*, 22(4), pp.233-257.
- Brocato, E. (2006). *Place Attachment: An Investigation of Environments and Outcomes In A Service Context*. Ph.D. The University of Texas at Arlington.
- Brown, G. and Raymond, C. (2007). The relationship between place attachment and landscape values: Toward mapping place attachment. *Applied Geography*, 27(2), pp.89-111.

- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Bryman, A. (2001). *Social research methods*. Oxford: Oxford University Press.
- Buchanan, T. (1985). Commitment and leisure behavior: A theoretical perspective. *Leisure Sciences*, 7(4), 401-420. doi: 10.1080/01490408509512133
- Buckley, C. (1984). *An Anecdotal History of Old Times in Singapore, Vol. 1*. Singapore: Fraser & Neave.
- Buhalis, D. (2003). *ETourism: information technology for strategic tourism management*. London: FT Prentice Hall.
- Canter, D. (2001). Understanding, Assessing and Acting in Places: Is An Integrative Framework Possible? In: T. Garling and G. Ewans, ed., *Environmental Cognition and Action: An Integrated Approach*. New York: Oxford University Press.
- Capriello, A., Mason, P., Davis, B., & Crofts, J. (2013). Farm tourism experiences in travel reviews: A cross-comparison of three alternative methods for data analysis. *Journal Of Business Research*, 66(6), 778-785. doi: 10.1016/j.jbusres.2011.09.018
- Cauchi-Santoro, R. (2016). Mapping community identity: Safeguarding the memories of a city's downtown core. *City, Culture and Society*, 7(1), pp.43-54.
- Celsi, R., & Olson, J. (1988). The Role of Involvement in Attention and Comprehension Processes. *Journal Of Consumer Research*, 15(2), 210. doi: 10.1086/209158
- Chan, A. (2008). 'Life in Happy Land': using virtual space and doing motherhood in Hong Kong. *Gender, Place & Culture*, 15(2), pp.169-188.
- Chen, N., Dwyer, L. and Firth, T. (2014). Conceptualization and Measurement of Dimensionality of Place Attachment. *Tourism Analysis*, 19(3), pp.323-338.
- Chi, C., & Qu, H. (2008). Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. *Tourism Management*, 29(4), 624-636. doi: 10.1016/j.tourman.2007.06.007
- Chu, C. and Uebegang, K. (2002). *Saving Hong Kong's Cultural Heritage*. Hong Kong: Civic Exchange.
- Chua, R. (1983). Chinatown's last words. *The Straits Times*. Retrieved from <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19831012-1.2.142.2.3>

- Clarke, T. (2019). 22+ Instagram Stats That Marketers Can't Ignore This Year. [Blog] *Hootsuite*. Available at: <https://blog.hootsuite.com/instagram-statistics/> [Accessed 9 Apr. 2019].
- Cohen, N. (1999). *Urban conservation*. Cambridge, Mass.: MIT.
- Coleman, V. (2004). *Heritage and Sustainability: A Discussion Paper*. [ebook] NSW Heritage Office. Available at: <https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/research/sustainability.pdf> [Accessed 9 Apr. 2019].
- Conrad, S. (2013). Documenting local history: a case study in digital storytelling. *Library Review*, 62(8/9), pp.459-471.
- Coyne, R. (2010). *The Tuning of Place: Sociable Spaces and Pervasive Digital Media*. Cambridge, Mass.: MIT Press.
- Crang, M., & Cook, I. (2007). *Doing ethnographies*. London: SAGE.
- Crang, M., Crang, P. and May, J. (1999). *Virtual geographies*. London: Routledge.
- Creswell, J. (1994). *Research Design: Qualitative & Quantitative Approaches*. Thousand Oaks: Sage Publications.
- Cresswell, T. (2004). *Place: A Short Introduction*. Wiley-Blackwell.
- Cresswell, T. (2014). *Place: An Introduction*. Somerset: Wiley.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed method approaches*. Sage.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research*. SAGE Publications.
- Criswell, J. and Canty, N. (2014). Deconstructing Social Media: An Analysis of Twitter and Facebook Use in the Publishing Industry. *Publishing Research Quarterly*, 30(4), pp.352-376.
- Cross, J. (2001). What is "Sense of Place"? In: *The Twelfth Headwaters Conference*.
- Dameria, C., Akbar, R. and Natalivan Indradjati, P. (2018). Whose Sense of Place? Re-thinking Place Concept and Urban Heritage Conservation in Social Media Era. *IOP Conference Series: Earth and Environmental Science*, 158.
- Davis, P., Huang, H. and Liu, W. (2010). Heritage, local communities and the safeguarding of 'Spirit of Place' in Taiwan. *Museum and Society*, 8(2), pp.80-89.

- De Lange, M. and De Waal, M. (2013). Owing the city: New media and citizen engagement in urban design. *First Monday*, 18(11).
- DeCoster, J. (1998). Overview of Factor Analysis. Retrieved 1 January 2022, from <http://www.stat-help.com/notes.html>
- Delmas, M., & Toffel, M. (2008). Organizational responses to environmental demands: opening the black box. *Strategic Management Journal*, 29(10), 1027-1055. doi: 10.1002/smj.701
- Denzin, N. and Lincoln, Y. (2005). *The SAGE handbook of qualitative research*. Thousand Oaks: Sage Publications.
- Devine-Wright, P. and Howes, Y. (2010). Disruption to place attachment and the protection of restorative environments: A wind energy case study. *Journal of Environmental Psychology*, 30(3), pp.271-280.
- Devine-Wright, P., & Manzo, L. (2013). *Place attachment*. London: Routledge.
- Dijck, J. (2007). *Mediated memories in the digital age*. Stanford, Calif.: Stanford University Press.
- Dillman, D. (2013). *Mail and internet surveys*. Hoboken, N.J.: Wiley.
- Dimanche, F., & Samdahl, D. (1994). Leisure as symbolic consumption: A conceptualization and prospectus for future research. *Leisure Sciences*, 16(2), 119-129. doi: 10.1080/01490409409513224
- Dredge, D. (2010). Place change and tourism development conflict: Evaluating public interest. *Tourism Management*, 31, pp.104-112.
- Duggan, M. and Brenner, J. (2013). *The Demographics of Social Media Users — 2012*. [online] Pew Research Center. Available at: <https://www.pewinternet.org/2013/02/14/the-demographics-of-social-media-users-2012/> [Accessed 9 Apr. 2019].
- Eisenhardt, K. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, 14(4), p.532.
- Ek, R., Larsen, J., Hornskov, S. and Mansfeldt, O. (2008). A Dynamic Framework of Tourist Experiences: Space-Time and Performances in the Experience Economy. *Scandinavian Journal of Hospitality and Tourism*, 8(2), pp.122-140.
- Escalas, J. (2004). IMAGINE YOURSELF IN THE PRODUCT: Mental Simulation, Narrative Transportation, and Persuasion. *Journal of Advertising*, 33(2), pp.37-48.
- Escobar, A. (2001). Culture sits in places: reflections on globalism and subaltern strategies of localization. *Political Geography*, 20(2), pp.139-174.

- Fan, J., Qiu, H. and Wu, X. (2014). Tourist Destination Image, Place Attachment and Tourists' Environmentally Responsible Behavior: A Case of Zhejiang Tourist Resorts. *Tourism Tribune*, 29(1), pp.55-66.
- Feilzer, M. (2009). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, 4(1), 6–16. <https://doi.org/10.1177/1558689809349691>
- Felasari, S., Setyabudi, H., Budiyanto Setyohadi, D. and Dewi, S. (2017). Exploring collective memory and place attachment using social media data. *IOP Conference Series: Earth and Environmental Science*, 99, p.012015.
- Forester, J. (1988). *Planning in the Face of Power*. University of California Press.
- Fredholm, S. (2016). Assets in the age of tourism: the development of heritage planning in Ghanaian policy. *Journal of Contemporary African Studies*, 34(4), pp.498-518.
- Frenchman, D. (2001). Narrative places and the new practice of urban design. In: L. Vale and S. Warner, ed., *Imaging the city: Continuing struggles and new directions*. New Brunswick: Center for Urban Policy Research, pp.257-282.
- Friedmann, A., Zimring, C. and Zube, E. (2013). *Environmental Design Evaluation*. New York, NY: Springer.
- Frith, J., & Kalin, J. (2015). Here, I Used to Be: Mobile Media and Practices of Place-Based Digital Memory. *Space And Culture*, 19(1), 43-55. doi: 10.1177/1206331215595730
- Fronzetti Colladon, A., Guardabascio, B., & Innarella, R. (2019). Using social network and semantic analysis to analyze online travel forums and forecast tourism demand. *Decision Support Systems*, 123, 113075. doi: 10.1016/j.dss.2019.113075
- George, D. (2011). *SPSS for windows step by step: A simple study guide and reference*, 17.0 update, 10/e. Pearson Education India.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step* (4th ed.). London: Pearson Education.
- Giddings, L. S., & Grant, B. M. (2006). Mixed Methods Research for the novice researcher. *Contemporary Nurse*, 23(1), 3–11. <https://doi.org/10.5172/conu.2006.23.1.3>
- Gieryn, T. (2000). A Space for Place in Sociology. *Annual Review of Sociology*, 26(1), pp.463-496.
- Gliner, J., & Morgan, G. (2000). *Research methods in applied settings: An integrated approach to design and analysis*. Lawrence Erlbaum Associates

Publishers.

- Go, H. and Gretzel, U. (2016). The Role of Interactive Maps and Spatial Ability in Creating Virtual Tourism Experiences: A Measurement Framework. *Tourism Travel and Research Association: Advancing Tourism Research Globally*, [online] 24. Available at: <https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1467&context=ttra> [Accessed 8 May 2018].
- Gold, J. (1994). Locating the Message: Place Promotion as Image Communication. In: J. Gold and S. Ward, ed., *Place Promotion: The Use of Publicity and Marketing to Sell Towns and Regions*. [online] Chichester: John Wiley, pp.19-37. Available at: https://www.academia.edu/6033468/Gold_J.R._1994_Locating_the_Message_place_promotion_as_image_communication_in_J.R._Gold_and_S.V._Ward_ed.s._Place_Promotion_the_use_of_publicity_and_public_relations_to_sell_towns_and_regions_Chichester_John_Wiley_19-37 [Accessed 8 May 2018].
- Gorter, D. (2012) "Semiotic Landscapes: Language, Image, Space by Adam Jaworski; Crispin Thurlow," *Language in Society*, 41(1), pp. 130–133. Available at: <https://doi.org/10.1017/s0047404511000959>.
- Gotter, A. (2021). The 29 Instagram Statistics You Need to Know in 2021. Retrieved 1 January 2022, from <https://adespresso.com/blog/instagram-statistics/>
- Graham, S. (2004). Beyond the 'Dazzling Light': From Dreams of Transcendence to the 'Remediation' of Urban Life. *New Media & Society*, 6(1), pp.16-25.
- Green, S. (1991). How Many Subjects Does It Take To Do A Regression Analysis. *Multivariate Behavioral Research*, 26(3), 499-510. doi: 10.1207/s15327906mbr2603_7
- Gregory, J. (2014). Connecting with the past through social media: the 'Beautiful buildings and cool places Perth has lost' Facebook group. *International Journal of Heritage Studies*, 21(1), pp.22-45.
- Greider, T. and Garkovich, L. (1994). Landscapes: The Social Construction of Nature and the Environment. *Rural Sociology*, 59(1), pp.1-24.
- Groat, L. (2002). *Architectural research methods*. Canada: John Wiley and Sons.
- Gross, M. and Brown, G. (2008). An empirical structural model of tourists and places: Progressing involvement and place attachment into tourism. *Tourism Management*, 29(6), pp.1141-1151.
- Haggard, L., & Williams, D. (1992). Identity Affirmation through Leisure Activities: Leisure Symbols of the Self. *Journal Of Leisure Research*, 24(1), 1-18. doi: 10.1080/00222216.1992.11969868

- Hague, C. (2005). Planning and place identity. In: C. Hague and P. Jenkins, ed., *Place identity, participation and planning*. New York: Routledge, pp.2-14.
- Hair, J. F., Black, W. C., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Pearson, NJ: Upper Saddle River.
- Haldrup, M., & Larsen, J. (2009). *Tourism, Performance and the Everyday*. doi: 10.4324/9780203873939
- Halpenny, E. (2006). *Environmental behaviour, place attachment and park visitation: A case study of visitors to Point Pele National Park*. PhD. University of Waterloo.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography*. London: Routledge.
- Hammit, W., Backlund, E. and Bixler, R. (2006). Place Bonding for Recreation Places: Conceptual and Empirical Development. *Leisure Studies*, 25(1), pp.17-41.
- Han, K., Shih, P., Rosson, M. and Carroll, J. (2014). Enhancing Community Awareness of and Participation in Local Heritage with a Mobile Application. In: *17th ACM conference on Computer supported cooperative work & social computing*.
- Hanan, H. and Putit, N. (2014). Express marketing of tourism destination using Instagram in social media networking. In: *Hospitality and Tourism*. London: Taylor & Francis Group, pp.471-474.
- Havitz, M., & Dimanche, F. (1997). Leisure Involvement Revisited: Conceptual Conundrums and Measurement Advances. *Journal Of Leisure Research*, 29(3), 245-278. doi: 10.1080/00222216.1997.11949796
- Hayes, A. (2017). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). Guilford Press.
- He, L. (2013). *Assessing Visitors' Place Attachment and Associated Intended Behaviours Related to Tourism Attractions*. Master Degree. Victoria University.
- Henderson, J. (2000). Attracting tourists to Singapore's Chinatown: a case study in conservation and promotion. *Tourism Management*, 21(5), 525-534. doi: 10.1016/s0261-5177(99)00108-9
- Hernandez, B., Hidalgo, M. and Ruiz, C. (2014). Theoretical and Methodological Aspects of Research on Place Attachment. In: L. Manzo and P. Devine-Wright, ed., *Place Attachment: Advances in Theory, Methods and Applications*. New York: Routledge, pp.125-138.
- Hernández, B., Carmen Hidalgo, M., Salazar-Laplace, M. and Hess, S. (2007). Place attachment and place identity in natives and non-natives. *Journal of*

Environmental Psychology, 27(4), pp.310-319.

- Herriott, R. and Firestone, W. (1983). Multisite Qualitative Policy Research: Optimizing Description and Generalizability. *Educational Researcher*, 12(2), p.14.
- Hidalgo, M. and Hernández, B. (2001). Place Attachment: Conceptual and Empirical Questions. *Journal of Environmental Psychology*, 21(3), pp.273-281.
- Holmes, E. and Mathews, A. (2005). Mental Imagery and Emotion: A Special Relationship? *Emotion*, 5(4), pp.489-497.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modeling: guidelines for determining model fit. *Electronic Journal Of Business Research Methods*, 6(1), 53-60.
- Houghton, K. (2010). Augmenting Public Urban Spaces: The Impact of The Digital Future on The Design Of Public Urban Spaces. *Queensland Planner*, 50(4), pp.19-23.
- Howell, K. (2013). *An introduction to the philosophy of methodology*. SAGE.
- Hu, L. T. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Hull, R. (1992). Image congruity, place attachment and community design. *Journal of Architectural and Planning Research*, 9(3), pp.181-192.
- Hull, R., Lam, M. and Vigo, G. (1994). Place identity: symbols of self in the urban fabric. *Landscape and Urban Planning*, 28(2-3), pp.109-120.
- Hummon, D. (1992). Community Attachment: Local Sentiment and Sense of Place. In: S. Low and I. Altman, ed., *Place Attachment*. New York: Plenum Press, pp.253-278.
- Humphreys, L. (2010). Mobile social networks and urban public space. *New Media & Society*, 12(5), pp.763-778.
- Hwang, S., Lee, C. and Chen, H. (2005). The relationship among tourists' involvement, place attachment and interpretation satisfaction in Taiwan's national parks. *Tourism Management*, 26(2), pp.143-156.
- ICOMOS (2008). *Québec Declaration On The Preservation of The Spirit of Place*. Quebec.
- Idid, S. (2005). *The Importance of Conserving the Old Town Centre in Achieving a Sustainable Built Environment of the Future Seminar Nasional in Built Environment: Sustainability through Management and Technology*. PhD. University of Tokyo.

- Jackson, J. (1994). *A sense of place, a sense of time*. New Haven: Yale University Press.
- Jaworski, A., & Thurlow, C. (2011). *Semiotic landscapes*. London: Continuum.
- Jennings, G. and Nickerson, N. (2006). *Quality tourism experiences*. Amsterdam: Elsevier Butterworth Heinemann.
- Jiven, G. and Larkham, P. (2003). Sense of Place, Authenticity and Character: A Commentary. *Journal of Urban Design*, 8(1), pp.67-81.
- Johnson, J. (2021). Global digital population as of January 2021. Retrieved 30 December 2021, from <https://www.statista.com/statistics/617136/digital-population-worldwide/>
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26. <https://doi.org/10.3102/0013189x033007014>
- Jorgensen, B. and Stedman, R. (2001). Sense of Place As An Attitude: Lakeshore Owners Attitudes Toward Their Properties. *Journal of Environmental Psychology*, 21(3), pp.233-248.
- Kaltenborn, B. and Williams, D. (2002). The meaning of place: Attachments to Femundsmarka National Park, Norway, among tourists and locals. *Norsk Geografisk Tidsskrift - Norwegian Journal of Geography*, 56(3), pp.189-198.
- Kaplan, A. and Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), pp.59-68.
- Katovich, M. and Hintz, R. (1997). Responding to a Traumatic Event: Restoring Shared Pasts Within a Small Community. *Symbolic Interaction*, 20(3), pp.275-290.
- Kellerman, A. (2012). *Personal mobilities*. London: Routledge.
- Kemp, S. (2017). *Digital in SouthEast Asia in 2017*. Special Reports. [online] Available at: <https://wearesocial.com/special-reports/digital-southeast-asia-2017> [Accessed 9 Apr. 2019].
- Kitchin, R. (1998). Towards geographies of cyberspace. *Progress in Human Geography*, 22(3), pp.385-406.
- Klein, L. (2003). Creating virtual product experiences: The role of telepresence. *Journal of Interactive Marketing*, 17(1), pp.41-55.
- Kline, R. (2011). *Principles and practice of structural equation modeling* (3rd ed.). London: Guildford Press.

- Kozinets, R. (2002). The Field behind the Screen: Using Netnography for Marketing Research in Online Communities. *Journal of Marketing Research*, 39(1), pp.61-72.
- Kozinets, R. (2006). Click to Connect: Netnography and Tribal Advertising. *Journal of Advertising Research*, 46(3), pp.279-288.
- Kozinets, R. (2010). *Netnography*. Thousand Oaks: SAGE.
- Kozinets, R. (2015). *Netnography Redefined*. Thousand Oaks, Calif.: SAGE.
- Krippendorff, K. (2004). Reliability in Content Analysis. *Human Communication Research*, 30(3), 411-433. doi: 10.1111/j.1468-2958.2004.tb00738.x
- Kvale, S. (2007). *Doing interviews*. Los Angeles: SAGE.
- Kyle, G., Absher, J., Norman, W., Hammitt, W., & Jodice, L. (2007). A Modified Involvement Scale. *Leisure Studies*, 26(4), 399-427. doi: 10.1080/02614360600896668
- Kyle, G., Bricker, K., Graefe, A. and Wickham, T. (2004). An Examination of Recreationists' Relationships with Activities and Settings. *Leisure Sciences*, 26(2), pp.123-142.
- Kyle, G. and Chick, G. (2007). The Social Construction of a Sense of Place. *Leisure Sciences*, 29(3), pp.209-225.
- Kyle, G., Graefe, A. and Manning, R. (2005). Testing the Dimensionality of Place Attachment in Recreational Settings. *Environment and Behavior*, 37(2), pp.153-177.
- Kyle, G., Graefe, A., Manning, R. and Bacon, J. (2004). Effect of Activity Involvement and Place Attachment on Recreationists' Perceptions of Setting Density. *Journal of Leisure Research*, 36(2), pp.209-231.
- Lancaster, G., Dodd, S., & Williamson, P. (2004). Design and analysis of pilot studies: recommendations for good practice. *Journal Of Evaluation In Clinical Practice*, 10(2), 307-312. doi: 10.1111/j..2002.384.doc.x
- Lavenne, F., Renard, V. and Tollet, F. (2005). Fiction, Between Inner Life and Collective Memory. *The new arcadia review*, 3.
- Lee, C. (1999). *Investigating Tourist Attachment to Selected Coastal Destinations: An Application of Place Attachment*. PhD. Clemson University.
- Lee, W. and Gretzel, U. (2012). Designing persuasive destination websites: A mental imagery processing perspective. *Tourism Management*, 33(5), pp.1270-1280.

- Lemos, A. (2008). Mobile communication and new sense of places: a critique of spatialization in cyberculture. *Revista Galáxia*, 16, pp.91-108.
- Leon, A., Davis, L., & Kraemer, H. (2011). The role and interpretation of pilot studies in clinical research. *Journal Of Psychiatric Research*, 45(5), 626-629. doi: 10.1016/j.jpsychires.2010.10.008
- Lewi, H., Murray, A., Smith, W. and Webber, S. (2015). Some implications of digital social media for heritage practice. In: *Fabric The Threads of Conservation*.
- Lewicka, M. (2008). Place attachment, place identity, and place memory: Restoring the forgotten city past. *Journal of Environmental Psychology*, 28(3), pp.209-231.
- Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*, 31(3), pp.207-230.
- Lewis, S. (2016). *Cities in Motion: Urban Life and Cosmopolitanism in Southeast Asia, 1920–1940*. United Kingdom: Cambridge University Press.
- Liang, C. and Chiou, S. (2017). Cultural Heritage Conservation from the Sense of Place with Phenomenon. *DEStech Transactions on Social Science, Education and Human Science*, (etmi).
- Lim, W. (2000). Memories and urban places. *City*, 4(2), pp.270-277.
- Lin, C. and Lockwood, M. (2014). Forms and sources of place attachment: Evidence from two protected areas. *Geoforum*, 53, pp.74-81.
- Lincoln, Y. and Guba, E. (1985). *Naturalistic inquiry*. Sage Publications.
- Litvin, S. (2005). Streetscape improvements in an historic tourist city a second visit to King Street, Charleston, South Carolina. *Tourism Management*, 26(3), pp.421-429.
- Low, S. (1992). Symbolic Ties that Bind: Place Attachment in the Plaza. In: S. Low and I. Altman, ed., *Place Attachment. Human Behavior and Environment (Advances in Theory and Research)*. Boston, MA: Springer.
- Low, S. and Altman, I. (1992). Place Attachment. In: S. Low and I. Altman, ed., *Place Attachment. Human Behavior and Environment (Advances in Theory and Research)*. Boston: Springer, Boston, MA.
- Lundh, L. (1979). Introspection, consciousness, and human information processing. *Scandinavian Journal of Psychology*, 20(1), pp.223-238.
- Lutz, K. and Lutz, R. (1978). Imagery-Eliciting Strategies: Review and Implications of Research. *Advances in Consumer Research*, 5, pp.611-620.

- MacInnis, D. and Price, L. (1990). An exploratory study of the effects of imagery processing and consumer experience on expectations and satisfactions. *Advances in Consumer Research*, 17, pp.41-47.
- MacKee, J., Haugen Askland, H., & Askew, L. (2014). Recovering cultural built heritage after natural disasters. *International Journal Of Disaster Resilience In The Built Environment*, 5(2), 202-212. doi: 10.1108/ijdrbe-09-2012-0032
- Malaysian State Party (2008). *Historic Cities of the Straits of Malacca: Melaka and George Town. Nomination Dossier*.
- Maldonado, A. (2005). ICT infrastructures as a new challenge for the urban planning profession. In: *ICT Infrastructures 41st ISoCaRP Congress*.
- Malpas, J. (2008). New Media, Cultural Heritage and the Sense of Place: Mapping the Conceptual Ground. *International Journal of Heritage Studies*, 14(3), pp.197-209.
- Marles, K. and Watkins, M. (2003). Place attachment In Tourism. In: *Council of Australian Universities Tourism and Hospitality Education (CAUTHE) 2003*.
- Martokusumo, W. and Zulkaidi, D. (2015). Some Notes on Area-based Conservation: Lesson Learned from Bandung. *International Journal of Built Environment and Sustainability*, 2(2).
- Mason, J. (2002). *Qualitative Researching*. 2nd ed. London: Sage Publications.
- Mathewson, J. (1999). Visual-spatial thinking: An aspect of science overlooked by educators. *Science Education*, 83(1), pp.33-54.
- Maxwell, J. (2013). *Qualitative research design*. Thousand Oaks, Calif.: SAGE Publications.
- Mayes, T. (2013). Why Do Old Places Matter? An Introduction. [Blog] *Saving Places*. Available at: <https://forum.savingplaces.org/blogs/forum-online/2013/11/13/why-do-old-places-matter-an-introduction> [Accessed 9 Apr. 2019].
- Melaka and George Town, Historic Cities of the Straits of Malacca. (2008). Retrieved 10 February 2022, from <https://whc.unesco.org/en/list/1223>
- Melic, K. (2019). *Past, Present and Future: Conserving the Nation's Built Heritage* [Ebook]. Center for Liveable Cities. Retrieved from <https://www.clc.gov.sg/docs/default-source/urban-systems-studies/uss-conserving-the-nations-built-heritage.pdf>
- Meng, F. (2006). *An Examination of Destination Competitiveness from the Tourists' Perspective: The Relationship between Quality of Tourism Experience and Perceived Destination Competitiveness*. Ph.D. Virginia Polytechnic Institute and State University.

- Merriam, S.B. (1998) *Qualitative Research and case study applications in education revised and expanded from Case Study Research in Education*. Hoboken: John Wiley.
- Meyrowitz, J. (1985). *No Sense of Place: The Impact of the Electronic Media on Social Behavior*. New York: Oxford University Press.
- Miles, M. and Huberman, A. (1994). *Qualitative data analysis*. Thousands Oak, CA: Sage Publication.
- Millar, L. (2006). Touchstones: Considering the Relationship between Memory and Archives. *Archivaria*, 61, pp.105-126.
- Miller, D. and Horst, H. (2013). *The Digital and the Human: A Prospectus for Digital Anthropology [1]*. [online] UCL Anthropology. Available at: <http://www.ucl.ac.uk/anthropology/people/academic-teaching-staff/daniel-miller/mil-27> [Accessed 8 May 2018].
- Milligan, M. (1998). Interactional Past And Potential: The Social Construction Of Place Attachment. *Symbolic Interaction*, 21(1), pp.1-33.
- Ming, L., Mui, L. and Yusof, N. (2008). Strategies for urban conservation: A case example of George Town, Penang. *Habitat International*, 32(3), pp.293-304.
- Misztal, B. (2003). *Theories of social remembering*. Maidenhead: Open University Press.
- Mkono, M. (2016). Sustainability and Indigenous tourism insights from social media: worldview differences, cultural friction and negotiation. *Journal Of Sustainable Tourism*, 24(8-9), 1315-1330. doi: 10.1080/09669582.2016.1177066
- Mohamed, B. and Salim, N. (2017). PRESERVING SENSE OF PLACE AT HISTORIC WATERFRONTS IN MALAYSIA. In: *7th International Conference on Local Knowledge*.
- Montgomery, J. (1998). Making a city: Urbanity, vitality and urban design. *Journal of Urban Design*, 3(1), pp.93-116.
- Moore, R. and Graefe, A. (1994). Attachments to recreation settings: The case of rail-trail users. *Leisure Sciences*, 16(1), pp.17-31.
- Mowen, A., Graefe, A. and Virden, R. (1997). A Typology of Place Attachment and Activity Involvement. In: H. Vogelsong, ed., *Proceedings of the 1999 Northeastern Recreation Research Symposium*. Randor, PA: USDA Forest Service, pp.335-338.
- Muir, J. (2019). Are you taking notes on us? Reflections on case study research. In: P. Marginn, S. Thompson and S. Tonts, ed., *Urban environments in*

studies in qualitative methodology. Qualitative urban analysis: An international perspective. Amsterdam: JAI Press.

Mydland, L. and Grahn, W. (2012). Identifying heritage values in local communities. *International Journal of Heritage Studies*, 18(6), pp.564-587.

Neoh, S. (1954). They Live In The Shadows: Home is a damp cubicle. *The Singapore Free Press*. Retrieved from <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/freepress19540814-1.2.50>

Nielsen-Pincus, M., Hall, T., Force, J. and Wulfhorst, J. (2010). Sociodemographic effects on place bonding. *Journal of Environmental Psychology*, 30(4), pp.443-454.

Norberg-Schulz, C. (1979). *Genius Loci*. New York: Rizzoli International Publishers.

Norberg-Schulz, C. (1993). *The concept of dwelling*. New York: Rizzoli.

Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.

Ogden, M. (1994). Politics in a parallel universe. *Futures*, 26(7), pp.713-729.

Oh, C., Lyu, S. and Hammitt, W. (2012). Predictive Linkages between Recreation Specialization and Place Attachment. *Journal of Leisure Research*, 44(1), pp.70-87.

Orbasli, A. (2000). *Tourists in Historic Towns Urban Conservation and Heritage Management*. London: Taylor & Francis.

Othuman Mydin, M., Jasme, S., Mohd Nawi, M., Utaberta, N. and Mohd Yunos, M. (2015). Legal Provision Allied to Conservation of Heritage Buildings in Penang. *Applied Mechanics and Materials*, 747, pp.198-201.

Ouf, A. (2001). Authenticity and the Sense of Place in Urban Design. *Journal of Urban Design*, 6(1), pp.73-86.

Paez, D., Besabe, N. and Gonzalez, J. (1997). Social processes and collective memory: A cross-cultural approach to remembering political events. In: J. Pennebaker, D. Paez and B. Rime, ed., *Collective memory of political events: social psychological perspectives*. Mahwah, New Jersey: Psychology Press, pp.147-174.

Paganoni, M. (2015). *City Branding and New Media: Linguistic Perspectives, Discursive Strategies and Multimodality*. Hampshire: Palgrave Macmillan.

Patterson, M. and Williams, D. (2005). Maintaining research traditions on place: Diversity of thought and scientific progress. *Journal of Environmental Psychology*, 25(4), pp.361-380.

- Peet, R. (1998). *Modern geographical thought*. Oxford: Blackwell.
- Pennington, J. and Thomsen, R. (2010). A Semiotic Model of Destination Representations Applied to Cultural and Heritage Tourism Marketing. *Scandinavian Journal of Hospitality and Tourism*, 10(1), pp.33-53.
- Pine, B. and Gilmore, J. (1999). *The experience economy: Work is theatre and every business is a stage*. Boston, Mass.: Harvard Business School Press.
- Pink, S. (2011). *Doing visual ethnography* (2nd ed.). SAGE Publications.
- Plunkett, D. (2013). *Examining the impact of Media Content, Emotions, and Mental Imagery Visualization on Pre-Trip Place Attachment*. Ph.D. Arizona State University.
- Pocock, C., Collett, D. and Baulch, L. (2015). Assessing stories before sites: identifying the tangible from the intangible. *International Journal of Heritage Studies*, 21(10), pp.962-982.
- Ponting, J. and McDonald, M. (2013). Performance, Agency and Change In Surfing Tourist Space. *Annals of Tourism Research*, 43, pp.415-434.
- Prayag, G. and Ryan, C. (2011). Antecedents of Tourists' Loyalty to Mauritius. *Journal of Travel Research*, 51(3), pp.342-356.
- Proshansky, H. (1978). The City and Self-Identity. *Environment and Behavior*, 10(2), pp.147-169.
- Proshansky, H., Fabian, A. and Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, 3(1), pp.57-83.
- Punter, J. (1991). Participation in the design of urban space. *Landscape Design*, 200, pp.24-27.
- Rageh, A., Melewar, T., & Woodside, A. (2013). Using netnography research method to reveal the underlying dimensions of the customer/tourist experience. *Qualitative Market Research: An International Journal*, 16(2), 126-149. doi: 10.1108/13522751311317558
- Rakic, T., & Chambers, D. (2011). *An introduction to visual research methods in tourism*. London: Routledge.
- Relph, E. (1976). *Place and Placelessness*. London: Pion.
- Richins, M., & Bloch, P. (1986). After the New Wears off: The Temporal Context of Product Involvement. *Journal Of Consumer Research*, 13(2), 280. doi: 10.1086/209067

- Riley, R. (1992). Attachment to the Ordinary Landscape. In: I. Altman and S. Low, ed., *Place Attachment. Human Behavior and Environment (Advances in Theory and Research)*. Boston: Springer, pp.13-35.
- Ritchie, J. and Hudson, S. (2009). Understanding and meeting the challenges of consumer/tourist experience research. *International Journal of Tourism Research*, 11(2), pp.111-126.
- Rodwell, D. (2008). *Conservation and sustainability in historic cities*. Malden, Mass: Blackwell Publ.
- Ryan, M. (2009). Mixed Methodology Approach to Place Attachment and Consumption Behaviour: a Rural Town Perspective. *Electronic Journal On Business Research Methods*, 7(1), 107-116.
- Rypkema, D. (2003). The Importance of Downtown in the 21st Century. *Journal of the American Planning Association*, 69(1), pp.9-15.
- Saleh, A. (1998). The integration of tradition and modernity: A search for an urban and architectural identity in Ar-Riyadh, the capital of Saudi Arabia. *Habitat International*, 22(4), pp.571-589.
- San Martín, H. and Rodríguez del Bosque, I. (2008). Exploring the cognitive–affective nature of destination image and the role of psychological factors in its formation. *Tourism Management*, 29(2), pp.263-277.
- Scannell, L. and Gifford, R. (2010). Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology*, 30(1), pp.1-10.
- Scannell, L. and Gifford, R. (2014). The psychology of place attachment. In: R. Gifford, ed., *Environmental Psychology: Principles and Practice*, 5th ed. Optimal Books, pp.272-300.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods Of Psychological Research Online*, 8(2), 23-74.
- Schön, D. (1991). *The reflective practitioner*. Aldershot: Ashgate Publishing Ltd.
- Schubert, T., Friedmann, F. and Regenbrecht, H. (1999). Embodied Presence in Virtual Environments. *Visual Representations and Interpretations*, pp.269-278.
- Scott, D., & Godbey, G. (1992). An analysis of adult play groups: Social versus serious participation in contract bridge. *Leisure Sciences*, 14(1), 47-67. doi: 10.1080/01490409209513156
- Sepe, M. (2013). *Planning and place in the city*. London: Routledge.

- Shamai, S. (1991). Sense of place: an empirical measurement. *Geoforum*, 22(3), pp.347-358.
- Shamsuddin, S., Sulaiman, A., Alias, N., Abd. Latip, N., Ujang, N., Chelliapan, S. and Azlan, N. (2010). Regeneration of the historic waterfront of world heritage sites in Malaysia – the case of Penang and Melaka. In: *UK-Ireland Planning Research Conference 2010. Diversity and Convergence: Planning in a World of change*.
- Silberman, N. and Purser, M. (2012). Collective memory as affirmation: People-centered cultural heritage in a digital age. In: E. Giaccardi, ed., *Heritage and social media: Understanding heritage in a participatory culture*. New York: Routledge, pp.13-29.
- Silverman, D. (2013). *Doing qualitative research*. London: Sage.
- Simon, R. (2012). Remembering together: Social media and the formation of the historical present. In: E. Giaccardi, ed., *Heritage and social media: Understanding heritage in a participatory culture*. New York: Routledge, pp.89-106.
- Smith, L. (2006). *Uses of heritage*. London: Routledge.
- Smith, J., Davenport, M., Anderson, D. and Leahy, J. (2011). Place meanings and desired management outcomes. *Landscape and Urban Planning*, 101(4), pp.359-370.
- Staiff, R. (2014). *Re-imagining heritage interpretation*. London: Routledge.
- Stamboulis, Y. and Skayannis, P. (2003). Innovation strategies and technology for experience-based tourism. *Tourism Management*, 24(1), pp.35-43.
- Statista. (2018). *Instagram: active users 2018 | Statista*. [online] Available at: <https://www.statista.com/statistics/253577/number-of-monthly-active-instagram-users/>. [Accessed 10 Mar. 2019].
- Stedman, R. (2002). Toward a Social Psychology of Place Predicting Behavior from Place-Based Cognitions, Attitude, and Identity. *Environment and Behavior*, 34(5), pp.561-581.
- Stedman, R. (2003). Is It Really Just a Social Construction? The Contribution of the Physical Environment to Sense of Place. *Society & Natural Resources*, 16(8), pp.671-685.
- Stedman, R. (2008). What do we "mean" by place meanings? Implications of place meanings for managers and practitioners. In: L. Kruger, T. Hall and M. Stiefel, ed., *Understanding concepts of place in recreation research and management*. Portland, OR: USDA Forest Service, Pacific Northwest Research Station, pp.61-81.
- Steele, F. (1981). *The Sense of Place*. Boston: CBI Publishing Company, Inc.

- Stokowski, P. (2008). Creating social senses of place: New directions for sense of place research in natural resource management. In: L. Kruger, T. Hall and M. Stiefel, ed., *Understanding concepts of place in recreation research and management*. Portland, OR: USDA . Forest Service, Pacific Northwest Research Station, pp.31-60.
- Su, M., Long, Y., Wall, G. and Jin, M. (2014). Tourist–community interactions in ethnic tourism: Tuva villages, Kanas Scenic Area, China. *Journal of Tourism and Cultural Change*, 14(1), pp.1-26.
- Sykes, O. and Ludwig, C. (2015). Defining And Managing The Historic Urban Landscape: Reflections On The English Experience And Some Stories From Liverpool. *European Spatial Research and Policy*, 22(2), pp.9-35.
- Tan, L. (1983). *Chinatown: An album of a Singapore community*. Times Books International.
- Taylor, K. (2016). The Historic Urban Landscape paradigm and cities as cultural landscapes. Challenging orthodoxy in urban conservation. *Landscape Research*, 41(4), pp.471-480.
- Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative techniques in the social and Behavioral Sciences*. SAGE Publications.
- Teddlie, C., & Tashakkori, A. (2010). Overview of contemporary issues in mixed methods research. *SAGE Handbook of Mixed Methods in Social & Behavioral Research*, 1–42. <https://doi.org/10.4135/9781506335193.n1>
- Tesch, R. (1990). *Qualitative research: Analysis, types and software tools*. London: Falmer.
- Trancik, R. (1986). *Finding Lost Space: Theories of Urban Design*. New York: John Wiley & Sons.
- Trochim, W. (2001). *Research methods knowledge base* (2nd ed.). Cincinnati, Ohio: Atomic Dog Pub.
- Tuan, Y. (1974). *Topophilia: a study of environmental perception, attitudes, and values*. New York: Columbia University Press.
- Tuan, Y. (1977). *Space and place: the perspective of experience*. E. Arnold.
- Turnbull, C. (1989). *A History of Singapore, 1819-1988*. Oxford University Press.
- Tussyadiah, I. and Fesenmaier, D. (2009). Mediating Tourist Experiences Access to Places via Shared Videos. *Annals of Tourism Research*, 36(1), pp.24-40.
- Ujang, N. (2010). Place Attachment and Continuity of Urban Place Identity. *Asian Journal of Environment-Behaviour Studies*, 11, pp.41-74.

- Ujang, N., Moulay, A. and Zakaria, J. (2018). Visitors' Attachment to Historic Tourism Places in Kuala Lumpur City Centre towards Sustainable Urban Regeneration. *Environment-Behaviour Proceedings Journal*, 3(9), pp.165-172.
- Ujang, N. and Shamsuddin, S. (2008). Place Attachment In Relation to Users' Roles In The Main Shopping Streets Of Kuala Lumpur. In: A. Sulaiman and M. Mai, ed., *Urban Design Issues In The Developing World: The Case of Malaysia and Nigeria*. UTM Press, pp.22-41.
- Ujang, N. and Zakariya, K. (2015). Place Attachment and the Value of Place in the Life of the Users. *Procedia - Social and Behavioral Sciences*, 168, pp.373-380.
- UNESCO (2011). *Recommendation on the historic urban landscape, including a glossary of definitions*. [ebook] Available at: http://portal.unesco.org/en/ev.php-URL_ID=48857%26URL_DO=DO_TOPIC%26URL_SECTION=201.html [Accessed 11 Apr. 2019].
- Van der Hoeven, A. (2019). Historic urban landscapes on social media: The contributions of online narrative practices to urban heritage conservation. *City, Culture and Society*.
- Van Dijck, J. (2013). *The culture of connectivity*. New York: Oxford University Press.
- Veasna, S., Wu, W. and Huang, C. (2013). The impact of destination source credibility on destination satisfaction: The mediating effects of destination attachment and destination image. *Tourism Management*, 36, pp.511-526.
- Walter, N. (2013). From values to narrative: a new foundation for the conservation of historic buildings. *International Journal of Heritage Studies*, 20(6), pp.634-650.
- Wan, T. (2002). *Evidence-Based Health Care Management: Multivariate Modeling Approaches*. Boston, MA: Springer.
- Wilken, R. (2008). Mobilizing Place: Mobile Media, Peripatetics, and the Renegotiation of Urban Places. *Journal of Urban Technology*, 15(3), pp.39-55.
- Williams, D. (2014). "Beyond the Commodity Metaphor," Revisited: Some Methodological Reflections on Place Attachment Research. In: L. Manzo and P. Devine-Wright, ed., *Place Attachment: Advances in Theory, Methods and Applications*. New York: Routledge, pp.89-99.
- Williams, L. (1995). Covariance structure modeling in organizational research: Problems with the method versus applications of the method. *Journal Of Organizational Behavior*, 16(3), 225-233. doi: 10.1002/job.4030160305

- Williams, D. and Patterson, M. (2007). Snapshots of What, Exactly? A Comment on Methodological Experimentation and Conceptual Foundations in Place Research. *Society & Natural Resources*, 20(10), pp.931-937.
- Williams, D., Patterson, M., Roggenbuck, J. and Watson, A. (1992). Beyond the commodity metaphor: Examining emotional and symbolic attachment to place. *Leisure Sciences*, 14(1), pp.29-46.
- Williams, D. and Roggenbuck, J. (1989). Measuring place attachment: Some preliminary results. In: *NRPA Symposium on Leisure Research*. [online] Available at: <https://www.fs.fed.us/rm/value/docs/nrpa89.pdf> [Accessed 5 May 2018].
- Williams, D. and Vaske, J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science*, 49, pp.830-840.
- Wilson Van Voorhis, C., & Morgan, B. (2007). Understanding Power and Rules of Thumb for Determining Sample Sizes. *Tutorials In Quantitative Methods For Psychology*, 3(2), 43-50. doi: 10.20982/tqmp.03.2.p043
- World Tourism Organization (UNWTO) Affiliate Members (2011). *Technology in Tourism*. AM Reports.
- Yeung, H. (2013). *Rethinking the role of sense of place in heritage conservation: a case study of Cattle Depot Artist Village*. Master. University of Hong Kong.
- Yin, R. (2003). *Case study research*. Los Angeles: Sage.
- Yin, R. (2011). *Qualitative Research from Start to Finish*. New York: The Guilford Press.
- Yuksel, A., Yuksel, F. and Bilim, Y. (2010). Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty. *Tourism Management*, 31(2), pp.274-284.
- Zakrisson, I. and Zillinger, M. (2011). Emotions in motion: tourist experiences in time and space. *Current Issues in Tourism*, 15(6), pp.505-523.
- Zeisel, J. (1981). *Inquiry by design: Tools for environment-behavior research*. Monterey, Calif.: Brooks/Cole Pub. Co.
- Zhou, H. and Xu, C. (2009). A Logical Thinking on the Forming System of Tourist's Place Attachment. *Journal of Beijing International Studies University*, 2009(1), p.165.
- Zook, M., Dodge, M., Aayoma, Y. and Townsend, A. (2004). New Digital Geographies: Information, Communication, and Place. In: S. Brunn, S. Cutter and J. Harrington, ed., *Geography and Technology*. Springer, Dordrecht, pp.155-176.