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A Study of the Inter-Relationship of Identity and Urban Heritage in Chiang Mai Old City, Thailand

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Abstract

The urban heritage identity of historical cities has received growing attention due to the weakening of their urban identity. For this reason, urban identity has been identified as a preliminary study of this research. Forty years ago, many researchers attempted to explain a broader understanding of urban heritage identity, which is relevant to human factors that affect urban, place, and built environment relationships. This involved the three interrelated concepts of identity: distinctiveness; urban heritage; and place attachment. These establish a balance between people and their identification with places.

Urban heritage identity is associated a place's physicality and heritage attributes that reflect socio-cultural values. It can be concluded that urban heritage identity becomes significant through concepts of environmental psychology. Distinctiveness theory, as a part of identity theory, has been used in this study to describe the genuine perception of local participants and is a fundamental part of defining place identity. Furthermore, the definition of place attachment has been used to explain the relationship of distinct places on time of residence, frequency of use, emotional, physical, social, and activities. The study also explores Chiang Mai Old City's built environment, which especially analyses the façade and streetscape characteristics that reflect the city's socio-cultural value. The research concludes with suggestions for preserving the city's urban heritage characteristics.

Chiang Mai Old City has unprecedented diversity and cultural dynamics related to its intangible and tangible urban heritage. Moreover, the city is in the critical stage of being nominated as a new World Heritage Site by UNESCO, with the city's distinctiveness and place attachment being significant in supporting further heritage management strategies. The

research mainly focuses on how local people interpret and understand the urban heritage identity of Chiang Mai Old City. This has been achieved through surveys of four hundred participants living in the Old City, two-way focus groups with five participants in each group, in-depth interviews with twenty-five participants, and ten architects drawing suggestions for further built environment management strategies. The results are described through seven aspects that explore the distinctiveness and place attachment theories of Chiang Mai Old City.

The findings can be described in seven aspects: historical value; cultural activities; a particular character; landmark; identity; community; and everyday life. The results reveal that there are five distinct places in the city: Pra Singha Temple; Chedi Luang Temple; Three Kings monument square; Tha-Pare gate square; and Chiang Mai Old City's Moat. The results can also be used to develop an assessment indicator for defining the distinctiveness of other historic cities through the engagement of local people.

The study repeatedly employs distinct places to describe in-place attachment theory. The results reveal positivity, emotion, and the spiritual anchor of place attached to local people in the social engagement, explicitly divulging the rootedness of religion, culture, and community activities through the length of time. All five distinct places have an inseparable ability to display tangible heritage value and such a positive emotion to places is crucial in contributing to urban heritage characteristics. Moreover, the time or length of residency is a vital aspect to people's perception of the city's distinctiveness; however, the value of the physical setting itself can increase the sense of belonging of newcomers.

This research used a mixed methods approach in defining place identity process and socio-cultural values in distinctive streetscapes scenes in the city. This study strongly believes that the findings demonstrate that local

people can help to develop the management of the city. The results presented suggest that the heritage value of streetscapes is related to historical attributes, natural objects, people, and cultural events in the scenes that explain the meanings ascribed to places associated with social and cultural values. The built environment characteristics and heritage value can be assumed from human experience. The study can be a new perspective for local authorities, urban designers, and heritage teams to determine whether projects will strengthen the existing urban heritage identity.

Most importantly, this research has revealed new perspectives on urban heritage identity and practical study methods whilst also contributing to management strategies. In addition, continuing research into urban heritage identity will significantly improve knowledge development, practical support, and collaboration with local people and architects to establish and maintain cherished distinct places and living environments for urban residents.

Published papers

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“Embrace yourself and go outside to enjoy your life

while your work is not done is not a bad idea.”

This is not a NOBEL Prize award; it is the stage you decide to do. So happy with failure and learn from it, it will succeed in some way.”

Contents

Abstract	i
Published paper	iii
Acknowledgments	iv
Contents	vi
List of Figures	xiv
Lists of Graphs, Column Charts, Pie Charts	xxii
Chapter 1 Introduction	1
1.1 Background of the Research	2
1.1.1 Southeast Asia's Urban Identity	2
1.1.2 The Significant Factors Transforming Urban Planning in the Capital City of Thailand	4
1.1.3 The Transformation of Urban Planning in Chiang Mai's Old City	9
1.2 Statement of Issues	18
1.3 Research Questions and Objectives	27
1.4 The Scope of the Research	29
1.5 Research Approach	31
1.6 Process of the Study	34
1.7 Structure of the Thesis	35
Chapter 2 The Uniqueness of Chiang Mai Old City, Thailand	37
2.1 Introduction	37
2.2 Lanna Kingdom: The History and Importance of Chiang Mai Old City, Thailand	38
2.3 The Diversity of Belief in Chiang Mai Old Urban Planning	45
2.3.1 The Seven Auspicious Factors of the Abundant Land (Chai Mongkol Jed Prakran)	45
2.3.2 Cosmology in Chiang Mai Urban Planning	50
2.3.3 Thaksa: The City is a Human Body	56
2.3.4 Lua Belief: The Hidden Natural Protection Logic	60
Sacred Mountain: The Cultural Landscape of Chiang Mai Old City	60

	Sacred Tree: The Symbol of Life of Chiang Mai Old City	63
	Inthakin Pillar: The Heart of Protector's Spiritual	66
2.4	Chiang Mai Old City: the Tentative List of World Heritage Site and the Next Challenge	68
2.4.1	Thirty-Three Nominated Sites: the Universal Outstanding Value (OUV)	72
2.4.2	The Shophouses and their impact on urban heritage characteristics	73
2.4.3	Chiang Mai Municipal Building Law and The Issues of Use of Law	83
2.4.4	Urban Transformation	85
2.5	Relation of Fundamental Aspects to Chiang Mai Old City	85
2.5.1	Social Aspect in Chiang Mai Old City	85
	Population	89
2.5.2	Culture and Belief in Chiang Mai Old City	90
2.5.3	Economics in Chiang Mai Old City	90
2.5.4	Way of Life in Chiang Mai Old City	92
	Education	93
	Public Health	93
	Employment	93
	Threats	94
	Further Plan for Chiang Mai City	94
2.6	Land Use	95
2.7	Chapter Conclusions	97
	Chapter 3 Urban Heritage Identity	99
3.1	Introduction	99
3.2	Identity, Place Identity, Sense of Place, Distinctiveness and the interrelationship between Place Attachment	99
3.2.1	Identity	100
3.2.2	Place Identity	101
3.2.3	Sense of Place	105
3.2.4	Urban Identity	107
3.2.5	Distinctiveness in Urban Identity	110
	Factors Influencing Distinctiveness in Urban Identity	113

	Landmarks	113
	Uniqueness (Historical Value and Identity)	114
	Historical Value	114
	Identity	115
	Particular Character	116
	Different Perception (Cultural and Religious Activities)	117
	Cultural identity and People (Community and Everyday Life)	117
	Community	118
	Everyday life	119
3.2.6	The Interrelationship of Place attachment and Distinctiveness	119
	Place attachment Factors	123
	Social and Physical Attachment (Place)	123
	Emotional Attachment (Person)	125
	Length of Residence, Age and Gender (Person)	126
	Length of Residence	126
	Age	127
	Gender	127
3.3	The Relation of Heritage, Culture Heritage, Urban Heritage, Heritage Value and Identity	128
3.3.1	Relationship of Heritage, Culture Heritage and Identity	128
3.3.2	Relationship of Cultural Heritage and Identity	131
3.3.3	Relationship of Urban Heritage and Identity	132
3.3.4	Relationship of Heritage Value and Identity	135
	Sociocultural Values are Heritage Values	136
	Historical Value	140
	Social Value	140
	Aesthetic Value	141
	Spiritual Value	142
3.4	Perception, Recollection and Memory in Urban Identity Studies	142
3.4.1	Perception in Urban Heritage study	143
3.4.2	Recollection and Memory	144
3.5	The Built Environment Identity	146
3.5.1	Urban Landscape and Identity	146
3.5.2	Quality of Streetscape	148
3.5.3	Façade and Identity	151
3.6	Value in the View	153
3.6.1	How to Value the View	154
3.7	Chapter Conclusions	156

Chapter 4 Research Methodology and Analysis Process	158
4.1 Research Paradigm	158
4.1.1 Strategies of Research: Deductive and Inductive	160
4.2 Research Design from Research Questions to Research Methods	163
4.3 Research Approach: Empirical Research and Ethnographic Research	166
4.3.1 Visual Methods in Built Environment Research	169
4.4 Research Design in Urban Identity Study	172
4.5 Sources of Evidence: the Data Collection	173
4.5.1 The Questionnaire	173
The Design of Questionnaire for this Research Study	177
Socio-Demographic Characteristics	177
Perception on Place and Streetscape Scenes	178
The Place Attachment Scale	179
4.5.2 Focus Group	180
4.5.3 In-depth Interviews	184
4.5.4 Photo Elicitation Interview (PEI)	186
4.5.5 The Needle Method	188
4.5.6 Drawing	191
4.6 Participant Selection	194
4.6.1 Recruiting Participants	195
4.6.2 Sample Size	196
Questionnaire	197
Focus Groups	198
In-depth Interview and Drawing	200
4.6.3 The Personal Profile of the Respondents	201
Questionnaire	201
Focus Groups	203
In-depth Interview	205
Drawing	207
4.7 Research Methodology Framework	208
4.8 Data Analysis Operation	211
4.8.1 The Qualitative Analysis Process of the Study	211
4.8.2 The Quantitative Analysis Process in the Study	214
4.9 Strengths and Limitations of the Methods	216
4.10 Chapter Conclusions	217

Chapter 5 The Tangible Identity of Chiang Mai Old City	219
5.1 Introduction	219
5.2 The Distinctiveness of Urban Heritage in Chiang Mai Old City	220
5.2.1 The Recollection of Important Places in Chiang Mai Old City Following Participants' Experiences	220
Landmark	224
Historical Value	226
Identity	226
Particular Character	229
Cultural activity	231
Everyday Life	233
Community	234
5.2.2 Conclusion of the Local People's Recollection of Chiang Mai Old City	236
5.3 The Distinctiveness of Urban Heritage in Chiang Mai Old City	238
5.4 Place Attachment to the Five Distinctive Places of Chiang Mai Old City, Thailand	242
5.4.1 The Emotional Attachment Factors Influencing Place Attachment	242
Cognitive Emotional	244
Secure Emotional	245
5.4.2 The Social Engagement Factors Influencing Place Attachment	246
Social Attachment of Place	247
Social and Community	248
5.4.3 The Activities and Functional Factors Influencing Place Attachment	251
Culture and Religious Activities Attachment	251
Entertainment Activities Attachment	252
Political Activities Attachment	253
Exercise Activities Attachment	254
Street Food Attachment	255
5.4.4 The Physical Factors Influencing Place Attachment	257
Location Attachment	257
Building Style Attachment	258
Landmark and Identity Attachment	259
5.4.5 The Time Factors Influencing Place Attachment	261
Frequent Usage	263
Length of Residency	264
5.4.6 Conclusion of Place Attachment to Five distinct Places	268

5.5	The Inter-relationship of Distinctiveness and Place Attachment theory	271
5.6	Tangible Value in the Built Environment of Chiang Mai Old City	274
5.6.1	The Perception of Local People towards Shophouse Façades	276
5.6.2	The Perception of the Social Value of Shophouse façades in Local People's Perceptions	285
5.7	Conclusions of façade characteristics study	288
5.8	The Local People's Perceptions of Eight Scenes of Chiang Mai Old City's Streetscape	288
5.8.1	Heritage Value in Eight Scenes of Chiang Mai's Streetscape	292
	Cultural expression	296
	Socialising	296
	Perception	297
	Aesthetics	297
5.8.2	Quality of Streetscapes	299
5.8.3	Conclusion of Façade and Streetscape Characteristics	305
5.9	The Conclusion of Tangible Value in the Built Environment of Chiang Mai Old City	307
5.10	Chapter Conclusion	308
 Chapter 6 The Intangible Values of the Identity of Urban Heritage of Chiang Mai Old City		 310
6.1	Introduction	310
6.2	The Intangible Value of the Urban Heritage of Chiang Mai Old City	312
6.3	The Impact of Intangible Value on Cultural Space on Society in Chiang Mai Old City	313
6.4	The Impact of Intangible Value on Culture in Chiang Mai Old City	318
6.5	The Impact of Intangible Value on the Economy in Chiang Mai Old City	321
6.6	The Impact of Intangible Value on the Activities and Life in Chiang Mai Old City	324
6.7	The Significance of the Value of Intangible Heritage on Local People's Perception	327
6.8	Chapter Conclusions	331
 Chapter 7 The Comparison of Urban Heritage Management Strategies Following Local Perceptions and Heritage Management Policy		 333
7.1	Introduction	333

7.2	The World Heritage Management Policy Based on Values Following Local Citizen Participation	336
7.3	The Understanding of Urban Heritage's Significance of Chiang Mai Old City	339
7.4	Identify of Factors and Issues	341
7.4.1	The Local People's Understanding of Chiang Mai Old City Area	342
7.4.2	The Local People's Understanding of the Details of Chiang Mai Municipal Building Law	349
	Building Height	350
	Building Shape	352
	Roof style	353
	Roof Colour	354
	Building Colour	355
	Tile Colour	356
	Fence Height, Colour, Transparency	358
	Commercial Sign	359
7.4.3	Built Environment issues and suggestions following local participation	362
	Suggestion for Developing Facade Designs	362
	Suggestion for Developing Physical Attributes in Streetscapes	363
	Commercial Signs and Electric Wires	364
	Pavements	365
	Greenery	367
	Traffic Management	369
7.5	Architectural Redesigns of Physical Attributes	369
7.5.1	Façade Redesign	370
7.5.2	Streetscape Redesign	372
7.5.3	Fundamental Elements of Streetscape; Pavement, Lighting, Seating	374
7.5.4	Transportation Lanes	375
7.5.5	Greenery, Landscape and Urban Space	376
7.5.6	Street Furniture as Cultural Expression	376
7.6	Perceptions of Redesigning the Built Environment	377
7.6.1	Perceptions of the New Redesigned Façades	377
7.6.2	Perceptions of New Redesigned Streetscapes	379
7.7	Development Policy for Improve and Preserve Urban Heritage Identity of Chiang Mai Old City	382
7.7.1	Tangible Characteristics Management Strategies	384

	Place and Urban Space Management Strategies	384
	The Development of the Municipal Building Law to Remain the Identity of Physical Appearance	386
7.7.2	Intangible Characteristic Management Strategies	387
	Educations on the Cultural Heritage of Chiang Mai Old City	388
	Community Economics	389
	Buddhism is the Protector of the City	390
7.8	Chapter Conclusions	391
 Chapter 8 Research Conclusions		 394
8.1	Introduction	394
8.2	Review of the Research	395
8.3	Main Findings of the Research	396
8.4	Contribution of Research	399
8.5	Limitations of the Study	402
8.6	Suggestions for Further Research	405
8.7	Final Conclusions	407
 Bibliography		 406
	Appendix A : First Questionnaire	454
	Appendix B : Second Questionnaire	461
	Appendix C : Focus Group Interview Outline	468
	Appendix D : Ethics Committee Reviewer Decision	469
	Appendix E : Research Participant Consent Form	482
	Appendix F : Post-interview Confidentiality form	488
	Appendix G : Recruitment Poster	489
	Appendix H: Drawing Task	491
	Appendix I: All data collection in the research	511

List of Figures

List of figures

Figure 1-01	(a): The access routes in Bangkok’s urban development (Mateo-Babiano, 2012 :454)	7
Figure 1-02	(a): The Cluster of Floating houses in Chaopraya River (b): River life in the past of Bangkok source: http://www.bangkokriver.com/river-history/ access: 1 November 2020	8
Figure 1-03	Chiang Mai city view(Chiang Mai Dossier, 2018)	11
Figure 1-04	The first stage of urban transformation of Chiang Mai old city (Satsue & Ongsavangchai, 2020: p.49 modified by author)	12
Figure 1-05	The second and third stage of urban transformation of Chiang Mai old city (Satsue & Ongsavangchai, 2020: p.49 modified by author)	13-14
Figure 1-06	The current Chiang Mai old city map in 2022(Source: http://www.onep.go.th/nced/wp-content/uploads/2016/10/132_33g_100258_1.pdf)	15
Figure 1-07	The Chiang Mai Map by James McCarthy in 1893 AD. (Meechubot, 2017: p.34)	16
Figure 1-08	(a) This map illustrates the area of “Kuang Luang Wieng Kaew” the center of power in Chiang Mai, as it was the area of the Lanna Royal Court in Chiang Mai’s Old City (source: https://www.matichonweekly.com/culture/article_31213 accessed: 01 February 2021) (b) This map illustrates current planning within the former territory of “ Kuang Luang” (Author) (c) This is a picture of the King Palace of Lanna Kingdom in “Kuang Luang” before it was destroyed by Siam (Bangkok) (Narch Phothiprasard,1984) (d) This depicts the “Women Collection Institution” when Siam colonised the Lanna Kingdom and built a jail instead of the King’s Palace to end royal power over Lanna (source: https://www.matichonweekly.com/culture/article_31213 accessed: 01 February 2021)	17
Figure 1-09	Chiang Mai World Heritage Initiative Project (Source : https://chiangmaiworldheritage.org/network/attachment/14729233_1862083447361841_1050529852531210349_n-copy/ access: 10 November 2019)	19
Figure 1-10	(a) Comparison of the streetscape in Chiang Mai Old City (Radchadumnoen Road) This road leads to the temple Wat Phra Sign. The picture on the left was taken in 1952 A.C. (Chiang Mai University Library) (b) This current view of Radchadumnoen Road was taken in 2017 A.C by google street website.	21
Figure 1-11	(a) Pra Singha temple in 1969 AD. (Chiang Mai university library, 2019) http://library.cmu.ac.th/ntic/picturelanna/picture_trails.php?page=1 access: 20 November 2019 (b) An aerial photo of Chiang Mai’s Old City (Ratchadumnoen Road). This road leads to the Phra Sign temple. This photo was taken in 1969 A.D. resource: Chiang Mai University Library (2019) http://library.cmu.ac.th/ntic/picturelanna/picture_trails.php?page=1 access: 20 November 2019	22
Figure 1-12	(a) Lanna style façade of shophouse in Chiang Mai (Author) (b) Lanna style façade of shophouse in Lampang Province (a part of	24

	Lanna Kingdom) (Author)	
Figure 1-13	Conclusion of Chiang Mai's Heritage team meeting three criteria and outlining research gaps. (Author)	27
Figure 1-14	The experience to urban attributes through perception, cognition, meaning and attachment in defining urban heritage identity (Author)	33
Figure 1-15	Conclusion of thesis process with objectives and research questions (Author)	34
Figure 2-01	Former Lanna Kingdom area (Author)	38
Figure 2-02	Lanna Kingdom means "The Land of a million rice fields." (Sthapitanonda, 2016: p.41)	39
Figure 2-03	Lanna Kingdom area (Authour)	40
Figure 2-04	(a) The first era of Lanna called 'Hariphunchai' in Daravadi era (b) Combination of 'Hirannakorn Ngoenyang' and 'Hariphunchai' in Sukothai era (Author) (c) Lanna occupied by Myanmar in Ayutthaya era (Author)	41
Figure 2-05	Timeline of Lanna Kingdom compared with Siam or Thailand (Author) (modified from Sthapitanonda, 2016 : p.31)	42
Figure 2-06	The urban planning of Chiang Mai, Thailand and the boundary of the Old City following the Chiang Mai municipal law from the Conservation of Natural and Cultural Environment Center (In Thai)	43
Figure 2-07	The water sources of Chiang Mai city (Author)	46
Figure 2-08	Chiang Mai Province (Modified by author)	47
Figure 2-09	The Seven Auspicious Factors of the abundant land (Chai Mongkol Jed Prakran) (Modified from Ongsakul, 2005 and Penth, 2004 by Author)	49
Figure 2-10	The simulation of the universe in Buddhist Belief (Modified: Sodabunlu, 2003: p.97)	52
Figure 2-11	The mapping of eight satellite Dhaveep on the significant temples around Chiang Mai Old City (Ongsakul, 1997 , Sodabunla,, 2003 and Satsue, 2018)	53
Figure 2-12	A ceremony of city ritual worship or prolonging life ceremony in the past (Chiang Mai Heritage dossier, 2018: p.70)	56
Figure 2-13	An old lady still practicing the ritual in the present. (Chiang Mai Heritage dossier, 2018: p.70)	57
Figure 2-14	The ornaments in the ritual along the city gate and city moat (Chiang Mai Heritage dossier, 2018: p.70)	57
Figure 2-15	Vastu Purusha Mandala (The Temple as Human-body) (Singha, 1993: p.125)	58
Figure 2-16	The simulation of Thaksa Astrology concept to the old city. (Satsue and Ongsavangchai, 2020: p.52 Modified by Author)	59
Figure 2-17	(a)The ritual of Pusae Yasae, has offer sacrifices as fresh blood, and buffalo flesh. (b) The facing between Pu Sae Ghost and the Buddha; the holy painting of Buddha was hanging on a tree with PuSae laid down below it. (Kumboonruang, 2017; source- https://www.chiangmainews.co.th/page/archives/602364/ access: 20 January 2021)	61
Figure 2--18	(a)The scandal Judicial Housing Project at the foothills of Suthep Mountain Source: https://www.komchadluek.net/news/local/324178 , 2018, accessed 10 April 2019 (b) The protest held at the issue area, a	62

	protester revealing the meaning of Suthep Mountain as “Spiritual of Chiang Mai” source: https://mgronline.com/politics/detail/9610000042211 2018, accessed 10 April 2019	
Figure 2-19	The mapping of significant trees which relate to Taksa and cosmology ideology. (Author)	64
Figure 2-20	(a) The Yang tree at Inthakin Pillar house, Chedi Luang temple (Tharashine et,al, 2011: p.18) (b) The Yang tree and Palm trees at San Prung Gate (Author) (c) Bodhi tree and former location of Banyan tree both are significant urban artifacts related to the Buddha (Tharashine et,al 2011: p.23)	64
Figure 2-21	(a) The inthakin house with Yang tree (Author) (b) the Inthakin Pillar source: https://www.wikiwand.com/en/Inthakhin_(pillar) Access: 10 January 2021	66
Figure 2-22	(a) The holy leaves and flowers from their house and neighborhood (Author) (b) The worship ceremony held by day and night source: https://www.chiangmainews.co.th/page/archives/600396/ accessed: 20 October 2020	67
Figure 2-23	The Nomination Process (Author) source https://whc.unesco.org/en/nominations/	69
Figure 2-24	Diagram Showing the Layers of Attribute A, B, C (Modified: Chiang Mai Dossier, 2018: p.22)	70
Figure 2-25	Property Zone, Buffer Zone and Significant Heritage Sites in documents presented for nomination of Chiang Mai as a World Heritage (Available: https://chiangmaiworldheritage.org/my-chiangmai/progress-on-world-heritage-property-zone-designation-to-prepare-for-world-heritage-site-listing/ access: 10 November 2019)	71
Figure 2-26	Attributes within the Property Boundary (Chiang Mai Dossier, 2018: p.22-27)	73
Figure 2-27	Timeline of Shophouse at Chiang Mai (Author)	74
Figure 2-28	(a) The evolution from Ruen Pare house (Floating house) 1850 A.D. https://www.facebook.com/Oldsiam/posts/545596185567953 access: 20 November 2019 (b) Huan Pare shophouse was developed from Ruen Pare (Chiang Mai University Library, 2019)	75
Figure 2-29	The Chinese and western style appears in Shophouses’s facade (Author)	76
Figure 2-30	The gingerbread house in Chiang Mai Old City (Author)	77
Figure 2-31	Figure 2-31: Early Modernist commercial shophouse (Author)	78
Figure 2-32	(a) Ka Lae decoration on the traditional Lanna house façade, Pra Thum Nak Doi Tung, Chiang Rai (Doi Tung Palace) (Author) (b) Three storey shophouse at Chiang Mai Old City (Author)	79
Figure 2-33	The contemporary modern Lanna Shophouse (Author)	80
Figure 2-34	The curtain wall shophouse in Chiang Mai Old City (Author)	81
Figure 2-35	Shophouse façade images have been chosen from the master degree thesis title <i>‘The perception of the Vernacular Characteristic on shophouses in Chiang Mai Old City, Thailand</i> (Romcai, 2007) to use as a part of this study. The initial resources have been simulated into 3D sample pictures.	82
Figure 2-36	The five phases of Chiang Mai Urban Transformation. (Author)	87
Figure 2-37	Development goals of Chiang Mai Province (Chiang Mai Provincial	95

	Office Strategic and Information Group for Provincial Development, 2020: p.26) (Modified by author)	
Figure 2-38	Land use divided into nine types in Chiang Mai Old City in 2017 (Modified: Satsue, 2018: p.87)	97
Figure 3-01	The component of Identity by Breakwell (1993) and Vignoles (2000)	101
Figure 3-02	The component of Identity by Shamsuddin, 1997 (Shukri, 2020: p.2)	103
Figure 3-03	The component of Sense of place by Punter, (1991) and Montgomery, (1998) (Ahmed & Zeile, 2020: p.3)	106
Figure 3-04	(a)The component of Urban Identity (SÖNMEZ et al., 2017: p.237), (b) Formation of urban identity. (ÖKESLİ & Gürçınar, 2012: p.3).	109
Figure 3-05	The component of distinctiveness in social science study (Vignoles et al. ,2000) (modified by author)	111
Figure 3-06	The component of Place attachment (Scannell and Gifford, 2009: p.2)	121
Figure 3-07	The interrelationship of distinctiveness and place attachment (Author)	123
Figure 3-08	A new framework for the heritage values of the natural environment that shows how different dimensions of heritage values interact and link to the Life Framework (AZZOPARDI et al., 2021: p.374)	136
Figure 3-09	The framework for the study in terms of urban heritage identity (Author)	157
Figure 4-01	The comparison between inductive and deductive (Streefkerk, 2019) source: https://www.scribbr.com/methodology/inductive-deductive-reasoning/	162
Figure 4-02	A mixed method by (Tashakkori and Teddlie, 2010, p.50)	164
Figure 4-03	An Example of a Diagram of Mixed Methods Procedures Tashakkori & Charles Teddlie (2015, p.63)	165
Figure 4-04	(a) Questionnaire Designing for a Survey. (Roopa & Rani ,2012, p. 273) (b) Interviews and Questionnaires as Mixed Methods in Population (Winchester,1999)	175
Figure 4-05	Flow chart of the steps of the focus group discussion technique (Nyumba et al., 2018, p. 22)	182
Figure 4-06	(a) The moderator observes the discussion between both groups (Author) (b) In-group discussion before debating the result to the others (Author)	183
Figure 4-07	Needle method in urban space study (Köster, 2010; p. 103)	189
Figure 4-08	(a) Needle method (Shao, 2016: p. 69) referenced from Deinet & Krisch https://www.sozialraum.de/nadelmethode.php (b)Shao's study adapted the needle method into color marks to describe how people perceive the study's scenes. (Shao, 2016: p. 103)	191
Figure 4-09	The post-interview approach (Brailas, 2020: p. 4450)	193
Figure 4-10	The pre-interview approach (Brailas, 2020: p. 4451)	194
Figure 4-11	The recruitment poster was posted in public spaces around Chiang Mai Old City (Author)	196
Figure 4-12	The diagram of methodology to reach objectives of the study (Author)	209
Figure 4-13	The diagram explain the data collection process which divides into qualitative and quantitative methods (Author)	210
Figure 4-14	Quantitative analysis methodology (Author)	216
Figure 5-01	Process study of chapter 5 (Author)	219

Figure 5-02	(a)Three Kings Monument square (Author) (b) Tha-Pare gate square (Author) (c) Chiang Mai city moat (Author)	225
Figure 5-03	Pra Singha temple (Author)	226
Figure 5-04	Red truck (main transportation of Chiang Mai city) (Author)	228
Figure 5-05	(a) Three Kings Monument square in the afternoon (Author) (b) Lanna traditional silver bowl by Chang Ngen (source: https://www.matichonweekly.com/column/article_470054)	230
Figure 5-06	(a) Chedi Luang Temple (Author). (b) People engage with cultural activity in the night (Author).	232
Figure 5-07	The engagement of community in cultural activity (Author)	235
Figure 5-08	The conclusion of the recollection process on urban heritage of Chiang Mai Old City (Author)	238
Figure 5-09	The conclusion of distinctiveness aspects (Author)	240
Figure 5-10	The linkage between nominated sites and recalled places (Author)	241
Figure 5-11	The conclusion of place attachment of distinctive places (Author)	270
Figure 5-12	The conclusion of relation between distinctiveness and place attachment (Author)	272
Figure 5-13	The process of defining the built environment's characteristics (Author)	275
Figure 5-14	(a) pic05 (b) pic04 (c) pic06 (Author)	287
Figure 5-15	The Key map of these streetscape scenes (Author)	289
Figure 5-16	The combination between uniformity and variety (modified: Guise and Webb, 2018; p.174)	305
Figure 6-01	Process study of chapter 5 (Author)	311
Figure 6-02	local people joins the religious activity in the night at Pra Singha temple (Author)	315
Figure 6-03	(a) Tha-Pare gate square (Author) (b) One of the city fort and Chiang Mai city moat (Author)	320
Figure 6-04	(a) ' <i>Souy Dok</i> ' a banana leaf funnel with flowers, candle and incense for worship in the Lanna tradition (Author) (b) The ' <i>Inthakin</i> ' ceremony arranged at Chedi Luang temple and the open walking street in front of the temple (Unseen Chiang Mai Facebook, 2022: accessed: 1 st of June 2022 source: https://www.facebook.com/photo/?fbid=546901320329911&set=a.213833830303330)	322
Figure 6-05	The illustration of five distinctive places (Author)	325
Figure 6-06	(a) Watering the 'Yang Na tree' ceremony to protect the heart of the city (Author) (b) People at Tha-Pare gate square (Author)	327
Figure 6-07	the conclusion to explain the relationship of local people and intangible value of the city (Author)	330
Figure 7-01	Process study of chapter 7combine with The Burra Charter process (ICOMOS, 2013: p.10: modified by author)	334
Figure 7-02	Defining of issue and factor on development policy following citizen's participation in chapter 7.3 -7.4 (Author)	335
Figure 7-03	Define the Heritage Management Policy (Clark, 2014: p.65	336
Figure 7-04	(a)The tripartite model for the public value of heritage (Clark, 2019: p.77), (b) The order and levels of participation (ICOMOS Thai, 2007 modified by Author)	338

Figure 7-05	The understanding of urban heritage’s significance of Chiang Mai Old City (Author)	340
Figure 7-06	The Map of Chiang Mai’s Conservation area in correlation with Chiang Mai Municipal Building Law (Source: http://www.onep.go.th/nced/wp-content/uploads/2016/10/132_33g_100258_1.pdf modified and translated by author)	343
Figure 7-07	The result of local citizen acknowledges the conservation area (Author)	346
Figure 7-08	The simulation of the new building at Tha-Pare Road (the main road leading to the old city) and comparison to the current view. (Khaosod, 2019) Resource: https://www.khaosod.co.th/around-thailand/news_4300189	351
Figure 7-09	(a) the appropriate building shape following the law (Author) (b) The Modern shophouse style on the significant road (Author)	352
Figure 7-10	The allowance of Lanna roof styles in Chiang Mai municipal building law. (Author)	353
Figure 7-11	(a) City view of Edinburgh source: https://windows10spotlight.com/images/37ead036ac993bd6a2e2380184810fac (b) Old City of Dubrovnik at Croatia source: https://www.total-croatia-news.com/dubrovnik-blog/18089-the-story-behind-dubrovnik-s-rooftops	355
Figure 7-12	(a) The hotel is located on the Ping River close to the Old City and was painted a turquoise colour (Thai PBS, 2022). (b) These multi colours were painted on this accommodation which is in a strict area controlled by CMMBL.	356
Figure 7-13	(a) Tiles, Alhambra, UNESCO World Cultural Heritage Site, Granada, Andalusia, Spain source: https://www.dosde.com/en/tilework-in-the-alhambra-of-granada.html . (b) Stone pavement at Verona heritage site, Italy source: https://www.slideshare.net/JSalvaGuill/2018-03-13-verona-outside-paving-in-a-world-heritage-site-93080762	357
Figure 7-14	(a) A fence of Chiang Mai city museum (Author). (b) A fence of a local residency (Author)	359
Figure 7-15	A commercial sign on the shophouse façades at Chang Pueak gate (Author)	360
Figure 7-16	A commercial sign on the shophouse façades at Tha-Pare gate square (Author)	360
Figure 7-17	The simulation of commercial signs allowance in Chiang Mai Municipal building Law (Author)	361
Figure 7-18	Tha Pare Road streetscape, the main road to Tha Pare gate square (source: https://news.trueid.net/detail/bxPIIBEGzYqx : Access 1 November 2022)	365
Figure 7-19	Radchadumnoen road simulation to improve the walkability of the city by UDDC (source: https://chiangmaiwecare.com/เชียงใหม่เดินได้เดินดี/ : Access 1 November 2022)	366
Figure 7-20	Green space in Chiang Mai City (Sunanta and Summaniti, 2021: p.241 modified and translated by Author)	368
Figure 7-21	The drawing of façade redesign by ten local architects (Author) (a) Arch01 (b) Arch02 (c) Arch03 (d) Arch04 (e) Arch05 (f) Arch06 (g) Arch07 (h) Arch08 (i) Arch09 (j) Arch10	370

Figure 7-22	The result of façade redesign from ten architects and simulation into 3D by the author (a) pic 001(b) pic002 (c) pic003 (d) pic004 (e) pic005 (f) pic006	372
Figure 7-23	The result of eight streetscape scenes redesign from ten architects and simulation into 3D by the author (a) E001(b) E002 (c) E003 (d)E004 (e)E005 (f)E006 (g)E007 (h)E008	374
Figure 7-24	The local people rated pic 05 in the highest score (Author)	378
Figure 7-25	(a)Pic E002 (b) pic E003 (c) pic 007 was rated in the highest score (Author)	380
Figure 7-26	The Issues and possible ways to management the heritage value of Chiang Mai Old City (Author)	384
Figure 7-27	Light projection project to reveal the Chedi Luang pagoda before the grand earthquake of 1545 AC. (source: https://www.bltbangkok.com/lifestyle/art-culture/36549/ accessed: 1 January 2022)	386
Figure 7-28	The conclusion of chapter 8 (Author)	392
Figure 8-01	The outcomes of study (Author)	400
Figure 8-02	The outcomes of study compare with Burra Chater policy (Author)	402
Figure 8-03	The layers of the urban heritage of Chiang Mai old city (Author)	406

Lists of tables

List of tables

Table 2-01	The simulation of roof styles allowance in Chiang Mai Municipal building Law (Author)	85
Table 2-02	The simulation of commercial signs allowance in Chiang Mai Municipal building Law (Author)	85
Table 3-01	Table 3-01: The description of local distinctiveness elements on urban space (Phetsuriya & Heath ,2021: p.3 referred from El Hosary et al., 2018 (3-01(a)) and Ginting and Wahid 2017, p.43 (3-01(b)))	112
Table 3-02	Summary of heritage value typologies devised by various scholars and organizations (Mason, 2002, p.9)	138
Table 3-03	The classification regarding the values of cultural heritage which was suggested by different organizations (DOĞAN, 2020: p.67)	139
Table 3-04	Quality of streetscape divided into ten aspects (Author)	150
Table 4-01	Comparison of probability sampling and non-probability sampling(Trochim, 2021)	197
Table 4-02	The comparison of different seize groups in focus group interview (modified from Guest et al, 2013: p 178)	199
Table 4-03	Gender in questionnaire section (source: survey by Author)	202
Table 4-04	Age in questionnaire section (source: survey by Author)	202
Table 4-05	Length of residency in questionnaire section (Source: survey by Author)	203
Table 4-06	Personal data of participants in Focus group G1. (Source: survey by Author)	204
Table 4-07	Personal data of participants in Focus group G2. (Source: survey by Author)	204
Table 4-08	Personal data of participant in in-depth interview method. (Source:	205

	survey by Author)	
Table 4-09	Personal data of participant in drawing method. (Source: survey by Author)	207
Table 4-10	The Steps of the Focus Group Data Analysis Framework (Nili et al. ,2017: p. 6)	213
Table 4-11	The example of focus group analysis in this study (Phetsuriya & Heath, 2021: p.10)	214
Table 4-12	Table of data collection process (Author).	217
Table 5-01	The results of the recollection of important places in Chiang Mai Old City (Phetsuriya & Heath, 2021: p. 10)	221
Table 5-02	The result of focus group analysis (Phetsuriya & Heath, 2021: p.18)	223
Table 5-03	The conclusion of the recollection of the important places in Chiang Mai Old City (Phetsuriya & Heath, 2021: p. 18)	238
Table 5-04	The ranking of local citizen's perception on distinctiveness aspects. (Author)	239
Table 5-05	The sense attachment on emotional to five distinct places	243
Table 5-06	The sense attachment on social to five distinct places	250
Table 5-07	The sense attachment on activity and function to five distinct places	256
Table 5-08	The sense attachment on physical to five distinct places	260
Table 5-09	Personal data of participant in in-depth interview method. (Source: survey by Author)	262
Table 5-10	Shophouses Façade images have been chosen from 'The perception of the Vernacular Characteristic on shophouses in Chiang Mai Old City, Thailand (Romcai, 2007) to use as a part of this study. The initial resources have been simulated into 3D sample pictures by the author.	277
Table 5-11	The arrangement of ranking according to confident score	278
Table 5-12	The result of decision making following local people's opinions.	279
Table 5-13	The local people perception on highest rank of shophouse facade	280
Table 5-14	The result on physical appearance of the highest rank of shophouse facade	280
Table 5-15	The local people perception on the neutral group of shophouse facade	281
Table 5-16	The result on physical appearance of the neutral group of shophouse facade	281
Table 5-17	The local people perception on the low group of shophouse facade	283
Table 5-18	The result on physical appearance of the low group of shophouse facade	283
Table 5-19	The result of social value of the shophouse facade	286
Table 5-20	The eight streetscapes which linked to five distinct places (Author)	291
Table 5-21	The result of the socio-cultural values using the Needle method (Author)	294
Table 5-22	The conclusion of quality of streetscape scenes (Author)	399
Table 5-23	The comparison of four defining processes	305
Table 7-01	The significance and Values of Chiang Mai Old City through local citizens perception (Author)	341
Table 7-02	The answer of participants on conservation area (Author)	348
Table 7-03	The summary of architects' redesign of facades	371
Table 7-04	The summary of architects' redesign of streetscapes	373

Table 7-05	The local perception on the physical of redesigned shophouse façades	378
Table 7-06	The local perception on the social and history of redesigned shophouse façades	379
Table 7-07	The comparison of perception on street quality of old pics and redesign pics (Author)	382

Lists of Graphs, Column Charts, Pie Charts

List of Graphs, Column Charts, Pie Charts

Column Chart 2-01	The population graph of Chiang Mai province in twenty years from 2001-2020 (BORAOTH, 2021: Modified by author, https://stat.bora.dopa.go.th/stat/statnew/statPMOC/#/detailContract , access 06 January 2021)	89
Pie Chart 2-01	The economics of Chiang Mai province (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020: Modified by author)	91
Column Chart 5-01	The frequency usage of places in Chiang Mai old city	263
Column Chart 5-02	The length of residency	266
Column Chart 5-03	The length of residency compares between the number of newcomer and people who were born and lived in Chiang Mai Old city	267
Graph 5-01	The conclusion of socio-cultural values of the scenes (Author)	295
Graph 5-02	The conclusion of quality of streetscape (Author)	300
Pie Chart 6-01	The engagement of local people to urban heritage of Chiang Mai Old City	315
Pie Chart 6-02	Pride of place following the local people perception	316
Column Chart 6-01	Positivity perception on urban heritage places following local people's perception	317
Column Chart 7-01	The local people understanding of Chiang Mai Municipal Building Law	344
Column Chart 7-02	The local people experience with the Chiang Mai Municipal Building Law	345
Column Chart 7-03	The local people understanding of each section on Chiang Mai Municipal Building Law (Author)	350
Pie Chart 7-01	The local people suggestion for developing the shophouse's facade characteristics (Author)	363
Pie Chart 7-02	The local people suggestion for developing the streetscape characteristics (Author)	364
Graph 7 -01	The result of quality of streetscape following local perception	381

Chapter 1

Introduction



The Seal of Lanna Kingdom

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

“The Land of Million Rice fields”

Chapter 1

Introduction

This research defines the identity of Chiang Mai Old City's urban heritage and proposes suggestions to preserve the urban heritage characteristics of the site and similar cities in the same stage. Both tangible and intangible heritage are concerned with defining the distinctiveness of the city's urban heritage and streetscape characteristics through the elements and qualities that local people associate with the city. In this research, through the applied methodology and analysis process, the definition of urban characteristics is further improved to understand the multiple perspectives and the understanding of local communities. More importantly, this understanding will improve further assessments of the identity of urban heritage by using local people's perspectives.

Urban heritage identity is a significant concern in the context of urban design. However, globalisation, which affects social life and urban development, has led to the heritage site's inattentive creation. Giving an identity to a place or city could persuade people to recognise or recall the distinctiveness from other places (Lynch, 1984) and as Smith (2006, p.76) states: 'heritage is about a sense of place'. The identity of place following the perspectives of local people and academics is a vital component in urban development and plays a significant role in the quality of the built environment, which reflects the continuity of place identity. Creating an image of a place that people could effectively relate to in everyday life and applying a positive perspective to a place, means that the place's identity remains a crucial tool for creating it (Smith, 2006).

Moreover, place identity is affected by place and economics, which increases the value and meaning that define both a sense of place, and a cultural and social framework (Lewicka, 2011). Smith (2006, p. 48) mentions 'heritage as identity', and it is possible to define and legitimise the identity, experiences, and social culture of subnational groups and those of the authorising discourse by using heritage as a vital political and cultural aspects tool. Heritage identity can be defined through physical features and explorations of people's experiences of the urban fabric and the uniqueness of the city, which include environmental, historical, socio-cultural, and functional activities, alongside spatial values. This also involves the identification or meaning aspects of these elements in urban space (Arbak, 2005, Relph, 2007 and Carmona & Tiesdell, 2007). Moreover, urban identity encourages people to become attached to the context and environment. The perception of the identity of a place or city can also be used to identify improvements to a city's quality and the image of the city (Scheffler, 2009). Nevertheless, heritage plays a leading role as a cultural tool to perform remembrance which positively stimulates the heritage processes that contribute to the meaning and memory making of a place (Smith, 2006).

This chapter outlines the research beginnings with a general theoretical background on the importance of urban heritage identity, followed by the background of the research, a statement of the issues, the research questions, the aims and objectives of the research, and concludes with an outline of the thesis structure.

1.1 Background of the Research

1.1.1 Southeast Asia's Urban Identity

Many Southeast Asian historical cities have been confronting rapidly increasing deficiencies in terms of place identity. The region has been strongly influenced by ancient China, Indian, and Muslim empires; from an urban history perspective, Southeast Asian countries only began to develop independently after European colonization in the sixteenth century (Shaffer, 1996; Barwise and White, 2002). It is a unique region where different civilizational influences have impacted urban planning, architecture, and also political, cultural, and social systems (Savage, 2018). Moreover, in the nineteenth and twentieth centuries, the colonial port city emerged in the Southeast and South Asian contexts. Some parts of cities were colonized and became foreign communities, both socially and culturally. They ruled and controlled the economy and were politically distinct from their lands (Benjamin, 2007). The change in urban development emerged a few decades ago. It dramatically affected urban forms, scales, and social aspects. However, the cities remain marked by the diversity of the region's cultural and social histories, precisely one crucial region's peculiarity (Goldblum, 2014).

With the rapid urbanization of the Asian continent and the transformation of its cityscapes, professionals and scholars need to pay urgent attention to studying Asian streets and public spaces. It is expected that through recording them, learning from their complex nature, and applying distilled principles in new environments, it will prevent them from disappearing under the assault of rapid urban transformation. Indeed, the preparation of the traditional urban heritage fabric in Southeast Asia to become more flexible in dealing with the creations of mega-cities should be considered (Hartanti, 2014). Following *Cultural Identity and Urban Change in Southeast Asia* by Marc Askew and William Logan (1994), the key stimulant of urban identity change in Southeast Asia was the tourism industry which initially affected real estate development. All traditional wooden residences

and ways of life have been replaced, followed by increasing tourism demands. Significantly, this change has affected most areas of Thailand.

Although there is an increasing amount of literature focusing on Asian cities, most is about urban planning, streets, or urban economics, and politics. There are relatively few studies on urban heritage identity or the physical place environment related to human cognition, which occurs during the heritage nomination process. Even when occasionally mentioned, the study usually focuses on the physical attributes rather than the local people's perception of places in urban heritage sites and their identification of place meaning. Furthermore, the visual study process in urban heritage sites is rarely seen in academic studies. According to these reasons, this raises a number of critical questions such as:

- “How can the distinctiveness of urban heritage in Southeast Asia be defined?”
- “How can people identify which urban artefacts in the city contribute to the identity of the place?”
- “How can local people identify built environment characteristics and values in the city's views?”
- “How can local citizen contribute the suggestion for development the heritage management strategies for the city?”

1.1.2 The Significant Factors Transforming Urban Planning in the Capital City of Thailand

Motivated by trade and imperialism, Western countries have previously occupied and ruled Southeast Asia with the exception of Thailand. Some of these countries absorbed and adopted foreign cultures to suit their

own cultures and traditions. However, even though Thailand was not colonized by any country, rapid cultural absorption has impacted its cultures and traditions. Thus, urban transformation in Bangkok has occurred and has allowed Thailand to become a country with diverse races, beliefs, religions, and cultures.

For example, in the central region of Thailand, Bangkok is the capital city. It is one of the most populated cities globally, and stands as a symbol of uncontrolled urban growth, marked by heavy pollution, substantial traffic problems, and cultural diversity. In the past, as illustrated in figure 1-01, the presence of a river and canal system was a significant physical feature within historic Bangkok. Thus, the socio-economic and cultural aspects of the people were linked with rivers and streams. Inhabitants utilised the water bodies for their daily needs as well as for economic sustenance. Trade and commerce within the Southeast Asian region generally expanded from the 16th to the 19th centuries. Like the rest of Southeast Asia, the canal network in historic Bangkok served as its circulation and communication network and as a source of food for its inhabitants. With the development of new highways, commercial activities moved from the water to the land along Bangkok's major roads, outwards from the walled royal city to the surrounding areas. Simultaneously, Chinese communities in the city created a significant demand for housing and accommodation, which expanded, especially from the 1870s (Mateo-Babiano, 2012). For this reason, shophouses were established along the streets parallel with the Chaopaya River, creating clusters of communities.

The move of floating house clusters of Chaopaya River dramatically affected the urban planning of Bangkok, especially the communities that used to live along the rivers and canals who gradually moved away, with people leaving their homes, and their former settlements. All people in the city,

including the lords, nobles, government officials, merchants, wealthy people, and farmers, had their homes on the west bank of the Chao Phraya River. The emergence of roads gave rise to a new kind of residential area. The buildings were expanding rapidly and steadily along the railway lines and the main roads are on the east bank of the Chao Phraya River. It seems that the country's growth was advanced and modernised in the reign of King Rama V (Yoshikazu, 1987 and Kasertsiri, 1999).

Finally, the river basin society of Siam (figures 1-02 (a) and (b)) was faced significant changes in the era of Prime Minister Field Marshal Sarit Thanarat because of the economic and political development of the country that transformed the river life, which affected agriculture, including planting and farming that related to river life. The city became an industrial society through the construction of roads and the expansion of the city including the trade and increase of industrial factories decreased the importance of the City's rivers and canals in terms of the economic and social base of river basin society (Yoshikazu, 1987).

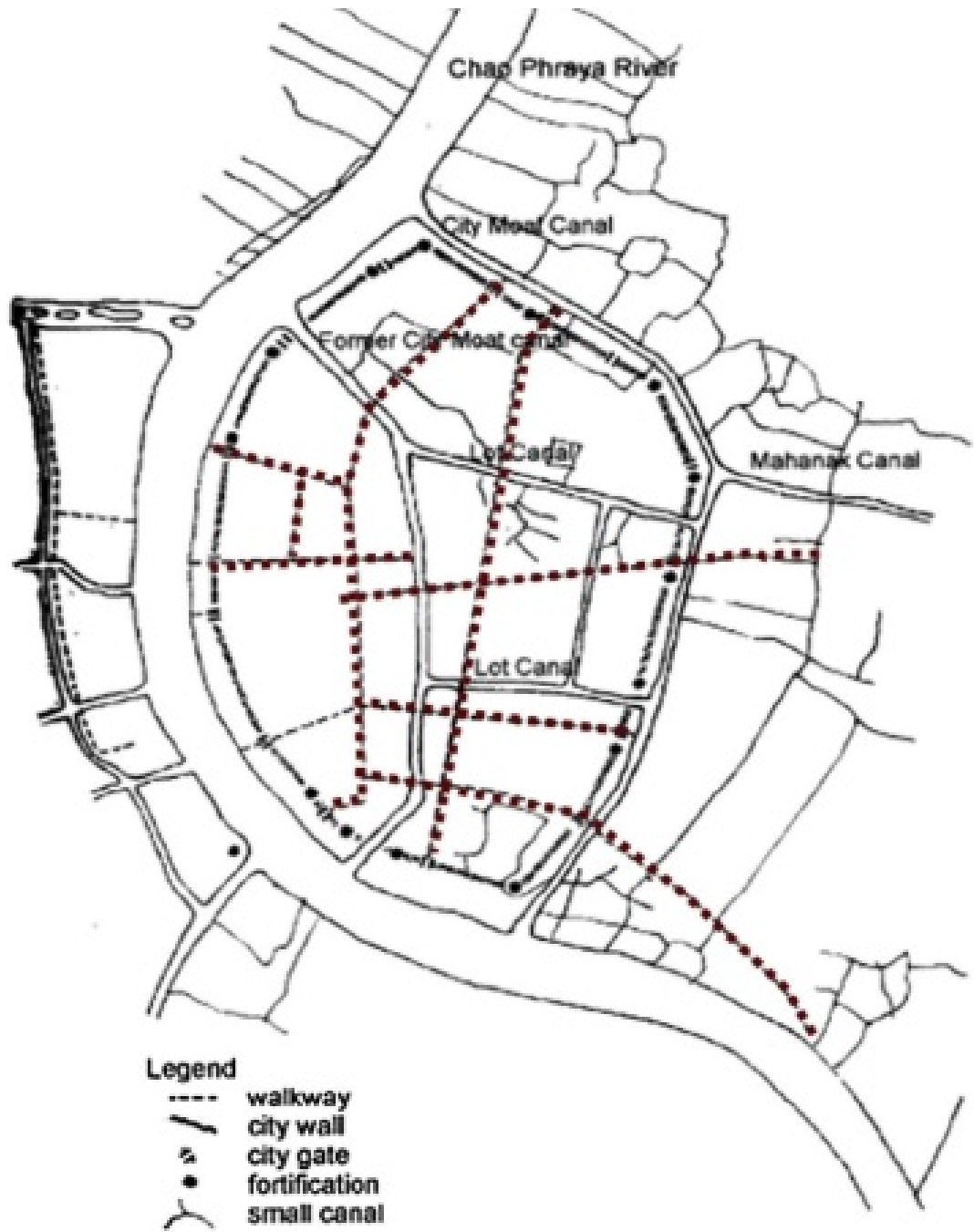


Figure 1-01: The access routes in Bangkok's urban development (Mateo-Babiano, 2012: p.454).



(a)



(b)

Figure 1-02 (a): The Cluster of Floating houses in Chaopraya River **(b):** River life in the past of Bangkok source: <http://www.bangkokriver.com/river-history/> access: 1 November 2020

After the urban planning changes due to the rapidly developing economy and transportation systems in Bangkok, many scholars and the Bangkok Council advocated the need for research activities to cooperate with the international institutions. In 1998, an exciting project entitled “Humanize Bangkok” was jointly implemented by the Bangkok Metropolitan Administration (BMA), the World Heritage Centre of UNESCO, and the Embassy of France in Bangkok. The objective was to show how the historical centre could generate the urban identity of the whole metropolis', be the heart of Bangkok, the pillar of social cohesion, and boost contemporary cultural creativity (UNESCO, 1999).

Furthermore, the “Cultural Landscape” concept should be part of the “Building Culture” design for all architects and urban planners. One of the cases is Bangkok, a water city in the past that has been slowly altered. Its rapid globalization and consumption development expansion has led to the neglect of the city’s cultural identity of water as heritage (Shinawatra, 2012) This has led researchers and scholars to the conclusion that the organization of the sustainable heritage management of the city is another crucial part of exploring the preservation of urban heritage identity, which is the organization of the sustainable heritage management of the city. Having briefly considered the changes to Thailand’s capital, Bangkok, the following section will consider the situation in the city of Chiang Mai.

1.1.3 The Transformation of Urban Planning in Chiang Mai's Old City

The transformation of the Chiang Mai started in 1296 AD. with the evolution of the city being related to its people, society, beliefs, and politics. The first significant stage of transformation began between 1296 – 1367 AD. (see figure 1-04) when the elements of Chiang Mai were structured by *Vasutra Ideology*. This concerned a hierarchy of the city's arrangement related to the location of the Nikhot tree, Wiang Kaew (Royal Palace area), Inthakhin Pillar (City Pillar) and Ku Luang (Royal cemetery). All these elements related to the belief in spirits and sacred things which organized their relationships according to the structure of the human body. It is related to the study of Saraswadi (Ongsakul, 2005) and the relationship is recognized between city elements and human organs. This belief is also an important variable affecting the development of urban morphology, the result affected the establishment of roads and connection networks, which developed similar to fishbone networks and caused the division of a superblock morphology in relation to the formation of communities.

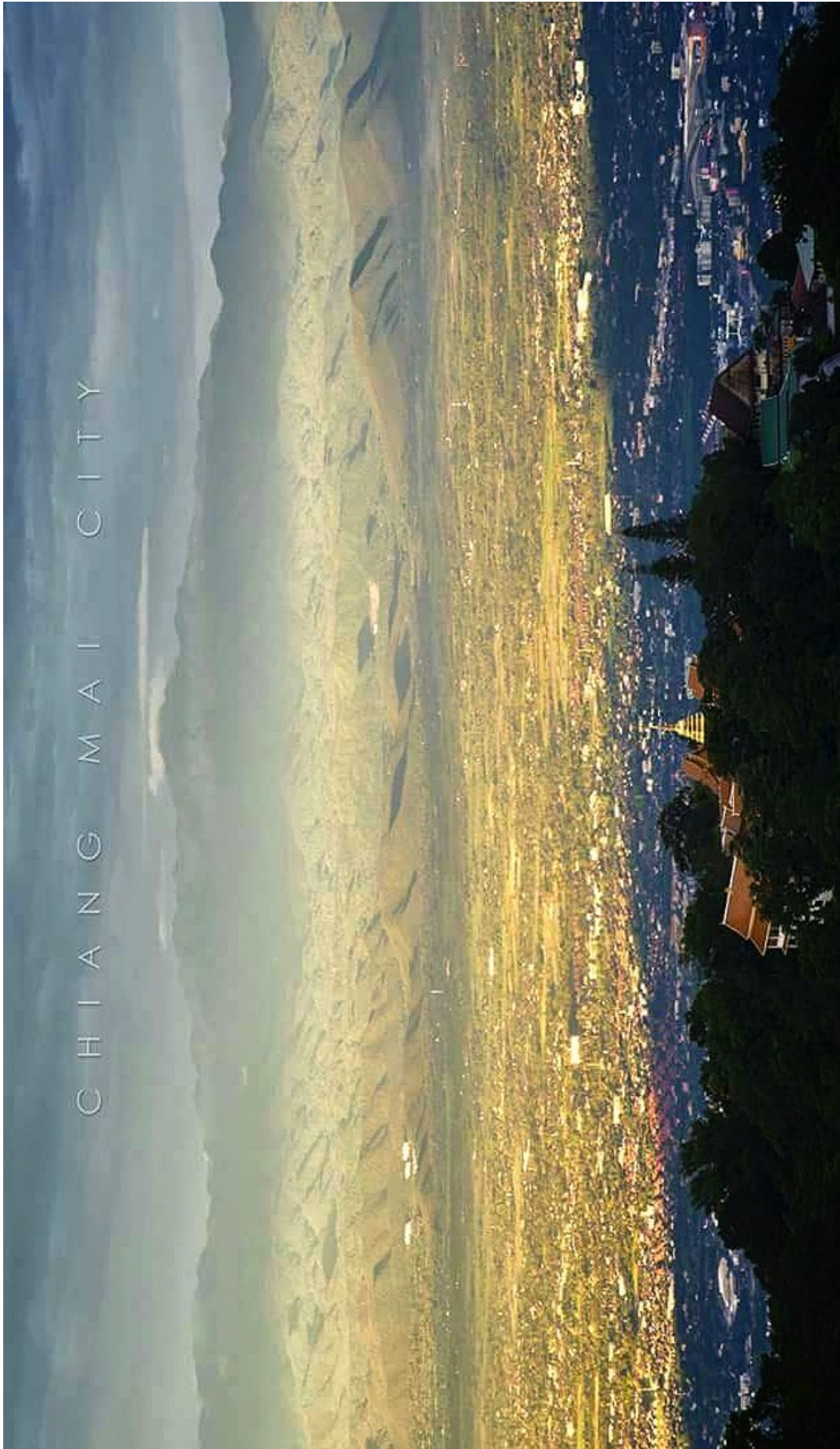


Figure 1-03: Chiang Mai city view (Chiang Mai Dossier, 2018)

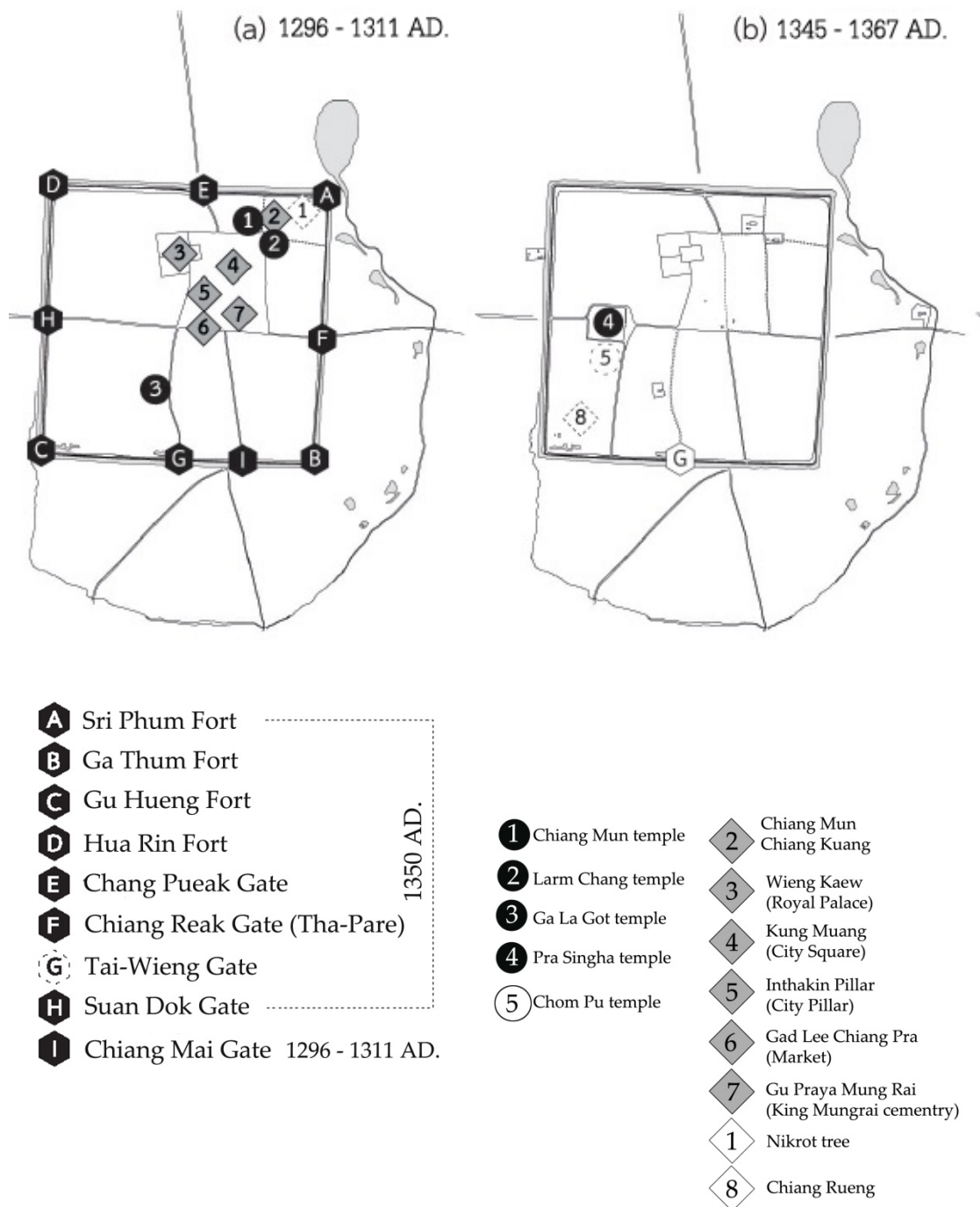


Figure 1-04: The first stage of urban transformation of Chiang Mai old city (Satsue & Ongsavangchai, 2020: p.49 modified by author)

The second and third stages of Chiang Mai's urban transformation emerged in 1367- 1526 AD. following the Cosmology Ideology and Thaksa

Ideology (this is explained in chapter 2). It affected the organization of the city's zoning with ordinal and intercardinal directions. The study of Satsue & Ongsawangchai (2020), mentioned the impact of Thaksa Ideology on urban planning, and how it was a significant component in the city's zoning to control the spread of communities and the city's elements. However, the study of Satsue & Ongsawangchai (2020) and Meechubot (2017) described (figure 1-05) how it was unable to determine the concept of Thaksa in urban planning according to the appearance of the specific temples such as U-Mong Teratchan temple(6) and Muen Ngoen Gong temple(7) in the city against the Thaksa ideology. Although, the ideology still appears in the arrangement of the locations of significant places such as Wieng Kaew (Royal Palace), religious places, markets, villages, and communities. Meanwhile, the cosmology ideology appears in urban planning as the location of the city pillar (Inthakin Pillar) which was relocated to the city's centre.

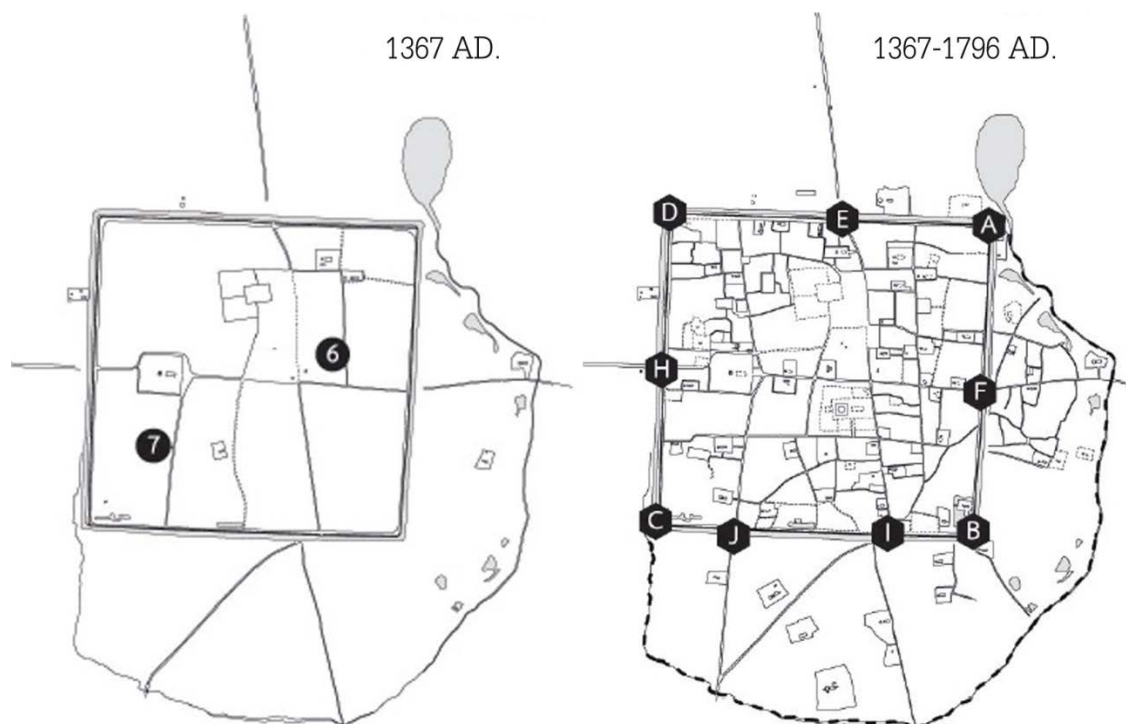




Figure 1-05: The second and third stage of urban transformation of Chiang Mai old city

(Satsue & Ongsavangchai, 2020: p.49 modified by author)

The final stage of Chiang Mai's urban transformation started in 1796AD and continued to change until the present (figure 1-06). This was an era of reconstruction for the city's elements. Currently, Chiang Mai Old City remains a perfectly shaped square city. Figure 1-07 illustrates how the former urban space in the city had transformed in 1893AD due to circumstances that occurred from the changing of urban spaces and socio-culture. '*Kuang Luang*' (royal town square), is a unique urban open space in the northern part of the city which has an important role and function within the urban area. It was an essential area for gathering people in the city for traditional ceremonial events and represented the urban dynamic of the city. Furthermore, '*Kuang Luang*' is represented as the traditional urban heritage space of the city in the Northern region (Meechubot, 2017).

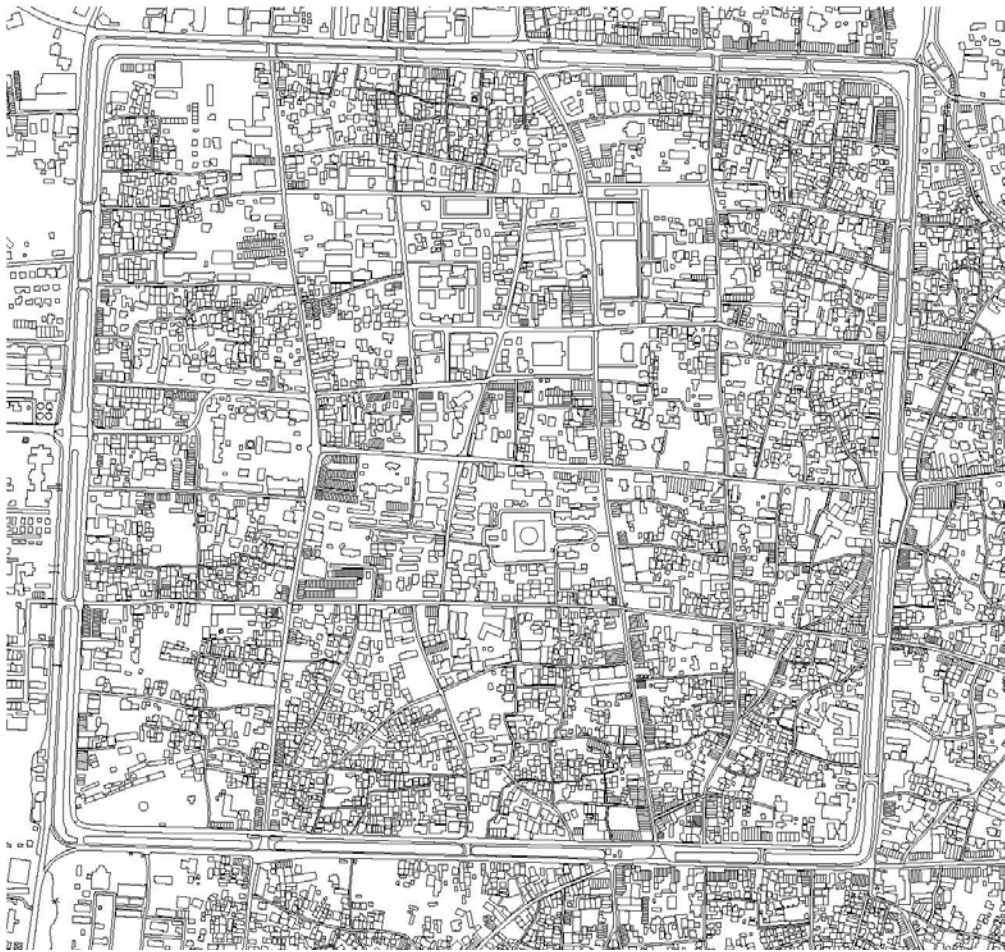


Figure 1-06: The current Chiang Mai old city map in 2022 (Source: http://www.onep.go.th/nced/wp-content/uploads/2016/10/132_33g_100258_1.pdf)

After Siam (the former name of the Kingdom of Thailand) gained control over the Lanna Kingdom in 1874AD (the former name of the North region of Thailand) (Kruathongkeaw & Jurarat, 2014), they destroyed Chiang Mai's royal palace and destroyed '*Kuang Luang*' and turned the space into a Correctional Institution for women (figure 1-08 (a), (b), (c), (d)). In 2012, the Thai Government and Chiang Mai Municipal Council acted on the over density of this jail and the crucial part of this traditional area. The revitalization project named "*Kuang Luang Wieng Kaew*" was announced to the public and spread to many revitalization projects in Chiang Mai Old City. Srinurak & Mishima (2014) noted that it is necessary to reconnect this to the

other defragmented parts of 'Kuang' that had been turned into women's correction institutions.



Yellow- Temple and Royal temple

Pink – Palace

Brown – Commoner residents

Figure 1-07: The Chiang Mai Map by James McCarthy in 1893 AD. (Meechubot, 2017: p.34)

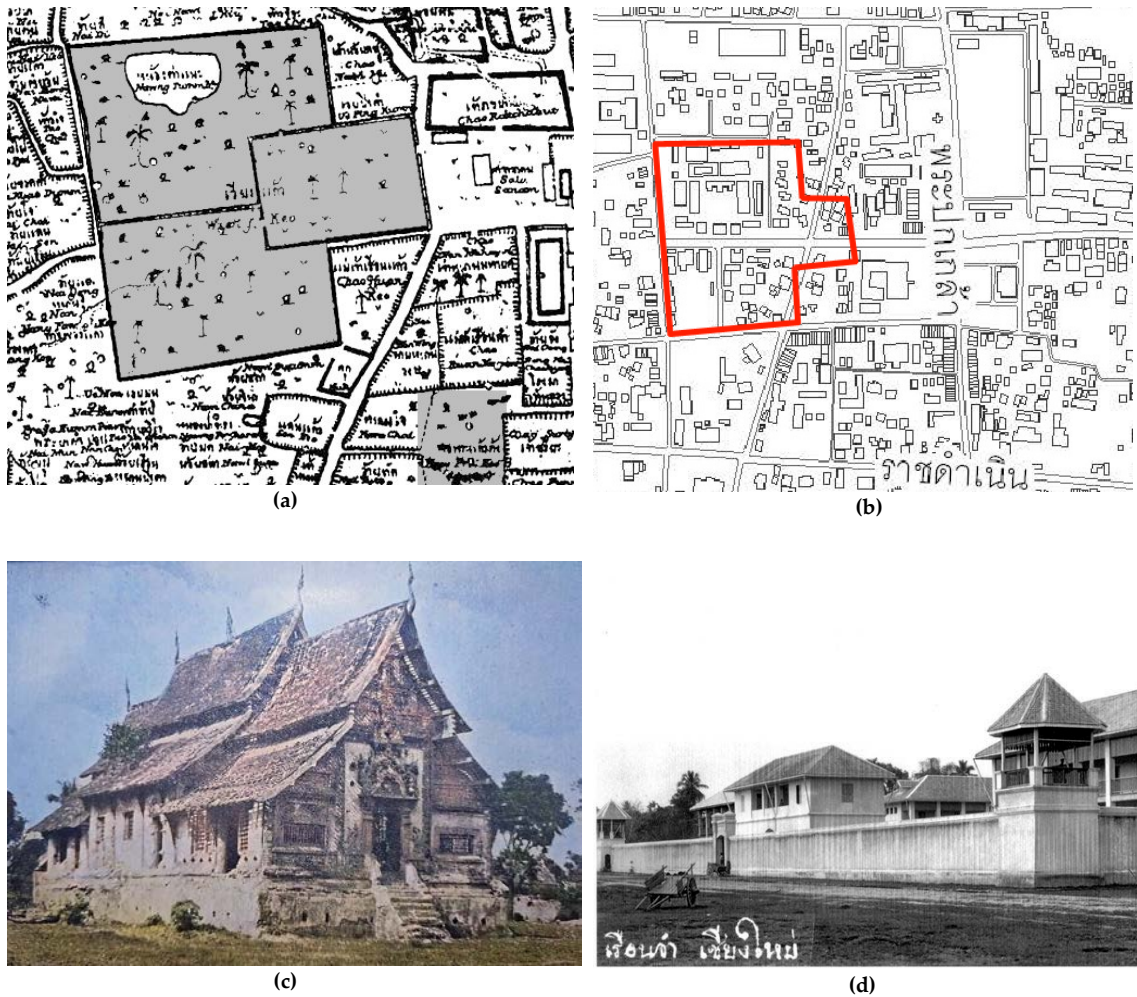


Figure 1-08: (a) This map illustrates the area of “Kuang Luang Wieng Kaew” the center of power in Chiang Mai, as it was the area of the Lanna Royal Court in Chiang Mai’s Old City (source: https://www.matchonweekly.com/culture/article_31213 accessed: 01 February 2021) (b) This map illustrates current planning within the former territory of “Kuang Luang” (Author) (c) This is a picture of the King Palace of Lanna Kingdom in “Kuang Luang” before it was destroyed by Siam (Bangkok) (Narch Phothiprasard,1984) (d) This depicts the “Women Collection Institution” when Siam colonised the Lanna Kingdom and built a jail instead of the King’s Palace to end royal power over Lanna (source: https://www.matchonweekly.com/culture/article_31213 accessed: 01 February 2021)

This transformation spread to Chiang Mai, the Thai Northern Region's capital, from the urban identity transformation that had been undertaken in Bangkok. As a result, Chiang Mai began to lose its ‘green and clean’ image and its identity by following Bangkok' aims for the city to become the "headquarters" of Northern Thailand. Chiang Mai was once famous for its

history and "timeless" beauty, however, times have changed, and its high-rise buildings now overshadow the ancient pagodas. The mountains are now hidden behind flyovers and skyscrapers. Moreover, local people, it is said, are losing their identity (Moe, 2001). Chiang Mai has been facing efficacious power in terms of political and cultural domination from Bangkok. The Northern Thai architects have attempted to cure Chiang Mai's illness through recourse to the 'cultural heritage' of the city's urban spaces, while spirit mediums call upon the divine power of that space to restore Chiang Mai's 'lost' prosperity (Johnson, Hickey, & Bunnell, 2013). Due to this, it is challenging for scholars to explore the identity of place in this multi-layered city.

1.2 Statement of Issues

This loss of identity is being challenged, as currently, Chiang Mai Old City being nominated for 'UNESCO World Heritage status. However, in 2015, Chiang Mai's historical and cultural sites were added to UNESCO World Heritage sites in "a tentative" list. The "tentative" list is an inventory of properties nominated to UNESCO's World Heritage List. The proposed site must be on the tentative list at least one year before a nomination dossier can be submitted to UNESCO (Bangkok Post, 2015: p.1). The criteria that Chiang Mai World Heritage Initiative Project (figure 1-09) proposed consists of II, III and IV; these are definitions for representing unique cultures, traditions, human settlements, and architecture. However, the Preliminary Nominate Dossier for inscription on the World Heritage lists report shows data about historical conservation and a conclusion on the city's authenticity, which is only analyzed from the historical data without using the current situation and people's opinions.



Figure 1-09: - Chiang Mai World Heritage Initiative Project (Source : https://chiangmaiworldheritage.org/network/attachment/14729233_1862083447361841_1050529852531210349_n-copy/ access: 10 November 2019)

After Chiang Mai Old City passed the nomination to the tentative list, *'Urban Heritage Identity'* became a major issue of discussion based on local people's perceptions. As local participation is a crucial and sustainable part for the further heritage management of places, however, even in the aforementioned dossier on the Authenticity and Distinctiveness of the site, the researcher is still curious about how local people acknowledge the City's urban heritage identity which must be a part of sustainable management strategies. *Urban Identity* is not just about urban infrastructure; it delineates human experiences and the social, cultural, and economic values in them (Evans et al., 2011), which represent the significant heritage value in the city (Green, 2001).

"Urban heritage can be defined as including other legacies from the past that make a town or city distinctive, such as the arts and crafts, or the rituals, ceremonies and festivals, shared by a community." (Logan, 2005: p.28).

The above definition represents the ideals of urban heritage values. Identity is a core field research related to urban identity, distinctiveness, sense of attachment, and urban characteristics. Much previous research uses

Lynch's famous theory to analyze identity; however, *The Image of the City* has been criticized in the first place by Lynch himself (Lynch, 1985). It can be questioned how valid it is to aggregate mental maps of people with diverse backgrounds and experience. This "observer variation" makes it hard to produce a standard and objective image of the city (Carmona et al., 2010). Next, the book tends to overemphasize the visual and material structure of the city. Studies have shown, for instance, that cities are not only "landscapes", but also "sensescapes" and that people's mental maps turn out to be also formed by the smells and sounds of a place (Lynch, 1984; Landry, 2002).

Moreover, in *A Theory of Good City Form*, Lynch (1984) suggests that the mental maps of people are not only formed by their "sense of place". He recognised the importance of a "sense of occasion" related to a city's image coming from periodical festivals, events, and other temporary activities (Hospers, 2010). However, in terms of the identity of urban heritage, the image of the city theory which began in 1960 would not be suitable to explore the old city in various contexts, especially in a place of cultural diversity such as Southeast Asia. For this reason, this study aims to find suitable theories to define urban heritage identity to inform future urban characteristic management strategies for Chiang Mai Old City.

Chiang Mai Old City is currently facing a problem of lost urban heritage identity and the disharmony of the built environment. The rapid urban growth in inner Chiang Mai has affected the distinctive characteristics of Chiang Mai's identity. The modification of building façades has caused disharmony in the urban streetscape and has obscured façades which are part of the historical narrative of the city (Srinurak & Auttarat, 2013). The principal disturbance of the historicity is the signs which appear on the façades and pavements for the building owners' benefit (Sthapitanonda, 2011).

Streetscapes and façades are part of urban heritage; for example, Georgetown's street façades in Penang, Malaysia contain multiple buildings. Most of these buildings have a heritage value according to their building history and architectural features. Also, in Singapore, Li (2007) states that façades are outward expressions of a community's ideals and aspirations. In Li's study of the façade of the Singapore shophouse in Telok Ayer in the north-eastern corner of Chinatown, she focuses on the crystallization of the tripartite influences of British colonialism, the ethnic Chinese, and indigenous Malay peoples, which form the crucial history of the site in multiple ways.

In Thailand, despite the preservation of buildings in many historic cities such as Bangkok, Phuket and Chiang Mai, they still have commercial signs that hide the facades and disturb the cities' visual aesthetics (Sathapithanonda, 2011). The conservation of visual resources in the Chiang Mai study mentions that the Chiang Mai community's visual vista study results do not correlate to the beautiful city's image (Sourachai, 2006). This leads to the key problem of the loss of identity of the Old City and a lack of understanding of the urban heritage value in Chiang Mai Old City.



(a)



(b)

Figure 1-10: (a) Comparison of the streetscape in Chiang Mai Old City (Radchadumnoen Road) This road leads to the temple Wat Phra Sign. The picture on the left was taken in 1952 A.C. (Chiang Mai University Library, 2019) http://library.cmu.ac.th/ntic/picturelanna/picture_trails.php?page=1 access: 20 November 2019 (b) This current view of Radchadumnoen Road was taken in 2017 A.C (Author)



(a)

(b)

Figure 1-11 : (a) Pra Singha temple in 1969 AD. (Chiang Mai university library, 2019) http://library.cmu.ac.th/ntic/picturelanna/picture_trails.php?page=1 access: 20 November 2019 (b) An aerial photo of Chiang Mai's Old City (Ratchadumnoen Road). This road leads to the Phra Sing temple. This photo was taken in 1969 A.D. resource: Chiang Mai University Library (2019) http://library.cmu.ac.th/ntic/picturelanna/picture_trails.php?page=1 access: 20 November 2019

When observing Chiang Mai's current urban context (figure 1-10 (b)), there is a contrast between the façades of different architectural styles and precarious identities compared to the former environment (figure 1-10 (a) and figure 1-11 (a), (b)). There is a misinterpreted knowledge about the valuable local heritage architecture in Chiang Mai's building facades (Romcai, 2007). The façade is the face of the building that shows its value, structure, and the interface between inner and outer space. It therefore has a significant impact on the city's historical image. Façades respond to the local culture, historical, and environmental conditions of the region. When assuming buildings' façades as an essential and indivisible city image component, the images of historical building facades are mostly represented through their visual elements (Askari & Dola, 2009). Urban space is characterised by building facades, streetscapes, and the environment. Otherwise, the building façade influences all aspects of its ambiance and illustrates its significance to the city's image and historical districts. A building façade presents various visual

experiences to outsiders (Moughtin et al., 1995) and is mostly considered for evaluating a historical image. The image of a historical building façade is presentable through its visual elements. Askari & Dola (2009) mentioned that the evaluative process of a historical building façade is based on visual elements such as shape, colour, and architectural style, which indicate that the visual architectural elements influence the image of the building façade. From a different perspective, the age of a building façade is also influential in its historical image. The age of a building façade affects its historical image, roots, and augments its visual richness and quality. It exhibits the connection between the inner and the outer space of a building. A city's image is characterized by building façades, neighboring buildings' façades, the streetscape, and the environment; even the scale around a building is identified through its façades. Building façades also trigger various experiences for the viewers and are, in most cases, considered for the evaluation of a historical districts image (Abdel-Aziz & Shuqair, 2014).



(a)



(b)

Figure 1-12 : (a) Lanna style façade of shophouse in Chiang Mai (Author) (b) Lanna style façade of shophouse in Lampang Province (a part of Lanna Kingdom) (Author)

The arrival of modern architecture made the buildings in Chiang Mai Old City rapidly absorb cultural changes, causing a lack of a consistent or coherent identity that is represented through the façades. The study of the ‘gingerbread house’ in the municipality of Chiang Mai explicates that the wooden stencil pattern crafted on the building façade and its stucco are the most crucial part of the building (figure 1-12 (a)) (Romcai, 2007). In the elements of the design of Northern Thai buildings, the wooden stencil pattern can be divided into six styles: floral; animal; geometry; invented pattern;

unsorted pattern; angel; and giants, reflecting the city's strong culture (figure 1-12 (b)) (Somthong, 1996). However, the municipality's building laws neglected to follow the Northern-building style design to preserve the identity of Lanna heritage. They wrote the law with indiscriminate criteria, specifically with the reference to 'Lanna design' or 'Lanna vernacular building style', without specifically mentioning its details. The façade is the most significant part of a building's exterior image that shapes its cultural identity (Schulz, 1971 and Rapoport, 1969). Furthermore, facades are physical evidence of the city's aesthetic evolution and architectural transformation's practical aspects (Elshahed, 2007).

The image of the city is mainly related to the visual quality of the city, which is named the material quality of the city. Facades play an essential role in the design of urban and environmental design. A building façade is known as a feature of the environmental image of the city (Moughtin et al., 1995). The urban vista of the city has been widely studied in Thailand. A study on the Changes of Urban Vista in Rattanakosin (Historical city in Bangkok, Thailand) outlines that social life, economics, a lack of policy, and urban vista city laws are factors that affect the evolution of the historical city (Sourachai, 2006).

Moreover, in the Chiang Mai context, a study of conservation of visual resources forms a case study of cultural streets, highlighting that the physical environment is not harmonious and does not represent the beautiful city. Indeed, in the city, most visual elements are not arranged and lack cultural identity (Chonvichit, 2006). When observing a building façade, people cannot recognise and distinguish the delicate ornaments, however, people can distinguish between the "styles" of Chiang Mai façades, modern, and antique (Romcai, 2007). A study of resident behaviour in the modification of building façades provides building guidelines in Chiang Mai Old Town on Tha-pae Road (the main road to Chiang Mai Old city) (Srinuruk & Auttarat, 2013).

This underlines the people's suggestion to preserve approximately ninety-eight percent of the historical buildings on the street. The study suggests guidelines to conserve urban visual aspects which consist of: specifying areas to plant trees; the harmonisation of building mass; proportion, colour; that the building mass should not hide the urban visual background; and that the urban visual in public spaces should not disturb but connect to the urban visual background. These studies pointed to the visualization issues which affect the harmony of the old city's vision.

However, the primary consideration of satisfying an urban vision is the streets. Streets are a vital part of a community's open public space system and have a distinct position, identity, and role within any community's fabric. These aspects form the majority of a community's public spaces, and much of the physical public realm's quality comes from their character. Any assessment of the quality of a community does emanate from the impression the public streets offer. Understanding the vital role that streets have within the community pattern directs the development of public spaces, so that a streetscape is dynamic and contributes to the aesthetic of the city (Crawford et al., 2015). According to these reasons, this research aims to define urban heritage identity in terms of both place and the built environment. The study explores the tangible and intangible aspects of urban artifacts, which reflect social, cultural, economic activities, and the life of Chiang Mai Old City. Furthermore, the study proposes a Urban Heritage Management policy of Chiang Mai Old City for preservation and reformation following local citizen's participation.

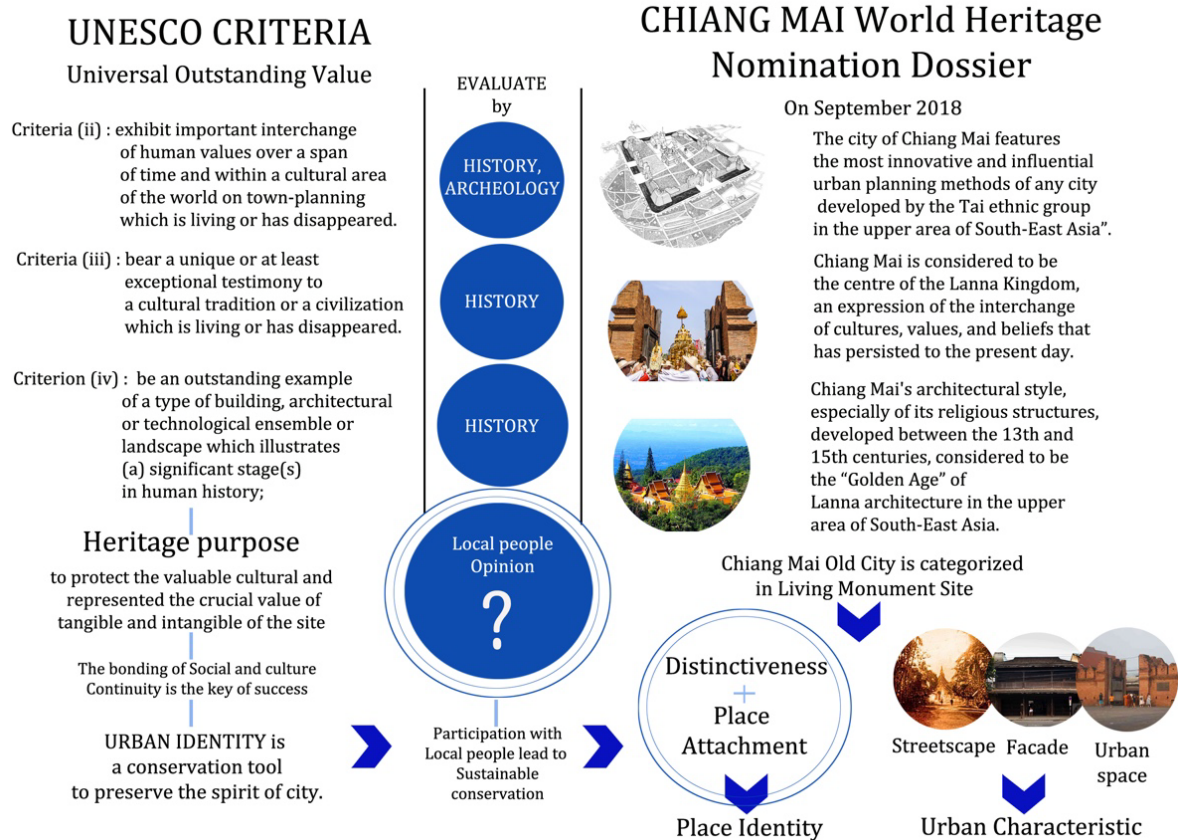


Figure 1-13: Conclusion of Chiang Mai’s Heritage team meeting three criteria and outlining research gaps. (Author)

1.3 Research Questions and Objectives

The research objectives are specified in three aspects: place attachment; urban heritage characteristics; and further reform of suggested urban heritage characteristics. The defining process discovers the context of the urban heritage identity of Chiang Mai Old City, Thailand.

RESEARCH QUESTION 1: How do local people describes the identity of the historical buildings and built environment in Chiang Mai Old City?

OBJECTIVE 1:

i: To identify urban heritage identity included the built environment characteristics associated with place identity.

The result of this question leads to criticizing the genuineness of the perception of local people to the historical buildings and spaces which located in the Chiang Mai old city following local people's memories. It is designed as an open-ended question to ask for participants' experiences of the places that were recalled through recognition and a remembrance of the process. The perception of those places has been analyzed following sense of place and sense attachment which answers place identity in terms of place engagement, attachment and meaning. Moreover, in terms of the physical environment of the city, it always appears in an urban study. The physical figure forms space and affects the nature of the place's creation. The physical environment is formed of its masses, spaces, and paths. This question appraises the perception and cognition of its façades (masses), urban spaces (space) and streetscapes (paths).

RESEARCH QUESTION 2: How does the urban heritage identity of Chiang Mai Old City relate to socio-economic, socio-cultural, activities, and life of local community?

OBJECTIVE 2:

ii: To appraise and synthesize urban heritage values that are associated with place identity.

To emphasize the relevance of how the tangible and intangible value of urban heritage affects social, cultural, economic, activities, and life of Chiang Mai Old City. Furthermore, this part appraises the current perceptions of local people as to urban heritage characteristics in heritage value which consists of aesthetic, historical, social, and spiritual aspects.

RESEARCH QUESTION 3: How can the views and opinions of the local community regarding tangible and intangible heritage inform suggestions for managing the urban heritage characteristics of Chiang Mai Old City?

OBJECTIVE 3

iii: To identify the current perspectives of local people which influence the future suggestions of urban heritage characteristics of Chiang Mai Old City.

To define suggestions for reforming urban heritage characteristics. The study reveals the knowledge that local people have of the Chiang Mai Municipal Building Law, which directly affected the built environmental characteristics of the city. In the further stage of the heritage process, the Chiang Mai Heritage Team will prepare full conservation strategies and heritage management plans. This part would support local communities by suggesting vital information for reforming urban heritage characteristics.

1.4 The Scope of the Research

The study focuses on cognition (identifying and characteristics), perception, and interpretive (meaning and association) aspects that are based on an individual's experience of place and built environment relationships to determine the effect of characteristics and qualities of urban heritage identity. Moreover, the study focuses on the urban heritage characteristics management strategies in both tangible and intangible aspects. In this regard, there are six main aspects to be considered in this research:

(a) The urban heritage identity

Urban heritage study concentrates on the ways of architectural, cultural, and social narratives of urban experience following human perception and cognition to shape future urban heritage identity. Historical cities often reflect the heritage value as time relation to place and history, this

study will focus on the inner-city wall of Chiang Mai old city, which was defined as an authentic representation of Lanna culture.

(b) The factors on distinctiveness of place

The study uses inter-relationship theory between urban heritage tourism and imageability theory to describe the distinctiveness of urban heritage identity. It consists of core and dynamic elements, which can describe both tangible and intangible aspects. The factors can be explored in detail: historical value; cultural activities; everyday life; identity; landmark; particular character; and community.

(c) The place attachment factor and meaning on distinct places

Considering place attachment in distinctive places requires an investigation of emotional, functional, and social bonding. However, these aspects can be discussed in how place attachment influences places. This study aims to examine the influencing factors of place attachment to distinct places that strongly contribute to urban heritage identity. The study also concentrates on the interpretive place meanings correlate to cognitive dimension (knowledge) to identify the quality of place and urban space.

(d) The built environment characteristics of the city

This study considers the perception of local citizens in the built environment of Chiang Mai Old City, consisting of the rowhouse's façades and the streetscape. This study explores the heritage value of streetscape scenes which can describe the value in the view that represents the heritage value of Chiang Mai Old City.

(e) The participants

The participants were chosen following several criteria. They were limited to the perceptions of residents of Chiang Mai Old City rather than other categories groups of respondents such as academic persons, professionals, tourists, or people who didn't identify themselves as Chiang Mai people. Only participants who lived and worked (either since birth or as long-term residents) in Chiang Mai Old City were involved in the research. Furthermore, all participants were required to be aged over eighteen; it is essentially concerned with age, length of residency, and self-identification as lived experience phenomenon can reflect the vital outcomes.

(f) The urban heritage characteristics management strategies

The study considers local participants' perceptions and suggestions on the Chiang Mai Municipal Building Law. This can help to develop urban heritage characteristics management strategies in terms of both tangible and intangible aspects of Chiang Mai's old city as the city to enable the city to become a new world heritage site.

1.5 Research Approach

Urban heritage identity often relies on perceiving the quality of urban attributes including the built environment of the cities as the uniqueness of attributes can demonstrate its distinctiveness from other places. Furthermore, the meaning of 'heritage' is related to conservation and maintains the value of attributes which are involved in the context.

The interaction between local people and places' plays a vital role in defining a heritage site's urban identity. In order to consider both the tangible

and intangible aspects, this thesis is divided into three parts. The first part of the study considers local people's perception to recall places following local participants' experiences and perceptions of the city's thirty-three nominated heritage sites. The result leads to defining the distinctiveness of Chiang Mai Old City and describing it in terms of tangible aspects. After this, the study analyses the sense of attachment of five distinctive places that create genuine urban heritage identity in terms of tangible aspects. Furthermore, in terms of place attachment theory, the researcher describes the relationship of distinctive places in terms of the physical, emotional, social, activity, and functional qualities of intangible aspects. Moreover, the city's built environment is explored, alongside the definition of its urban characteristics. This consists of the perception of the shophouse façades and the quality of the streetscapes, which create the unique built environment of Chiang Mai Old City following the local people's participation (Chapter 5). Also, the researcher defines the social-historical value of physical significance of the façades and sociocultural value of streetscapes on the old city (Chapter 5).

In the second part of the thesis (Chapter 6), the researcher describes the intangible aspects which appeared in the results following local people's perception. Distinctiveness theory can describe the relation to intangible terms, which consists of historical values, cultural activities, particular character, community, everyday life, historical values, landmarks, and identity. The study explains the intangible value that impacts upon the social, cultural, and economic activities of both places and the built environment. Chapter 7 delineates further management strategies for preserving urban heritage characteristics following local people's suggestions.

Consequently, figure 1-14 describes how the notion of urban heritage identity is not restricted to the tangible aspects but also considers intangible aspects which are related to human experience and the future of heritage

management through distinctiveness and place attachment theories. Therefore, it can be argued that the experiences and perceptions of local participants is a vital source to explore urban heritage identity.

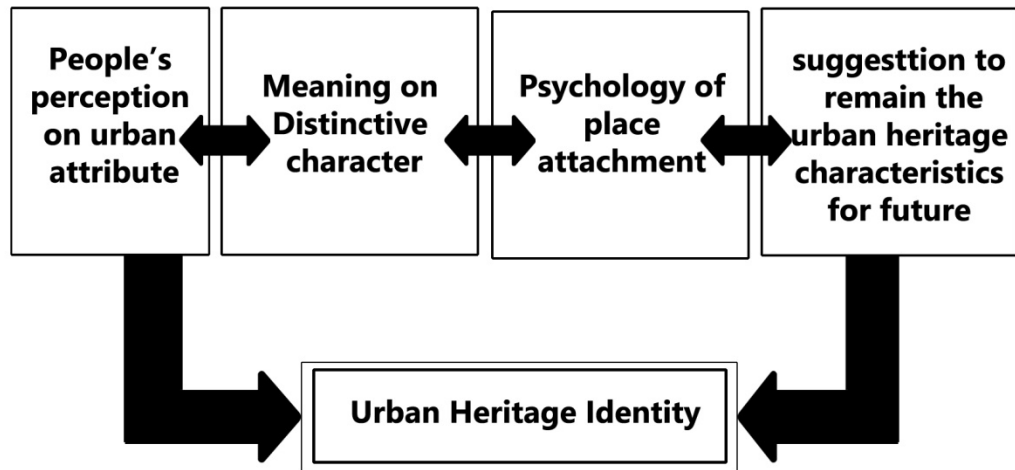


Figure 1-14: The experience to urban attributes through perception, cognition, meaning and attachment in defining urban heritage identity (Author)

1.6 Process of the Study

Scope of research purpose : Chiang Mai Old City Loss Identity and loss of local people participation

Research Aims : Defining the Urban Heritage Identity in tangible and intangible aspects
Defining Built Environment characteristic of the city based on local people participation

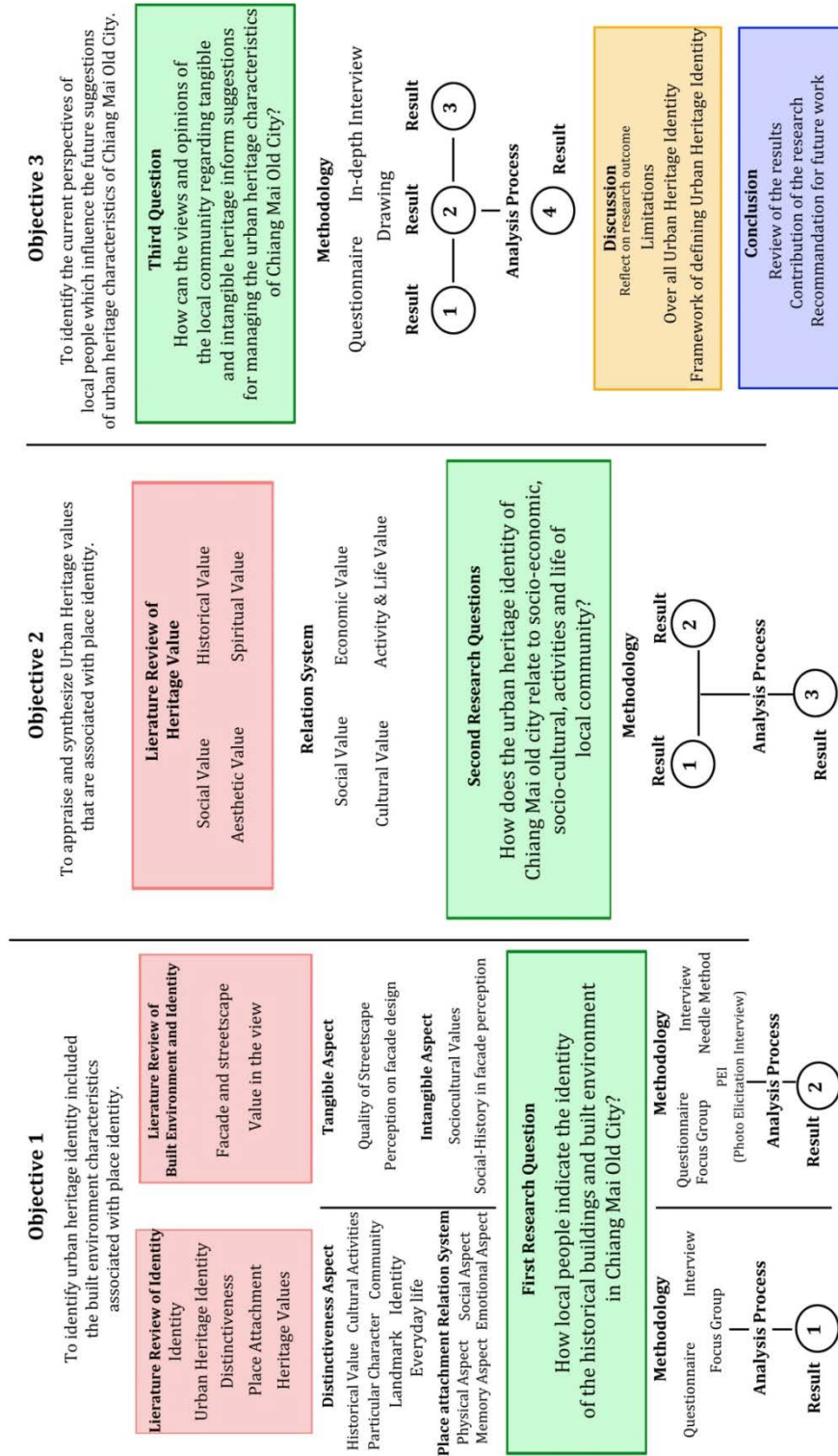


Figure 1-15: Conclusion of thesis process with objectives and research questions (Author)

1.7 Structure of the Thesis

The thesis is divided into eight chapters:

Chapter 1 describes the structure and background of the research, the statement of issues, research questions and objectives, and the research aims and limitations.

Chapter 2 provides the uniqueness of information on Chiang Mai, Thailand. The study includes the city's history, the physical and social contexts, and the significant characteristics of the nominated site.

Chapter 3 presents the literature review. Firstly, the concepts of place, place attachment, distinctiveness, identity, urban identity, and urban heritage are reviewed in order to define the theoretical foundation of the research. Following this is a review of the literature relating to human factors, including theories of perception, recognition, and memories in order to define the relationship between human perceptions and urban attributes. Furthermore, this chapter provides the discussion of heritage value to explain the participants' cognitive through urban heritage attributes.

Chapter 4 describes the methodology and analysis of the research, which includes all in terms of data collection methods. It discusses the knowledge, type of each methodology, and the research processes, which regulate the appropriate research design process to prepare tools, recruitment of participants, and the analysis processes.

Chapter 5 presents the results of the urban heritage identity of Chiang Mai Old City. This part analyses the distinctiveness of specific places following place attachment theory in terms of tangible aspects. This includes the results of the participants' cognition of the built environment of Chiang Mai Old City. The shophouse façade is also analyzed in cognition of knowledge in

Chiang Mai Municipal Building Law. Moreover, the perception of the streetscape scenes leads to specific distinctive heritage places. This part concludes the results from the sense attachment section to urban artifacts in the urban heritage area in terms of the tangible value.

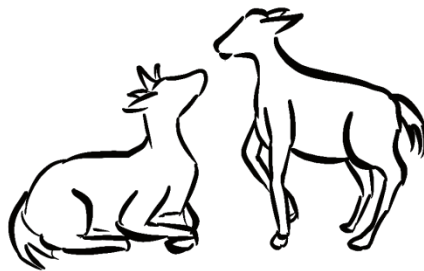
Chapter 6 presents intangible value, which is described through the distinctiveness of urban heritage aspects consisting of historical value, cultural activities, identity, landmarks, particular character, community, and everyday life. This part will identify the intangible value which impacts the social, cultural, and economic activities and life in Chiang Mai Old City.

Chapter 7 presents the contribution of the results in regard to urban heritage identity in both its tangible and intangible forms. Furthermore, it integrates further suggestions for the place and built environment to preserve and retain the environmental characteristics of Chiang Mai Old City, which affects urban heritage identity.

Chapter 8 Presents the conclusions of the research and the contributions of the study to urban heritage identity theory and practice. Recommendations for the significance of the identity of urban heritage practice are made with regards to urban identity for the selected context. Finally, there is a conclusion of the research, and suggestions for further research in the area.

Chapter 2

The Uniqueness of Chiang Mai Old City, Thailand



Seven Auspicious Factors of the abundant land

*Two white deer, a doe and her fawn lived in this auspicious area and
local people worship them*

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

Chapter 2

The Uniqueness of Chiang Mai Old City, Thailand

2.1 Introduction

This chapter provides general information about Chiang Mai Old City and the uniqueness of its urban planning ideologies. It continues with a discussion of the diversity of belief in the city's urban planning, which reflects the city's urban transformation and distinctiveness. Moreover, this section describes Chiang Mai Old City's current situation in the stage of the "tentative list" of the UNESCO World Heritage Site. The uniqueness of this living heritage city challenges researchers and local people to explore and define the city's multiple values. Some fundamental aspects of the city will be addressed in this chapter including the analysis of the Chiang Mai Municipal Building Law.

This chapter is divided into six sections. The first part highlights the importance of Chiang Mai Old City (Lanna Kingdom). This is followed by Chiang Mai's position in the tentative list of UNESCO and awareness after the nomination process. The third part explains the diversity of belief in Chiang Mai Old City urban planning, urban transformation and describes the failings of the Chiang Mai Municipal Building Law. The fourth part explains the relationship of fundamental aspects to the city: social; cultural; beliefs; economic; and life. The fifth part describes the land use in the inner city, whilst the final section provides the conclusions of the chapter.

2.2 Lanna Kingdom: *The History and Importance of Chiang Mai Old City, Thailand*

Figure 2-01 illustrates the location of Thailand in Southeast Asia. In between the 18th century - 20th century, Thailand or Siam ruled its neighbouring countries from a central point. The Lanna Kingdom was one of the countries colonised by Siam and later became Chiang Mai province.



Figure 2-01: Former Lanna Kingdom area (Author)

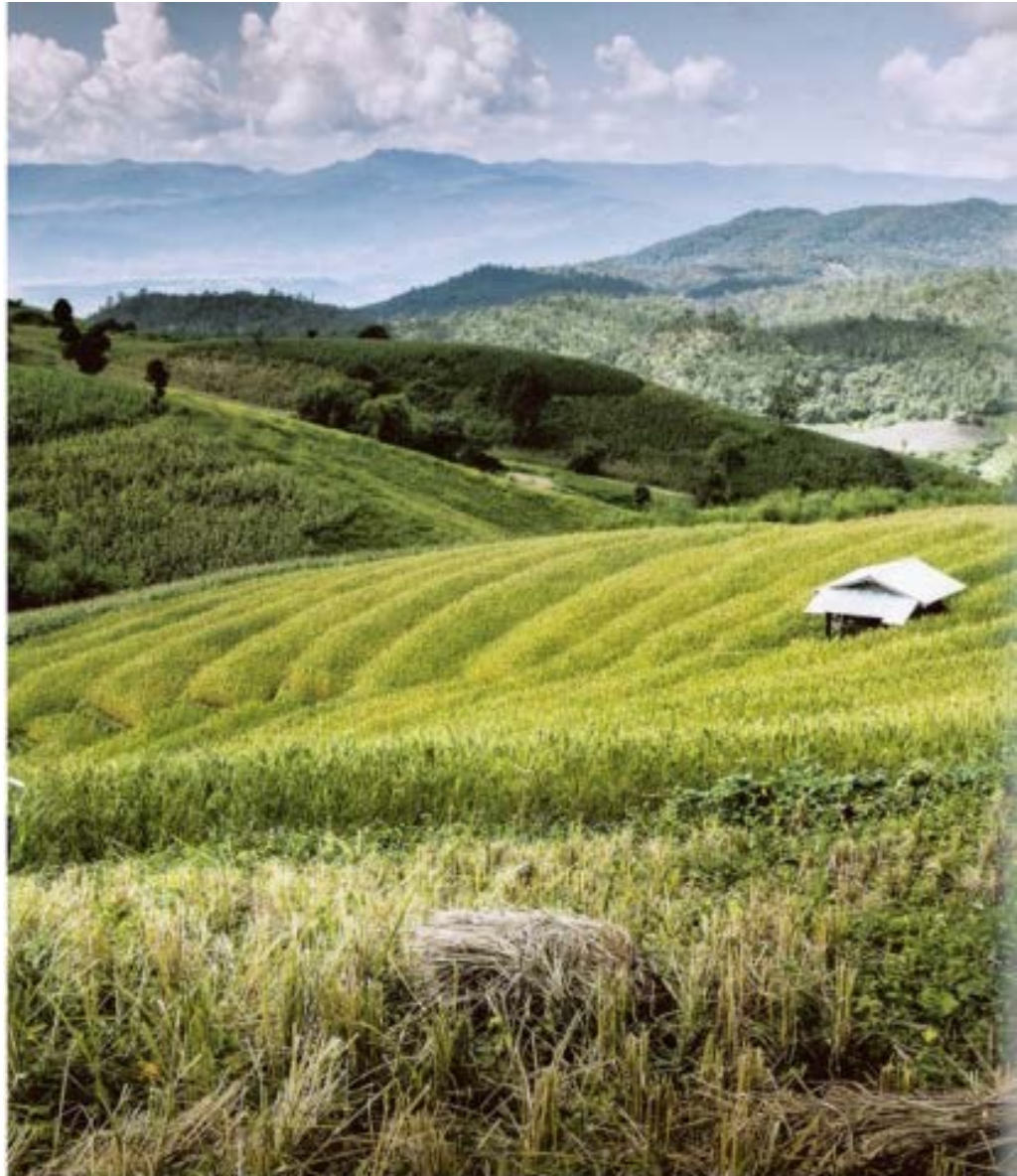


Figure 2-02: Lanna Kingdom means “the land of a million rice fields.” (Sthapitanonda, 2016: p.41)

Before becoming Chiang Mai province, the important city of Northern Thailand, it was the capital city of a kingdom called “*Lanna*” (Figure 2-03), which means “a million rice fields” (Figure 2-02) with its capital city “Chiang Mai” which means “New City” (*Chiang* = City, *Mai* = New). The city’s urban infrastructure integrated a unique hydrological system of water which allowed seasonal adjustment of the water resources to ensure the city could

function as a year-round port and centre of commerce and habitation (Ongsakul et. al, 2005; Satsue, 2020).

Figure 2-05 describes the timeline of the Lanna Kingdom. *King Mangrai* was the first ruler who established Chiang Mai along with advice from *King Ramkunhang* of Sukothai and *King Ngummueang* of Phayao. *King Mangrai* established the ideal of a “new city” as an innovative city that combined social configuration, comprising administrators, technocrats, artisans, and labourers sourced from all parts of the Lanna confederacy. The king made the city a unique base of urban social engineering, and ritual practices which integrated sacrificial propitiation of ancient local spirits of the mountains with newer Buddhist merit-making practices whose purpose was to ensure peace, prosperity and to empower the spirits of the city. The rituals, traditions and unique culture are reinforced through year-round public celebrations comprising of a festival calendar of parades, pilgrimages, and mass initiations participated in with intensity by all members of this diverse urban community (Ongsakul et. al, 2005; Sthapitanonda, 2016).

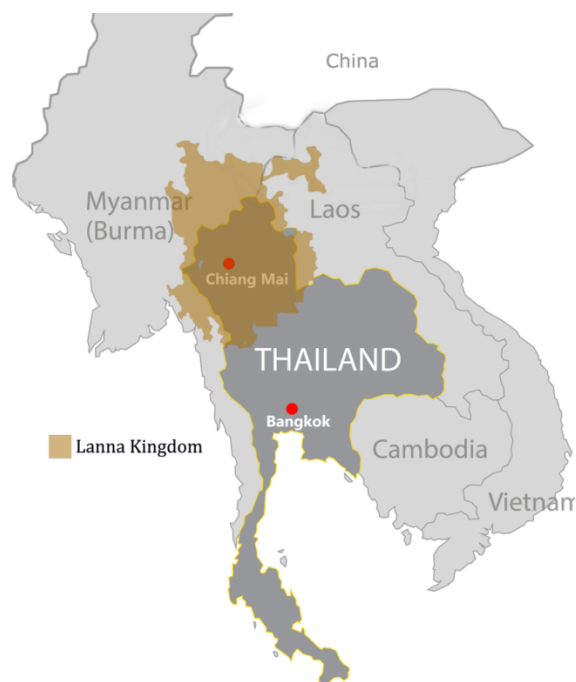


Figure 2-03: Lanna Kingdom area (Authour)

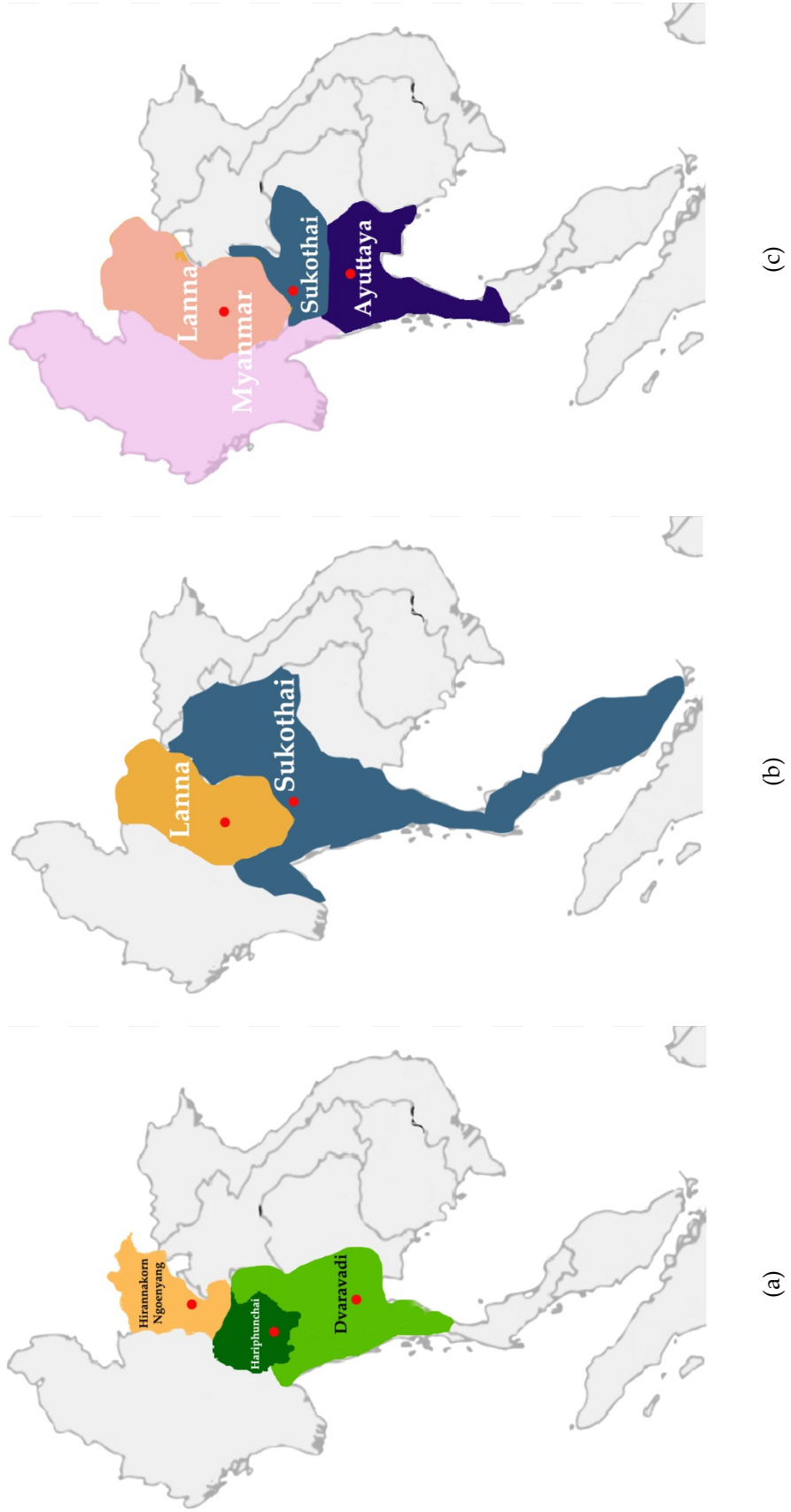


Figure 2-04: (a) The first era of Lanna called 'Hariphunchai' in Daravadi era (b) Combination of 'Hirannakorn Ngoenyang' and 'Hariphunchai' in Sukothai era (Author) (c) Lanna occupied by Myanmar in Ayutthaya era (Author)

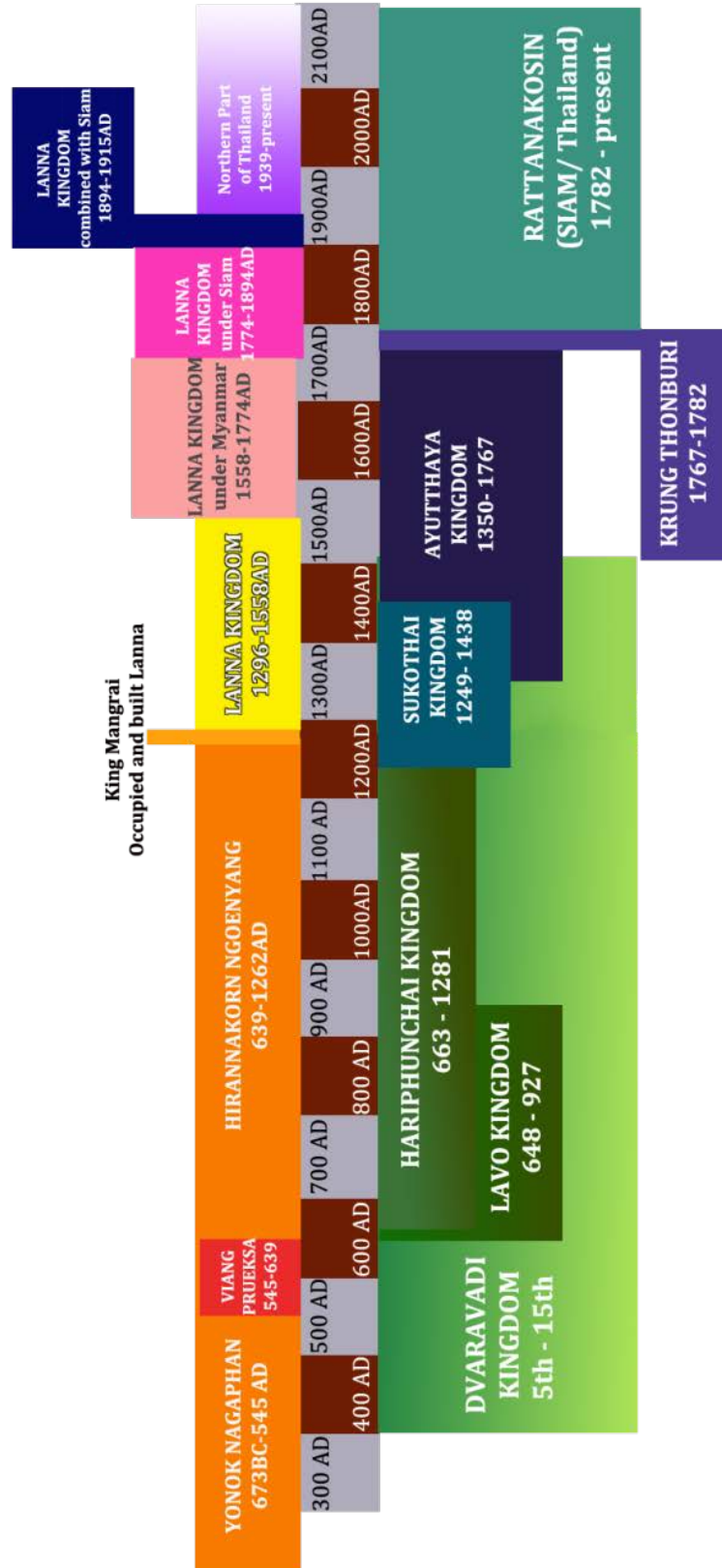


Figure 2-05: Timeline of Lanna Kingdom compared with Siam or Thailand (Author) (modified from Sthapitanonda, 2016; p.31)

The emergence of a new kingdom named “Lanna” began in the 13th century. Chiang Mai was capital of the Lanna Kingdom, and had a rectangular shape of 1.6 kilometres by 1.5 kilometres (Figure 2-05) with a total area of 2.72 square kilometres. The city has five gates (orange dots in the map 2-05), demonstrating its hierarchical order and including four important forts (green dots in the map 2-05) along the city wall. The city also has a free form second city wall (black line in the map 2-05), which was built before King Mungrai moved from “Wieng Kum Kam” to the city on April 12, 1296.



Figure 2-06: The urban planning of Chiang Mai, Thailand and the boundary of the Old City following the Chiang Mai municipal law from the Conservation of Natural and Cultural Environment Centre (In Thai)

The city was located between the Kok and Ping River valleys. This location empowered the city and was suitable for commercial trade to the south (Siam) and the north (Yunnan, Chiang Saen) (Ongsakul et.al, 2005 and Penth, 2004). The Ping River, Mae Kha Canal and water from “Doi Suthep” Mountain are the main sources of well-watered agricultural plain on the banks of the Ping, nestled in a protective ring of heavily forested mountains. It is located at the auspicious eastern foot of the sacred mountain, “Doi Suthep” with its many ancient spirit shrines and a regionally revered Buddhist reliquary stupa. The town was protected geographically and guarded spiritually by this holy mountain. The establishment of Chiang Mai brought the new era of Tai Yuan people according to the new political, economic, social, and cultural context. These functions became an essential feature of the kingdom's headquarters (Ongsakul et.al, 2005; Penth, 2004; and Johnson, 2011). However, the Lanna Kingdom's emergence heralded many social and cultural changes. The blending of several ethnic groups would lead to a new, relatively unified culture. Ongsakul, et.al (2005) also mentioned that the *Hariphunchai* (figure 2-04 (a)) the first kingdom of Lanna and the former name of Lamphun province), influences were significant from the beginning. This was especially so in relation to the idea of establishing a permanent capital city of the same name for almost five hundred years before combined with Hirannakorn Ngoenyang area (figure 2-04 (b)). Chiang Mai was a new city built on vacant land, unlike the previous centres' cities such as Hariphunchai (Lamphun), Khelang (Lampang), and Chiang Saen.

The city was established in 1296AD, before its loss of independence to Myanmar in 1558AD (figure 2-04 (c)). Myanmar ruled for more than 200 years and disseminated its own architectural styles and cultures. However, the Lanna people still maintained their beliefs and identity. A significant change occurred in the *Phaya Ja-Bann* and *Phar Jao Kawila* revolution in 1744AD with the first Chiang Mai ruler of the *Thippaya Chak* dynasty (Seven Royals

Dynasty). After the defeat of the Myanmar Kingdom, Chiang Mai became a vassal state of Siam (Thailand) under the intendency system and combined with Siam in 1894 AD (Ongsakul et.al, 2005; Penth, 2004). Meanwhile, Siam changed the ruling system from intendency to absolute state power and fell again until it emerged as a democratic monarchy in 1932AD (Satsue, 2018). Chiang Mai's city was integrated into a province of Thailand and the country's name was changed from "Siam" to "Thailand", which referred to a country with all 'Tai ethnics, independent, and glorious'.

The geography of Chiang Mai province covers both mountain and forest areas on the slopes of both sides of the Ping River. The area is divided into two types: the mountainous area which accounted for eighty percent of the overall area; and a source of water, streams, and has many types of forest. Chiang Mai has twenty-five National Reserved Forests, fourteen national parks, four wildlife sanctuaries, two forest parks, and one non-hunting area. The Chiang Mai landscape is surrounded by the Inthanon Mountains across the north-south on the west coast and the Khun Tan Mountain range passes in the north-south. On the east side, there is the important Ping River and two other large water sources, Mae Kuang Dam Udomthara at Doi Saket District and Mae Ngad Somboon Chon Dam at Mae Taeng District (figure 2-07).

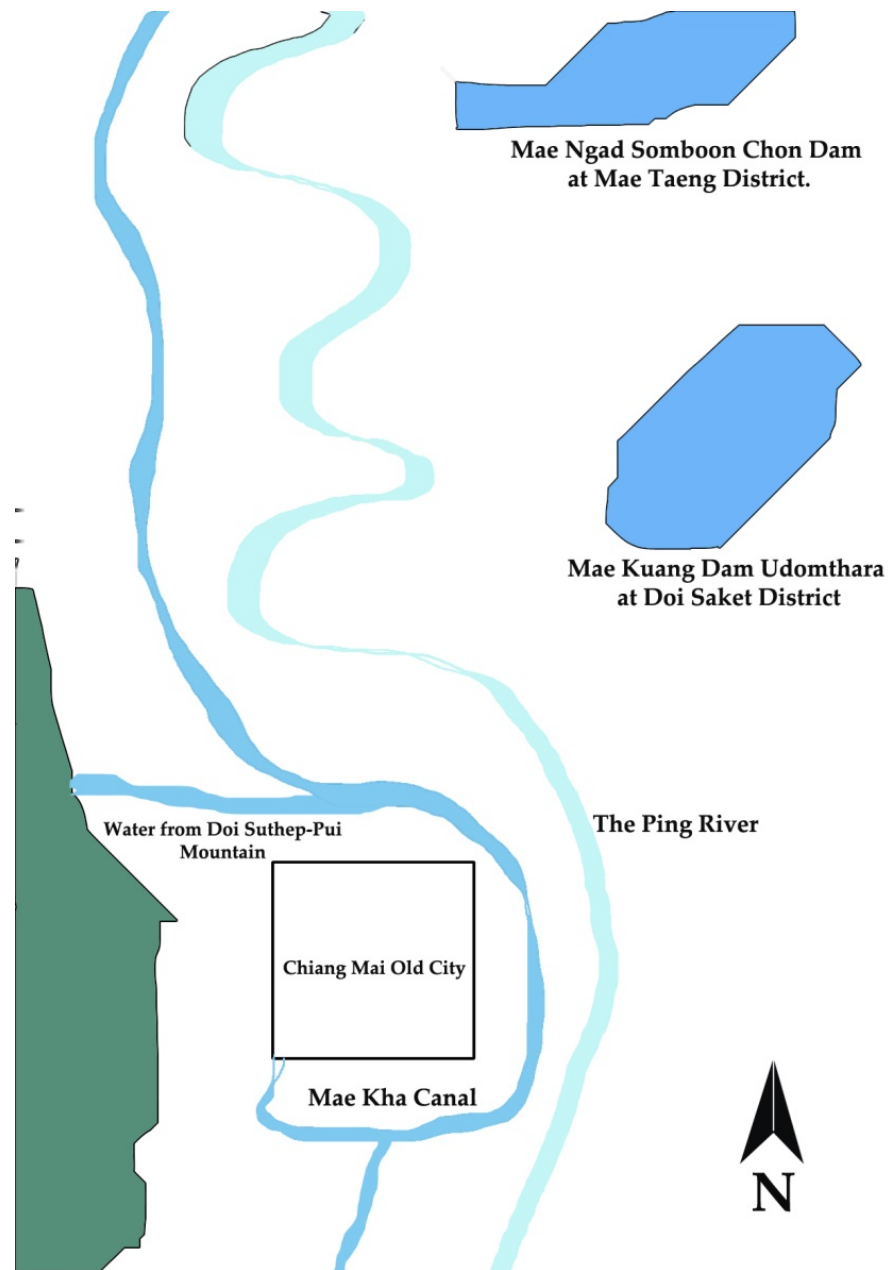


Figure 2-07: The water sources of Chiang Mai city (Author)

Chiang Mai Province (figure 2-08) is at the base of Chiang Mai-Lamphun slope of Thailand at a latitude of 16 degrees north, longitude 99 degrees east, and covers a total area of 20,107 square kilometres. The city's size is second to Bangkok and is about 696 kilometers from Bangkok. Chiang Mai has three seasons: summer; rainy; and winter with an average temperature of 25.1 degrees and an average rainfall of 1,108 millimeters.



Figure 2-08: Chiang Mai Province (Modified by author)

2.3 The Diversity of Belief in Chiang Mai Old Urban Planning

Generally, cities are formed by human settlement, arising from planning and design by powerful and influential people or groups. This often reflects the ideal city image of the ruler or initial group who inhabited a city (Smith, 2006). An ideal city is a concept of the belief in building those cities. This section reviews the origin and development of Chiang Mai since its creation, which shows the beliefs present in constructing the city and the changing processes of each era. Environmental factors have also significantly influenced the change of urban morphology of the city. The city plan was also influenced by Sukhothai city through the rectangular geometry that had never been used before in the *Thaiyuan* tradition (Ongsakul et.al, 2005; Penth, 2004). What made Chiang Mai different from other contemporary cities was the determination of key areas and the zero milestones of the city, based upon the combination of beliefs of various ethnic groups including *Lua*, *Mon* (*Hariphunchai*), and *Tai*. To define the perimeter, the sacred belief of the *Lua* people about Inthakin Pillar was maintained (Ongsakul et.al, 2005 and Penth, 2004).

The designation of the area illustrates the integration of beliefs among the *Lua* people with the Buddhist concepts inherited from the *Mon* *Hariphunchai*, and the traditional perspective of the *Tai* ethnic group who linked divinity with nature. This diversity contributes to the uniqueness of tangible and intangible aspects of Chiang Mai and significantly influences other provinces in the Northern region compared to other parts of Thailand.

2.3.1 The Seven Auspicious Factors of the Abundant Land (Chai Mongkol Jed Prakran)

According to the Chiang Mai Chronicle, Chiang Mai is a unique creative accomplishment in urban planning that is displayed through its

authenticity. The founders had knowledge and experiences from founding and living in many cities in the past, resulting in *King Mangrai's* decision to choose the auspicious site of the new city for its sustainability and prosperity. Their knowledge was based on the concept of "*Chaiya Phum*" combined with astrology and Hindu-Buddhist cosmology. This concept of "*Chaiya Phum*" is recorded in many regional chronicles. (Penth, 2004; Ongsakul et.al, 2005).

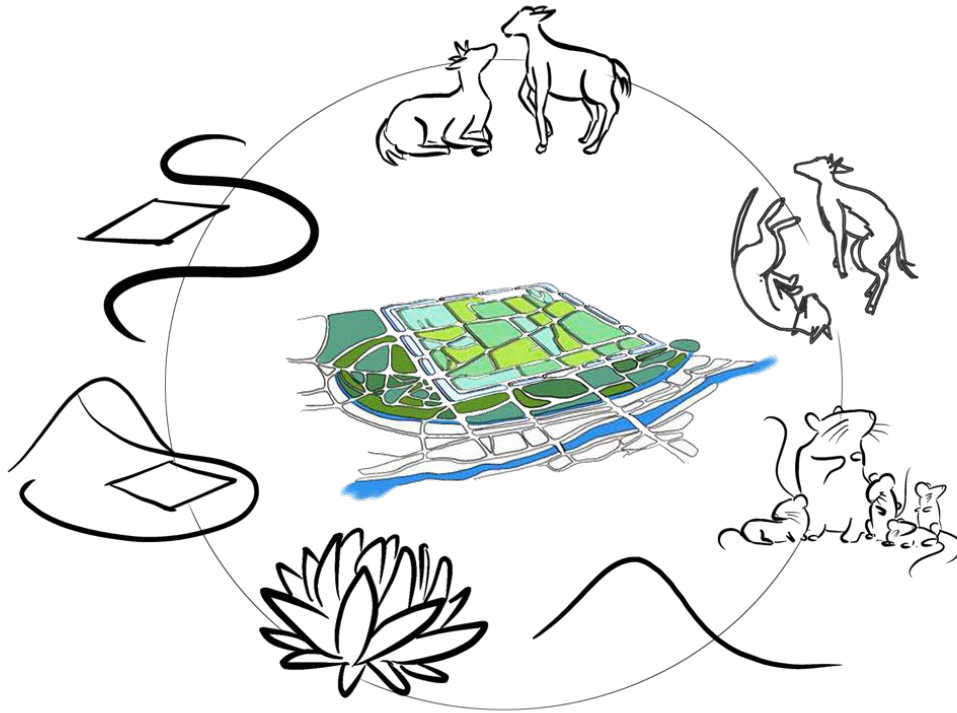


Figure 2-09: The Seven Auspicious Factors of the abundant land (Chai Mongkol Jed Prakran) (Modified from Ongsakul, 2005; and Penth, 2004 by Author)

The seven aspects of Chai Mongkol (Figure 2-09) are beliefs that appear in the first building of Chiang Mai that reflect the legitimacy of Chaiyaphum, the location of the city, born from the vision of *King Mangrai* according to the local legends of Chiang Mai. The essence of the seven aspects of Chai Mongkol demonstrates the suitability of the geographical location and its auspiciousness resulting from *King Mangrai's* selection of the city area. Ongsakul, et al (2005: p.61) outlines seven aspects:

1. Two white deer, a doe and her fawn lived in this auspicious area and local people worship them;
2. Two white barking deer, a doe and her fawn lived in this auspicious area and the hounds could not bite them;
3. A white rat with four attendants lived in this auspicious land;
4. The slope from the Doi Suthep Mountain started from the west towards the east. The perfect site followed Tai Yaun Knowledge for agricultures;
5. Mae Kha Steam flowed down from Doi Suthep mountain circled the town;
6. There is a large reservoir in the northeast of the land; and
7. Ping River in the east is suitable for commercialism.

The Seven Auspicious Factors of the abundant land (Chai Mongkol Jed Prakran) reflect the relationship between the human settlement and the geographical environment. Regarding the area's suitability for the water management system, there is a wide variety of natural water sources to support human consumption in response to fundamental human living factors. It also facilitates animal husbandry, agriculture, transport, and trade, demonstrating human wisdom in selecting a location that plays a part in defining the cultural landscape of Chiang Mai. It is considered that these natural elements are an integral part of the city that contribute to the defining identity and create a harmonious urban environment which forms the unique style of Chiang Mai (Penth, 2004; Ongsakul et. al, 2005).

2.3.2 Cosmology in Chiang Mai Urban Planning

Chiang Mai was established by the extraordinary concept called "*Chaiyaphum*" which is an auspicious characteristic for a settlement. Furthermore, the location of the settlement was based on Tai Yuan knowledge

of the environment (Penth, 2004; Ongsakul et. al, 2005). The city was built so that it “*turned its back to the hill and faced the water*” (Ongsakul et. al, 2005: p.61). According to this idea, the city is in the basin between Doi Suthep and the Ping River. The land was built upon after the fall of Mongol power and the death of Kublai Khan in 1294.

Firstly, the city plans consider the knowledge of astrology in accordance with the specifically planned hour, date, month, and year. *King Mangrai* built Chiang Mai according to cosmological principles which situated the city to be surrounded by satellite towns and likened to the centre of the universe (Penth, 2004; Ongsakul et. al, 2005). This concept was widely used to shape cities throughout Asia, and is from a cosmography called ‘*Traiphum*’, especially in Hindu-Buddhist religion. This concept originated in India before being spread in Asia through commercial trade. Each realm is divided by each sea, centralized by the highest mountain which is the Himalaya Mountain or ‘*Sumeru*’ represented as the centre. In the inner rim, there are seven continent circles divided by the sea, while the outer rim consists of four mountains in each corner representing four continents of the world realm, while beyond this mountain is the infinite sea. However, these extended four continents were added to by Buddhism to imitate philosophical elements to divide finite and infinite universes and importantly imply natural direction (Sodabunlu, 2003; Srinurak & Mishima 2017). Figure 2-10 illustrates, in line with the universe in cosmological concepts, how the Chedi Luang temple or “*Mount Meru*” was located in accordance with cosmological traditions in the centre of the town which represented the centre of the universe in belief, and it was also regarded as the city’s ‘spiritual centre’. Additionally, these cosmological ideas led to the surrounding site representing the eight planets in cosmological lore (Sodabunlu, 2003; Ongsakul et. al, 2005). Stemming from this cosmological idea, many sites in the centre of the city were considered powerful and sacred,

including the *Inthakhin City Pillar*, the *Yang tree*, Kumphon Asura and the palace which have help to build a sense of heritage for Chiang Mai Old City.

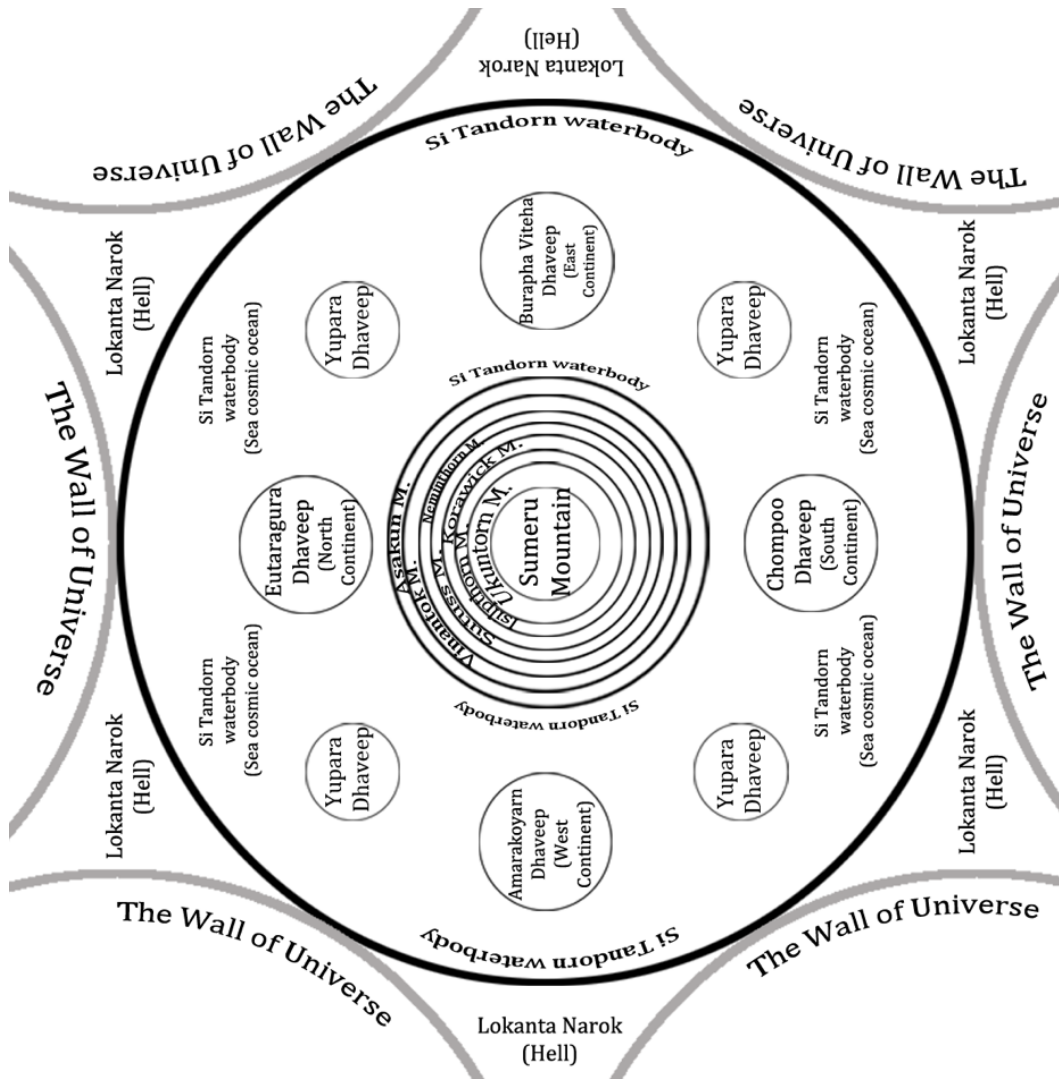
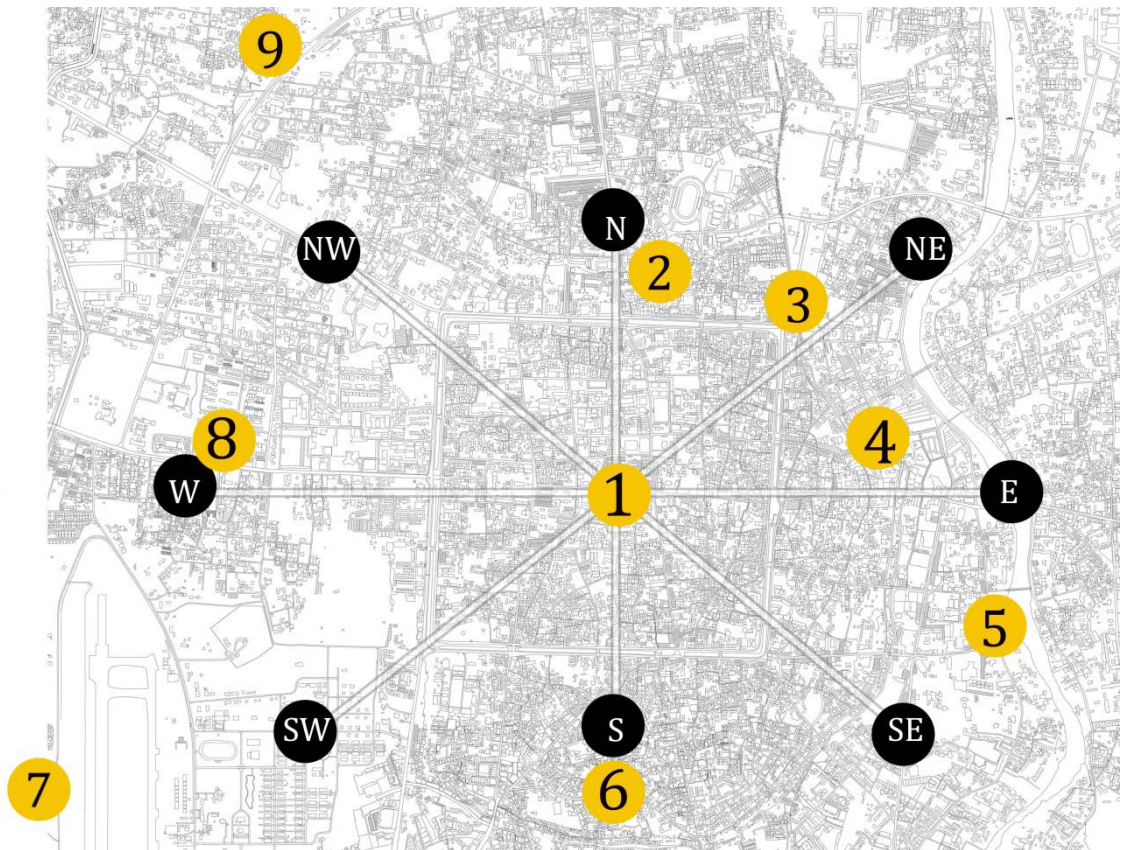


Figure 2-10: The simulation of the universe in Buddhist Belief (Modified: Sodabunlu, 2003: p.97)



1 – Chedi Luang temple (Centre of Universe) 2- Chiang Yeun temple (Eutaragura Dhaveep) 3- Chai Sri Phoom temple (Yupara Dhaveep) 4 – Bupparam temple (Burapha Vitcha Dhaveep) 5- Chaimongkol temple (Yupara Dhaveep) 6- Nantaram temple (Chompoo Dhaveep) 7- Tapodharam temple (Yupara Dhaveep) 8- Suan Dok temple (Amarakoyarn Dhaveep) 9- Jed Yod temple (Yupara Dhaveep)

Figure 2-11: The mapping of eight satellite Dhaveep on the significant temples around Chiang Mai Old City (Ongsakul, 2005 ; Sodabunla, 2003; and Satsue, 2018)



1 Chedi Luang temple
(Centre of Universe) (Author)



2-Chiang Yeun temple
(Eutaragura Dhaveep)

(available: <http://chiangmai.holidaythai.com/2015/03/wat-chiang-yeun-chiangmai.html> access: 10 October 2022)



3-Chai Sri Phoom temple
(Yupara Dhaveep) (Author)



4-Bupparam temple
(Burapha Vittha Dhaveep) (available:
<https://www.topchiangmai.com/trip/วัดบุพพาราม-ถนนท่าแพ/>
access: 10 October 2022)



5-Chaimongkol temple
(Yupara Dhaveep) (Author)



6-Nantaram temple
(Chompoo Dhaveep) (available: <https://temple-thai.com/wp-content/uploads/2020/08/wat-nantharam-chiang-mai-9.jpg> access: 10 October 2022)



7-Tapodharam temple
(Yupara Dhaveep) (available: https://e-service.dra.go.th/place_page/47244 access: 10
October 2022)



8- Suan Dok temple
(Amarakoyarn Dhaveep)
(available: https://www.paiduaykan.com/travel/วัดสวนดอก/dew_2063 access: 10 October 2022)



9- Jed Yod temple (Yupara Dhaveep) (Author)

Regarding cosmological principles, *King Mangrai* built Chiang Mai as a city surrounded by satellite towns and likened it to the centre of the universe (Figure 2-11). According to cosmological beliefs, the Chedi Luang Temple or '*Mount Meru*' is located in the city's centre, which is a metaphor for the 'centre of the universe'. It was also considered the spiritual centre of the city. It was surrounded by eight satellite temples similar to the eight planets in cosmological lore. Many other places were also considered powerful and sacred in the city's centre, including *the Inthakhin Pillar*, *the Yang tree*, *Kumphana Asura* (an ogre who was the city's protector), and the palace. These helped build a sense of heritage for Chiang Mai and gave it a much higher status than the satellite towns (Ongsakul, 2005 ; Sodabunla, 2003; and Satsue, 2018).

The centre of the universe concept is a belief in the same group as the Inthakin Pillar, which appeared in the ancestral spirit society until it was modified according to the influence of Theravada Buddhism in building a stupa instead. *Phra Sumeru Mountain*, which is the core of the universe, is represented in the creation of Phra That Chedi Luang (Chedi Luang Pagoda) in the centre of *Wiang* (city). This is empirical evidence of the prominence of this belief. This concept also appears to be linked with the "*Thaksa*" concept (Ongsakul, 2005; Sodabunla, 2003; Satsue, 2018).

2.3.3 Thaksa: The City is a Human Body

Cities are living things just like humans (Ongsakul, 2005; Sodabunla, 2003), this belief, is manifested in a city prolonging life ceremony (*Suep Chata Mueang*) (Figure 2-12, 13, 14). Normally, the “*Suep Chata*” ceremony is held to prolong the life of humans in Northern belief, however, this turned into a ritual for the city as well. The practice involves giving offerings to significant physical structures in Chiang Mai which are specifically linked to and embody the belief of Chiang Mai as a living city. This ritual is held in ten important places where the guardian spirits of the city reside: the four main historic corners of the city; the five-city gates; and the City’s central public space marked by the Three Kings Monument. (Chiang Mai Dossier, 2018)



Figure 2-12: A ceremony of city ritual worship or prolonging life ceremony in the past (Chiang Mai Heritage dossier, 2018: p.70)



Figure 2–13: An old lady still practicing the ritual in the present. (Chiang Mai Heritage dossier, 2018: p.70)



Figure 2–14: The ornaments in the ritual along the city gate and city moat (Chiang Mai Heritage dossier, 2018: p.70)

Moreover, there is another major town planning concept in Chiang Mai City urban planning. This reflects “Mahathaksa” calculations according to the astrological theories and as such, important temples are planned and constructed following the *Thaksa*. The concept of “Mahathaksa” (Figure 2-15), which was based on ancient Indian-based sciences, was also prevalent in Myanmar. This aforementioned concept had an influence on the designation of areas and locations of the city, and was related to the concept of the “Life Buildings” town planning in Chiang Mai. Chiang Mai is distinguished by its city plan concept of a living city (Ongsakul et al., 2005; Sodabunlu, 2003; Chiang Mai Dossier, 2018; and Satsue, 2018).

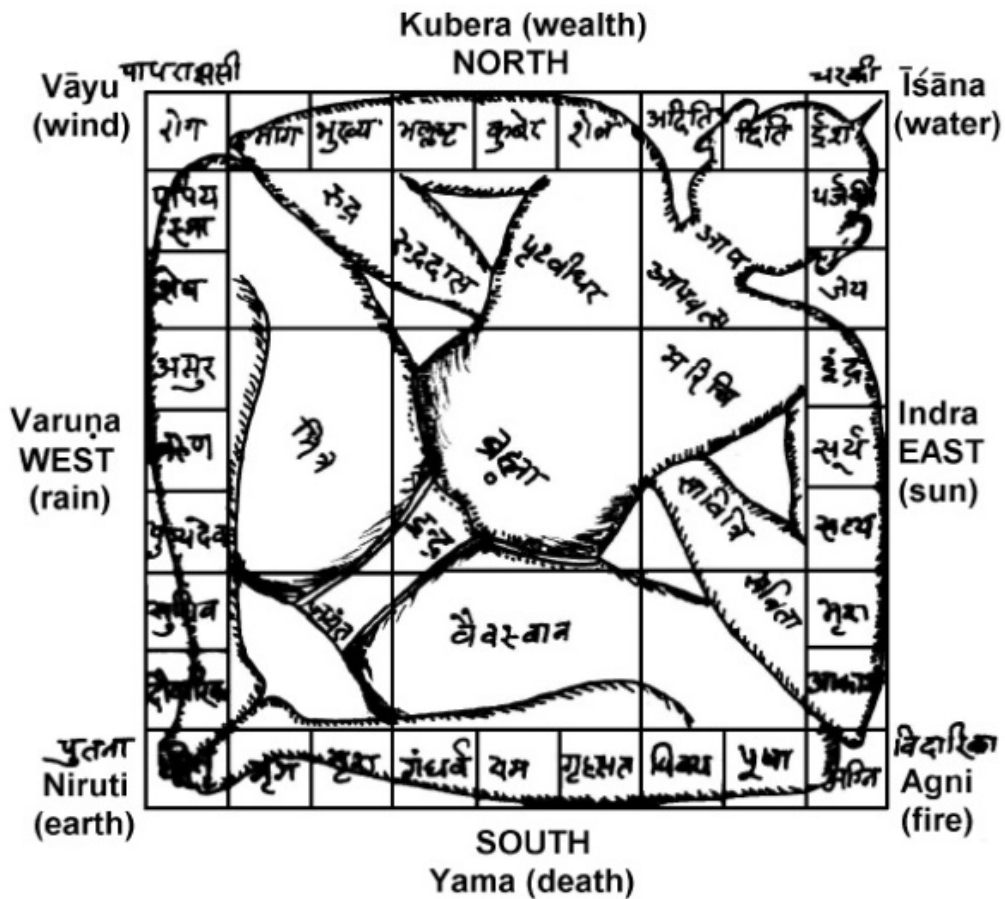


Figure 2 – 15: Vastu Purusha Mandala (The Temple as Human-body) (Singh, 1993: p.125)

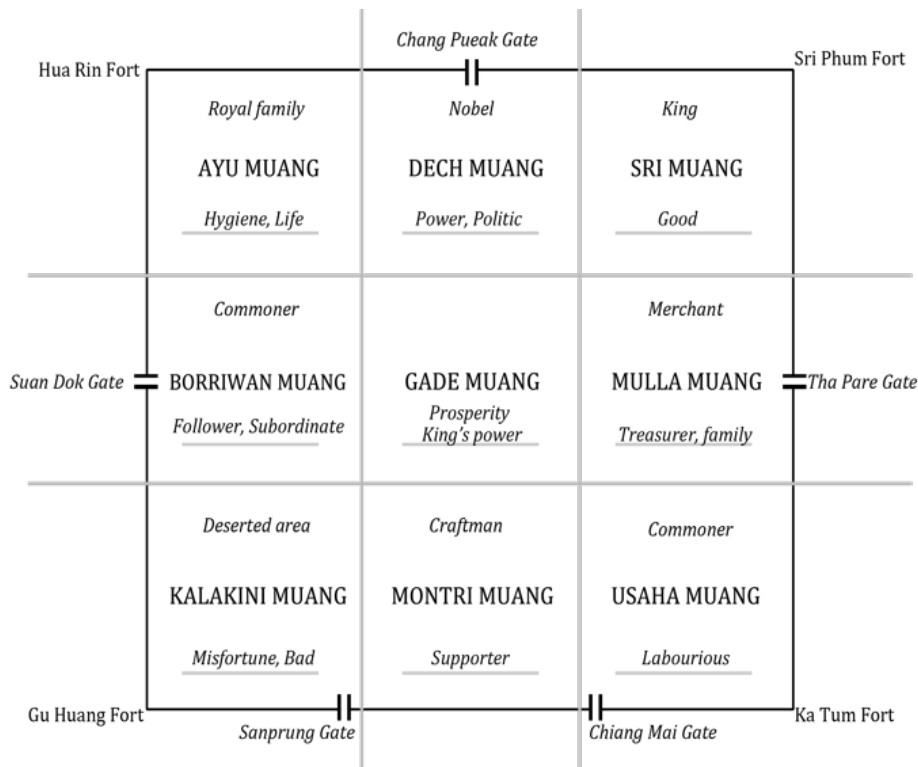


Figure 2 – 16: The simulation of Thaksa Astrology concept to the old city. (Satsue and Ongsavangchai, 2020: p.52 Modified by Author)

Figure 2-16 simulates the integration of the anatomy of the human body ideology into planning by dividing its key areas into “head, body, navel, and feet”. This belief was also combined with the Buddhist “perimeter of the universe” concept. Each part represented and functioned in different roles. However, the “*navel*” position was the core of the Lua, Mon, Burmese, and Tai beliefs. The hierarchy determines the land use of the city. The north or “*Hua Wiang*” covered the area attached to the centre towards the north, designated to be an administrative complex as well as a residence for the ruling elite and former rulers. The Lanna Kings would enter the city through “*Chang Pueak*” gate, and this gate was also used for coronation ceremonies, and inauspicious entrances through the gate would be forbidden (Ongsakul et,al, 2005).

Regarding the “*Thaksa*” concept, it is believed that the city's soul is in the centre which symbolizes the “*navel*” and is the location of the Inthakin Pillar. The significance of the Inthakin Pillar is marked “*Suea Muang*” (spirit of

the city). The eastern and western gates represented the arms. Most of the areas consisted of the residences of courtiers and government officers, and people with lower status. The feet of the city, or "*Teen Vieng*" was appointed as areas related to unfortunate things involving death, or a place for funeral processions, and evil things. Moreover, the path for the dead exited through San Prung gate and directly to Hai Ya gate behind the second city wall (Ongsakul et,al, 2005; Sodabunlu, 2003; Chiang Mai Dossier, 2018; and Satsue, 2018).

2.3.4 Lua belief: The hidden Natural protection logic

At first, King Mangrai invited King Ramkamhang and King Ngam Muang, who were friends and had an intimate relationship with the royal family, to consider the Doi Suthep Mountain and Ping River basin as a location for building Chiang Mai city. The "*Lua*" were the first indigenous group that lived in the area. King Mangrai moved into the area peacefully and showed respect to the indigenous group in order to live peacefully together. He also accepted the old beliefs of Lua that continue until the present time, including the Inthakhin city pillar and the ghost ceremony (city guardian ghost). Furthermore, Lua knowledge contained indigenous influences in town planning, including setting up a city and a kingdom. The relationship with the land's original inhabitants needs to be articulated with the Lua; the relationship was not one of conquest, but a passing of legitimate ownership from one group to another, with the new rulers standing for a more cultured, civilized society.

Sacred Mountain

Buddhist and Hindu religions devote much attention to the Sumeru Mountain, which is located in the centre of the universe. In the context of Chiang Mai, before King Mangrai ruled the country, the belief of the Lua

ethnic group was at *Buppara Nakorn*. The city settled in the foothills of Doi Suthep mountain, and the Ping River basin symbolised the bonding between mountain and ghost; "Doi Suthep is a holy mountain. It is the dwelling place of *Pu* (Grandfather) *Sae*, *Ya* (Grandmother) *Sae* Ancestral Ghost who protect the forest", which still appears in the Grandfather Sae Grandmother Sae Ghost Ritual (Johnson, 2010; Kumpha, 2012).



(a)



(b)

**Figure 2-17 : (a)The ritual of *Pusae Yasae*, has offer sacrifices as fresh blood, and buffalo flesh. (b) The facing between *Pu Sae Ghost* and the *Buddha*; the holy painting of Buddha was hanging on a tree with *PuSae* laid down below it. (Kumboonruang, 2017; source-
<https://www.chiangmainews.co.th/page/archives/602364/> access: 20 January 2021)**

Pu Sae and *Ya Sae* are the names of the ogres who are believed to be the ancestors of the Lua ethnic group and became the defenders of Chiang Mai city and the forest. The story stems from the legend of the Buddha, which is prevalent in the Lanna region, and the confrontation between the Buddha and *Pu Sae*, *Ya Sae* and his son, ferocious ogres. The Buddha defeated the ogres and asked the ogres to join Buddhism and take on the Five Buddhist Precepts. However, *Pu Sae* and *Ya Sae* were still ogres, and they asked the Buddha for permission to have buffalo meat instead of human flesh once a year. The ritual is called "*Liang Dong*" and occurs every year on the 14th lunar month of the ninth. The son ogre was ordained as a monk and after leaving the Buddhist

monkhood, he became a hermit called “*Suthep Hermit*” and moved to live at Doi Chang or Doi North, which was later named Doi Suthep, after him. Therefore, it is a tradition of “*Liang Dong*” in figure 2-17 illustrates the sacrifice to the two giants, which is still practiced today. The ritual includes the possession of the *Pu Sae* and *Ya Sae* spirits into a human body to fulfill the giants’ desires (Johnson, 2010; Kumpha, 2012).



Figure 2- 18: (a)The scandal Judicial Housing Project at the foothills of Suthep Mountain
Source: <https://www.komchadluek.net/news/local/324178> , 2018, accessed 10 April 2019
(b) The protest held at the issue area, a protester revealing the meaning of Suthep Mountain as “Spiritual of Chiang Mai”
source: <https://mgronline.com/politics/detail/961000042211> 2018, accessed 10 April 2019

Some articles have correlated this belief with scandal news in 2018 (see Figure 2-18 (b)). Figure 2-18 (a) shows the land which government approved for the construction of the Judicial Housing Project at the foothills of Doi Suthep, which was worth over one billion baht and was heavily criticized for its unsuitability. The buildings' construction will affect the forest area that was once fertile, cause ecosystem loss, and worsen the environmental situation (Thai PBS, 2018). In the article “*Worship Pu Sae Ya Sae: The Giants who protect Doi Suthep-Chiang Mai people pled to Pu Sae Ya Sae to punish the intruder on Judicial Housing Project area.*” (Thairath, 2018: p.1) the local people expressed that:

“Liang Dong Ritual is the belief of the Chiang Mai people. Especially the villagers in Mae Hia district. We still believe that the two giants remain in the forest and continue to perform miracles. Both Pu Sae and Ya Sae preserve the forest and provide fertility for both forests, Doi Kham and Doi Suthep, for seasonal rain. But if the intruders destroy the forest, they will be punished by the power of Pu Sae and Ya Sae. Some of them will die from a mysterious cause.” (Thairath, 2018: p.1)

Figure 2-18 (b) shows Chiang Mai people attempted to protest against this residential project, however, the plans remained unchanged as the government ignored the people's voices. Regarding the result, Chiang Mai people and Mae Hia district villagers enacted the “*Liang Dong*” ritual for *Pu Sae and Ya Sae*, the giants who protect Doi Suthep, and asked the spirit to protect the forest. This ritual is one way to oppose the government’s decision. However, this belief reflects the worldview of spiritualism, which is a belief reflected in political, spatial, and natural protection.

Sacred tree

The tree is a model of the cosmic system, the branches are the heavens, the lower branches or any branches which sprout from the ground is the human world, the root that penetrates underground is a metaphor for hell, and the trunk is the core of the universe that maintains these three worlds. The appearance of the tree covers all things in the world, as well as life and all forms of phenomena including the elements that make up the universe (Sodabunlu, 2003).



Figure 2-19 : The mapping of significant trees which relate to *Taksa* and cosmology ideology. (Author)

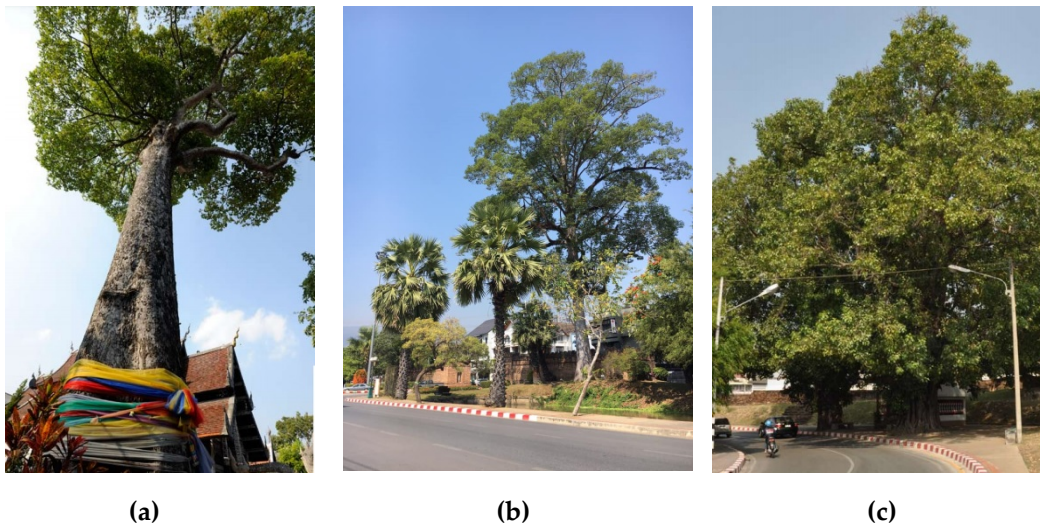


Figure 2- 20 : (a) The Yang tree at Inthakin Pillar house, Chedi Luang temple (Tharashine et,al, 2011: p.18) (b) The Yang tree and Palm trees at San Prung Gate (Author) (c) Bodhi tree and former location of Banyan tree both are significant urban artifacts related to the Buddha (Tharashine et,al 2011: p.23)

In the traditional style of India's sacred areas, in many religions, the area is always surrounded by walls or fences. The enlightenment of the Lord Buddha is related to the Bodhi tree and later the Bodhi tree became a sign of

enlightenment. Today the Bodhi tree is revered as a symbol of an important event in the victory of Buddha in the fight with evil. The Sacred Tree reflects the beliefs of the holy mountain in the worship of the *Lua* people. In Lanna culture, important trees are respected as depicted in legend and have various titles such as *Mai Si Mueang* or *Mai Ming Muang*. In local beliefs the sacred trees are the home of a ghost who protects the city. Regarding the selection of the Chiang Mai location of King Mangrai, the Nirot tree or banyan tree is part of the auspicious vision of the city which relates to the “*Thaksa*” concept. This relays that the Northeast is “*Sri Phum*” which means the good location of the king. These beliefs reflect local beliefs which are consistent with religious notions and Lanna culture (Sodabunlu, 2003).

All significant trees were planted for reasons relative to cosmology (Figure 2-19), belief, and religion. One of the special trees is the *Nirot* or banyan tree (figure 2-20 (c)) which has represents the “brain” of the city in “*Thaksa*” urban planning (Satsue & Ongsavangchai, 2020). However, the palm leaf (talipot) (figure 2-20 (b)) was also used for palm leaf manuscripts, and was used as the paper of the ancient world in parts of Asia to document significant historical events and religious occasions. Likewise, removing this tree and constructing the palace on its site caused Chiang Mai to become “a defiled place, as if the glory of the city had been sullied with urine and defecation. Harmful things befell the country, the ruling family, and all the high officials” (Wyatt & Aroonrat, 1998: p.99).

The symbol of Chiang Mai city is a large Yang tree (figure 2-20 (a)) which is found next to the Inthakin Pillar at Chedi Luang temple. The tree is between 200 - 218 years old and has a height of about 10.56 meters. The history of Wat Chedi Luang describes how this large Yang tree was planted in the reign of the first king of Thip Chak dynasty, King Kawila (1781 – 1815) assumed that it was planted for two periods. Firstly, it was planted on “*Mai Muang*” (Tree landmark) to celebrate the moving of the King from Wiang Pa

Sang to the city permanently in the year 1796. Secondly, it was planted as a pair with the “Inthakin Pillar” in the year that the Inthakin pillar was moved from the navel Muang temple to Chedi Luang temple in the year 1810 (Kulachatthanonda, 2020).

All sacred trees in the old city are symbolized by colored fabric to represent their identity of itself as sacred trees in the old city. It is a pearl of wisdom from the past to preserve the old trees from deforestation and shows the belief related to the city.

Inthakin Pillar



(a)



(b)

Figure 2-21: (a) The inthakin house with Yang tree (Author) (b) the Inthakin Pillar
source: [https://www.wikiwand.com/en/Inthakhin_\(pillar\)](https://www.wikiwand.com/en/Inthakhin_(pillar)) Access: 10 January 2021

The *Inthakin Pillar* which is a belief that appeared before the creation of Chiang Mai; it is a belief of the Lua ethnic group. Figure 2-21 (b) illustrates the pillar form which can be either a stone pillar, a wooden pillar, or a mountain that stands straight from the earth to the sky, showing the connection between earth and heaven. Moreover, the pillar gathered ancestral spirits to help

protect and encourage the fertility of the country. The establishment of Chiang Mai City was mentioned in the chronicle of the *Inthakin Pillar*; it began in heaven. The legends said while the universe was appearing from the ocean, *Naga* (the snake who is the patronage of water) slept and held the “*water of life*” for itself. Seeing this, Indra (the Almighty God of Sumeru Mountain) sent the mighty thunder to destroy the *Naga*. After its death, it released the water of life and created the universe. However, the mighty thunder turned into the “*Sun Pillar*” which holds and separates heaven and the human world. The sun pillar is referred to as a pin of the universe and represents “*Universal stability*”. According to this narrative, the *Inthakin pillar* was set up in the city's centre to reflect *stability, the rights, and the city's protection* (Sodabunlu, 2003). According to the legend of the festival, the *Lua* people who lived there believed that they received a pillar from the god “Indra” to protect them against disasters. (Ongsakul et,al, 2005; Sodabunlu, 2003; Johnson, 2010; and Satsue, 2018). The *Inthakin pillar* of Chiang Mai City was originally found at the area of the *Inthakin temple* (Three Kings Monument) before being moved to the area in front of *Chedi Luang Temple* (see figure 2-21 (a)).



(a)



(b)

Figure 2- 22: (a) The holy leaves and flowers from their house and neighborhood

(Author) (b) The worship ceremony held by day and night

source: <https://www.chiangmainews.co.th/page/archives/600396/> accessed: 20 October

2020

The Inthakin pillar worshipping ceremony or “*Sai Kun Dok*” (Figure 2-22 (a)) is performed at the end of the eighth month following the *lunar calendar*. On the day of the ceremony's commencement, people bring rice puffs, flowers, incense, candles, and local scented water “Kamin Som Poi” (*Acacia concinna with turmeric water*), which is put on a container to make worship. The ceremony is held for seven days at Chedi Luang Temple (Figure 2-22 (b)). The ceremony has become the identity of cultural and religious activities of Chiang Mai's Buddhists people.

2.4 Chiang Mai Old City: the Tentative List of World Heritage Site and the Next Challenge

The majority of the tentative list is part of the evidence for nomination on the World Heritage List, which is an inventory of properties that are considered as both intangible and tangible heritage. The Outstanding Value (OUV) on the World Heritage List contributes to a country's decision to submit for List in between the five to ten years of the nomination process. The country's tentative list position in between nominations will be not held to have the status of “*World Heritage*”. The list simply supports the value of the OUV to the considerations of the World Heritage Committee.

Figure 2-23 explains the processes to nominate a Heritage site which consists of five steps which consist of Tentative list, The Nomination File, The Advisory Bodies, The World Heritage Committee, and The Criteria for Selection (UNESCO, 2020).

Nomination process

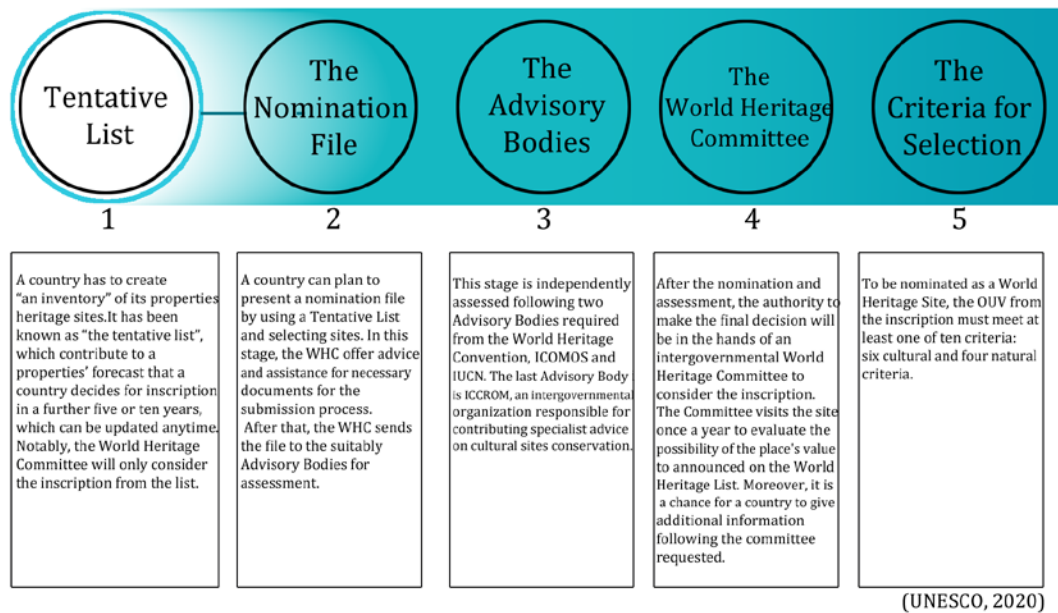
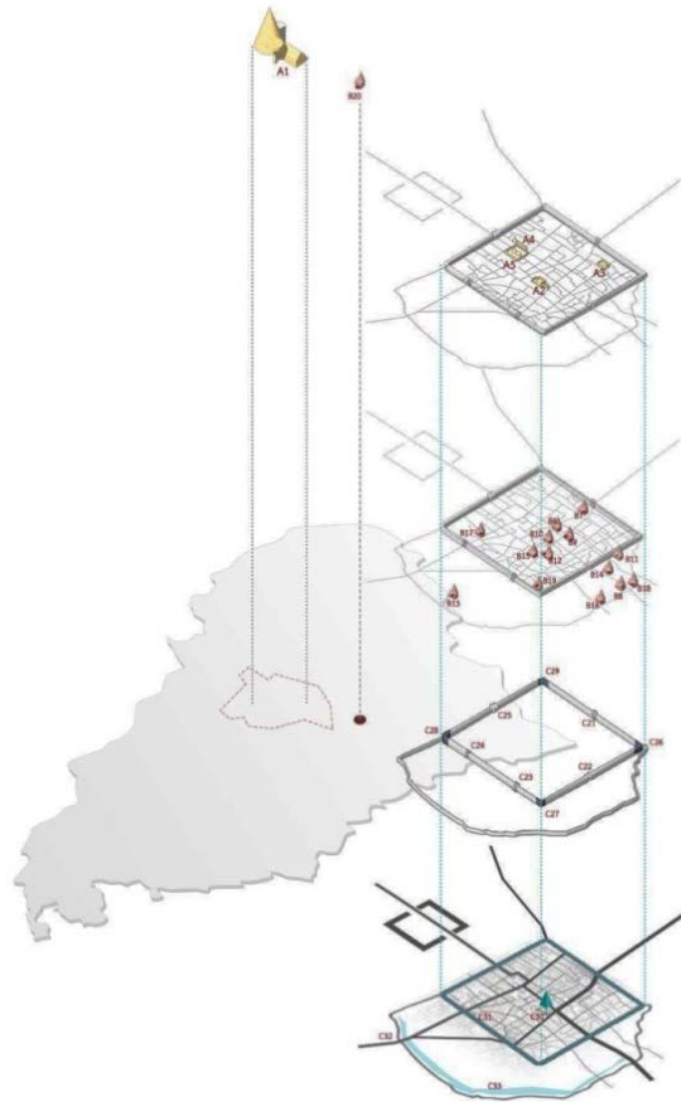


Figure 2- 23: The Nomination Process (Author) modified from UNESCO 2020 available:
<https://whc.unesco.org/en/nominations/> access: 20 February 2020

In 2015, The World Heritage Committee nominated Chiang Mai in the “Tentative List” (Figure 2-24). The nominated property contains thirty-three physical attributes of the nominated property's Outstanding Universal Value as defined by the three criteria under which it is nominated. The Chiang Mai Heritage team must confront the challenge to present the documents and explore the authenticity of the place in order to represent the genuine knowledge, culture, tradition, historic culture, landscape, and architecture of Lanna. The dossier on advisory body’s document contributes the distinctiveness of Chiang Mai Old City and identity of the city through the value of tangible and intangible aspects following historical documentary.

The area covered three parts of the city which is illustrated in figure 2-25. The journey to achieving World Heritage Site status is ongoing. In 2019, the Chiang Mai Heritage team added places to the inscription, however, this research was only concentrated on places within the Chiang Mai Old City boundary.



Attributes within the Property Boundary

A. Monument of Historical and Architecture Significance

1. Phar Tard Doi Suthep temple
2. Chedi Luang temple
3. Chiang Mun temple
4. Prasart temple
5. Phar Singha temple

C. Site of Distinctive Urban Planning and Morphology

21. Chang Pueak Gate
22. Tha Pare Gate
23. Chiang Mai Gate
24. San Prung Gate
25. Suan Dok Gate
26. Sri Phum Fort
27. Ga Tum Fort
28. Ku Huang Fort
29. Hua Rin Fort
30. Historic Yang Tree and Inthakin Pillar
31. Chiang Mai Old City Moat and wall
32. Second Old city wall
33. Mae Kha Canal

B. Group of Representative Lanna Religious Buildings

- | | |
|------------------------|------------------------|
| 6. Sa Due Muang temple | 13. Nantaram temple |
| 7. Hua Kuang temple | 14. Chetawan temple |
| 8. San Fang temple | 15. Chang Tam temple |
| 9. Duang Dee temple | 16. Chang Gong temple |
| 10. Pun Tow temple | 17. Pueak Hong temple |
| 11. Chompoo temple | 18. Bupparam temple |
| 12. Chetta temple | 19. Sai Moon temple |
| | 20. Wat Pha Rad temple |

Figure 2-24: - Diagram Showing the Layers of Attribute A, B, C (Modified: Chiang Mai Dossier, 2018: p.22)

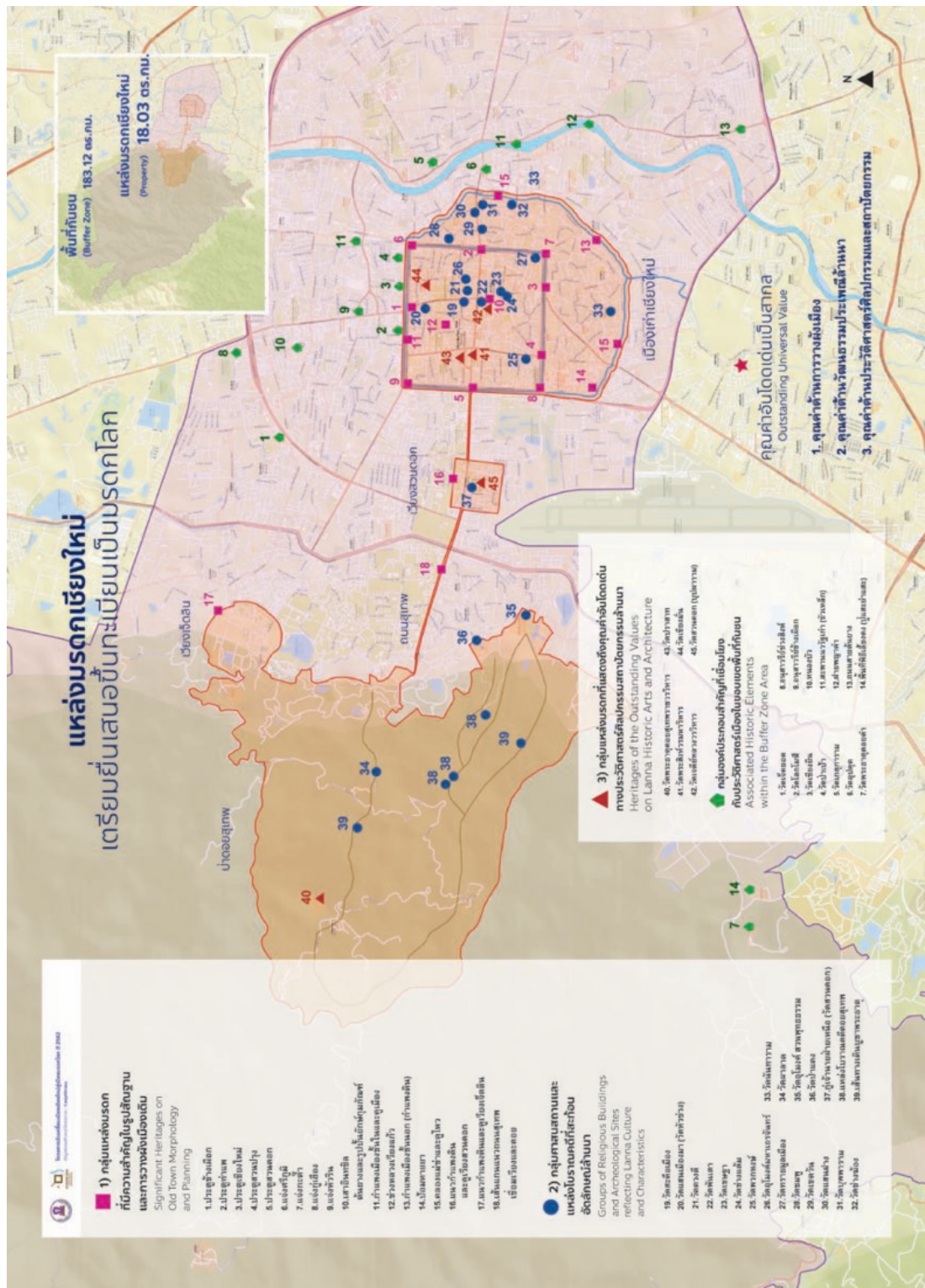


Figure 2-25: - Property Zone, Buffer Zone and Significant Heritage Sites in documents presented for nomination of Chiang Mai as a World Heritage (Available: <https://chiangmaiwoldheritage.org/my-chiangmai/progress-on-world-heritage-property-zone-designation-to-prepare-for-world-heritage-site-listing/> access: 10 November 2019)

2.4.1 Thirty-Three Nominated Sites: the Universal

Outstanding Value (OUV)

Regarding the inscription in 2015, the Chiang Mai Heritage team considered architecture and religious buildings (Figure 2-26). The physical attributes of Chiang Mai Old City affirm the values of Chiang Mai city in relation to urban planning, which expresses the town planning of Chiang Mai Historical City. This includes the city walls, fortifications, city gates, moats, temples, government buildings, and palaces. Most of the sites were selected for their relationship to the Mangrai Dynasty era. Most of the sites are Buddhist temples that represent the uniqueness of Lanna, and Buddhist architecture which reflects the beliefs and local faith of Buddhism. In the past, the temple had been used as a place for knowledge contribution for the people in communities. Temples in the first era were built following the king's command and for the elite to maintain their dignity and glory in providing places as valuable spaces for community, and to make Buddhist merit. The connection between the temples and people maintained a social relationship and created a 'faith network' across generations.

The Chiang Mai city moat protected the city from enemies and provided a path for water irrigation from the Suthep Mountain through the "Huay Kaew" canal. The city walls were built under King Mangrai and were restored twice during the reign of King Kawila and Thamma Lanka. Chiang Mai Old City's forts were constructed with a brick foundation of a circle shape connecting to the city wall; the purpose of the forts was mainly for observation towers. According to historical records, the city gates had double gates with bulbs, and all five gates were built differently according to their hierarchical status (Chiang Mai Dossier, 2018).

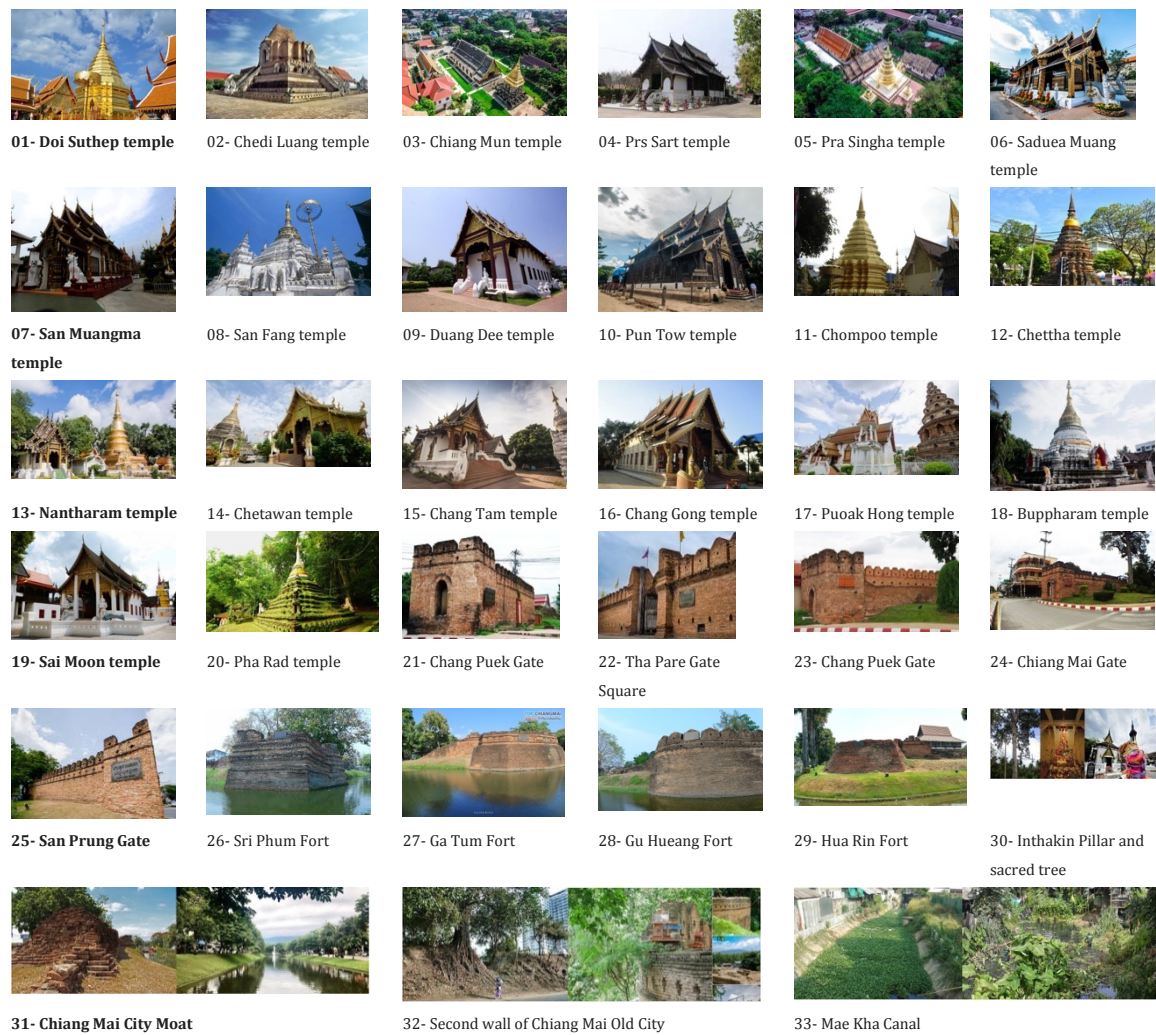


Figure 2-26: Attributes within the Property Boundary (Chiang Mai Dossier, 2018: p.22-27)

2.4.2 The Shophouses and their impact on urban heritage characteristics

The built environment plays a significant role in shaping the city. In becoming a new world heritage site, the understanding of local communities as to physical uniqueness is crucial for further plans to characterize the city. Firstly, this study approaches the perception of four-hundred local participants as to the current façade designs. In this research, the sample of shophouse pictures has been chosen from the research study of *'The perception of the Vernacular Characteristics on shophouses in Chiang Mai Old City, Thailand (Romcai, 2007).'*

In the 1800s, shophouses were not a traditional building typology in Thailand (as mentioned in chapter 1.1.2) and the typical usage of shophouse's related to commercial uses and the emergence of market streets. In the Northern part, people usually gathered in the urban space called 'Kad' (meaning 'market') for commercial purposes instead of a building with merchandising space. Furthermore, streets solely appeared for transportation from place to place and were not designed for commercial purposes compared to the function of streets in Europe.

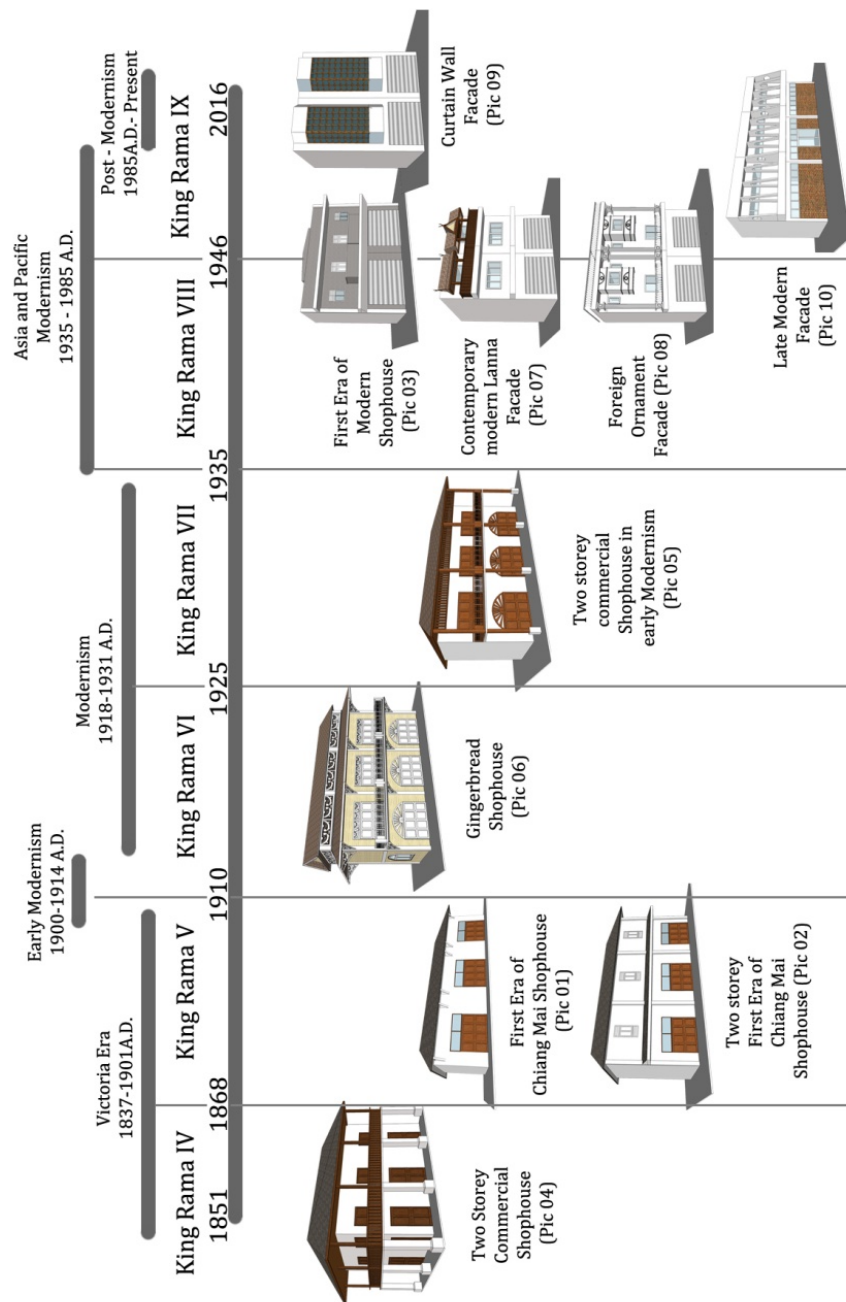


Figure 2-27: Timeline of Shophouse at Chiang Mai (Author)



Figure 2-28: (a) The evolution from Ruen Pare house (Floating house) 1850 A.D.

<https://www.facebook.com/Oldsiam/posts/545596185567953> access: 20 November 2019 **(b)**

Huan Pare shophouse was developed from Ruen Pare (Chiang Mai University Library, 2019)

Figure 2-27 depicts the timeline of Chiang Mai's shophouses according to Romcai (2007) who describes the history of the shophouse in Chiang Mai as emerging during the reign of King Rama IV in 1851AD. Furthermore, the two-floor commercial shophouse was developed from "Huan Pare"(Figure 2-28 (a, b), a floating house or a one-storey building that changed from floating in a river to moving to a significant road in Chiang Mai Old City. The building styles are not typical of Lanna's traditional vernacular architecture. The buildings' form was influenced by and passed down from the central region of Thailand, which in turn was influenced by Penang, Malaysia, and Singapore (Manila Style). Moreover, they were affected by the change of the political system from self-ruled and regional to a central power with a royal representative witness. It may also have occurred during the construction of the northern railway.



Figure 2-29: The Chinese and western style appears in Shophouses's facade (Author)

Figure 2-29 illustrates the first stylistic era of the Chiang Mai commercial shophouse which was influenced by commercial buildings in Bangkok. During the reign of King Rama V in 1868, the precedent was Singapore city buildings, with further characterisation by Chinese and Western influences. This had been transmitted to Chiang Mai since the end of King Rama V's reign in 1910, with the Northern railway connecting to Bangkok. These early shophouses consisted of both one-storey and two-storey buildings. The main feature was the construction of a "tenement", that is, the construction of a long line and the sharing of the walls of the booths close together in the first phase, and the load-bearing wall structure was used in this style. The wall was used to divide each building and was later changed into a reinforced concrete structure, with a mezzanine on the second floor of the building. There were also three-storey buildings with a high gable roof as well as a residential roof in that era.



Figure 2-30: The gingerbread house in Chiang Mai Old City (Author)

The gingerbread house is an extravagant house design that follows the architecture of Queen Victoria in England in the 19th century until the reign of King Rama VII in 1925. Gingerbread houses in Chiang Mai were influenced by Bangkok and received a part of their modelling from Myanmar that was in turn influenced by the Victorian style. The house model came from a British trading company that worked in forestry in Burma and expanded their business to Lanna and Burma. It was lived in by both merchants and those who came to the forest with British companies. These Burmese people were skilled at woodcarving and the Lanna houses, including those in Chiang Mai, mainly consisted of carved wood patterns.



Figure 2-31: Early Modernist commercial shophouse (Author)

Early Modernist two-storey commercial shophouses have an overall appearance similar to the two-storey shop house and the gingerbread house. The building's space is divided into two functions: the lower part for business operations; and the upper part for residency. These buildings mostly use a gable or hip roof style. It was influenced by modern styles, which carry a simple look as the decorations are reduced, which was consistent with the economic downturn at the beginning of King Rama VII's reign in 1925. The first modern shophouses were built during the modern period in the reign of King Rama VIII in 1935 and King Rama IX in 1946. The style of buildings between Bangkok and Chiang Mai do not differ much due to the more convenient transportation methods of both train lines and cars. This two-storey shophouse began in the modern era with a straightforward appearance and modern architectural influences. The building style utilized reinforced concrete structures, and the roof could be changed into a shed (lean-to) or a roof deck hidden by a roof panel (parapet).



(a)



(b)

Figure 2-32: (a) Ka Lae decoration on the traditional Lanna house façade, Pra Thum Nak Doi Tung, Chiang Rai (Doi Tung Palace) (Author) (b) Three storey shophouse with Kalae decoration at Chiang Mai Old City (Author)

The contemporary modern Lanna shophouses emphasized Thai-Lanna characteristics on the shophouse facades. Likewise, the Chiang Mai Municipal Building Law has rejected other styles of construction or the modification of buildings in the Old City area. It states that they must display the Lanna Thai style or a native Northern regional style by showcasing northern indigenous characteristics such as *Galae* (decoration on the roof) (Figure 2-32 (a, b)) or *the Jonk* to decorate the building, etc., to promote Northern art and architectural values. *Galae* is the name of the ornamental woodcarvings on a traditional Lanna house, which were transformed to be used on shophouses. It is a key symbol of Lanna architecture. There is now a different pattern on the carvings, as evidenced from agricultural society in the past and Myanmar's colonisation of the Lanna Kingdom. They used to reflect the individual finances of residents, but currently, this has changed to meet the building law criteria.



Figure 2-33: The contemporary modern Lanna Shophouse (Author)

The ornamental shophouse copied foreign architectural styles such as Gothic, Roman, Chino-Portuguese, etc., but the styles used do not follow these specific architectural patterns. Some ornaments are used, for example, to add a column-style to the building. The most popular ornament is the Roman pattern with reinforced concrete construction. It has general characteristics similar to a modern building that represents explicitly foreign architecture on the façade. However, the diversity of this design still question the appropriateness of the appearance on Chiang Mai conservation area.



Figure 2-34: The curtain wall shophouse in Chiang Mai Old City (Author)

The curtain wall shophouse has a straightforward pattern due to the use of modern industrial products and materials. In particular, the use of glass walls in the curtain wall in the high-altitude structure has influenced the modern shophouse. It adopts glass and panelling materials for exterior cladding, making the shophouses appear to be tall buildings that use glass walls as the building surface. Bangkok directly influenced the adoption of this modern architectural style in Chiang Mai. Commercial buildings with reinforced concrete structures were widespread in the reign of King Rama IX (1946). There are two or more floors in height, and the overall appearance of the building is simple without decoration. However, the last building style in Chiang Mai Old City is the Modern style with sun shading, which evolved from Brutalism. The main feature of this style is the use of reinforced concrete panels on the construction, which helps to prevent direct sunlight entering the buildings.

These façade designs can help to describe the evolution of the society and history of the city, which is related to economic, political, and cultural

developments. However, the issue of discontinuous shophouse design in the Chiang Mai conservation area performs the unmanaged local municipal building law and the creation of the identity of the city through religious-traditional buildings, which is a vital component of the built environment of a historical city to perceive the identity of the city.



Figure 2-35: Shophouse façade images have been chosen from the master degree thesis title *'The perception of the Vernacular Characteristic on shophouses in Chiang Mai Old City, Thailand'* (Romcai, 2007) to use as a part of this study. The initial resources have been simulated into 3D sample pictures.

2.4.3 Chiang Mai Municipal Building Law

According to this research, objectives lead to the development of characteristic management, and local people's understanding of Chiang Mai Municipal Building Law is essential to this topic to convey holistic community knowledge. Chiang Mai Municipal Building Law for the conservation area was announced by Chiang Mai Municipality in 2020 (Chiang Mai Municipality, 2022). There are ten sections related to shophouse design consisting of: Building Height; Building Shape; Roof Style; Roof Colour; Building Colour; Tile Colour; Fence Height; Fence Colour; Fence Transparency; and Commercial Sign. The details of ten sections are described below:

1. Building Height – A building height is limited to not higher than 12 meters by measuring from ground level to the highest height of a wall (not including roof height).

2. Building Shape – A building must not have a different solid shape from a rectangular form, and the council does not allow a building with a triangle form, a sphere form, or a free form.

3. Roof Style– A roof of a building must not use other roof styles except a gable roof, a hipped roof, and a gable roof mixed with hipped. (Table 3-1)

4. Roof Colour – A building must use a material with specific colours consisting of maroon, brown, reddish-brown, orange-brown, grey, and the material itself.

5. Building Colour – A building must use specific colours on the building's exterior, consisting of brown, cream, ivory white, white, and colour of the material itself.

6. Tile Colour – A tile colour must use specific colours consisting of brown, cream, ivory white, white and colour of the material itself.

7. Fence Height – A height of a fence limited to not higher than 3 meters by measure from ground level to the highest height of a wall. Suppose an owner would like to build a fence higher than 3 meters.

8. Fence Colour – A fence must use specific colours on the building's exterior, consisting of brown, cream, ivory white, white, and the colour of the material itself.

9. Fence Transparency – The transparency of a fence must not be more than 30 per cent.

10. Commercial Sign (Table 2-02)

1. A commercial sign installed on the building must not block vents, doors, windows and fire exits.

2. A commercial sign installed on the roof or deck must not go beyond the edge of the building. The height of a sign must not be over 6 meters.

3. A commercial sign installed from the building must not extend beyond the awning. The signboard must not exceed 60 centimeters in height, and the total area must not exceed 2 square meters.

4. A commercial sign must be installed above the awning and not over from the building edge. The signboard must not exceed 60 centimeters in height, and the total area must not exceed 2 square meters.

5. A commercial sign installed under the awning shall be installed on the building surface and it must be at least 2.50 m from the pavement.

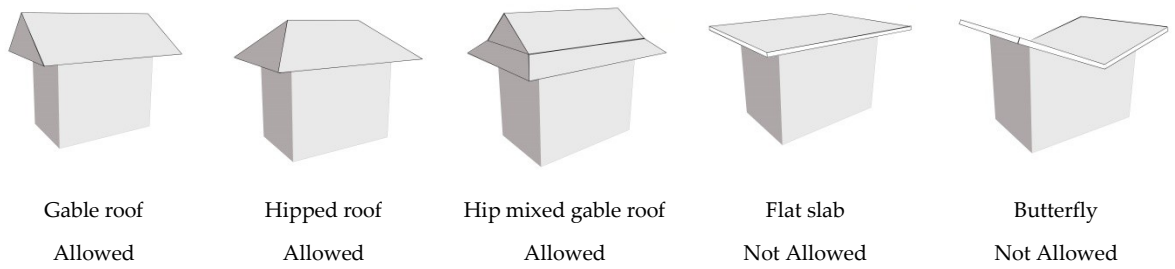


Table 2-01 : The simulation of roof styles allowance in Chiang Mai Municipal building Law
(Author)



Table 2-02 : The simulation of commercial signs allowance in Chiang Mai Municipal building Law
(Author)

As mentioned in Chapter 1.2, Chiang Mai Old City is facing a loss of identity; moreover, the disharmony of visualization in the old city has provoked a negative perception of the city. It is therefore important to understand how local residents participate in and recognize the details of the Law, which reflect the characteristics of the historical city's built environment. Furthermore, this understanding would lead to proposing further characteristics and management strategies and amendments to the current municipal building law for the city.

2.4.4 Urban Transformation

Satsue and Ongsawangchai (2020) conclude that there are five phases of urban transformation in Chiang Mai Old City (Figure 2-36). In the first phase of Chiang Mai urban planning, the arrangement of space and components of the city align with the Vastu Purusha Mandala (The Temple as Human body)

concept. This concept concentrated on the hierarchy of land used in relation to social class and Lua beliefs consisting of Ancestor Ghost, Nirot tree, *Wiang Kaew* (Royal Palace), *Inthakin Pillar*, and *Ku Luang* (Royal Cemetery). In the second and third phase, urban planning was influenced by cosmological ideology and the “*Thaksa*” concept. These beliefs affected the organization of the land in eight directions of the city; it was in this phase the various temples in the inner city emerged. It could be assumed that the “*Thaksa*” belief, led to the use of zoning to control the distribution of urban elements in the inner city. Phase four is the restoration of the city wall after the fall of the Lanna Kingdom in the King Kawila era.

Therefore, Chiang Mai has a complete structure to align the space and the city composition according to religious influences. This is despite the creation of “Palaces” along the public ditch line of the inner-city wall and the reduction of the role of the place following the improvement of a government building from Siam to Chiang Mai city. It affected the fifth phase, in which Siam (Thailand) decided to build the Women Correctional Institution on the *Wiang Kaew* area (Royal Palace) following changes in the political system. According to space layout and city composition, this study suggests moving the prison, which overlaps onto the *Wiang Kaew* area. Furthermore, restoring the *Wiang Kaew* area to achieve structural integrity and exhibit elements that reflect the city’s individuality is a critical component of representing the heart’s position according to “*Thaksa*” and “*Vatsu*”.

These beliefs are a unique feature of the historical settlement process within Chiang Mai and represent the diversity and identity of the city's urban planning. The urban transformation of Chiang Mai Old City keeps changing through the social dynamic; however, the identity of Chiang Mai Old City could be revealed through urban heritage artifacts and urban settlement related to religious places, sacred spaces, sacred trees, and the linkage between the city scenes to the sacred mountain.

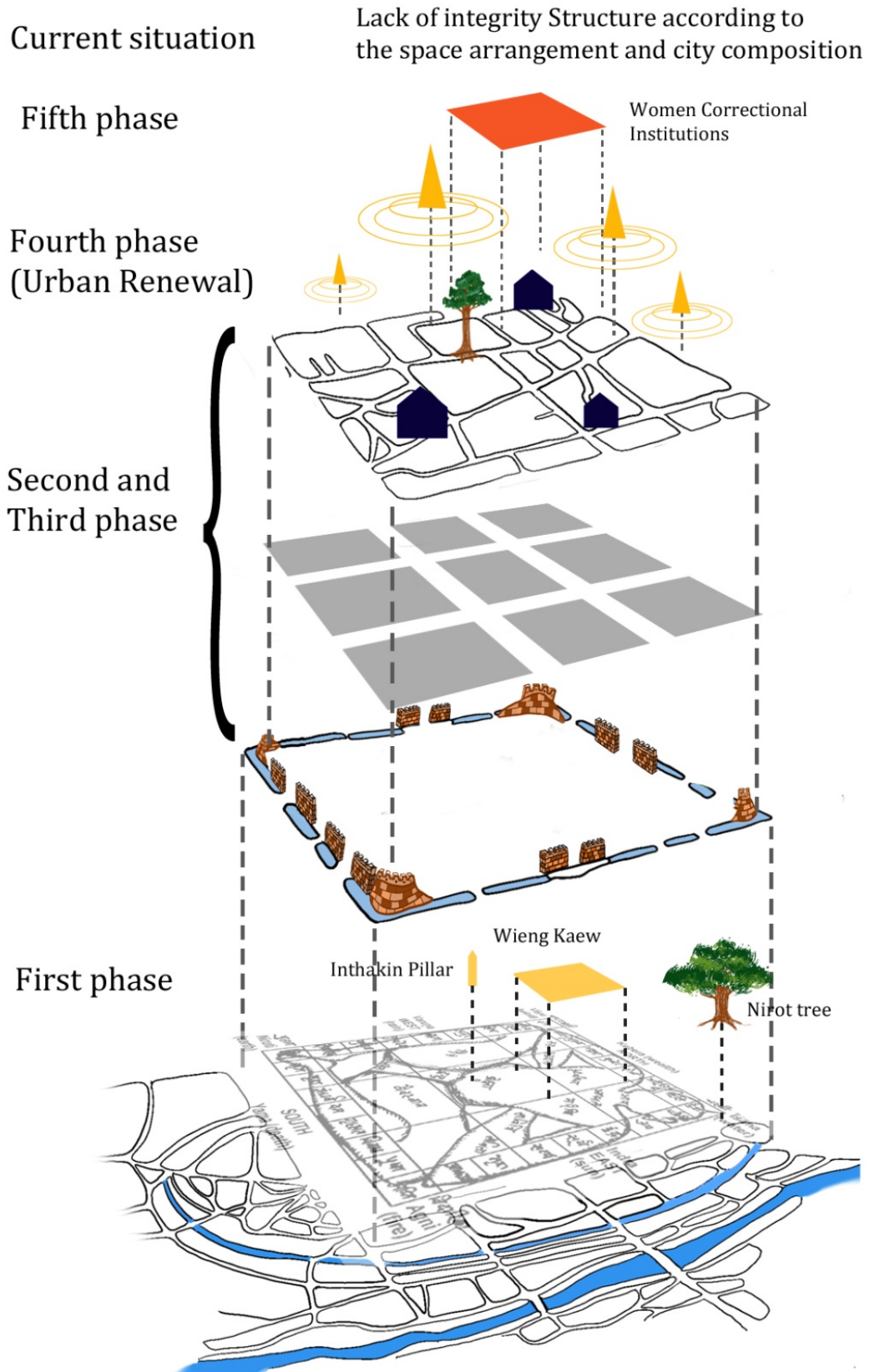


Figure 2-36: The five phases of Chiang Mai Urban Transformation. (Author)

2.5 Relation of Fundamental Aspects to Chiang Mai Old City

Typically, the values of cities are affected in many ways, and this section aims to describe the fundamental social, cultural, and economic aspects of the lives of the people who inhabited Chiang Mai Old City.

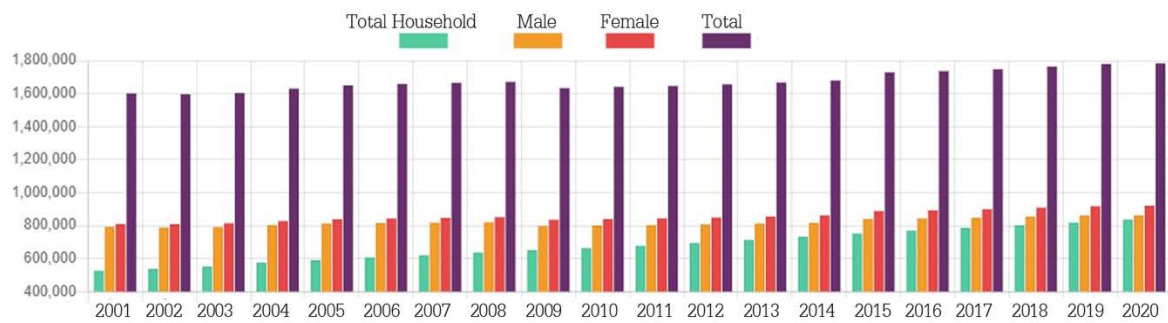
2.5.1 Social Aspects in Chiang Mai Old City

In terms of social life in the era of the Chao Jed Ton Dynasty (1774-1933) the various classes of people were divided into political nobility (Munnai) and commoners (Prai). However, this was abolished in 1914 in line with the political change of Siam to Chiang Mai (Ongsakul et al., 2005). Currently, there are no social classes to be divided, and the local people live their daily lives as a modern society. However, Buddhism is essential in the daily lives of local people, though Thai culture does not force anyone to follow Buddhist rules, and Thai people are taught to respect all religions. Andrew Johnson (2010) highlights the relationship of the “*mueang*” (city) and Buddhist rituals (Inthakin Pillar) which ties the social life of Chiang Mai people. Generally, Chiang Mai people have many family members who live together in one household in order to share generational knowledge. This includes agriculture, cotton fabric weaving, gong making (gongs are instruments of a round metal plate and are used for recreational activities and for announcements from temples in the community), and Chang Tam (Tam means painting) (Phetsuriya & Heath, 2021).

Moreover, Thai people believe in showing gratitude to the elders in the family by allowing them to remain living in the same house and looking after them. This ideology is linked to Buddhist doctrines and is witnessed by the neighbourhood. Phetsuriya and Heath (2021) also outline the significance of local communities on urban heritage distinctiveness. The social lives of Chiang Mai people bonding with each other through minor communities and

cultural activities is important, such as the Inthakin festival, Songkran Festival, and making merits on Buddhist holy days which occur on four days out of every month.

Population



Column Chart 2-01: The population graph of Chiang Mai province in twenty years from 2001-2020
 (The Bureau of Registration Administration of Thailand, 2021: Modified by author, <https://stat.bora.dopa.go.th/stat/statnew/statPMOC/#/detailContract>, access 06 January 2021)

Column chart 2-01 describes the population of Chiang Mai Old City (Muang Chiang Mai District) as reported by the Bureau of Registration Administration of Thailand (2019). It was 127,240 people and 89,656 households in 2019. The population of Mueang Chiang Mai District in 2019 constituted 7.15 percent of the overall Chiang Mai province. The percentage of population growth during 2010 and 2019 was 1.34 per cent and is projected to double in the next fifty-two years. Over ten years, the graph 2-01 shows that the male population is consistently lower than the female population. Furthermore, the number of households rapidly increased between 2011-2020 (The Bureau of Registration Administration of Thailand, 2021).

The age composition of the population of Chiang Mai shows the average annual rate. In 2019, the most populous age range was between fifty-four to sixty. Moreover, the population over one hundred years old reached 430 people. It can be assumed that Chiang Mai is close to becoming an elderly

city (The Bureau of Registration Administration of Thailand, 2019). As such, the built environment of the city may require consideration on universal design in Chiang Mai Old City.

2.5.2 Culture and Belief in Chiang Mai Old City

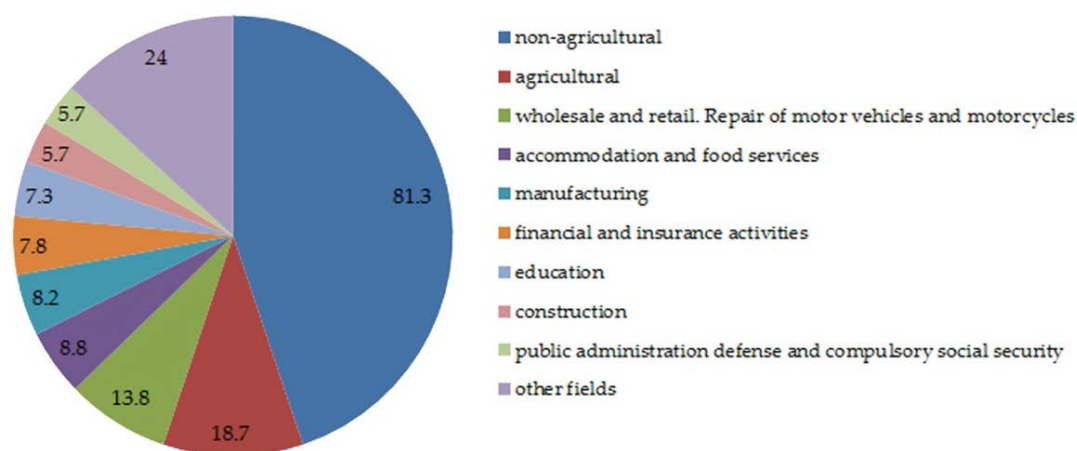
In the early stages of the Lanna Kingdom, Chiang Mai had a diversity of culture and belief regarding the immigration of multi races from the Lua, Mon, Chiang Tung, Myanmar, and other countries. However, the initial religion of the city was the Lua belief which respects nature and ancestral ghosts (as mentioned in section 3.3.4). Moreover, Mahayana Buddhism and Theravada Buddhism came to Lanna through the Khmer Empire by the end of 14th century. The blending of Tai spiritualism with Buddhism has remained until the present (Ongsakul et al., 2005; Johnson, 2010; and Choe & O'Regan, 2020). Buddhism and Temples are the social centres of Thai communities and blend into rural life. Chiang Mai people stand independently from belief in any other religions or rituals. The bonding of local people to culture and belief is underlined in Phetsuriya and Heath (2021, p.16) who note how *“following the focus group discussions, it can be recognized that Chiang Mai people identified the festival and its importance to the Old City’s cultural activities.”* These consist of cultural festivals related to Lanna Buddhist belief such as the Inthakin Pillar worship (Kun Dok), Songkran festival, praying to Buddha, making merit, lighting candles for blessings, pagodas, special festivals, and religious ceremonies.

2.5.3 Economics in Chiang Mai Old City

Historically, Chiang Mai Old City was the capital city of the Lanna Kingdom. Merchandising occurred along the Ping River from the sub-silk

road line, with trading from the Burmese and Chinese. In the King Mungrai period, Chiang Mai had Klang Wieng Market (city centre market) located in front of the Phar Sigha temple to the bodhi tree at the centre of the city. It also had the Tha Pare Gate market which had female traders who sold agricultural products, rice, tobacco, wax flowers, fruit, betel nuts, limes, and dried fish on the roadside. All traders were female except for the butchers. Moreover, the road had diverse international products from China and Burma which contributed the diversity of culture within the Lanna Kingdom. The trading between Chiang Mai to Dali (India) was called the “Golden Route” according to the quantity and value of the products. Lanna also traded with the Chinese, Shan state and Siam routes. In the reign of King Rama V of Siam (1868-1910), Chiang Mai was the most significant trading centre. In 1840, Lanna started the timber industry with the Mon and Burmese British to receive logging concessions in Chiang Mai, Lamphun and Lampang (Ongsakul et al., 2005).

The economy of the North dramatically changed due to the arrival of the railroad in Lampang in 1916 and Chiang Mai in 1921. People had been concerned about constructing roads to connect with the railroad. The change increased the economy between Bangkok and Chiang Mai. Rice was the main exported product from Chiang Mai (Ongsakul et al., 2005).



Pie Chart 2-01: The economics of Chiang Mai province (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020: Modified by author)

Pie chart 2-01 describes the economic structure of Chiang Mai in 2018 illustrating its dependence on the non-agricultural sector (81.3 per cent, 201,581 million baht) and the agricultural sector including agriculture, forestry, and fisheries (18.7 per cent, 46,250 million baht). Following this is wholesale and retail. Repair of motor vehicles and motorcycles stands at 13.8 percent, and third place is accommodation and food services at 8.8 per cent. Fourth place is manufacturing at 8.2 per cent, fifth place is financial and insurance activities at 7.8 per cent, and sixth place is education at 7.3 per cent. Seventh place is construction at 5.7 per cent, 8th is public administration defense and compulsory social security at 5.7 per cent and other fields total 24.0 per cent (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020).

Moreover, the study by Baedcharoen (2016: p.66) mentioned that Chiang Mai has become subject to the pressures of the rapidly growing tourism industry. Tourism brings with it a potential boost to the economy of Chiang Mai and it also contributes to a new sense of identity and local pride in Lanna culture and heritage. Chiang Mai today is characterised by impressive contemporary buildings and is clearly a modern city but tourism has heightened its distinctiveness and thus re-connected to the local traditional forms of construction.

2.5.4 Way of Life in Chiang Mai Old City

The people's lives in Chiang Mai Old City remain connected to the Buddhist and Lanna way of life. However, the rapid growth of economics and culture has turned the city into a modern society. Regardless, the city maintains the charisma of Lanna. In this section, five factors are discussed, consisting of: Education; Public Health; Employment; Threats; and Further

Plans for Chiang Mai (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020).

Education

Chiang Mai province has a total of 735 educational institutions in the academic year 2020, divided into primary, secondary, vocational, and higher education levels, with a total of 24,339 teachers and a total number of students of 276,472. The number of teachers per student stands at a ratio of 1:11 (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020).

Public Health

Chiang Mai province has 48 public health care facilities with 4,999 beds for overnight patients, categorized as general services with 40 places and specific services with 8 places. There are health service establishments separated by affiliation, namely 24 outside the Office of the Permanent Secretary for Public Health, 5 outside the Office of the Permanent Secretary, 4 other ministries, and 15 private health care centres (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020).

Employment

There are 340,092 employed people in Chiang Mai, (36.89 per cent), and 581,823 people, (63.11 per cent) in the non-agricultural sectors. The agricultural, hunting and fishing professions have the highest number at 36.79 per cent or 339,139 people, followed by wholesale and retail activities at 31.82 per cent with 185,107 people and employed persons. Most employed people graduated with at least a bachelor's degree amounting to 219,602 people, or 23.68 per cent of the total of Chiang Mai Province populations employed aged

15 years and over (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020).

Threats

Threats that affect the security of Chiang Mai Province within the years 2018 - 2021 at the level of urgency in solving the problems, respectively, consist of internal security issues, security in the life and property of people in the area, transnational crime, international terrorism, border security issues, illegal immigration, drug problems, social disorder, human trafficking, illegal foreign workers, disasters and natural disasters. As a concrete and sustainable solution to these problems, it is necessary to receive cooperation from all relevant sectors, including government agencies, private organizations and civil society, and most importantly, to build immunity, instill conscience and create the right values for the new generation of youth who will grow up to be adults with a sense of responsibility to society. This will allow the country to be stable and sustainable in the future.

Further Plans for Chiang Mai City

The Chiang Mai Provincial Office has announced the development goals of Chiang Mai Province to become City of Life and Prosperity (Figure 2-37). This title is awarded to the city that provides happiness and valuable life to its inhabitants and visitors and to be a city that is considered to be on a world-class level (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020).

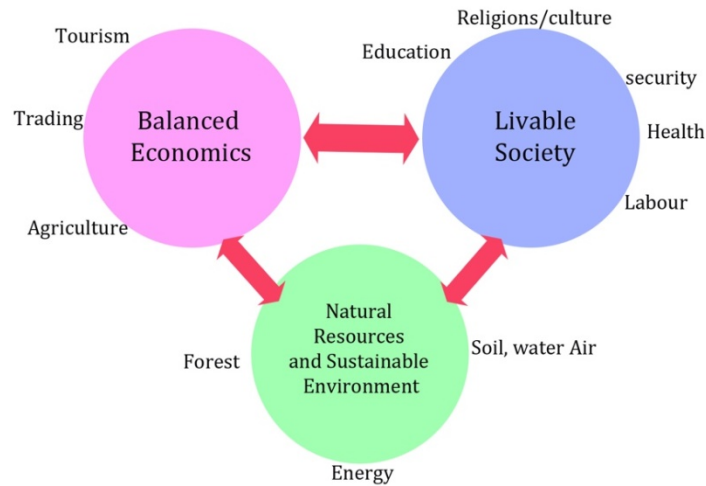


Figure 2-37: Development goals of Chiang Mai Province (Chiang Mai Provincial Office Strategic and Information Group for Provincial Development, 2020: p.26) (Modified by author)

This development plan aims to promote and develop the city to be a centre for tourism and international services, for trade, investment and transportation, to be a safe agricultural city, a regional education centre city, to be a city centre for medical and health services and to be a city of natural and cultural diversity. The Chiang Mai Heritage project is a part of the development goals, as it is a massive magnet and includes Chiang Mai's resources, such as tourism, trading, religion, culture, and forest, in the project. As such, to define the city's identity is crucial for the development plan.

2.6 Land Use

According to Satsue (2018) there are ten typical land usages in Chiang Mai Old City, consisting of: palaces; accommodation; commercial buildings; commercial buildings; religious buildings; government institutions; educational institutions; recreational areas; and available areas for development. Currently, Chiang Mai has been nominated as the fourth best city destination in the world for 2020 (Terzian, 2018). Unsurprisingly, Chiang

Mai has also been in the top five over the past ten years. Consequently, some local people turn away from the old city and give the land to developers to increase tourist destinations. Over time, commercial buildings have been increasing. Figure 2-26 illustrates less open urban spaces (in light green, green colour) such as parks and recreational areas that affect local people's lives. Usually, local people mostly use open spaces at temples for recreation, festivals, ceremonies, and playgrounds. Temples were schools for local people and related to every generation of a community (Kongthan et.al, 2014).

The study of Spatial Transformation and Accessibility Efficiency of Transportation Network with Land Use in the Context of Chiang Mai Comprehensive Plan by Summaniti (2017) describes the city's significance as dense according to the urban morphology as the centre of the city hosts multiple activities. Land use has been expanding to the East and South; however, it is notable that the accessibility of the transport network has been improved. The South side of Chiang Mai city affects the change in land use in the low-density residential category defined in the land use plan, especially along roads with better accessibility efficiency.

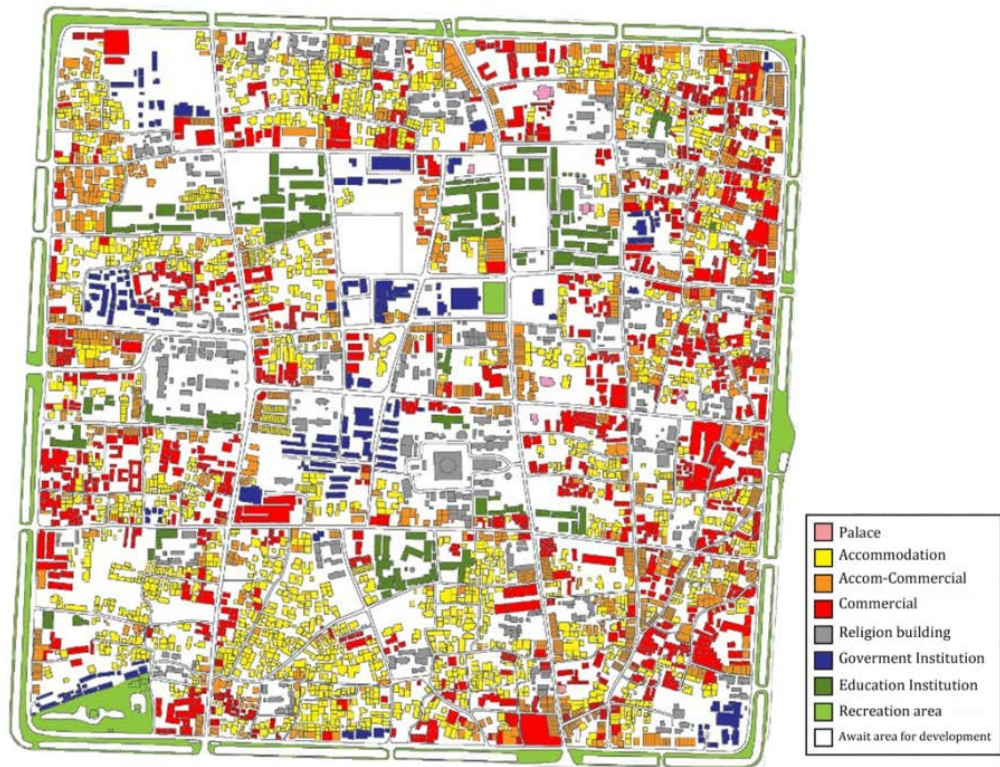


Figure 2-38: Land use divided into nine types in Chiang Mai Old City in 2017
(Modified: Satsue, 2018: p.87)

2.7 Chapter Conclusions

This chapter describes the significant background of Chiang Mai Old City in relation to entering the “Tentative List” of UNESCO. This highlights the significance of the Lanna tradition in urban settlement ideology and the *Chaiyaphum* chronicle, which relates to the flora, fauna, and geography of the land. As the city was founded on a diversity of beliefs, this affects scholars who are tempted to define the relationships between each ideology. The cosmological ideology holds the “*Inthakin Pillar*” as the centre of the universe and the navel in the *Thaksa* concept (the city as a human body). These concepts have created the uniqueness and importance of urban heritage artefacts in the urban planning of Chiang Mai Old City which can be analysed in terms of the heritage value in local people’s perceptions. In this regard, Legg and McFarlane (2008, p. 63) stressed that “the challenge now falls to local planners

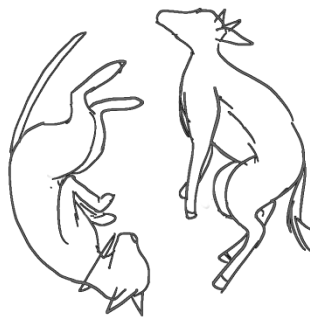
to adequately solve problems through the formulation of appropriate planning policies based on local conditions and citizens' participation." Thus, it is aimed that the findings of this study may be of use in any future projects involving the enforced Chiang Mai Old City identity as perceived by their people.

Urban transformation occurred after the rapidly increasing economy and trade in the city in 1950. This is reflected in the land use that has been changed for tourism purposes as *"The Tourism Authority of Thailand attempts to promote Lanna culture, Lanna heritage and the uniqueness of Chiang Mai"* (Baedcharoen, 2016: p.79). It becomes a critical problem of the city as it challenges the scholars, government, and the Chiang Mai Heritage team to solve and set regulations for the future management plan. Chiang Mai Old City has unique urban planning with an extraordinary ideological history which reflects the way of life and strength of intangible and tangible value through urban heritage artifacts.

Interestingly, in 2015 the local authorities started to encourage the further step of promoting the World Heritage project by supporting financial and participate with local communities. This is a great scenario for Chiang Mai Old City to achieve the status as a 'World Heritage Site' and to preserve the way of life and urban heritage characteristics for future generations. The next chapter will discuss the literature and theories that were used in this study and will explain the theories which related to distinctiveness, place identity, urban heritage identity, and place attachment.

Chapter 3

Literature Review



Two white barking deer, a doe and her fawn lived in this auspicious area and the hounds could not bite them.

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

Chapter 3

Literature Review

3.1 Introduction

The literature on urban heritage identity is characterized by multidisciplinary theories which substantially enhance the understanding and interpretation of the various types of knowledge. This chapter conceptualizes the contradictions, conceptual, and multidisciplinary nature of urban heritage identity. As such, it establishes a fundamental and advanced foundation for examining the paradigms of research. This chapter is divided into seven sections. The first section introduces the theories of this research study. The second section presents the identity, place identity, urban identity, and distinctiveness whilst addressing the discourse in the literature on this field which is related to the concept of place attachment. The third part describes the relationship between concept of heritage, cultural heritage, urban heritage, heritage value, and identity. The fourth part describes perception, recollection, and memory in urban identity studies; and the fifth section describes the built environment identity. The sixth section interprets the value in the view and the last section presents the conclusions of this chapter and proposes a conceptual framework for urban heritage identity.

3.2 Identity, Place Identity, Sense of Place, Distinctiveness, and their Interrelationship with Place Attachment

This chapter describes the relationship between identity and social aspects in urban studies which includes social identity, place identity, sense of place, distinctiveness, and the interrelationship between distinctiveness and place attachment. The study concentrates on identifying the urban heritage identity that is related to local citizen's perceptions on tangible and intangible attributes.

3.2.1 Identity

The Oxford Dictionary defines 'identity' as the fact of being who or what a person or thing is. A review of literature on the definition of 'corporate identity' reveals that there are many different definitions of the term. Identity is on planned communication, the self-presentation of an organization, and behaviour (Oxford Dictionary, 2022). The concept of identity is an elusive phenomenon whose meaning has changed according to the needs and requirements of different disciplines such as urban morphologists, conservators, sociologists, philosophers, and phenomenologists (Vignoles, 2000). Therefore, each discipline has defined the sense of identity with identity referring to "the collective aspect of the set of characteristics by which a thing is definitively recognizable or known" (Rifaioğlu, 2015). The social identity process is mentioned in Vignoles' (2000, p.15) study of Identity, Culture and Distinctiveness Principles. Referring to shape identity theory, Breakwell (1986, 1987, 1988, 1992, 1993) identifies principles such as self-esteem, distinctiveness, and continuity; and in subsequent accounts (Breakwell, 1993), an efficacy principle has been added (figure 3-01). This study used the distinctiveness aspect which will be described in 3.3.4, therefore the identity in urban study can also be described in parallel with the distinctiveness aspect.

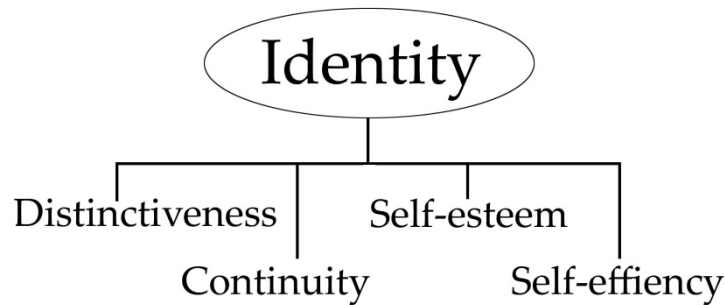


Figure 3-01: The component of Identity by Breakwell (1993) and Vignoles (2000)

This research concentrates on the interrelationship between identity to place and urban space of the city. This chapter describes the place identity which concentrates between identity, place, and humans.

3.2.2 Place Identity

The Oxford Dictionary identified that place means a particular position, point, or area in space, or in other words, a location (Oxford Dictionary, 2022). It is a portion of space designated or available for or being used by someone. Place mainly refers to a large-scale environment such as a district, a community, or a city. The concept of place is physical as well as psychological, in which physical form, activity, and meaning are mixed to form the sense of place (Montgomery, 1998).

A place can be defined by the interrelationships of a physical environment and the psychology of internal cognition, social attributes, and activities (Proshansky et al. ,1983; Lewicka, 2008; and Ginting & Wahid, 2017). The relationship between place and people is unbreakable due to people being a part of making places and in turn giving it meanings. The relationship between places

and people can contribute to a place identity which can indicate the sense of place. Proshansky et al. (1983) describe how place identity is formed through emotional and perceptual processes concentrating on an individual's perception and the built environment. People are a vital factor in place identity as people's memories are significantly in defining specific settings (Hauge, 2007; Qazim, 2014). The character of settings or places plays a role in enhancing urban areas' identity and contributes to the strong heritage identity according to a common history, individual experiences, and emotions (Twigger-Ross and Uzzell, 1996).

Identity is the extent to which a person can recognize or recall a place as being distinct from other places-as having a vivid, or unique, or at least a particular, character of its own. Identity and structure are the formal components of sense. Congruence, transparency, and legibility are specific components, which connect the environment to other aspects of our lives

(Lynch 1984, p.131).

However, the meaning of identity in the field of urban morphology and conservation has become an important issue in many studies. The relationship with conservation issues in historical urban contexts at regional scales, form, and the history of a place creating a sense of place or genius loci, which differs from place to place (Proshansky et al. 1983; Shinbira, 2017). Conzen (2012) suggests that the quality and quantity of the tangible cultural heritage, expressed through the accumulated historical form of towns and cities, is one of the main determinants of the character of a particular place, the spirit of a place, or genius loci. In this latter definition, it is clearly emphasized that genius loci is created through history and seen in a particular place of a town or a city.

Consequently, identity can be perceived through design, form, colour, the spaces and linkages between buildings, and the uses of buildings. Relph (1976) mentioned that simple physical patterns or characters can distinguish identity.

All of which combine to produce a distinctive spatial and visual quality, helping to distinguish one place from another and create local identity. The theory of identity is developed by various researchers. Garnham, 1985; Relph, 1976; and Schulz, 1980 all suggest that the components of 'place identity' consist of activities, physical attributes, and meanings. Shamsuddin (1997), mentioned in the study of Shukri (2020), suggests that there are three major components of identity consisting of a physical environment, activities, and meanings (figure 3-02). Firstly, there is the physical environment, which consists of the actual physical structure of a place including buildings, landscape, climate, and aesthetic qualities (Relph, 1976; Shukri, 2020). Secondly, there are observable activities and functions which describe how people interact with a place and how buildings and landscapes are used. Finally, there are meanings or symbols, these are a complex aspect of identity and are the result of human intentions and experiences (Relph, 1976; Shukri, 2020). Thus, the character of the place is derived from people's reaction to the physical aspects of that place.

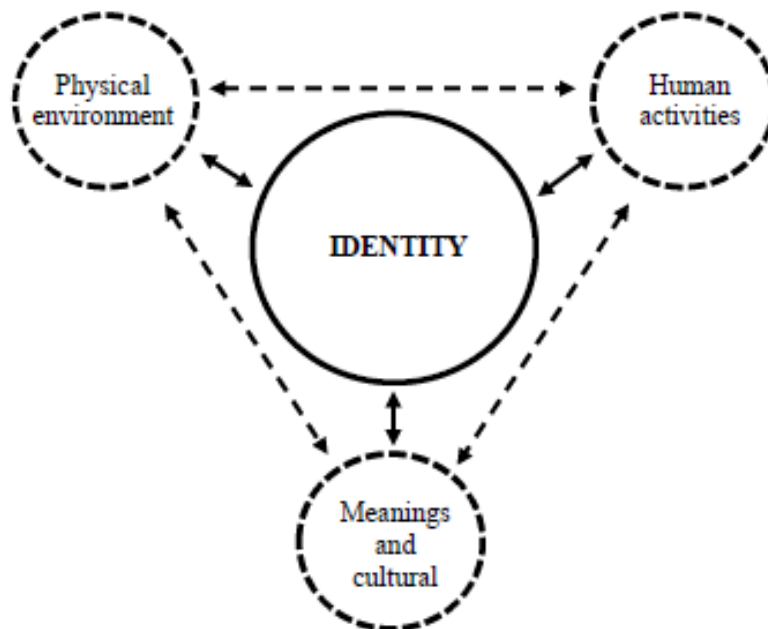


Figure 3-02: The component of Identity by Shamsuddin, 1997 (Shukri, 2020: p.2)

Place identity can explain an individual's perception of the physical environment. It is a process to maintain the attachment to a place determined by the physical appearance, meaning, and the relationship between people and places. It also contributes a strong impression of the authenticity and uniqueness of the place (Qazami, 2014; Ginting, & Wahid, 2017). The influence of the objects of the physical environment in a setting; places, such as street corners, lots, rooms, and stairwells; places created by walls, distance, windows, barriers, adjacencies, and qualities of the setting which are the light and sound (Shamsuddin, 1997). 'Potential noticeable differences' which is the distinctiveness of the physical environment and people can be easily noticeable (Ginting & Wahid, 2017). This includes physical form and appearance, especially, a building which is easily distinguished and easily recalled (Proshansky, 1983). The impact of housing quality on the urban image also suggests that user perception of visual appearance is intrinsic to the process of image making. The perception of the urban image relates physical form and appearance as a characteristic of a building that is important in imageability (Shamsuddin, 1997).

Location is an important physical component of imageability (Lynch, 1961). The attributes of the location are aerial location, spatial relationship, prominence, scope, activity, associated features, signs, and markers. Location plays an important role because a physical element or activity could only be noticed if its location was prominent and visible from a distance. People relate to the urban environment most significantly through locational factors (Tibbalds, 1992; and Shamsuddin, 1997). Tibbalds (1992) suggests that the strongest image of towns is derived from the way they relate to physical features. Identity of place comprises the attributes of the physical environment, the human activities,

and the cultural influence in terms of meaning and associations (Shamsuddin, 1997)

3.2.3 Sense of Place

Sense of place is one of many characteristics that developed through the interactions between people and local identity; it is a measure of the psychological comfort of people at a particular place (Ralph, 1976; & Shao, 2014). Sense of place is a multidimensional attitude that describes an emotional connection to a physical environment, but it also includes values, symbols, and cultural meanings ascribed to the place (Proshansky, 1983; and Qazimi, 2014). The feeling of perception held by people describes their sense of place; it is a symbol that makes a place exclusive; it is the way people experience, express, imagine, and know that place (Hummon, 1992). It could be interpreted as an attachment to a place and alludes to the complex relationship between humans and their environment (Tuan, 1990). Moreover, Lewicka (2010) describes that the creation of sense of place requires not just the understanding of place, but also that the background of people or demographics are crucial in consideration of sense of place.

This kind of relationship includes both the impact of the natural environment on humans and the development of human activities on the surrounding built environment. This viewpoint explains how people are identified by the places they inhabit (Twigger-Ross et al., 2003; and Carmona et al., 2010). Purposely, places are intended to function in multiple ways that provide a sense of belonging, construct meaning, foster attachments, and mediate change (Twigger-Ross et al., 2003). A place is not only about getting used to it, but it is also about creating and developing a strong relationship between people and that place (Twigger-Ross et al., 2003; and Shamsuddin,

1997). Indeed, Cross (2001: p.15) states that: “The sense of place is an experience created by the setting combined with what a person brings to it”. Thus, relations between people and places are transactional, and a place becomes part of who we are, and shapes our identity (Twigger-Ross et al., 2003; and El Nachar & Abdel-Hadi, 2018). Figure 3-03 describes the conceptual sense of place related in architecture and urban design drawing upon the studies by Punter (1991) and Montgomery (1998). It consists of three components: physical setting; activity; and meaning.

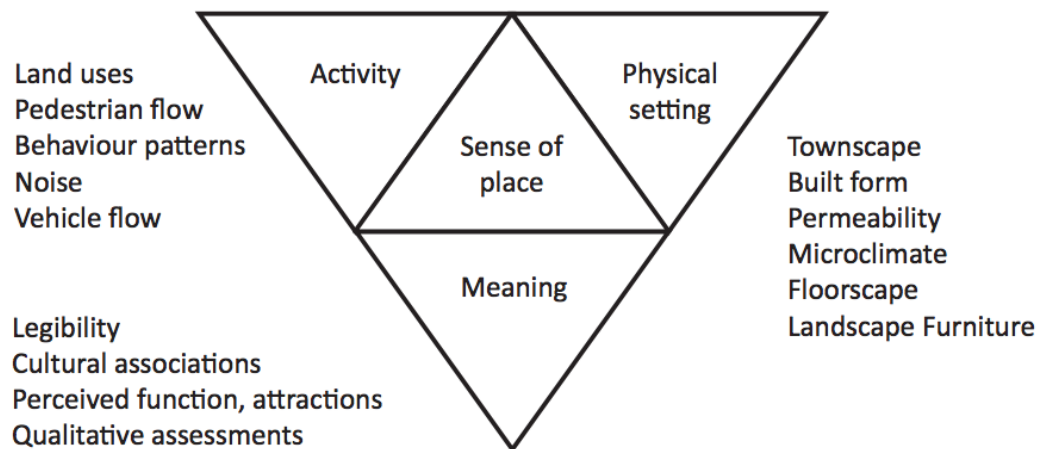


Figure 3-03: The component of Sense of place by Punter, (1991) and Montgomery, (1998)

(Ahmed & Zeile, 2020: p.3)

The physical characteristics such as proportion, size, scale, distance, ornaments, sounds, temperature, visual variety, and colour are related to the value of place. Indeed, it is not just the settings or order layout of a place but these physical characteristics also contribute to the meaning (Carmona et al., 2010; and Wardhani & Kusumowidagdo, 2018). Physical features and appearance are important in influencing the sense of place. They contribute to making places more legible to the users, and can then be identified, organized,

and navigated by people (Lynch, 1960) if they have an identifiable layout and clarity of the cityscape in terms of physical form and function (Ujang, 2017).

Sense of place has been viewed as a concept of place identity, incorporated with place attachment which refers to connections based on activities that take place in a setting, reflecting the importance of a place in providing support to people's needs (Shamsuddin, 1997). It is usually associated with people's self-fulfilment through place experiences. The relationships between people and places are also a "dynamic" process throughout human history and looking into the future (Shao, 2014).

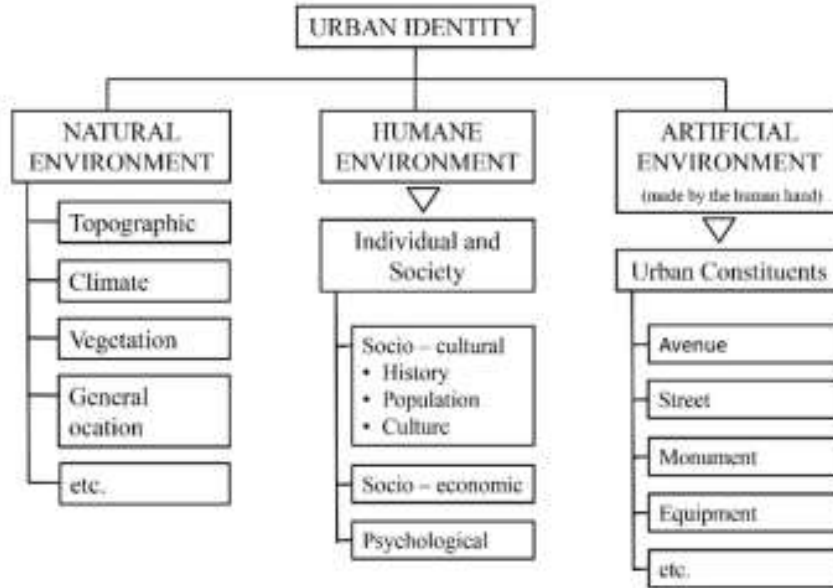
3.2.4 Urban Identity

The previous sections introduced place identity and sense of place, describing the relationship between place and human perception that create the meaning of places. This chapter will explain the macro scale of the sense of place within the urban city. Proshansky et al. (1983) and Lalli (1992) introduced urban identity as a relationship between a city-oriented perspective and activity and meaning which require a sense of belonging and the experience in everyday life in the physical and social factors (Proshansky et al., 1983; and Lalli, 1992).

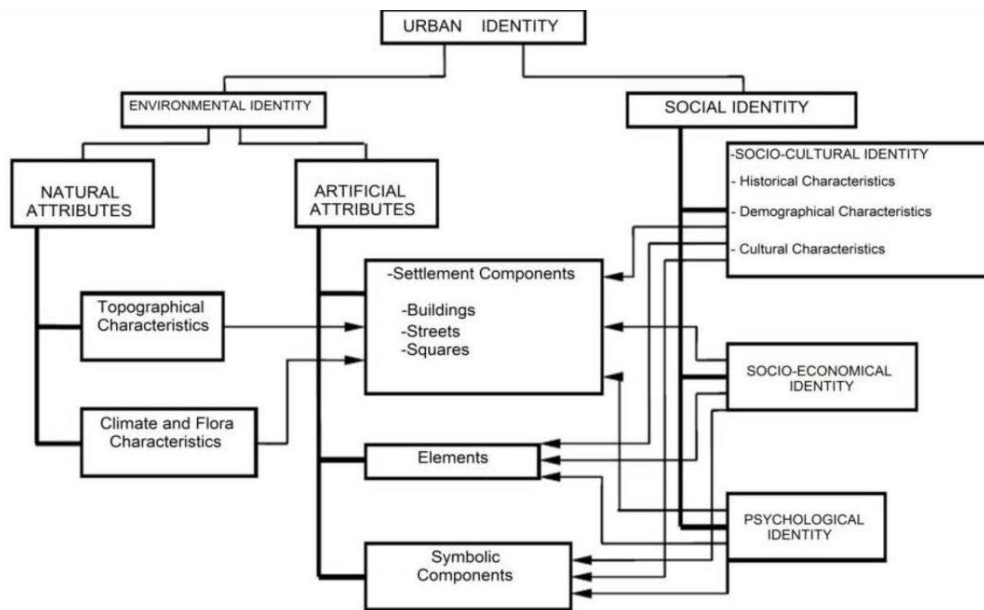
Urban identity is a concept correlated with the cities' physical, cultural, socio-economic, and historical characteristics (Erdoğan & Ayataç 2015). These factors are significant to the recall and assessment process by people recognizing the environment of historical characteristics. Using a historic, distinctive urban shape, architectural style, design solutions, ornaments, local building materials, and construction techniques also expresses urban identity (Phetsuriya & Heath, 2021: p.4). Boussaa (2017) also mentions that a distinctive visual impression of urban identity can be generated through historic environments. Moreover,

physical elements in the urban landscape enable recognition of urban identity, and the variety of activities and events in the urban landscape can also express the urban identity (Erdoğan and Ayataç 2015). Arbak (2005) explains that the combination of environmental, historical, socio-cultural, functional, and spatial values also provides the distinctiveness of cities.

The components of identity also include people's experience and recognition in creating urban identity (Lalli, 1992). Relph (2007) describes that urban physical stimulates the functional and human behaviours which possibly create urban identity. Moreover, Lalli (1992) and Rifaioğlu & Güçhan (2007) explain that urban identity mainly concentrates on the expression of feelings, meanings, and memory of human to tangible and intangible elements. This statement is related to two studies by Sönmez et al. (2017) (figure 3-04 (a)) and Ökesli & Gürçınar (2012) (figure 3-04 (b)) that depict similar factors consisting of environmental identity and social identity. Psychological identity involves human behaviour and perceptions which are related to an 'expressive-requirement function' that provides an opportunity for people to contribute personal expression to shaping the environment (Lalli, 1992). However, the perception of urban identity can be different for different groups and at different times (Bernando et al, 2016).



(a)



(b)

Figure 3-04: (a)The component of Urban Identity (SÖNMEZ et al., 2017: p.237), (b) Formation of urban identity. (ÖKESLİ & Gürçınar, 2012: p.3).

Lalli (1992) suggests five dimensions for measuring urban-related identity: evaluation; continuity; attachment; familiarity; and commitment. The evaluation

enables comparisons between the perception of the city's special character to other cities. Continuity concentrates on the collection of personal past and the city, which is symbolized through personal experiences (Lalli, 1992; & Ginting et al., 2018). Personal experience in a place is always related to the attachment factor that measures the sense of belonging or rootedness. Urban identity considers the subscale perception of familiarity, which concentrates on daily life experiences in the city (Lalli, 1992; Lewicka, 2011; and Ratcliffe & Korpela, 2016). Lalli (1992, p.295) also mentioned that familiarity is assumed to result from the actions undertaken in the urban environment. Finally, the commitment factor is an expression of a cognitive process that substitutes the personal experience of the city and personal decision to the future that commits to the self-concept of the city (Lalli, 1992).

The concept of urban identity concentrates on the physical attributes and human behaviour people express in cities. According to the review of these theories, urban identity in this research should consider identity theory by using the distinctiveness factor to measure the uniqueness of urban attributes in both physical and social settings before concentrating on place attachment to cover Chiang Mai Old City.

3.2.5 Distinctiveness in Urban Identity

The Oxford Dictionary defines distinctiveness as the quality of being individual or easily distinguishable (Oxford Dictionary, 2022). Brewer (1991) identifies in the optimal distinctiveness model, that social identities derive from a fundamental tension between two competing social needs: the need for inclusion; and a countervailing need for uniqueness and individuation. Vignoles

et al. (2000) describes distinctiveness as a broad concept that is involved the individual experience to the psychological field in physical characteristics, feelings, and social relationships.

Breakwell (1993) and Vignoles et al. (2000) explain in figure 3-05 that distinctiveness is a social value which involves an aspect of self-enhancement, it is a fundamental human need, and a basic property of the construction of meaning within identity. Carmona et al. (2010, p. 123) note how: “Distinctiveness is concerned fundamentally with preserving and enhancing what is special about a place.” Twigger-Ross and Uzzell (1996) stated that distinctiveness can be used as an implementation to distinguish and shape urban identity through people’s experiences. This is supported by Lalli (1992), who stated that the positivity of people experiences can provide the distinctiveness of a place. Distinctiveness of place is an essential concept that includes particular physical, social, and economic features and is considered through the intervention of human and settlement (Elhosary et al., 2018).

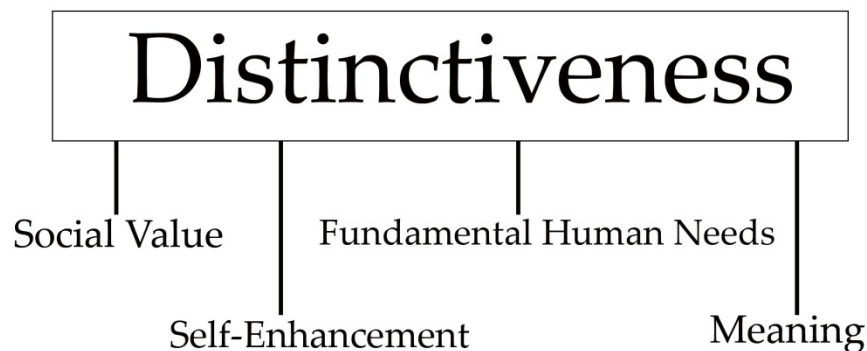


Figure 3-05: The component of distinctiveness in social science study (Vignoles et al. ,2000)

(modified by author)

According to El Hosary et al. (2018) who studied the study of local distinctiveness through tangible & intangible aspects of urban spaces described that local distinctiveness consists mainly of two aspects and five sub-aspects: the core elements consist of natural features, man-made structures. The dynamic elements include cultural identity and people, food and drinks, crafts, and industry (see Table 3-01(a)). However, in the study of defining distinctiveness aspects of place identity in urban heritage tourism, Ginting and Wahid (2017) (table 3-01(b)), compare the theory following Breakwell (developed by (Lalli 1992; Lynch 1960; Twigger-Ross and Uzzell 1996) and suggest four variable aspects to investigate distinctiveness: landmarks; uniqueness; particular character; and different perception. To compare these two groups of elements from different authors, it could be assumed that the distinctiveness of urban city can be conducted through human perception on tangible and intangible and extraordinary characteristics of cities.

Table 1. Description of local distinctiveness elements (El Hosary et al. 2018).

Core Elements		Dynamic Elements		
Natural Features	Man Made Features	Cultural identity and people	Food Drink and Crafts	Industry and Business
Location	Historic Features	Event	Craft	Manufacturing
Topography	Townscape	Language	Artifact	Cultural Industries
Natural	Buildings	Tradition	Food	Land uses
Landscape	Monument	Famous Person	Drink	Activities
Habitat	Transportation	Dressing		
Coastline		Music		
Native Plants				
Natural Materials				

Table 2. Description of local distinctiveness elements (Ginting and Wahid 2017, p. 43).

Landmarks	Uniqueness	Particular Character	Different Perception
Respondent's perception of Landmark of City	Respondent's perception about attractive place	Respondent's perception about good place to eat	Respondent's perception of cultural activity in research area
Respondent's perception of accessible to visit research area	Respondent's perception of historic buildings in research area	Respondent's perception of diversity of local product in research area	Respondent's perception of tourism facilities in research area

Table 3-01: The description of local distinctiveness elements on urban space (Phetsuriya & Heath, 2021: p.3 referred from El Hosary et al., 2018 (3-01(a)) and Ginting and Wahid 2017, p.43 (3-01(b)))

The study by El Hosary et al. (2018) suggested that the measurement of distinctiveness in the urban study required the consideration of tangible and intangible characteristics to evaluate the elements of distinctiveness. They adopted two primary methodologies: structured; and unstructured measuring techniques. The structured methodology required places that strictly force the respondent to identify their feeling towards those places and analysis using statistical techniques. In contrast, the unstructured method provides a holistic and independent opportunity to answer any attributes by allowing respondents to freely express their feelings about those places through an open-ended questionnaire. Then the result was categorized into the familiar category. However, the study by Ginting and Wahid (2017) used a structured method, and they set the questionnaire directly related to the four aspects of distinctiveness theory.

Factors Influencing Distinctiveness in Urban Identity

This research study uses the combination of aspects from El Hosary et al. (2018) and Ginting and Wahid (2017)'s theories, which are based on the fundamental knowledge of distinctiveness in social science study by Vignoles et al. (2000) and Vignoles (2000). The sub-factors include five aspects consisting of: landmarks; uniqueness (identity and historical value); particular character; different perception (cultural and religious activities); cultural identity; and people (community and everyday life).

Landmarks

The landmarks aspect is mentioned in Lynch's study (1981, p.101) that identifies that "a landmark is not necessarily a large object; it may be a doorknob

as well as a dome. Its location is crucial: if large or tall, the spatial setting must allow it to be seen; if small, certain zones receive more perceptual attention than others..." Furthermore, Bala (2016) defines landmarks as a function of a city which implies signs and signals of urban space and which to be used as a communication tool to help visitors and local people to orientate themselves. This correlates with Lynch (1984), who describes urban space as the landmark of activity focus, attracting people to use the urban artifacts. Furthermore, the contrast of visible elements can provide a landmark. However, Shinbira (2017, p.294) mentioned that the historic buildings, traditional façades, and the old market are identified as the most famous landmarks and attract people to the inner core of the city centre and increase the imageability of the city. Landmarks play a vital role in defining the urban identity of Chiang Mai city, and it is a component of imageability that concerns the physical element that people can recognize the specialty of it.

Uniqueness (Historical Value and Identity)

Ginting and Wahid (2017) describe how "the respondent perceives attractive places and historical buildings". Defining the city's distinctiveness requires a direct response through the experience and cognition of the city. Historical value provides historical character and connection with history and sense of continuity (Throsby, 2001).

Historical Value

In heritage, historical value plays the most significant role in explaining a place's tangible and intangible values. Historical value is manifestly integrated into a physical and cultural ornament in the previous era (Reigl, 1982). For example, the materials of places and buildings represent the historical value of

places (Lipe, 1984). However, there are two aspects of historical value: the association of historic events and historic built environment; and the historical building in urban fabric conveys the narrative of historical and cultural practices and craftsmanship (Wells, 2010). Furthermore, Wells (2010) describes the broader meaning of “historical value” as the association between historical buildings, the older built environment, and historical events, which can maintain the continuity of the city's historical value. Its historical value should be defined to prove the genuine value of its historical urban city (Wells, 2010). It is a significant factor which can provide a sense of place of a cities built environment (Orbasil, 2000).

Identity

Identity is a factor that relates to the major defining of this research. However, in this term, identity was used as a factor to describe both tangible and intangible distinctiveness concepts. Lynch (1960) describes identity as a sense of place, which is used to identify the differences and differences from other places by people's memory and recollection. Rifaioğlu and Şahin Güçhan's (2007, p.2) state that “identity becomes the main feature that confers unique characteristics to a city or a local place.” Significantly, memorable place and ‘scenery of place’ help to provide the characteristics of the place that can contribute the branding of the places (Păcescu and Thiery, 2016; Boussaa, 2021). Discussing place and urban-related urban landscape, Hayden (1995) refers to it as a “storehouse” that relates to social memories following human's experiences in a place which in turn interacts with activity, form, and meaning. Understanding the local people's experiences in urban identity that correlate to historical aspects can provide the core of ‘historical value’ as a core of the city's identity (Reddy, 2011).

Particular Character

Ginting and Wahid (2017) describe particular character aspects that concentrate on responding to a good place and the perception of the diversity of local products, including craft, artifact, food, and drinks (El Hosary et al., 2018). These are a part of the tangible and intangible values of a heritage city. Sadowski (2017) explains that cultural objects carry cultural heritage value compared to national or group identity which contains the broader value of intangible aspects such as languages, traditions, and folklore. Language is a vehicle of cultural heritage as it is easy to identify and represent as an existing of socio-culture value and a mother language remains a crucial right ensuring respect for their identity and the safeguarding of their heritage (Smeets, 2004: p.163).

Palmsköld (2016) describes 'craft as heritage' and that the continuity of practice in craft knowledge and techniques can preserve historical craft identity and the intangible value of its object. Moreover, the space of the creation of craft objects can provide the social value of space. This can also related to 'food' (Timothy & Ron, 2013) and traditional drinks (Keskin & Günes,, 2012) which play a significant role in identifying the regional and ethnic identity and promoting cultural distinctiveness and thereby passing the cultural heritage from generation to generation. 'Cuisines' can combine both tangible and intangible heritage values as they include ingredients of food, cooking instrument, tastes, and recipe which all contribute the cultural value and identity of place (Timothy & Ron, 2013).

Different Perception (Cultural and Religious Activities)

Ginting and Wahid (2017) describe the different perceptions of respondents from people in cultural activity and tourism facilities. Zang and Wei's (2016) study on the typology of religious spaces in the urban historical area

of Lhasa, Tibet, concentrates on 'urban religious space'. It has become a significant urban culture in Tibet which is identified as a sacred city (Zhang, et al., 2011). It represents the uniqueness of social life investigated through Tibetan religious activities and Buddhist buildings, providing space for culture and religious activities (Zang and Wei, 2016). Środa-Murawska and Biegańska (2015) describe the significance of cultural events on economics as the increasing city's value in the local community's cultural value, historical value, and social economy.

Moreover, the study by Zang and Wei (2016, p.15) mentioned that the characteristics of the spatial clusters reflect different socio-economic values and positions in the religious space structure for future urban development. Landry (2002) states that an extreme cultural event can produce a positive image of a place. Nevertheless, religious activity forms a symbol of the place through the religious atmosphere as it increases the power of the environment of the place (Soltani and Siyovoshi, 2015).

Cultural identity and People (Community and Everyday Life)

El Hosary et al.'s (2018) theory suggests that cultural identity and people in dynamic elements define the distinctiveness of a city. The elements are similar to particular character aspects; however, this section concentrates on social, and community related to the local community and everyday life. Giombini (2020, p.53) explains that in place making, "everyday practices play a key role in the place-making process. A locale becomes a befitting part of a person's individuality and symbolizes the self through daily intercourse (Proshansky, 1978). Furthermore, place-making testifies that while considering the perceived heritage value of a site, it is crucial to ponder the meaning it embodies for a certain community, its everyday 'uses', as well as how it is perceived as a

resource for the local people to meet their own economic, social, personal, and emotional needs (Giombini , 2020: p.53).

Community

Richter et al. (2020) define community as a gathering of people and the forming of a group according to the same interests that contribute to loyalty, values, belief, and achievement. Waseem (2008) mentioned the relationship between community and identity as a source of identity according to the uniqueness of tradition, values, and community norms. Community norms can develop 'collective identity' through human behaviour of the community member (Waseem, 2008). Moreover, community identity contributes to pride, self-respect, unity, a sense of place, and social responsibility for the community (Ratanakosol et al., 2016). Regarding community and economics, Ketz and Moe (2012) state that the strength of the local community economy provides the sustainability of a community's economy through urban heritage identity and authenticity. According to a research study on heritage Supa (2009) states that the community aspect in heritage conservation in Southeast Asia is 'complex' as it connects to various social aspects especially in everyday routine of people in a city.

Everyday life

Everyday life is an aspect that involves the people who are a part of cultural identity (Giombini, 2020). Faragallah (2018) describes cities and towns connected with people and buildings which integrated on social environment in everyday life. "Everyday heritage" conceptualizes the quotidian life of the local community which applies to the complexity of practices, activities, and meanings of local heritage to empower the local community and particular places

(Giombini, 2020). Activities that occur in everyday space include unimportant activities and special events. Everyday space lies on physical and urban space which occurs in general places in people perspective and experience (Neve, 2018; Mosler, 2019) such as home, workplace, it is the connective space that unsighted the special of place in everyday life aspect Upton (2002).

To conclude, distinctiveness theory will be used in the first data collection of this research. The study uses an open-ended questionnaire to collect independent answers, which can reflect the genuine experience of citizens towards the city. The structured questionnaire is used to achieve the research purpose of answering the experience of Chiang Mai citizens in nominated places (the methodology will be explained in Chapter 4). Furthermore, as mentioned in the previous chapter, urban identity is always correlated with emotional bonding to place. To verify and expand the results from distinctiveness theory, the interrelationship with place attachment will be added in the second data collection and described in detail in the next chapter.

3.2.6 The Interrelationship of Place attachment and Distinctiveness

Place attachment theory describes people's feelings, emotions, and behaviour towards places. It refers to the relationship between people and specific places and interchangeably with 'sense of place' specifically in the emotions of an individual or community unit and defined as person to place bonding and is proposed in the psychological system as an "attachment figure" (Scannell & Gifford, 2014; p. 23). It takes the form of a "psychological investment with a setting that has developed over time" (Vaske & Corbin, 2001, p.17) and that is captured in everyday phrases such as feeling 'at home' or having a 'sense

of place'. As Hay (1998) points out, the development of place attachment is regulated by factors such as rootedness and length of residence.

In the social science research, the interaction of place can manifest human culture. Indeed, Cohen (1996) mentioned how in the social process, culture is a tool to create the meaning of a sense of identity. Low and Altman (1992) describe place attachment as an affective bonding between people and place. The meaning of place attachment is an emotional connection to a specific place and its urban attributes. To measure place attachment, place dependence and place identity are vital elements that can describe the place identity influenced by the functional (physical) and the emotional aspects of environmental experience. The association of specific places and people contribute to the place dependence related to the quality of the place. Ujang (2012) suggests that to increase the degree of place dependency, the researcher should consider the place's physical and functional qualities that interact with activities and social community.

The environmental experience of places can create the place attachment due to the psychological (emotion and feeling) and the functional (dependence). The main characteristic of place attachment is "the desire to maintain closeness to the object of attachment which also describes the special feeling towards a particular place". Scannell and Gifford (2010, p. 5) explains place attachment as 'a bond between an individual or group and a place that can vary in terms of spatial level, degree of specificity and social or physical features of the place, and is manifested through affective, cognitive, and behavioural psychological process'. Ujang & Zakariya (2015) explained that place attachment in the Southeast Asia urban context contributes to place-making and positively responds to the environment; moreover, the consideration of user feelings and behaviour towards places and environment characteristics is crucial.

Scannell & Gifford (2009) explained that elements of place attachment consist of a multidimensional structure in three main aspects: people-process-place (PPP) (Figure 3-06). The PPP framework questions who is attached to the person factor and meaning to place, secondly the meaning of place attachment describes through psychological process consists of the 'cognition behaviour' of attachment (Scannell & Gifford ,2009).

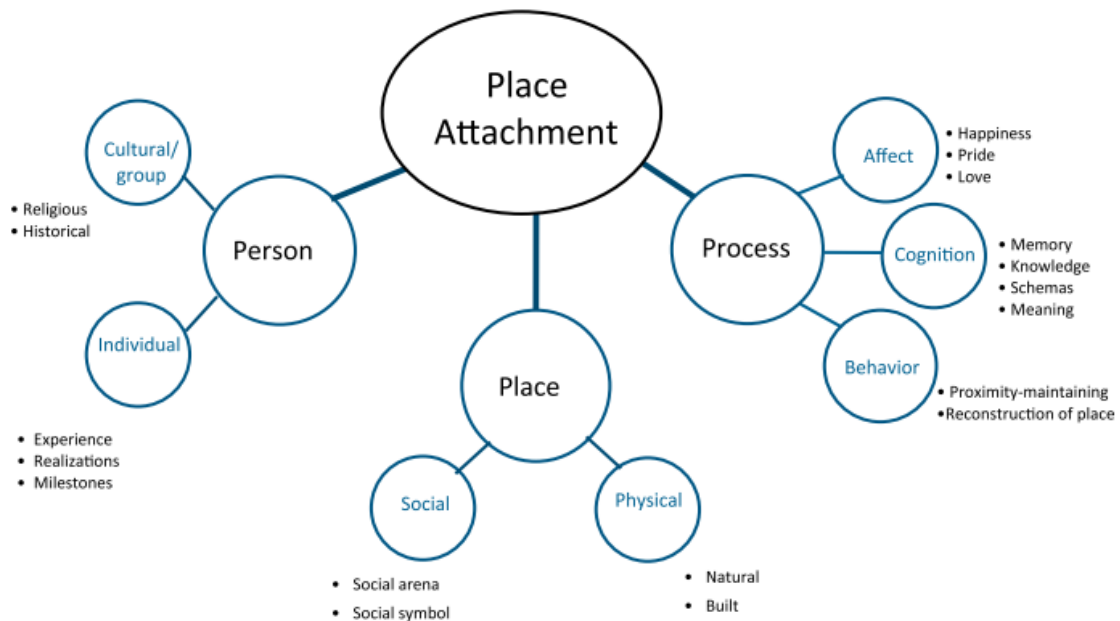


Figure 3-06: The component of Place attachment (Scannell and Gifford, 2009: p.2)

The PPP framework concentrates on personal memories and experiences, which can divide the level of place attachment. Furthermore, the memory of people provides the meaning and historical value of a place (Shinbira, 2017). Lewicka's (2011) research utilised the framework of place attachment by Scannell and Gifford (2010) and proposed that PPP theory should concern the strength of community relationships capable of empowering the place attachment. Lewicka (2011) also suggested that literature describes the character of a place, which correlated in physical space that covered principles of urban space design and peoples' engagement in environment behaviour studies. Lewicka (2011, p.227)

stated that: “We should therefore ‘rediscover our roots’ and remember that environmental psychology in general, and place studies in particular.....” The rediscovering process could explicate meaningful place-related people. However, after reviewing Shinbira's (2017) study, he used place attachment to describe the relationship between place and the people of the city centre. However, he suggested in the limitations of the study that further research is needed to apply more case studies (at a micro-level i.e. a street, or a square, or a traditional zone) (Shinbira, 2017: p.314). This suggestion influenced this research to collect Chiang Mai City's distinctiveness in the first step before rediscovering the old city's rootedness by using place attachment theory.

According to this review, the researcher applied distinctiveness theory to define the genuine cognition of places and urban space and redefine the rootedness of urban identity through the place attachment theory, which refers effectively explains engagement between place, on, and process. The interrelationship of these two theories would describe the distinctiveness of depth perspective and expand the core of place-in-place attachment theory.

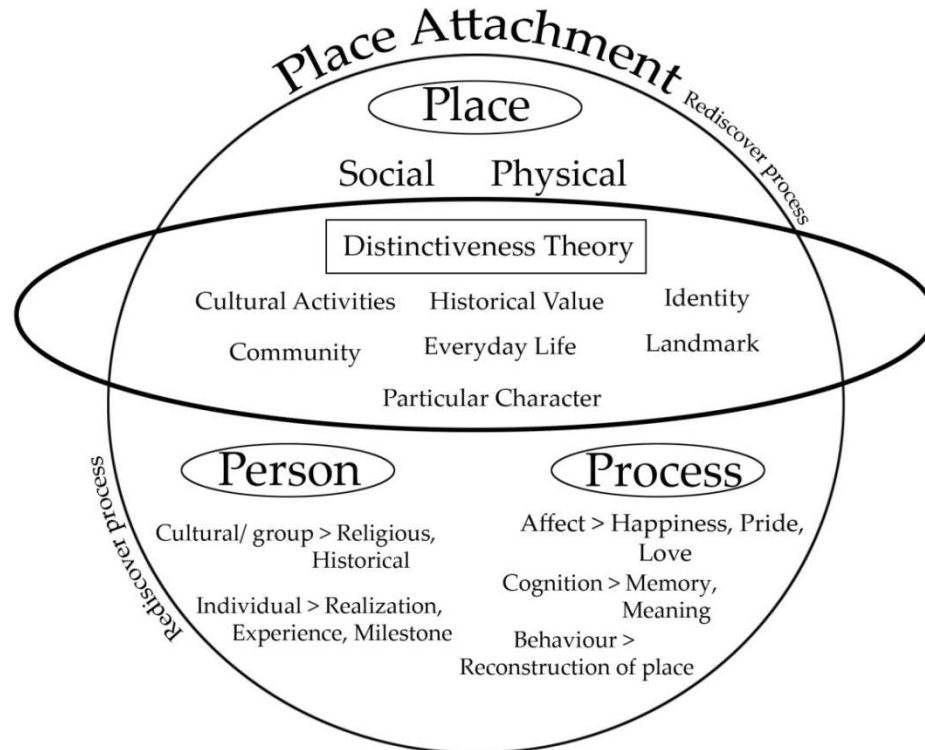


Figure 3-07: The interrelationship of distinctiveness and place attachment (Author)

Place attachment Factors

Social and Physical Attachment (Place)

As distinctiveness theory describes the genuine experience of places, the social and physical aspects cannot be revealed separately. Place attachment theory is divided into two elements: place; and social. As such, people could feel attached to places for various reasons, such as the bonding of ancestors and religious or social needs (Shinbira, 2017; Chang et al., 2023). Urban design principles always integrate the factors of people and place into the design process (Burley, 2007). It is a two-way process that creates spaces and is influenced by the social activity, etc., of those spaces (Carmona et al., 2010). Generally, the social dimension is of the most concern within social science

research rather than the physical dimension according to the social capability to describe the phenomenon of places (Shinbira, 2017) and socially constructed characteristics of place (Lewicka, 2011). However, the potential of physical elements is the strongest attachment component in explaining place attachment through social actions and activity and providing the meaning of place (Gustafson, 2002; Chang et al., 2023).

Moreover, the physical environment can influence place attachment in two aspects: direct influence (Lewicka, 2010); and indirect influence (Stedman, 2003). The bonding of influence is related to the quality of the physical environment, the high quality provides direct influence and contrasts with the poor quality of the physical environment (Chang et al., 2023). However, physical attributes and environment are unable to anticipate a sense of place directly; besides, they can present a symbolic meaning of places (Stedman, 2003; Chang et al., 2023).

Activity and Function Attachment (Process)

Activity and function attachment become parts of the place attachment factor, which describes the potential of a place related to the daily routine and life of people in places (Low & Altman, 1992) and to attributes necessary to support specific activities or experiences (Williams and Roggenbuck, 1989). Functional attachment can be acquired when “a place is well-identified and felt significant by the users and able to provide a condition to fulfil their functional needs and supports their behavioural goals better than a known alternative” (Ujang & Zakariya, 2015, p. 712). This factor is defined as place dependence that explicitly attaches to social, cultural, and preferred activities (Shinbira, 2017) and positive emotion on recreation purpose can increase the value of place such as good place for shopping, walking, etc. (Williams and Roggenbuck, 1989).

However, the place attachment possibly occurs not just in a positive perspective but includes a negative perspective, those perspectives are capable of contributing the meaning of physical's setting and cultural characteristics (Giuliani , 2003).

Emotional Attachment (Person)

Emotions are one of the instruments to reveal attachment to place. Indeed, Purwanto and Harani (2019: p.3) state that: "One would be resource dependence, which refers to the importance of the resource for doing the activity (i.e., functional attachment). The other aspect would be resource identity, which refers to the degree of emotional or symbolic meaning assigned to a place." Lewicka (2008) asserts that people express different emotions according to the rootedness of places related to the intimate relationship of their circles of life, and positive emotions related to the past (Lewicka, 2011). These can include memories of childhood, ancestors, roots in the place, or religious, ethnic, or national groups coming from there (Lewicka, 2008). However, Manzo (2003) argued that the emotional factor is unpredictable because people's minds keep changing, and that people may generally feel attached to a place for social or other reasons. Burns (2000, p.76) also mentioned that feelings and perceptions of the built environment are diverse and fluid, and that emotions are dependent on context. It can therefore be assumed that physical settings and context quality influence the emotional factor.

Nevertheless, place attachment and emotion rely on the memory of place which has a relation to the time or length of residency of person to a place. Williams and Roggenbuck (1989) and Lewicka (2008) both stated that experience from the past is a solid factor in increasing the degree of an emotional factor in

place attachment. It is involved in preference bonding to physical attributes, which are relevant to functional factors as well, for example, "It is a good place to do the activities I like to do" (Williams and Roggenbuck, 1989: p.3). Kenny (2004) also describes that local culture is a significant aspect that produces emotional meaning to city environments and context, influencing both physical and social.

Length of Residence, Age and Gender (Person)

As mentioned in previous sections, place attachment mainly relies on the person. In general, time is the majority factor of place attachment. Several factors that influence place attachment consist of the length of residency, age, and gender (Lalli, 1992; Stedman, 2006; Lewicka, 2010 and Shinbira, 2017).

Length of Residence

Length of residency is a significant factor related to a person's knowledge and rootedness to a place, such as family being raised in the city, or a place of ancestors (Lewicka, 2008). In his urban image theory, Lynch (1960) describes how someone who relates to and knows the city can detail the city's information. This is also identified by Bernardo et al. (2016), who mention that people who inhabit the place have an internal perspective in contrast to outsiders. The newcomer also needs help to provide the authentic value of community due to the short period of time to develop a sense of attachment to places (Stedman, 2006). The length of residence can increase the place attachment. According to these reviews, this study recruited a sample population following the relation between the sample and the places. As such, sample participants must live and work in the Chiang Mai Old City.

Age

The age of participants has been used to describe social science research. It is an essential dynamic factor that explains relationships between people to places, attachment, and time changing (Hay, 1998). Moreover, age is related to investing time in the place and gaining insider emotion (Anton & Carmen, 2014); emotion toward places always relates to time (Morgan, 2010). Giuliani (1991) and Phillipson (2007) mentioned that a person's lifetime affects the bonding of people, place, and experience of the environment. According to these reviews, it implies that local citizens are attached to a place undergoing a particular time which is valued in the present time. Place attachment and meaning are temporal aspects that develop over a person's lifetime and are strongly affected by memories and experiences (Shinbira, 2017: p.88). In the second data collection, the researcher questioned how age and length of residency affect the attachment to places; this could explain the relationship between memory and experience of people to places.

Gender Differences

According to reviewing, the gender factor that a connection with urban perceptions. Hidalgo and Hernandez (2001) stressed that the contrast of gender in perceiving the environment between men and women is considered through their ways of experiencing, perceiving, and knowing places. Dlamini et al. (2020) mentioned that gender factors could be used to assess place attachments. They mentioned that as compare between men and women, Dlamini et al. (2020)'s study that women attach to place more than men due to their strong attachment to a neighbourhood than men. In the context of Chiang Mai, Inthamoon (2012) explains in the study Spirit Mediumship of Phi Jao-Nai: An Open Space of Gender Diversity in Lanna Society that gender appearance in Chiang Mai was

not held in conservative ways. People in urban space and spiritual space were free to express themselves; both men and women could cross sexual appearance while performing the possession of spirituality. However, women in Lanna society handled various roles in life independently represented through urban space, such as a merchant, mothers, wives, etc. (Ungkawanichakul, 2017). Currently, gender appearance in Chiang Mai is more independent and relevant to modern culture. The study focuses on the difference of gender affects the perceiving urban identity associated with meanings that create the place identity.

3.3 The Relation of Heritage, Culture Heritage, Urban heritage, Heritage Value and Identity

This section describes the relationships between heritage, culture heritage, and urban heritage which have relevant meaning in terms of heritage study. Heritage is a broad field of conservation practice; indeed, heritage plays an important role in preserving and continuing the uniqueness of a community.

3.3.1 Relationship of Heritage, Culture Heritage and Identity

The word 'heritage' has a clear and relatively simple relationship with the concept of inheritance. The Oxford Dictionary mentions Heritage as property that is or may be inherited; an inheritance, valued objects and qualities such as historic buildings and cultural traditions that have been passed down from previous generations (Oxford dictionary, 2022). Howard (2003) describes "heritage" as 'That which has been or may be, inherited' raises the exciting area of Heritage that is not yet owned, but may come into ownership later; the other definition, 'circumstance or benefits passed down from previous generations'. Furthermore, Heritage has also been described as 'anything you want'. People

collect Heritage for their benefit or the perceived benefit of others, although the nature of those benefits varies (Howard, 2003).

Heritage is about people and relates to heritage fields consisting of nature, landscape, monuments, Sites, artefacts, activities, and people (Howard, 2003). Moreover, heritage assets can be described as "A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing)." (Historic England, 2016: p.55).

Heritage is a cultural process, and it is also not a thing, a site, buildings or the essentials of Heritage themselves. It is engaged with memory that creates the understanding which engages the present. Notably, it is a way of acquiring or engaging with a sense of history (Howard, 2003 and Smith, 2006). Heritage is an experience in the book *Uses of Heritage* (2006). Laurajane Smith (2006) also mentioned the experience in Waanyi Women's History Project, where the women are simply in their cultural landscape, being 'in the country' was to experience a sense of Heritage. A sense that Heritage had to be experienced for it to be Heritage and that; moreover, it was the experience. This is a sense of the importance of memory, remembering and performance. While women were affirming senses of their gendered cultural identity at Boodjamulla (Smith, 2006). Heritage also involved acts or performances of remembering, not just performances of remembering in terms of recounting oral histories, but also in embodying that remembering (Howard, 2003 and Smith, 2006).

Heritage is not static 'frozen in time', as the conservation ethic tends to demand, but instead is a process that while it passed on established values and meanings, is also creating new meanings and values (Howard, 2003). Memory

and remembering although it is often recognized, for instance, that memory and identity are linked, and that heritage places may invoke personal and collective memories, this observation is often nodded at rather than given close critical attention (Howard, 2003 and Smith, 2006). A memory may be seen as subjective and unreliable, whereas history is about accumulating facts within the traditional and authorized narrative (Anheier & Raj Isar, 2011).

Furthermore, Graham et al. (2000) stated that 'Heritage gives meaning to human existence by conveying the ideas of timeless values and unbroken lineages that underpin identity' says the author. However, he also argued that the links between identity and Heritage are less attention in development and maintenance. Heritage as identity, Heritage is assumed to provide a physical representation and reality to the ephemeral and slippery concept of 'identity'. Like history, it fosters feelings of belonging and continuity (Taylor & Lennon, 2011) while physically giving these feelings an added sense of material reality. As Smith (2006: p.41) states: 'heritage provides meaning to human existence by conveying the ideas of timeless values and unbroken lineages the underpin identity.'

Therefore, Heritage is a cultural practice involved in constructing and regulating a range of values and understandings. The use of the past to construct ideas of individual and group identities is part of the human condition, and throughout human history, people have actively managed and treasured material aspects of the past for this purpose (Smith, 2006). It also relates to various political ideologies and people and contributes an advantage for people. It especially blends inside the everyday life of general people as well. The type of people who preserve Heritage is related to the level of identity (Graham et al. ,2000 &Smith, 2006).

Indeed, heritage's representational value in constructing and contributing material to 'identity' is well recognized, although analysis of the way Heritage used is often articulated in terms of national identity (Howard, 2003 and Anheier & Raj Isar, 2011). Heritage can be understood as an essential political and cultural tool in defining and legitimizing identity, social, culture and experiences (Howard, 2003 & Smith, 2006). Moreover, heritage as identity and memory of identity is one crucial aspect forming the value of a place (Phetsuriya & Heath, 2021). However, it may also be an essential resource in challenging received identity and cultural values.

3.3.2 Relationship of Cultural Heritage and Identity

Cultural heritage was widely discussed in the World Heritage conferences as it is a dynamic topic which is relevant to society and life. People have created cultural heritage and it has been created for people (Howard, 2003). It is mainly related to society and world communities in terms of representing the dynamic of its value and identity of places. To expand the relationship of cultural heritage and identity, it can be explained that culture and identity shape the expressions and fundamental needs of life that construct the diversity of cultures and the heritage value (Albert, 2020).

Cultural heritage includes artefacts, monuments, a group of buildings and sites, and museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific and social significance. It includes tangible heritage (movable, immobile and underwater), intangible cultural heritage (ICH) embedded into cultural, and natural heritage artefacts, sites or monuments. The definition excludes ICH related to other

cultural domains such as festivals, celebration etc. It covers industrial heritage and cave paintings (UNESCO, 2009).

Cultural heritage is a resource and an opportunity for urban development (UNESCO, 2019); that cultural heritage can be an essential driver for strengthening social, ecological, and economic assets. The cultural heritage of cities includes tangible assets, such as architecture and monuments, and intangible elements, like celebrations, festivals, languages, and other everyday practices. These tangible and intangible elements of urban landscapes encompass people's meanings and values. This association of manifestations with meanings gives rise to local identity, a sense of belonging, and attachment to places (Taylor, 2015: p.183). Cultural heritage and social identity are always associated with cultural background and emotional pride in a historical setting (Albert, 2020 & Rosilawati et al., 2020). After review, it is assumed that cultural heritage employs the memory of place and emotions on the historical background to define the heritage and identity.

3.3.3 Relationship of Urban Heritage and Identity

Urban heritage has emerged widely and considerable importance in many research. It has concluded within a variety of bodies of knowledge such as art history, leisure studies, archaeology, geography, history and built environment (PENDLEBURY et al., 2009, El Hosary et al., 2018 and Ginting & Wahid 2017). All this knowledge is inseparable from human factors, especially in the built environment section, which is always related to human behavior, memory, local people, tourists, socio-economic and socio-cultural (Orbasli ,2000; Devine-Wright 2009 and Phetsuriya & Heath, 2021). It is also related to the physical appearance

of global history that represents civilization of its existence of tangible and intangible value (Urban Heritage 2016). Although urban heritage based on its tangible aspects which are mainly seen as a unique asset that contributes to strengthening cities' competitive position in the global economy, balanced policies that "meet the needs of global capital with the needs of local communities" are being requested (Guzmán .et al, 2014).

The Urban heritage is the primary elements of human evolution through history and reflects the capacity of man to overcome the surrounding environment. Heritage aspect is not limited to the 'intangible' which is the language or literature or thought alone, heritage also includes the 'tangible' which is the physical and sentimental elements of the community together with thought, philosophy, religion, science, art and architecture in a society (PENDLEBURY et al., 2009). "Urban heritage can be defined as including other legacies from the past that make a town or city distinctive, such as the arts and crafts, or the rituals, ceremonies and festivals, shared by a community." (Logan 2005, p. 28).

The relation of urban heritage and identity acts as an index for the quality of urban life and the socio-economic conditions of each city; moreover, a unique urban identity can be a source of community pride and satisfaction with their city (Ghavampour et al., 2008). Urban heritage identity is the reflection of the historical context of the city as a part of both its physical components and cultural spirit (Oktay, 2002). The urban identity of cities grows from the continuous relationship between the place and its residents by forming the inhabitants' collective memory; at the same time, it is a means of making the community aware of the conservation of the historical context (Oktay, 2002). According to Torabi and Sima (2013), it is a measure of growth for the city's

identity as a factor for the development and promotion of environmental quality. A significant unique urban identity can also act as an economic tool that can boost city branding among the other competitive global cities. This essentially means more foreign investments and attracting the talents of various people. 'A strong sense of identity can be an attractor, bringing new investment and talent into an area' (Elewa, 2018: p.473).

The vital part of traditional urban identity is the powerful convergence of urban identity in a social and physical environment. Traditional cities include a suitable pattern of urban management, organized public participation, and social determinants in the city's body, which are caused by human's moral solidarity with urban society (Tavakoli, 2010). The form of such a city has distinctive physical signs, which have direct and complementary relations with its surrounding environment. Furthermore, local architecture in the old city is proportionate to its habitant's behavior, culture, and needs (Tavakoli, 2010).

Moreover, urbanization is one of the essential heritage elements and is distinct from other heritage elements by its physical existence, representing tangible evidence of the continuous presence of previous civilizations. It also highlights the sequence of inter-generational experiences and their cultural, social, and religious values (Menchawy et al., 2011). Nevertheless, human behavior is directly related to the urban heritage-defining process, which correlates to the theory of authenticity and identity. It is crucial to recognize the potential of space and context that preserves a city's soul.

3.3.4 Relationship of Heritage Value and Identity

Heritage value is the aesthetic, historic, scientific, cultural, social, or spiritual importance or significance of a historic place from the past, present, or future generations (Law Insider, 2022). Heritage value can be a part of the total value of an object. For example, saltpan coastlines may have heritage value but in providing food and livelihoods, will also have instrumental and possible relational value independent of heritage value (AZZOPARDI et al., 2021: p.372). Figure 3-05 illustrated the linkage between life framework of values that provide heritage values lens consists of living from, living in, living with and living as.

In terms of urban heritage identity study, it generally defines the sense of place and place identity can be defined from heritage, tangible and intangible which is a part of heritage attributes (AZZOPARDI et al., 2021). The element of 'living in' and 'living as' aspects of heritage value lens provides the heritage value that contributes to sense of place and cultural identities including tangible and intangible heritage; practices; ideas of local distinctiveness which consider context value and transcendental value (spiritual value) (AZZOPARDI et al., 2021: p.373). Heritage value could be described as tangible, and intangible inseparably include religious and spiritual values (Mallarach & Verschuuren, 2019). In this research that studies cultural and historical context, cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. It is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups (Australia ICOMOS 1999).

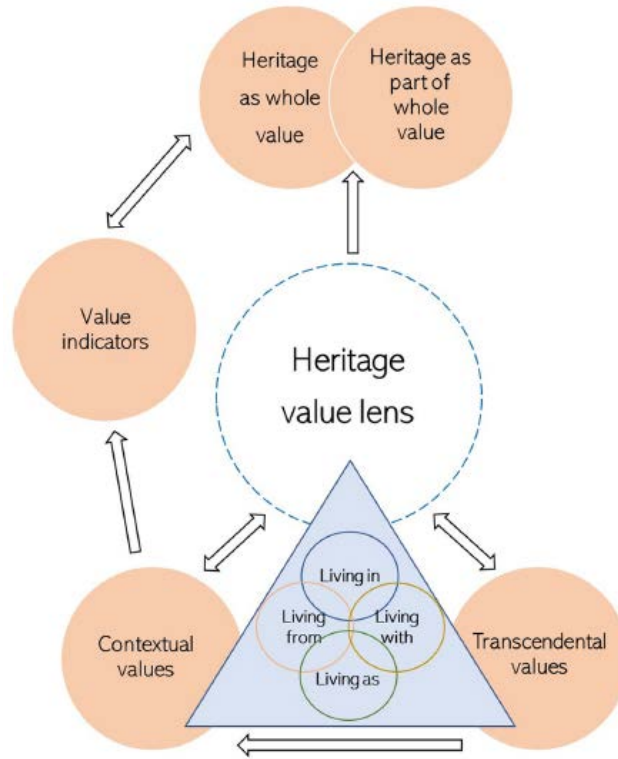


Figure 3-08: A new framework for the heritage values of the natural environment that shows how different dimensions of heritage values interact and link to the Life Framework (AZZOPARDI et al., 2021: p.374)

According to reviewing, the framework of this research that related heritage context of Chaing Mai old city may require the definition of ‘heritage values range’ that interact with social, historical, cultural and spiritual contexts or sociocultural value by compare the heritage value from other studies. The range of heritage value of place can provide the sense of place which represented identity and local distinctiveness of place.

Sociocultural Values are Heritage Values

To legitimate heritage and protection, heritage values contribute the meanings and values that people attempt to preserve (including collections, buildings, archaeological sites, landscapes and intangible expressions of culture,

such as traditions). According to a massive study of heritage value, there are many classifications of heritage values. A decade ago, the values consisted of historical, aesthetic, economic, social, scientific and any factor. (Reigl, 1982; Lipe, 1984; Australia ICOMOS; 1999; Frey, 1997; English Heritage, 1997) Currently, most researchers increasingly pay attention to social value which is defined as 'a collective attachment to a place that embodies meanings and values that are important to a community or communities (Díaz-Andreu, 2017: p.2).

Mason (2002) explained that the complexity of heritage values differs from characterizing the heritage components. A typology of heritage values following the researcher of table 3-02 summarizes the aspects that the researcher will consider applying in the study. Furthermore, the study by DOĞAN (2020) in Table 3-03 differs from Mason's (2002); he concentrated more on charters and declarations from various places, providing interesting values based on each place. Notably, from the late 20th century to the beginning of the 21st century, each association significantly concentrated on social and spiritual values, constituting a significant part of describing tangible and intangible values. Fredheim & Khalaf (2019) suggested the qualification each value from each association that required the strength of relationship between associations and values-based approaches in adopting diverse values of each heritage site.

In the field of social study in heritage, the understanding of the concept of 'social value' relates to the value of objects and places within communities and people rather professionals' identification of meaning. Gibson (2009, p.73) notes that a report on social value commissioned by the Australian Heritage Commission, defines places with social value as those which firstly, can provide a spiritual connection or traditional connection between past and present and tie both periods together. Moreover, in terms of community relations, the social

value can connect people back to their history, provide an essential reference point in a community's identity, loom large in the daily comings and goings of life, provide an essential community function that develops into an attachment, and shape some aspects of community behaviour or attitudes (Mason, 2002 and Gibson ,2009).

In this study, the researcher selected historical, cultural, aesthetic, economic, educational, and spiritual values to describe the heritage value of urban heritage identity. However, in the built environment, identity applies historical, cultural, aesthetic, and spiritual values to the streetscape scenes in Chapter 5.

Reigl (1982)	Lipe 1984	Burra Charter (1999)	Frey 1997	English Heritage 1997
Age	Economic	Aesthetic	Monetary	Cultural
Historical	Aesthetic	Historic	Option	Educational and academic
Commemorative	Associative-symbolic	Scientific	Existence	Economic
Use	Informational	Social (including spiritual, political, national, other cultural)	Bequest	Resource
Newness			Prestige	Recreational
			Educational	Aesthetic

Table 3-02: Summary of heritage value typologies devised by various scholars and organizations (Mason, 2002, p.9)

Reigl (1903)	ATHENS CHARTER (1931)	VENICE CHARTER (1964)	AMSTERDAM DECLARATION (1975)	APPLETON CHARTER (1983)	NARA DOCUMENT (1994)	SAN ANTONIO DECLARATION (1996)
AGE	HISTORICAL	HISTORICAL	CULTURAL	CULTURAL	CULTURAL	TESTIMONIAL
USE	ARTISTIC	ARTISTIC	HISTORICAL	AESTHETIC	ARTISTIC	HISTORICAL
NEWNESS	AESTHETIC	AESTHETIC	IDENTITY	CONTEXTUAL	HISTORICAL	IDENTITY
HISTORICAL		ARCHEOLOGICAL	SOCIAL	ARTIFACTION	SOCIAL	SOCIAL
COMMEMORATIVE			AESTHETIC		SCIENTIFIC	ECONOMICAL
						DOCUMENTARY
BURRA CHARTER (1998)	FARO CHARTER (2005)	QUEBEC DECLARATION (2008)	NEW ZEALAND CHARTER (2010)	UNESCO WORLD HERITAGE CONVENTION DOCUMENT (2017)		
HISTORICAL	REMEMBRANCE	SOCIAL	AESTHETIC	MONUMENTAL	SYMBOLICAL	AESTHETIC
SCIENTIFIC	HISTORICAL	HISTORICAL	ARCHITECTURAL	SCIENTIFIC	TECHNOLOGICAL	SCIENTIFIC
AESTHETIC	IDENTITY	CULTURAL	ARCHAEOLOGICAL	COMMEMORATIVE	TRADITIONAL	ETHNOLOGICAL
SOCIAL	CREATIVITY	POLITICAL	SOCIAL	SPIRITUAL	HISTORICAL	ANTHROPOLOGICAL
SPIRITUAL	ECONOMICAL	SPIRITUAL	FUNCTIONAL			
CULTURAL		ARTISTIC	HISTORICAL			
		ENVIRONMENTAL	LANDSCAPE			

Table 3-03: The classification regarding the values of cultural heritage which was suggested by different organizations (DOĞAN, 2020: p.67)

As the traditional core of preservation is the socio-cultural values which relate to buildings or places according to their meaning to local people and communities. This value consists of historical values, cultural values, social values, aesthetic values and spiritual values (Mason, 2002 and DOĞAN, 2020).

Historical Value

Historical values are the core of the heritage concept, and the capability to react to the past of heritage objects is significant in explaining their meaning (Mason, 2002), such as physical and cultural ornament in the previous era (Reigl, 1982) and the materials heritage attributes that represent the historical value of places Lipe (1984). There are several ways to accrue value, such as age, people's association, events, uniqueness, and documentary potential (Mason, 2002). The two sub-types of historical value are education and artistic values. Education values relate to the potential of heritage knowledge gains and looking forward from the past to further knowledge combined with another knowledge field (Mason, 2002), such as the craftsmanship practice knowledge that conveys the historical narrative of a city (Wells, 2010). Expressing uniqueness or being good or best in any aspect is included as the artistic value in historical value (Mason, 2002) and maintains the value associated with historical buildings and events, the historical built environment (Wells, 2010). Cultural values are similar to historical values, heritage always relates to cultural values, and the advantage is to build cultural values in the present to continue the historical meaning (Mason, 2002). It is a vital element that can establish a sense of place and identity in the built environment of a city (Orbasil, 2000).

Social Value

Social values are essential in social science; they are associated with personal memories and emotions that convey the distinctive character and identity which inextricably connect to a place's economic vitality and liveability (Dümcke & Gnedovsky, 2013). The social values of heritage sites include the assembly of people in social spaces for purposes such as celebrations, markets, picnics, or other activities (Mason, 2002). Social value encompasses the

significance of the historic environment to contemporary communities, including people's sense of identity, belonging and place, as well as forms of memory and spiritual association (Mason, 2002 and Jones, 2017). All activities do not necessarily need to relate to the historical value or the cultural purpose but can share the space qualities within neighbourhoods or groups with the same interest (Mason, 2002).

Social values can also contribute to the "place attachment" aspects of heritage value (Mason, 2002) and citizen's pride (Dümcke & Gnedovsky, 2013) through the fluid cultural following citizens 's experience (Mason, 2002). These include aspects such as social cohesion and community identity, which are derived from specific characteristics of the heritage and environment (Mason, 2002; Jones, 2017; Dümcke & Gnedovsky, 2013).

Aesthetic Value

Aesthetic values refer to the qualities of the visualization of heritage, which was approached from an international perspective, and preservation programs (Elwazani, 2021). The sense of aesthetic is widely interpreted to beauty, the ruins and the fundamental senses of humans such as smell, sound, touch, and sight (Mason, 2002). These contribute a strong sense of well-being of place through human perception. Aesthetic value stresses the role of formal building appearance in preserving building character through artistic parameters such as scale, style, and color (ICOMOS the Washington Charter, 1987) shape, materials and surface (Elwazani, 2021). Aesthetic value refers to an object, a building, or literature that is possessed and experienced in positive or negative value. Moreover, aesthetics has been used to develop visual character, including townscape, streetscape and heritage resources (Brady ,2006 and Halperin & Garrido, 2019).

Spiritual Value

Spiritual values relate to the religious or sacred meanings that evolve from beliefs or religions (Lipe, 1984; Mason, 2002). Cross (2001) describes the bonding of spiritual value to places as emotional on intangible and a sense of belonging which felt rather than created. The core of spirituality is religion; however, Willson & McIntosh (2016) argued that even though religion is the central core in creating spiritual value in a heritage building, but a personal experience which based on non-religion is capable of delivering spiritual value as well, such as pride of their previous career which related to a heritage place, pride of a person's hometown, priceless memory with loved one, etc. Cross (2001) also suggests that the spiritual relationships between person and place can be formed with the rootedness of a person with a community or region in which a person was raised or afterward experienced a place.

The defining process of urban heritage of Chiang Mai Old City considers applying distinctiveness theory to define the distinctive places from the general places in the old city. Afterwards, the study employs place attachment theory to describe the relationships between people to these distinctive places and constructs the correlation of distinctiveness theory and place attachment theory.

3.4 Perception, Recollection and Memory in Urban Identity Studies

This section describes the specific psychology of human behaviour in architecture and urban space. There are three significant theories which were applied in this research study consisting of: perception in architecture and urban space; recollection; and memory. The objective of this study is to define local people's perceptions of architecture and urban space. Currently, psychology and

urban heritage studies merge the ideology to define human behaviour in relation to public urban space (Abel, 2021). Urban heritage atmosphere significantly induces humans to interact in heritage assets due to its appearance and environment.

3.4.1 Perception in Urban Heritage study

If we are to understand space, we must consider its symbolic meaning and its complex impact upon behaviour as it is mediated by the cognitive process.

(Harvey 2009, p.36)

A historical environment reflects a specialization of the environment, and it includes both buildings and sites. Erder (2018) explains that the contribution of the spirit of a place involves both intangible and tangible attributes, which are parts of the historic environment. Sense of place theory is related to the perception of people in the context and expression of the individual's experience in urban spaces.

Perception, a concept in which the cognitive and concrete worlds meet, is an active and purposeful procedure of acquiring data from and about an environment (Dirks & Neisser, 1977). It occurs due to the direct relationship between the environment and people, which depends on experiences and actions in space. The elements that could make a difference in perception may include age, gender, social status, educational level, knowledge of a particular subject, past experiences, and the cultural, religious, and individual economic structures. Lynch (1960) describes the images that generate the urban environment and people as a part of the participation process, such as selection, organization, and

making sense of place. Rapoport (1977) suggested that the built environment could be formed by organized space that includes human activities and meanings. Moreover, the built environment can be sensed through time as the context of the historic city. The perception of the historical environment concerning the public space is crucial in maintaining the unique essence of historical cities (Birer & Çalışır Adem, 2022).

To sum up, both physical and cultural characteristics can provoke the recollection of places through people's experiences. This quality contributes to a place's identity and enables people to distinguish between one place and another (Kecpczynska-Walczak & Walczak, 2015).

3.4.2 Recollection and Memory

The memories of humans reflect the social memories which are embedded in social structures and personal experiences. Social science studies are concerned with socio-biographical called 'collective memory' and shared memories within societies called 'social memory' (Lewicka, 2008). Memory and recollection are essential in strengthening the connection between people and places. Any places that lose memories, and connections can lose their meanings and values. The values of places related to society provide a sense of belonging and reveal memories of heritage places. This can be used as a part of the conservation process. Ashworth et al. (2007) mentioned that heritage is a tool for interpreting tangible and intangible meanings and values. Cultural heritage is a significant element that can be collected through memories. It is developed and transferred from generation to generation and becomes a resource for constructing a collective identity.

The definition and concept of memory links cultural heritage and memory; this relationship develops over multiple social experiences and can collect identity from memory. Cultural memory and heritage are strongly linked, as heritage is a cultural production that further develops values and meanings for individuals and groups. The memory of a community can construct the heritage of their community; it is also included in the heritage value of a community (Apaydin, 2020).

Lewicka (2008) mentioned in a study on place attachment, place identity, and place memory that "place identity" is a term with two meanings, and so is "place memory". The term refers to the contents of people's memories and describes a place. Places remember, and they do it through their monuments, the architectural style of their buildings, inscriptions on walls, etc. (Hayden, 1997 cited by Lewicka (2008, p. 214). Lewicka (2008) calls them 'urban reminders', which are described as the past leftover from previous inhabitants that can influence the memory of places using historical information.

It also reflects the memory and recalling the process of people living in the cities with the 'richness of memory'. This will be interesting in the city, which includes historical places and heritage artefacts. This research study used the recollection of memory of autonomous individual participants who answered the questions in the distinctiveness section. This relates to Lewicka's (2008, p.227) statement that "the more autonomous is the place in people's minds, the more attachment to it should depend on its physical features, including the presence of historical 'urban reminders'".

3.5 The Built Environment Identity

Generally, the built environment is a general concept related to all the structures built by man to support human activity (Portella, 2014a: p.454). There are seven components in the built environment consisting of: products; interiors; structures; landscapes; cities; regions; and Earth (McClure & Bartuska, 2007). In terms of urban studies, Rapoport (1990) suggested that the built environment is constituted by the organization of space, time, meaning, and communication. However, this study concentrates on cities and the involvement of people and the meaning of the city scenes, which could provide the city's urban landscape characteristics and explain its meaning through local peoples' perceptions of streetscapes, façades, and the value of the views.

3.5.1 Urban Landscape and Identity

The urban landscape is the most complex of all landscapes due to the multiple interactions between its built components and the society's dynamic social, economic, and cultural standards (Shao, 2014; Kaymaz, 2013; & Taylor, 2016). Each urban landscape has its history; many elements can be recorded for an integrated analysis of the urban environment (Taylor, 2016). The environment, as it is perceived, registered, and analysed in terms of 'urban landscape' is the most complicated system among those that are considered to be environmentally available. The complexity of the urban environment lies in the multiple interactions of its constituent elements as it is a dynamic space, resulting from the relations between economic activity, social structures, cultural values and their ever-changing natural background (Arreola, 1995; Kaymaz, 2013; & Taylor, 2016). Urban landscapes are formed and shaped mainly under the influence of human activities. Therefore, they inherit communities' values,

beliefs, and symbolic meanings which occur and change throughout the time (Kaymaz, 2013: p.757).

In many studies of visual elements inventory in urban landscapes, the observer must also take note of other features and visual elements of the environment, such as these aspects. The visibility elements (viewing angle, viewer distance, view elevation); the form of paths; the degree of enclosure (or the non-enclosure) of the landscape; the architectural patterns (horizontal and vertical distribution of buildings, shape, colour, materials); roadside vegetation elements (vertical distribution of trees, density, foliage); open areas and their uses (pedestrian streets, squares, parks, parking areas, roads, etc.); activity pattern or population movement, as observed on the roads at the time of surveying (Tsouchlaraki & Achilleos, 2004; Kaymaz, 2013; & Shao, 2014).

Urban landscape can be described as the reflection of the environment's socio-cultural value, which represents the city's image (Zhang, 2014). Landscape identity has been defined as a social and personal construction in which the area's physical features are components in the construction process (Arreola, 1995; Shao, 2014). Therefore, social activity plays an essential role in forming identity, and it is named "existential identity" in landscape identity (Shao, 2014). Kaymaz (2013) suggests that the method to retain urban landscape identity is the creation of liveability of a place which could represent through the quality of the built environment in terms of physical and social aspects.

As Chiang Mai Old City is a living heritage site which carries the heritage value of architecture, however, in terms of built environment, the identity of the city is required to consider the issue, values, and further management policies to preserve and reform the identity of its built environment. It is also required to participate in a dynamic relationship between people, place, and nature.

3.5.2 *Quality of Streetscape*

In this study, the quality of the streetscape has been concerned into a part of the townscape character assessment following the study of Sholihah (2016). This consists of walkability, accessibility connectivity, transparency, safety, livability, vitality, diversity, adaptivity, social value, form, and visual quality (see table 3-04) (Sholihah, 2016). Rehan (2013, p.174) articulates that: "Streetscape is a term used to describe the natural and built fabric of the street and defined as the design quality of the street and its visual effect, particularly how the paved area is laid out and treated. It includes buildings, the street surface, and fixtures and fittings that facilitate its use – from bus shelters and signage to planting schemes."

Indicators for streetscape quality	Definition	Question design in this study
Walkability	Walkability as '...the extent to which the built environment supports and encourages walking by providing for pedestrian comfort and safety, connecting people with varied destinations within a reasonable amount of time and effort, and offering visual interest in journeys throughout the network' Southworth (2005, p.248).	(Q2) I feel satisfied walking on this street.
Accessibility	'Access' as a key component of ideal urban form consists of multipurpose, firstly, access to other people and certain activities: it is the fact that human beings are social animals. Moreover, the resource accessibility to various other goods and basic supportive energy and environment sources. The natural environment in urban space such as open space, landscapes, wasteland, or places with recreational activities. Lynch (1984, p.188-190)	(Q5) I can easily access the pavement.
Connectivity	Street connectivity and walking is partly mediated through other environmental attributes, particularly utilitarian destinations (such as local shops and services) that are found in well-connected areas	(Q4) The streets are connected between each of the pavements.

	(Koohsari et al. & 2014, p.119). Tucker et al. (2005) Connectivity is well connected to urban space to improve quality and concerns to the connection of urban transport, such as public transport, bicycle lane, continuous and accessible pavement.	(Q6) The pavement/space on the street has been designed for universal users.
Transparency	'...ability to see beyond whatever it is that defines a street' (Jacobs, 2010, p.165). Transparency of street is mainly related to an 'active frontage' which involves an interaction between indoor and outer space; and presents the inner life to citizens to let them in, it is a component of urban life and space in the meaning of access to buildings and continuity of urban space (Erkartal & Uzunkaya, 2019).	(Q9) I can easily access the shops along the street.
Safety	A great street is physically comfortable and safe (Jacobs, 1993).	(Q3) I feel safe walking on this street.
Livability	Urban livability refers to places where people can live in relative comfort. This starts with the availability of most basic things such as places with clean air, clean water, a well-managed environment relatively devoid of dirt, trash, noise, danger, overcrowding; a physically healthy living environment (Jacobs, 2011, p.177).	(Q1) The physical of street is clean and well organized, which provides livability. (Q13) I have a social life integrated with this street.
Vitality	Lynch (1984) mentioned vitality of place is supposed to encourage the health and survival of species. The vitality of a street is defined as the presence of people engaged in activities. (Mehta, 2011). Accordingly, vitality reflects activity, alongside a diversity of transactions (not necessarily economic) between people (Montgomery, 1998, p.106).	(Q15) I feel engaged with the streetscape.
Adaptivity	'This may be achieved by adaptation of the place to the activity, or vice versa, and also by mutual adaptation . . . adaptability in the more general sense is also achieved by the presence of adaptable persons . . . ' (Lynch, 1981, p. 167) The concept of adaptability is an adaptable urban setting, therefore, have '...a greater chance of taking the impact of a stressor, addressing its impact, and then quickly reconfiguring itself to continue its operation and generate value' (Desouza and Flanery, 2013, p.96)	(Q7) I think everyone can use the street for commercial purposes. (Q8) I think everyone can use the pavement for commercial purposes.

Form Visual Quality	<p>The aesthetic of visual character of urban places including colour, texture and surfaces can define urban space character (Carmona et al., 2010).</p> <p>An excellent visual quality of city streetscape will give a good visual aesthetic experience for the community and psychologically create a positive thought and action. Moreover, forms of urban environment both physical and non-physical form an interwoven perception and appreciation closely with humans (Santosa et al, 2018, p.2).</p>	<p>(Q10) It has an attractive landscape.</p> <p>(Q16) The façade design represents historical value.</p> <p>(Q12) The streetscape/space is green and shady to the streetscape.</p>
Social Value	<p>The social value of public space is wide ranging and lies in the contribution it makes to 'people's attachment to their locality and opportunities for mixing with others, and in people's memory of places. Places can provide opportunities for social interaction, social mixing and social inclusion, and can facilitate the development of community ties (Worpole, 2007, p.5).</p>	<p>(Q11) The streetscape brings the value of history of CMOC.</p> <p>(Q14) I consider the socio-culture value of this street reflects the value of CMOC.</p>

Table 3-04: Quality of streetscape divided into ten aspects (Author).

A streetscape is the result of two things: the physical environment; and the uses that take place within public space (Cullen 1971). To help shape the character of new areas that are in the development phase and to protect the quality of existing neighbourhoods, the district's streetscape standards, guidelines, and policies guide changes to public space (Rahan, 2013; & Embaby, 2015). Physical features that are reviewed for design include sidewalks, landscape, fences, retaining walls, street trees, and other infrastructure like streetlights or curbs and gutters (Hartani & Martokusumo, 2012). Uses that impact the character of public space include sidewalk cafes, vending, street festivals, and other temporary activities. Across the world, streets take different forms and embrace different issues; these differences construct the sense of place and identity of cities (Cullen 1971). Streets in developing countries, in particular, are described as being much more complex than those in the developed world because they contain more mixed modes of transport and many mixed uses

(Oranratmanee & Sachakul, 2014). Despite the complexity of Southeast Asian streets, studies of streets as public space in the region have been relatively limited despite public space being perceived and used differently (Oranratmanee & Sachakul, 2014).

Indeed, public space in Southeast Asia is perceived as being informal and spontaneous in nature as it was formed following an unplanned process (Oranratmanee & Sachakul, 2014). Furthermore, temporary use of public space in Southeast Asia, compared to that in Western countries, is much more intensive. Oranratmanee (2012) also explained that the kinship-based society of Southeast Asia has consequences for the preferred characteristics of public spaces to be more enclosed, inclusive, cool, comfortable, relaxed and adaptive to different uses.

Streets have been treated as open spaces for human beings and are constantly revamped to make them more attractive to the community's citizens (Barnett, 1982; Moughtin, 1992). They usually play an essential role due to the identical qualities played in people's day-to-day life; hence it influences the image of a city and the orientation of people. Streets' characteristics are typically related to their architecture, it is the first image people can recall when mentioning a city's name.

3.5.3 Façade and Identity

Facade is a French word derived from the Italian word 'faccia', meaning face. It is used to describe the exterior sides of a building often, but not limited to, the front alone (Chidiebere, 2017). A facade is defined as 'the front of a building' and a wall exposed to the weather; it is often the main item that defines an

interior space it shelters. A facade is the front of a building or any of its sides facing a public way or space, especially one distinguished by its architectural treatment (Li, 2007). Burden's (2003) definition facade is the exterior face of a building, particularly one of its main elevations. It almost always contains an entrance and is characterized by elaborations of stylistic details (Nordiana et al., 2016). Building facades aim to use the design of visible building facades to create neighbourhood identity and a more prosperous pedestrian environment (Burden, 2003; & Li, 2007). Therefore, the goals that could be derived from designing building facades include incorporating features on the building facade that add visual interest to the environment.

Furthermore, the façade can create compatibility between buildings, streets, and neighbourhoods through architectural elements that add scale and character (Nordiana et al., 2016). The façade provides views beyond the street wall to enhance the public's visual environment and also building elements to enhance the comfort and security of pedestrians (Alishah et al., 2016). The strategies consist of; first, the incorporate different distinctive architectural features that add visual interest. The pedestrian-friendly streetscape aspects include architectural features, enhanced materials, fenestration, planting, lighting, and signage. In the city's safety, the façade provides windows at the street that act as "eyes on the street". The vital utilization of the building facade for security between the structure, the street, and the façade as fences of the building (Chidiebere, 2017).

This research aims to explore a new perspective to preserve the urban heritage identity; the city's façades will be evaluated as the suitable aspect for the site. In Vancouver, Canada, an interview with Architect Javier Campos, the president of Heritage Vancouver, he stated that: "Keeping a façade is an

acceptable thing, and it was prevalent in the 1980s and '90s, but it's so unidimensional," Also, that: "It's such a shallow commemoration. To me, it's one step above having a plaque. If it's significant enough, the answer should be restoration... You could keep it looking pretty, but if whatever kills the surrounding businesses, you're losing a significant part of the area." (Cheung, 2019). Cheung Chin Yan (2015) and Cheung (2019) also described how façadism plays a primary role in the community due to the facadism is often used as a "token gesture" for using the development aspect to change the community."

To conclude, the façade plays a significant role in preserving the city or developing the city in many ways; the result of the perspective depends on the perception of local people and community who inhabit in the site, which can help to inform policies for urban heritage management.

3.6 Value in the View

Currently, a city's views are promoted as 'brandscape' or place-branding, and tourism reveals underlying tensions between the demands of cities to develop and grow, while at the same time retaining their historic form and relationship to nature (Brigden, 2018). Indeed, city views are promoted as historic or natural 'assets' for the consumption of a growing number of tourists (Brigden, 2018, p. 122). Importantly, scenic beauty also contributes to residents' quality of life as well as serving to attract visitors. Due to the dynamic relationship between people, land, and rural development, there is an increasing interest in estimating the value of scenic quality using non-market valuation techniques (Mathews, Kask, & Stewart, 2004). There is a notion of the protected view and the heritage bodies that confirmed the value of it. The protection of views embodies numerous complex values, which continuously evolve with every generation. To look at the scene of a city in an economic way, 'brandscape'

would persuasive lifestyle and, powerful identity. The identification and value of significant views should be informed by consultation with local communities (Brigden, 2018).

3.6.1 How to Value the View

Most research in this field evaluates the scene of the city or urban vista using visual perception. This is one of the processes that translate visual information to the brain (Romcai, 2007; Brigden, 2018). It can divide into three parts: perceptual organization, depth perception, and size constancy (Romcai, 2007). The process of user evaluation of the visual quality of public space involves two key principles: perception and cognition. Perception relates to the process of user experience of a place. In city centres, these stimuli are physical elements of public spaces such as commercial signs, shapes, colours of buildings, street furniture, and so on (Portella, 2014a, 2014b). Cognition does not need to be related directly to visual stimuli linked to physical characteristics of places. The cognition process involves symbolic meaning associated with places and can be influenced by user urban context, values, culture, and individual experiences (Portella, 2014b). Visual resource analysis is the main factor to evaluate the scene of the city and this method is focused on two parts. Firstly, the visual impact in the city is the method to identify the problems of visual culture such as the diversity of signs in the city or the signs, which disturb the visual culture of the community (Portella, 2014b). This method can be utilized to preserve the visual resource by using the scenes area analysis to study visual impact to the city and the visual corridor to specify the vital views of the city. Secondly, the visualization method is the process to provide the sources for evaluation and

analysis such as photo montage, photo re-touching, and 3-D modeling (Sourachai, 2006).

The elements that describe the preference for façades consist of: physical appearance; judgment; function; atmosphere; and physical condition (Herzog & Gale, 1996; Stamps & Nasar, 1997). Physical appearance considers seven aspects: style of building (Nasar, 1997 & Kaplan & Kaplan, 1995); composition; content; building characters (Stamps & Nasar, 1997); building dimension; colour; and materials. These are the general elements of the physical appearance of building facades. The judgment section considers nine aspects: beauty; strangeness; appropriateness; charisma; likability, harmony; interest; business success; and value (Camona et al., 2010), which concentrates on the perception of an object in part of the personal emotional judgment. Physical conditions consider building conditions (Kaplan & Herbert, 1987) which explains the condition of current building facades such as old, new, antique, modern, etc. Moreover, the environmental conditions (Heath, et al., 2000) are applied to describe the physical condition in terms of the elements around the facades that could induce positive or negative judgment to the facades (Portella, 2014a). The function section considers the aspects of building function: a specific type of building (Groat, 1995); location; and space arrangement (Herzog & Gale, 1996), which considers the perception of people on the function of a building that capable of revealing the knowledge of participants on sample facades. The atmosphere section considers five aspects (Romcai, 2007): awkwardness; serenity, visual comfort; tranquility; and distinctiveness (Purcell, et al., 1998); these elements describe the appearance of the building that related to the environment or emotional connection to the sample.

According to the method to perceive the scene of the city, the methodology in this research will explore both the physical and social dimensions of the community. As townscape is formed from the pattern of landscape and urban scenery it can be formed to create an aesthetically valuable representation of the site, a narrative vital to the story of a city and can be used to evaluate the heritage value of the site.

3.7 Chapter Conclusions

This chapter explains the theories of the research, including details of identity, distinctiveness, urban heritage identity, place attachment, and the built environment. Many scholars agree that urban heritage identity comprises the understanding of the heritage attributes, physical environment, human activities, and the culture according to the study focus on 'heritage values,' which reflects the meanings through local participant expression. However, this chapter describes the component of 'identity' and the interrelationship of 'place identity' and urban identity. In terms of identity, the researcher focuses on the 'distinctiveness' aspect used in this study. It appears that the relationship between this theory is very familiar and complex. The distinctiveness theory is used to explain in detail following the participant's recollection process. This process encourages local participants to freely express their genuine perceptions of places in the study area. It can be described as tangible and intangible in seven aspects: historical value, cultural activity, a particular character, landmark, identity, everyday life and community which can describe the meanings of the urban heritage identity of local participants. Also, place attachment has been used in the study after defining the distinctive places as it provides the physical, social, activity and function, and emotional aspects to explain the rootedness of

distinctive places and interrelationship between distinctiveness and place attachment.

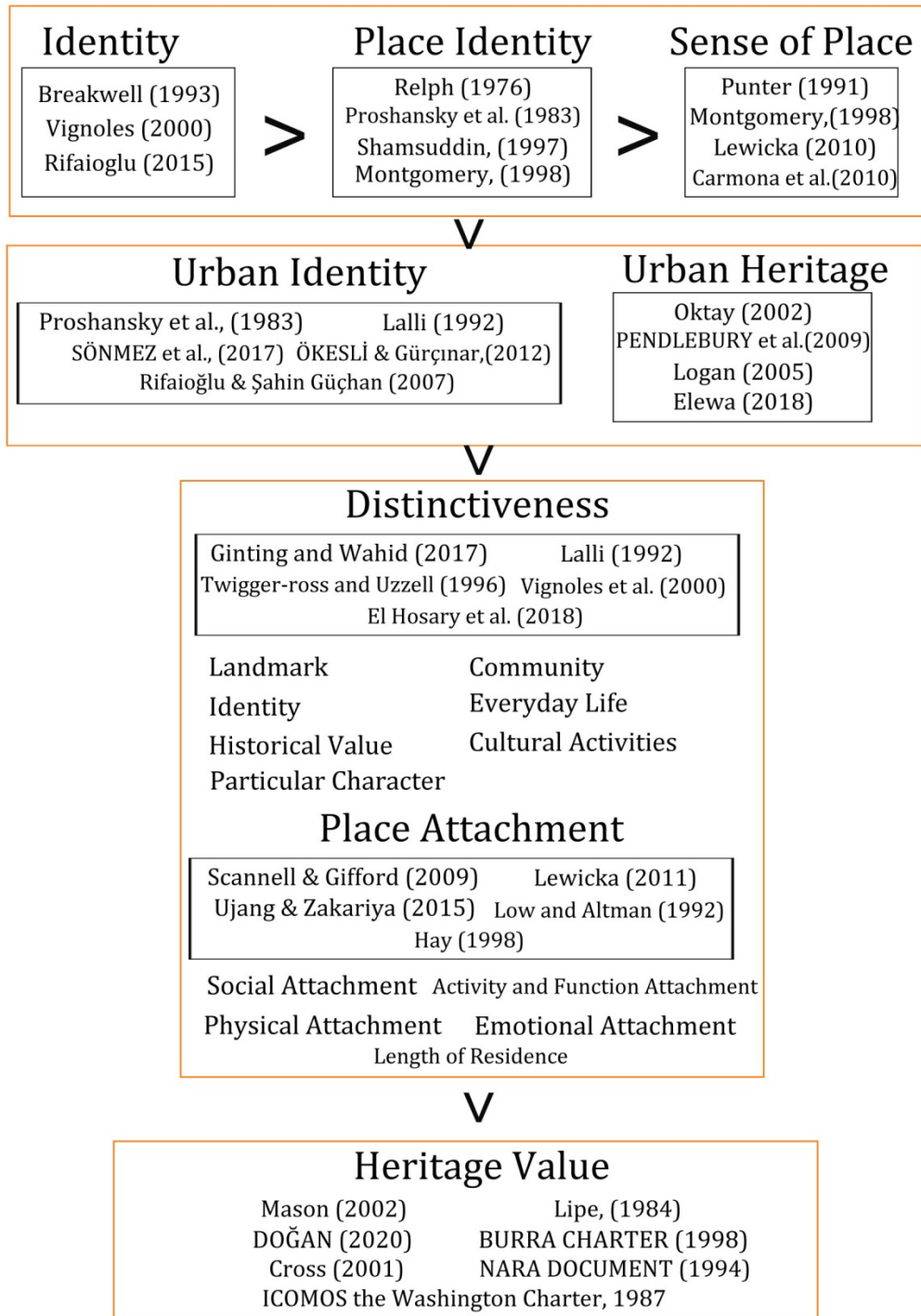


Figure 3-09: The framework for the study in terms of urban heritage identity (Author)

Moreover, this study focuses on the built environment, as such, the urban study, façades, and streetscape characteristics are significant sections to explore using images and scenes. The socio-cultural value theory has been explained in the value of the scenes. According to multiple aspects contributing to heritage values, the researcher has selected four elements to explain the heritage value of the streetscape scene and requires the assessment of physical and social aspects and feelings.

This chapter reviewed literature related to identity, built environment, and heritage value. It provides a platform for comparison and a basis for the study of the identity of urban heritage. Furthermore, the interrelationship of identity, distinctiveness, and place attachment theories has been discussed and employed in this study. The next chapter will describe the methodology of the research.

Chapter 4

Methodology and Analysis process



A white rat with four attendants lived in this auspicious land.

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

Chapter 4

Research Methodology and Analysis Process

The previous chapter reviewed the literature, theory, and the background of Chiang Mai Old City, which is relevant to this research. This chapter aims to describe the fundamentals of the research paradigm, introduce the methodology and analysis process and to provide a vital detailed explanation of the proposed research methods and tools. Initially, the rationale for the methodology is outlined, followed by a discussion of the methodological approach, and a justification for the current study. The limitations and their effect on the current study are also included, followed by a brief discussion of the methods that will be used to analyse the data.

4.1 Research Paradigm

The Cambridge Dictionary defines a “paradigm” as a “model of something, or a very clear and typical example of something.” A research paradigm refers to the understanding of solving problems by using the common set of beliefs (Kuhn, 1970). Currently, there are two popular paradigms within social science research consisting of positivism and post-positivism. Positivism was the dominant science from the 18th century until the mid-20th century and was based on French philosopher Auguste Comte (1798-1857). This concept holds knowledge and science creation to what can be observed and measured, tends to involve direct tests of theories and attempts to separate scientific inquiry from religion. However, positivism induces participants to blind faith in observation data and denies extending the validity of reason beyond observable facts. This scientific research did not qualify illegitimate topics such as human

thoughts and emotions which cannot be directly evaluated. For this reason, it led to the development of post-positivism in the mid-late 20 century (Bhattacharjee, 2012). Post-positivism combines logical reasoning and empirical observations which allows for reasonable inferences on phenomena. The post-positivist's perspective is probabilistic and attempts to explore to understand social reality better.

Guba (1990) outlines the concept of research paradigms which can be divided into three basic types of questions: ontological; epistemological; and methodological. It is essential to highlight that the relationship between the key terms 'ontology', 'epistemology' and 'methodology' is "directional" in the way that "ontology logically precedes epistemology which logically precedes methodology" (Hay, 2002: p. 63).

Ontology refers to "the nature of our beliefs about reality" (Richards, 2003, p. 33). It is a concept of a systematic account of existence which defines and associates the names of entities in the discourses of classes, relations, functions etc. Ontology is a logical theory approach (Gruber, 1993). Epistemology is a philosophy that concerns knowledge, justification and relations of belief. There are four principles: firstly, philosophical analysis between knowledge and supporting reasons such as truth or belief. Secondly, scepticism, which aims to investigate the alleged mindful cultivation of critical thinking and an honest attitude toward intellectual inquiry and extraordinary phenomena related to the problem. The third principle is to understand rational knowledge and belief or justifying a coherent set of beliefs. The last concept is an understanding of the potential sources of knowledge set, and a justification of belief consists of perception, reason, memory and testimony (Bennett, Borg and Gall, 1984). The

short term to describe “a paradigm is ‘how things really are’ and ‘how things really work’” (Guba & Lincoln, 1994: p. 108).

In social studies, beliefs constructed by multiple realities lead researchers to be involved with the subjects in specific contexts of study. Bryman (2015) explicates that reality is based on people's knowledge, a specific context and time. This concept has been extensively applied in urban environment studies, for example, place identity by Proshansky et al. (1983), place attachment (Lewicka, 2008), urban heritage (Turner et al., 2011), distinctiveness (Vignoles, Chrysochoou, & Breakwell, 2000; El Hosary et al. ,2018; and Ginting & Wahid, 2017) and the phenomenon of place (Relph, 1976; Tuan, 1977). This study focuses on the personal experiences between local people and urban heritage identity. The understanding and meanings from people's perceptions express distinctive feelings and attitudes toward the built environment. However, after considering the study's objectives, it can be concluded that the fundamental strategy of this study is qualitative. The “contextual understanding” mainly approaches qualitative research. Researchers tend to understand the “behaviour, values, beliefs, and so on in terms of the research context” (Bryman and Bell, 2011: p. 411).

4.1.1 Strategies of Research: Deductive and Inductive

In research studies, there are two core strategies in the natural relationship between research and theory (Figure 4-01). Deductive and inductive are different in definition and process. Inductive aims to develop a theory. In contrast, deductive aims to test an existing theory.

Inductive reasoning is a method of reasoning that a premise provides some evidence that conveys the veracity of a conclusion (Rainbolt & Dwyer,

2012). This type of reasoning may also be referred to as bottom-up logic. Inductive reasoning is also referred to as a general synthesis of truth based on observations or experiments and what has been learned by others (Hamilton, 2004). Many dictionaries define inductive reasoning as finding general principles through observation. However, there are many types of inductive reasoning.

Inductive reasoning is a conclusion made from the available evidence as opposed to deductive reasoning. The truthfulness of a conclusion from inductive reasoning has a probability that depends on the evidence, whereas a conclusion from deductive reasoning is certain when the entire premise is true (Copi, 1994). In inductive reasoning, the evidence does not always have to be correct. The reliability of a conclusion depends on the nature of the information, evidence, and factual references. Bryman (2012) also stressed that it is a nature of inductive as a result, may not be clear and involve a weaving back on data and theory, which may require further data collection to clear a suspicious research study. Nevertheless, Merriam (2002) mentioned that inductive is a vital characteristic of qualitative research in creating a theory.

Deductive strategy begins with a basic theory; it is a top-down logic process of reasoning based on one or more statements or clauses, which can be rules, agreements, beliefs, or definitions, which are previously known and accepted as true to lead to a logical conclusion (Sternberg, 2009). It is an argument with a substantive conclusion that falls within the scope of a given claim. Deductive reasoning goes hand in hand with the condition. It connects the premise with the conclusion (consequent) when the premise is true; each expression is clear and completes the rules of deductive logic. The conclusion must be true (logical truth). Deductive reasoning is different from inductive reasoning ("bottom-up reasoning") in the following ways. In deductive

reasoning, conclusions are drawn at a reduced rate. Reductionism, by applying general laws that are true across the boundaries of the closed world assumption, narrows the range under scrutiny to a mere conclusion. In inductive reasoning, conclusions are obtained by generalization or case-specific allusions to the general law with an epistemological uncertainty (Zi, 2019). The reasoning discussed here is not mathematical induction used in mathematical proofs. Mathematical induction is a form of deductive reasoning.

Deductive reasoning is measured by justification and completeness. An assertion is "reasonable" if it is impossible for a claim to be true, but the conclusion is false. In other words, the conclusion must be true if the statement is true. An assertion can be "reasonable" even if some of the claims are false. An argument is "perfect" (soundness) or complete if it makes sense and the entire premise is true.

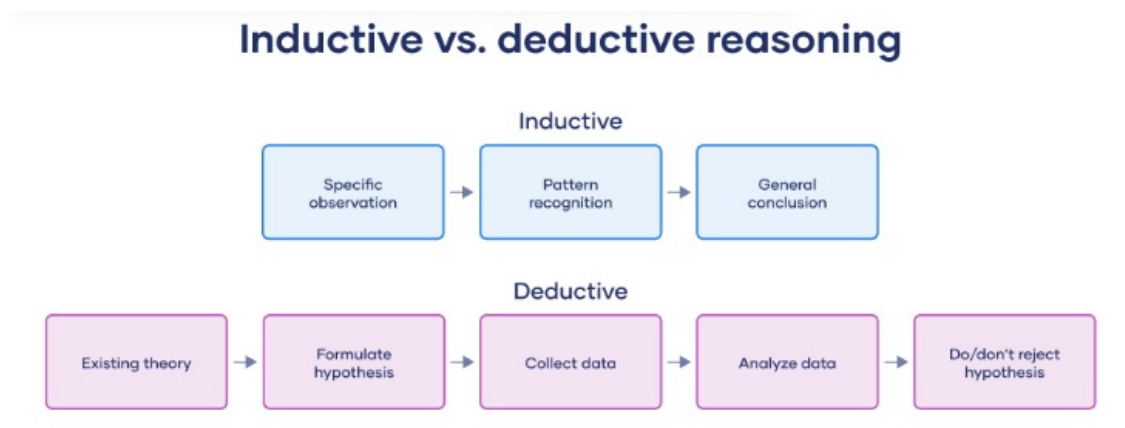


Figure 4-01: The comparison between inductive and deductive (Streefkerk, 2019)

To discuss the proper way to establish a relationship between theory and research Bryman (2012) mentioned that it links to inductive and deductive strategies. The methodology should be more flexible in using inductive and

deductive in creating a linkage between theory and research study. Moreover, the argument from '*Qualitative Data Analysis*' by Miles and Huberman (2014) argues that the end of both strategies will meet in the same place, although the original start of both strategies comes from a different angle. Indeed, Bryman (2012) supports that the outcome from the inductive strategy normally fascinating results compare to the producing a theory. However, to use inductive strategy in the research require a ground theory (Kane and O'Reilly-de Brún, 2001) which has various advantages such as to develop a theory or improve an existing theory (Creswell, 2007), to increase some knowledge in a theory which has not completed address in a theory.

Even though this study seems similar to the inductive strategy, it will adopt a hybrid between both strategies for the analysis process to establish a theory in defining the distinctiveness and urban heritage identity of a historical city.

4.2 Research Design from Research Questions to Research Methods

In Chapter 1, the three objectives of this research are stated which form the three questions of this study. Creswell (2003) delineates research problems as one of three components (including the personal experience of the researcher and the audiences) to consider in the decision of the creation research method. The aims of the research tended to reveal the urban heritage identity of Chiang Mai Old City in both tangible and intangible forms which included place, space, ritual, cultural and the built environment. These are mainly explored through social interaction, economic activities, and cultural activities within the urban fabric of the city. The inquiry suits a qualitative method and quantitative method which is called a "mixed method" (Figure 4-02). Tashakkori and Teddlie (2010,

p.123) define mixed methods as the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration.

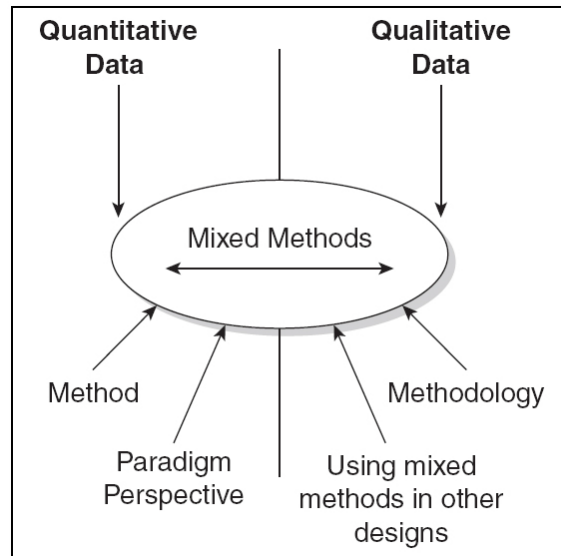


Figure 4-02: A mixed method by (Tashakkori and Teddlie, 2010: p.50)

Urban heritage identity is the main source of this research; it covers social science, personal experiences with the large city, urban artefacts, and perception of urban vita, which reveal a part of urban heritage characteristics based on local people's perceptions. The study approaches 'how' local people define the identity of places and the built environment in crucial city scenes and 'how' the defining aspects affect people in social, cultural, economic, and everyday life. For these major questions it is appropriate to use quantitative and qualitative methods regarding the validity of results. Tashakkori and Teddle (2010) explain the validity of mixed methods: in the past, quantitative and qualitative were

separately discussed and never mixed. However, several ideas have been proposed for the conceptualized validity of the framework for viewing the validity of the result. “Construct Validity” has been used in all phases of the research process, including the literature review, the designing of methodology, and the evaluation. Moreover, this enlightens the understanding of the meaning and processes of people's perceptions of urban heritage artefacts.

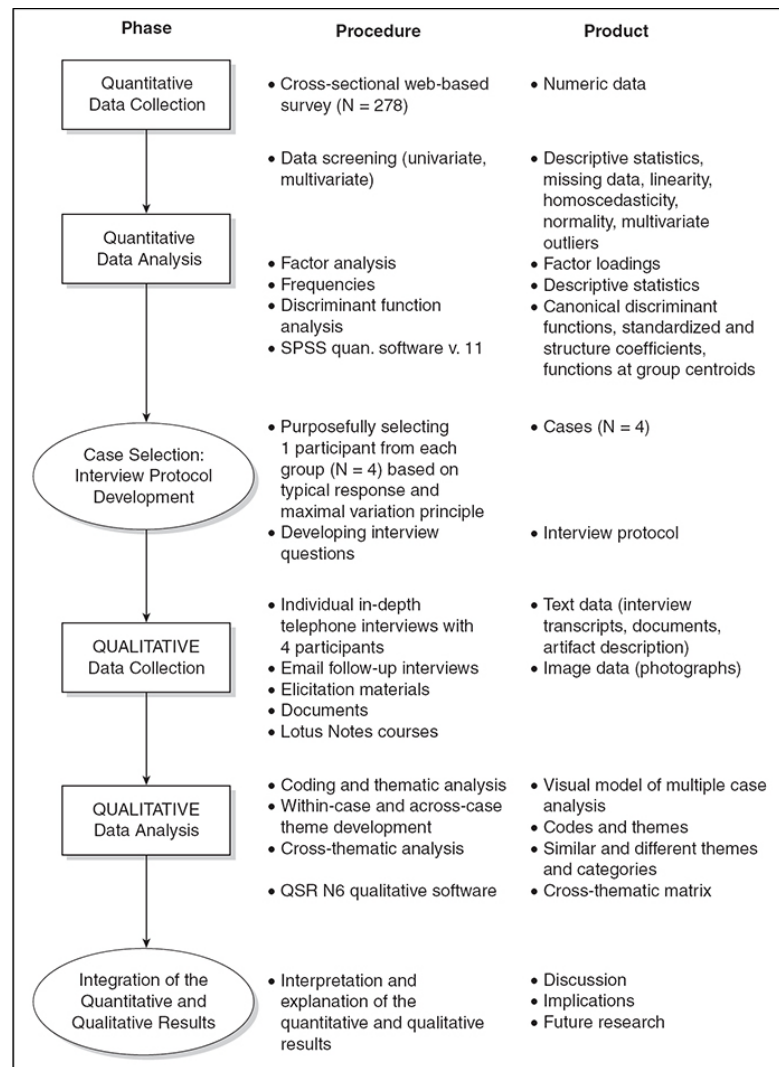


Figure 4-03: An Example of a Diagram of Mixed Methods Procedures Tashakkori & Charles Teddlie (2014, p.63) cited from Ivankova, Creswell, & Stick (2008, p.981)

Regarding figure 4-03, the diagram illustrates the design of the procedure in a mixed methods study, showing the phases, procedure, and product of the research, which are also the phases used in the methodology of this study. The procedure describes 'how' data has been collected, and the product section shows 'what' the study received. Tashakkori & Teddlie (2010, p.14) explain that this figure is being adopted with increasing frequency in mixed methods writings. This is a welcome relief for readers who recognise the complex procedures of multiple data collection and analysis central to mixed methods.

4.3 Research Approach: Empirical Research and Ethnographic Research

This research explores the knowledge in the social science research field, which consists of qualitative and quantitative approaches which are employed to collect data across various study types, including empirical studies. Empiricism originated from ancient Greek medical practitioners and in Greek *empeirikos* which means "experienced". Empirical research is outlined by ancient philosophers as pertaining to the reliability of observation data to design and examine theories and research conclusions (Bhattacharya, 2008 and Powner, 2015).

Empirical studies collect and analyze primary data based on direct observation or experiences in the 'field' (Bhattacharya, 2008; Powner, 2015). Empirical studies describe what is happening based on direct observation focus group discussions, and in-depth interviews defined as qualitative studies. These include case reports and research studies with a limited population that does not establish statistical associations between variables. Qualitative empirical studies

can provide rich, in-depth contextual data to help us understand a phenomenon but cannot be generalized to establish the prevalence or incidence of a phenomenon, nor can they be generalized to highlight statistical associations between variables (Bhattacharya, 2008; Powner, 2015).

This research uses ethnography, which is art and science used to describe a group or culture (Fetterman, 1998). According to Angrosino and Flick (2007) and Sangasubana (2011), ethnographers search for predictable patterns in lived human experiences by carefully observing and participating in the lives of those under study. Ethnography may also involve a complete immersion of the researcher in the subjects' day-to-day lives or culture. Ethnography, as a method, has specific distinctive characteristics (Angrosino, 2007). Firstly, it is conducted on-site or in a naturalistic setting in which real people live. Secondly, it is a personalized observation and participation in the lives of those people. Ethnography also collects data in multiple ways for triangulation over an extended period. There are three modes of data collection in ethnography: observation, interviewing, and archival research. Participant observation is unique as it combines the researcher's participation in the people's lives while also maintaining a professional distance.

Observation is the act of perceiving the activities and interrelationships of people in the field setting. Secondly, interviewing is the process of directing a conversation to collect information. The final process is archival research, which is the analysis of existing materials stored for research, service or other purposes officially and unofficially. The process is inductive, holistic and requires a long-term commitment. Finally, ethnography is dialogic since conclusions and interpretations formed through it can be given comments or feedback from those who are under study (Sangasubana, 2011).

In terms of the ethnographic method, the data analysis will occur as the data is being collected; the researcher can discover additional themes and decide whether to follow those leads for more intense investigation. Sangasubana (2011) states that there are five stages to following strategies for ethnographic analysis. Firstly, the coding for descriptive tables: since the materials collected are in the form of written words, those words must first be grouped into meaningful categories or descriptive labels, then organized to compare, contrast and identify patterns. Level coding is conducted to reduce the data to a manageable size. Before one begins the coding process, it is helpful to formulate primary domains that can categorize a broad range of phenomena. Secondly, sorting for patterns to sort or group the descriptive labels into smaller sets. The third process is identifying outliers: cases, situations, events, or settings that do not “fit” with the rest of the findings may be identified. These cases should be kept in mind as the different steps in the research process are developed.

Furthermore, generalising constructs and theories refer to the patterns or connected findings related to theories to make sense of the rich and complex data collected. The last process is a memo with reflective remarks: memos are insights or ideas about the data. They are written so that the researcher can know if anything needs further clarification or testing. It also helps the researcher keep track of their assumptions, biases, and opinions throughout the research process.

This research aims to define the urban fabric, built environment, and socio-cultural value of urban heritage artefacts examined in morphological analyses and visual analysis. The buildings and streetscape in the area have been studied and described in terms of heritage value. As for functional analysis, the use of space and zoning, spatial analysis of urban places, and contextual analysis of relationships of structures and areas among each other, local identity, and

architectural buildings' characters were examined. While examining these elements, maps have been used to support morphological analyses, archive reviews, on-site observation and focus groups, and old and new photos of these places have been used in answer to all the questions of the research.

4.3.1 Visual Methods in Built Environment Research

Research in built environment studies can evaluate the image of the city from visual perception. Visual perception is one of the processes of translating information from the visual to the brain. It can be divided into three parts: perceptual organisation, depth perception, and size constancy, which appears in every city's ornament (Romcai, 2007). Currently, there are several methods used to evaluate urban environment qualities, some qualitative and some quantitative. Photography is a tool used to generate an evaluation of the visual environments presented. The visual environment has a great impact on people's behaviour. Using a configuration description of an urban structure, such as a streetscape, space syntax attempts to explain human behaviour in those spaces. Its premise is that the configuration and character of urban space significantly influences the perception and subsequent conduct of people who use it (Hillier, 1996; Fisher-Gewirtzman & Wagner, 2003).

The user evaluation of the visual quality of public space involves two principles: perception and cognition. The first one relates to how users get visual information about a place through stimuli. In city centres, these stimuli are physical elements of public spaces such as commercial signs, shapes, colours of buildings and street furniture. The latter principle is not directly related to visual stimuli linked to the physical characteristics of places. The cognition process involves symbolic meaning associated with places and can be influenced by

urban user context, values, culture, and individual experiences (Portella, 2014). Visual resource analysis is the main factor in evaluating the image of a city; this method contains two parts. Firstly, the visual impact in the city is a method for pointing out the problems of visual cultural heritage, such as the diversity of signs in the city or the signs that disturb the community's visual cultural heritage. This method provides a possibility for preserving visual resources by using the Seen Area Analysis to study the visual impact on the city and The Visual Corridor to specify vital views of the city. Secondly, the visualization method is a stimulation process which uncovers sources for evaluation and analysis, such as photomontage, photo retouching and 3-D modeling (Sourachai, 2006; Reeve & Shipley 2013)

Moreover, various researchers have used photographs as media to reflect and assess local people's preferences for the townscape or to achieve other research aims in urban visual quality. Portella (2008) also experiments with their research, which was based on colour photomontages attached to the questionnaire. Another study by Stamp (1997) suggests that users tend to dislike photomontages of streetscapes with cars, poles, and wires, while photomontages of streets with pedestrians and trees tend to be preferred. Stamp's (1997) study of *Some Streets of San Francisco: Preferences Effects of Trees, Cars, Wires, and Buildings* and Portella (2010)'s study on *User Perception and Evaluation of Historic City Centres: Searching for Commercial Signage Guidelines to Improve Urban Visual Quality* specifically focus on user perception and evaluate the relationship between commercial signs and building forms, while other variables which could interfere with users' answers, such as trees, cars, poles, wires, pedestrians, scaffolding, and street furniture, were deleted from the photomontages.

The strength of visualization in built environment studies is familiar to landscape study, which has been extensive empirical studies using photo visualization to represent the genuine environment (Down & Stea, 1978; Lange, 2001; Appleton and Lovett, 2003; and Fujisaki et al., 2007). Furthermore, the study by Adriana Portella (2014), which concentrates on the visual pollution of the streetscapes in the urban tourism and marketing areas of cities also uses images in the visualization process, and it also contributes the finest scenario to enhance visuals for historical and commercial city centre through an empirical observation process. In the landscape field, the usage of the photographs was introduced by Dunn (1976), who assessed people's preference through images in *Landscape with Photographs: Testing the Preference Approach to Landscape Evaluation*. Later, this process was widely used in landscape and urban study fields to improve, analyze, and promote the visual aesthetic value of the cities (Lalli, 1992, Sallam, 2017; Embaby, 2015; Gunawardena et al., 2015; and Tucker et al., 2005). It proves that using images is an effective tool to understand the perception and cognition of the visual environment.

Based on these facts, this research will use the same intermediary photos and visual stimuli to extract people's opinions and preferences on urban heritage to determine its identity before using the data gathered to assess the quality of identity. Therefore, the research will focus on the visual method which can replicate human visions of surrounding elements, which will help participants identify their perceptions of urban identity. By using photos and visual stimulation to help extract people's opinions, questions play a crucial process in investigating people's thoughts on urban heritage artefacts. Hence, this research method will use photos and interview questions to gather and investigate participants' opinions on identity.

4.4 Research Design in Urban Identity Study

Urban identity study is widely studied in many countries, and many researchers focus on determining the identity of places in urban spaces. In Chapter 3, the identity of place is focused on the interaction between people, place, and built environment. Proshansky et al. (1983) describe the interaction between 'self-identity' and urban environment in urban-related identity can be defined through the concept of 'place identity. It can be distinguished between: (a) a 'recognition function', to percept the stability of the environment; (b) a 'meaning function', which explains how a person performs in places; (c) an 'expressive-requirement function', which concentrates on a person individually shaping environments; (d) a 'mediating change function' which determines the suitable and possible of environmental change; and (e) an 'anxiety and defense function' which offers a sense of security (Lalli, 1992).

There are five dimensions to be applied in the urban-related identity definition: evaluation; continuity; attachment; familiarity; and commitment. However, this study uses two dimensions to describe the phenomenon of urban heritage identity. The evaluation dimension was applied to define the local's perception of the uniqueness and unique characteristics, reflecting the local residents' self-enchancement. The uniqueness can contribute the multiple values following persons to places. However, general attachment is capable of measuring a general sense of being home. It could generate a sense of belongingness or rootedness (Proshansky et al., 1983; Lalli, 1992).

The significance of this study is to define the identity of the urban heritage and built environment of Chiang Mai Old City. However, this study covers a broad field of urban identity study which is a broad concept that deals with

social, economic, cultural, and environmental dimensions. For this reason, the researcher decided to use mixed methods for the research to collect data from local people's opinions. These opinions are collected from open-ended questionnaires, in-depth interviews, drawings, and discussions through two-way focus groups. The research methods focus on defining the intangible and tangible which represents urban heritage identity.

4.5 Sources of Evidence: The Data Collection

In keeping with the mixed methods used to collect the data, there are six different methods which have been applied to the data collection procedure. These consist of in-depth interviews, questionnaires, focus groups, photo elicitation interviews (PEI), the needle method, and drawing exercises.

4.5.1 The Questionnaire

Questionnaires are printed sets of questions to be answered by respondents, either through face-to-face interviews or self-completion, as a tested, structured, clearly presented and systematic means of collecting data (mainly in the quantitative methods tradition) (Payne & Payne, 2004: p.3).

Questionnaires are frequently used in quantitative social research. They are a quantitative method of collecting primary data for a study. Sir Francis Galton was a British anthropologist, explorer and statistician who invented the questionnaire procedure in the late 1800s. Roopa & Rani (2012: p.273) explain that 'A questionnaire is simply a list of mimeographed or printed questions completed by or for a respondent to give his opinion'. According to De Vaus

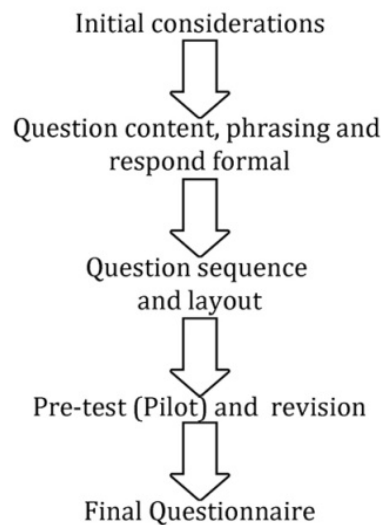
(2002), a questionnaire goes beyond statistical data; however, it is relevant to give reliable information logically.

A questionnaire is a reliable and practical instrument used in mixed methods to evaluate thoughts, emotions, attitudes, and behaviour. Billig (2006) aims to define the Jewish settlers' perceptions of the Gaza region through the hostile situation. This study used a questionnaire to evaluate and probe personal characteristics, place attachment ideology and the risk of perception. It revealed that the variables of gender, religion, and the length of time in the region mainly affected the results.

Questionnaires require a lot of time in order to protect the privacy of the participants (as participants will only respond honestly if confidentiality is maintained), and corroborating with other findings, as questionnaires can be helpful confirmation tools when corroborated with other studies that have the resources to pursue other data collection strategies. Roopa & Rani (2012) suggest that the questionnaire design, as illustrated in figure 4-04 gathers valid and adequate information in the survey. It is crucial to carefully consider the contents, sequence, and demonstration of the questionnaire before using it as a final questionnaire.

However, this study uses a mixed questionnaire which consists of open-ended and closed-ended questions. This is generally applied in the social sciences field. Winchester (1999) adopted dualistic traditions as well in following the research theories of Hammersley (1992) and Mostyn (1985) which state that while the dualistic method represents quantitative methods as focused, objective, generalizable, and, by implication, value-free and as the 'other', qualitative methods are seen as fuzzy, subjective, non-replicable, and value-laden (Figure 4-

04 (b)). Therefore, qualitative methods tend to be justified in two ways, both of which acknowledge the primacy of the quantitative (Winchester, 1999: p.61).



(a)

Table 1 Dualisms Identified between Qualitative and Quantitative Methods (after Mostyn 1985; Hammersley 1992)

Qualitative methods	Quantitative methods
Qualitative data	Quantitative data
Natural settings	Experimental settings
Search for meaning	Identification of behaviour
Rejection of natural science	Adoption of natural science
Inductive approaches	Deductive approaches
Identification of cultural patterns	Pursuance of scientific laws
Idealist perspective	Realist perspective
Qualitative interviews	Quantitative surveys (questionnaires)
Smaller sample size	Larger sample size
Longer interviews	Shorter surveys
Non-random samples	Random samples

(b)

Figure 4-04: (a) Questionnaire Designing for a Survey. (Roopa & Rani ,2012: p. 273) (b) Interviews and Questionnaires as Mixed Methods in Population (Winchester,1999)

Another relevant study is the *Perception of Sacredness at Heritage Religious Sites* by Levi & Kocher (2012). This study's primary purpose was to examine the relationship between the perception of sacredness and the tourist experience at hybrid places (Levi & Kocher, 2012: p.918). There are three main questions relevant to the impacts of sacredness on sacred cultural sites and the perception of sacredness in relation to the tourist experience which also define the implications of perceived sacredness for management. The study used a questionnaire to evaluate these questions using the nine Likert scale levels to describe the recorded perceptions. The results showed that the three aspects

consist of behaviour-anchored emotion-anchored and place-anchored perspectives toward sacredness (Levi & Kocher, 2012: p.924).

Furthermore, the study of *Defining Place Identity: Misurata, Libya* by Shinbira (2017) used a questionnaire to evaluate place engagement, perceptions of the physical environment, and meanings of the city center of Misurata in Libya based on the mean value. The study used a mixed-method methodology and a verbal rating scale, which was an effective method to identify the functional, emotional, social life and activities attachment of Misurata's city center. This relates to the study of *Perceived Authenticity and Place Attachment: New Findings from Chinese World Heritage Sites* by Yi & et al. (2021). This research provided a refined understanding of the dynamics between perceived authenticity and place attachment and offered practical implications for heritage management and marketing (Yi & et al., 2021: p.1). The study applied a questionnaire and used a seven-point level of the Likert scale. While these studies defined authenticity and place attachment, it is generally agreed that attachment is strongly related to similarity and the social and cultural perceptions of the sites. The socio-demographic variables in scaling place attachment should be considered in future studies using the questionnaire method to reveal the results. To compare the range of Likert scale of previous studies, it could be concluded following the study by Croasmun and Ostrom (2011) that the usual stage between five-seven categories can deliver a reliable result. However, it depends on how legitimate the result is to be used in the analysis process, but it should be at most seven categories as it is not worth the effort to analyze the difference.

Accordingly, this research utilises mixed methods to study the dimensions of perception, attachment, and meaning. This process constitutes the distinctiveness of urban heritage identity. However, urban heritage identity often

tends to be defined through qualitative methods. The questionnaire can be assumed to be a valid instrument for this study which defines the distinctiveness, place attachment, and the built environment on urban heritage following local perceptions. Moreover, the questionnaire tests variables of perception on urban heritage artefacts, meaning, and attachment to places.

The Design of Questionnaire for this Research Study

The first data collection process involved a questionnaire to understand the perception of urban heritage of Chiang Mai Old City. The start of questionnaire begins with questions about the participants' profile; it is a socio-demographic background with optional in accordance with the Personal Data Protection Act regulations. The participants can fill in their personal information or not; however, regardless the researcher still counts the person as a participant in the research. The second and third part addresses the personal perception of Chiang Mai's urban heritage in terms of place and the built environment. It was designed to be an open-ended questionnaire.

Socio-Demographic Characteristics

The beginning of the questionnaire covers socio-demographic variables, including age, gender, occupation, and length of residency, to understand the relation of these factors to different experiences of place. The objective is to obtain a demographic status of the participants' characteristics, certify the equality of the sample's society and avoid a bias on the participants' characteristics.

Perception on Place and Streetscape Scenes

As mentioned at the beginning of this section, the questionnaire dealt with the perception and participants' experience of recalled places and thirty-three nominated places. The open-ended questions explored the underlying image and physical attributes related to perception, which represented the urban heritage identity or threat that conveys the identity of a city-built environment. Starting with participants were asked to identify places according to their experience with distinctive places in the city. Lawson (2007) used these questions and described that it is necessary to obtain value and interest in people's experiences through their perception, which is associated meanings of places. However, the questionnaire included a meaningful of place that can explore the relationship between distinctive places and urban heritage attributes associated with place identity. Additional question concerning perceptions through problem and suggestion to improve and retain the distinctiveness of Chiang Mai Old City's values. These definitions are related to Nasar's study (1998), which concentrated on the assessment of the physical environment inseparable from the perception that people had towards them. However, in this study, participants were asked to identify urban heritage attributes that relate to their experiences, which could be described as their history, location, or level of sacredness. This implies that these features can be sorted based on Nasar's theory, which explains the basis of places that could evoke the perception of distinctiveness following people's perceptions.

In the questionnaire, the questions were used as a tool to guide the participants to reveal their perceptions of heritage value (Chapter 3), which consists of historical value, social value, aesthetic value, and spiritual value which are all factored into the questions by using photo elicitation interview

(PEI) and needle method to point on the object in the scenes. *Historical Value aspects*: the researcher evaluated the eight scenes which were selected following the linkage between five distinctive places according to participants' perceptions by measuring the attitudes on elements that present the urban heritage identity of Chiang Mai Old City in the photos. *Social Value Aspects*: In this section, the researcher evaluated the vital social interaction in the architecture, buildings, activities, and streetscape scenes of Chiang Mai Old City. In this part, the needle method is used to reveal what are the elements that local people perceive in the society in the streetscape scenes of Chiang Mai Old City. *The Aesthetic Value aspects*: In this section, the researcher evaluated the ornament on the scenes, which represented the positive perception following the participant's perception. In this part, the needle method is used to reveal what are the elements that local people perceive the aesthetic value in the streetscape scenes of Chiang Mai Old City. *Spiritual Value aspects*: as described in chapter three that spiritual values related to transcendence, memory, meaning, and connection with life are the core elements of religion. Every person is considered spiritual, not solely those with a religious belief. In this way, spirituality is a broader, more all-encompassing concept than religion that could be used to explore the personal meaning individuals derive from heritage (Willson & McIntosh, 2013: p.109). In this section, the researchers asked participants to mark urban heritage elements on streetscape scenes that people consider as spiritual values.

The Place Attachment Scale

In chapter three, place attachment has been discussed in many forms, such as individual perception, social, functional, and physical attachment. However, the study used the four aspects of place attachment which consists of emotional attachment, social attachment, physical attachment, and functional attachment to

explore the five places that local participants declared them as ‘distinctive places’ of Chiang Mai Old City. All questions considered through the previous researchers by all these authors (Hidalgo and Hernandez, 2001; Mannarini et al., 2006; Ujang, 2008;). Participants' perceptions were collected through questions that asked participants to rate them using a Likert scale: ‘strongly agree’; ‘slightly agree’; and ‘neither’ ‘slightly disagree’ and ‘strongly disagree’ (Stedman, 2003). In the emotional attachment section, five questions which were measured the psychological fields such as a sense of safety, pride, and positive feelings. The social attachment aspect was questioned by using six questions that mainly concentrated about ‘relation between participants and the community’.

The activity and function section included seven questions addressing cultural and traditional can involve in daily activity such as the fundamental needs, feeling, support desired activities and extraordinary that engage people to places. The last section addressed physical attachment with four questions to reveal the people’s perceptions that can described the qualities of physical environment. These questions can evaluate and calibrate people's experience with the places (Kyle et al., 2004). A copy of the questionnaire is contained in Appendix A of this thesis.

4.5.2 Focus Group

The focus group originated in the field of sociology and is a method currently used in many fields. In the social sciences, it tends to focus on group discussions in a group interview amidst a relatively informal atmosphere. A focus group is a planned discussion in a small group of people on a specific topic. People are encouraged to discuss specific topics in order that underlying

issues (norms, beliefs, and values), common to the lives of all participants, might be uncovered. The procedure discusses specific topics by using normal human conversation (sharing of experiences, opinions, perceptions, and reactions) and retrieving information from participants' memories (cognitive triggers) to enable the research objectives (Dilshad & Latif, 2013).

When comparing the advantages between focus groups and individual interviews, the researcher can compare and discuss results from different participants (O'Reilly & Parker, 2013). The number of subgroups of populations required by the research is an important determinant of the number of groups. Groups should be used in a discussion process so that a single group does not confront a "cold group" in which the participants are not reacting or do not participate in line with the moderator's incentives. Nyumba et al. (2018) recommends an acceptable number of participants in the sessions of six to ten people. The analysis of data should be systematic, verifiable, and concentrated on the topic. Moreover, there should also be consideration of the internal consistency, frequency, the extent of the comments, the specificity of the answers, and the importance of identifying the meanings.

Focus groups can be divided into seven types as outlined by Nyumba et al. (2018) (Figure 4-05), consisting of a single focus group, a two-way focus group, a dual moderator focus group, a respondent moderator focus group, a mini focus group and an online focus group. Morgan (1996) states that generally focus groups operate in a one-way direction. The format is that two groups discuss a specific topic while the other observes and the moderator can also observe the interaction and discussion between both groups. Moreover, letting the other group hear what the other thinks often leads to a different conclusion from the second group which is what makes the discussion provide new

perspectives. This research uses a two-way focus group as one of the data collection processes.

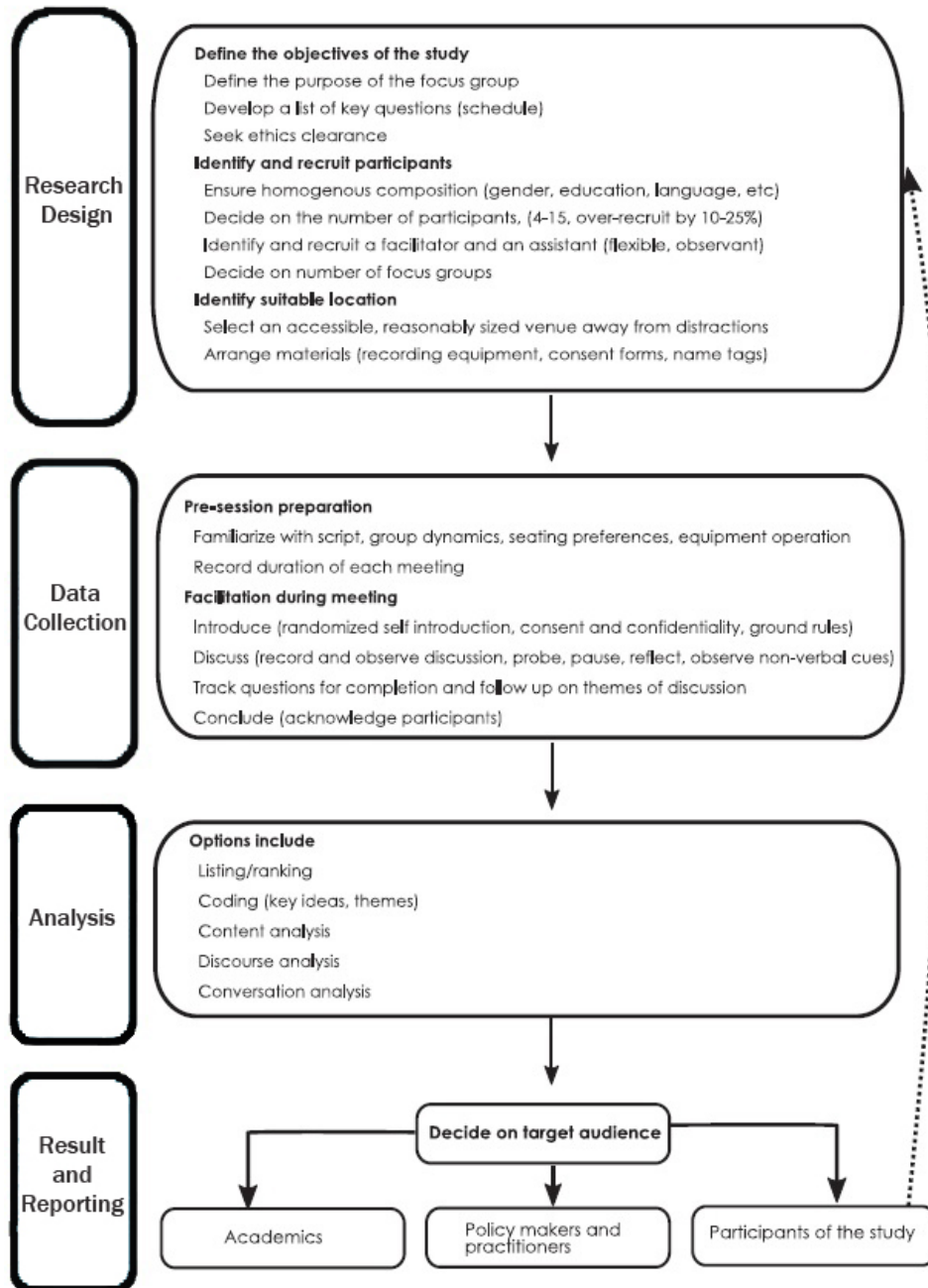


Figure 4-05: Flow chart of the steps of the focus group discussion technique (Nyumba et al., 2018: p. 22)

In this research, the local participants were divided into medium-size groups of approximately five people and processed in a two-way focus group (Figure 4-06 (a, b). The eligible criteria of participants will be described in chapter 4.6.2 focus group). At the beginning of the focus group procedure, the moderator makes an introduction regarding the topic and presents some basic rules (will be described in appendix E- p.474), such as only one person speaks at a time, lateral chats should not take place, everybody should speak, etc. All participants are informed that the session will be recorded or filmed. The 'icebreaker' process starts by begins with each participant introducing themselves. After the introduction, the participants comprise a group of citations, summaries of discussions, tables, maps, or outlines, which present the necessary information obtained from each one of the main topics of the discussion. The questions in focus group interview have developed to participate in the interview and the aim is to examine what the participants think about the urban heritage elements of Chiang Mai Old City and their feelings in relation to local activities.



(a)



(b)

Figure 4-06: (a) The moderator observes the discussion between both groups in this research (Author) (b) In-group discussion before debating the result to the others (Author)

4.5.3 In-depth Interviews

An in-depth interview is the most effective method to conduct intensive data in quantitative research with a small number of participants to collect and explore their experiences (Boyce & Neale, 2006). The advantage of in-depth interviews lies in collecting the details of personal perspectives and behaviours and other in-depth issues which are uncovered during an interview. In essence, in-depth interviews involve asking questions and systematically recording and documenting responses, coupled with intense probing for more profound meanings and understandings of the responses. Thus, in-depth interviewing often requires repeated interview sessions with the target audience under study. Unlike focus group interviews, in-depth interviews occur with one individual to provide a more involved experience. There are seven stages of in-depth interview procedures as explicated by Kvale (1996) which consist of thematising, designing, interviewing, transcribing, analysing, verifying, and reporting. However, according to Seamon & Gill (2014), there are three types of interviews: structured; semi-structured; and unstructured. To compare these three types of interviews process: structured interviews are a stricter process to collect the data; hence semi-structured and unstructured interviews perform more flexibly and emphasize deeply in discussion of the topic and possibly collect interesting surrounding data.

The study uses a semi-structured in-depth interview process which provides a more relaxed atmosphere for the participants (Smaldone et al., 2006; Shinbira, 2017). There are key characteristics of an in-depth interview. Open-ended questions, which are questions supposed to induce participants to expound on the topic in a semi-structured format. The interviewer should have some pre-planned questions for use during the interview. The questions should

be related to the information provided by the respondent. The interviewer should not ask questions in a specific sequence. The flow of the interview should be of concern as well as the sequence of questions. In order to seek understanding and interpretation, the interviewer should attempt to understand, clarify, and acknowledge the respondent's answers (Marshall & Rossman, 2010). In a conversational interview, the interviewer should be polite and act as a good listener, while being open-minded to communication. It is crucial to maintain openness - if the respondents perceive the evaluation in the conversation, this would affect their ability to freely share their opinions.

Fundamentally, the interviewer should be flexible, responsive, patient, and observant. Human interactions are complex and rarely predictable, so the interviewer should strictly adhere to the main purpose of the questions and establish a free and open atmosphere for the participants. It is also essential to observe the participants' tone of voice, facial expressions, and body language (Boyce & Neale, 2006; Marshall & Rossman, 2010); and Guion et al., 2011). The interviewer should record everything: such as responses from interviewing with an audiotape, videotape or by taking notes. Non-verbal behavior is also essential to record in order to explain more details of the study or expression. The post-interview record from the interviewer's perspective should be recorded immediately (Boyce & Neale, 2006; and Guion et al., 2011)

Chapter 3 shows a wide range of in-depth interviews in qualitative research related to urban study. In terms of the in-depth interview process and drawing of this study, it related to Lynch (1960) 's study defined imageability by using the mental mapping technique as he mentioned that '...accurate predictions of the images derived from the verbal interview material' Lynch (1960, p.144). Furthermore, the study by Relph (1976) stressed that the experience

from people's perceptions of places could merely be obtained through in-depth interviews. In this study, the interview was used as a primary source of information to be complemented with other methods. The significance of this method is to define themes and common answers to develop the understanding of the research questions.

4.5.4 Photo Elicitation Interview (PEI)

The elicitation interview technique is rooted in phenomenology, which is a philosophical movement that is generally described as the observation of experience and consciousness. The main purpose of phenomenological research is to describe feelings rather than explain the phenomenon that is being investigated and aims to go beyond experiences of which people are immediately aware. It aims to gain an understanding of the phenomenology of someone else's experience through retrospective, interpretive interviews (Hogan et al., 2016). To read the surfaces of social life on visualizing structures, the visual method is a vital procedure to achieve the results. In 1957, the anthropologist Collier introduced this method as "the use of photographs during the interview process" and "photo interviewing" and later "interviewing with photographs". (Lapenta, 2011: p.201). Visual tools have been used for social science research since the 1900s and are used to apply for understanding multiple aspects (Heisley and Levy, 1991). There is an identification of PEI as "the simple idea of inserting a photograph into a research interview" (Harper, 2002: p.13). The use of photographs has increased in social science research which is applied to investigate social groups (Stanczak, 2004).

Visual methods enhance the richness of data by discovering layered diversity of meaning, adding validity and depth and knowledge creation (Harper, 1997). Photo elicitation is using photographs or other visual media in an interview. The procedure generates verbal discussion to create data and knowledge (Thomas, 2009). It reveals different layers of meaning as its method stimulation in-depth emotions, memories, and experiences. Glaw et al. (2017) describes that the procedure contributes to visual images for both the informant and the researcher. Typically, one or more visual images are used in interviews. Visual methodologies have no limitation on the kind of populations and the process allows participants to express preference or opinion in both nonverbal and verbal ways.

Photo elicitation interviews (PEI) help to define responses to the symbolic representations in the photographs. Harper (2002) highlights that the brain processes visual information which evokes human consciousness and only verbal expressions employ less brain capacity than a visual image. Moreover, the photos that participants take by themselves provide freedom of expression in an interview and create a relaxed environment during the procedure (Noland, 2006 and Hopkin & Wort, 2020). In this study, the PEI process began by defining the perception of the thirty-three World Heritage nominated places and built environment characteristics of twenty-nine streetscapes in Chiang Mai Old City, which were selected through the connected scenes of those nominated places. After the study, the researcher collected the results and analyzed them to further define the heritage value of streetscapes that may require specific scenes. The researcher decided to choose photographs of eight streetscape scenes that relate to five distinctive places in Chiang Mai Old City following Phetsuriya and Heath's (2021) study, which is the result of the first data collection process. All of

the pictures were enhanced to accurately and efficiently represent data in landscape research (Shao, 2014).

4.5.5 The Needle Method

The Needle Method is a method to define people's opinions from photographs or maps which related to PEI. Moreover, it requires a specific mark on photographs or maps to represent participants' intentions on them (Deinet, 2009; and Shao, 2014). Before the needle method was involved in visualization studies, it was used qualitatively for gathering information and estimations about specific spaces and places. This method aims to communicate between individual and specific topics that have been discussed between researchers and local participants. The study *Seniors in Europe Learn in Networks* by Ran, Saftu and Wanka (2010) uses this method to reveal the understanding between senior people and urban spaces which consists of activities and a sense of community. Moreover, the study *Social Space Analyses and the Socio-Spatial Paradigm in Social Work* by Spatscheck and Wolf-Ostermann (2009) (Figure 4-07) employs the needle method to define social space discovery which consists of discovering who lives at Klostergården, historic awareness and experiences in the area of St Lars hospital, public safety, life quality, and the future of Klostergården.



Figure 4-07: Needle method in urban space study (Köster, 2010: p. 103)

Moreover, the study *Define Local Identity Identification and Assessment* by Shao (2014) used the needle method mixed with the PEI process. This originated from Deinet (2009) who describes the identification objects on the photograph (PEI). In social science studies, the needle method is carried out in both physical and spatial contexts. Shao (2014) underlines the present issue in social science studies of the relation between the connections of social spaces with dynamic social and physical aspects. The needle method is appropriate for evaluating the visualisation of townscape, streetscape or city scenes which reflects social issues in both tangible and intangible ways. Moreover, this focuses on the relationship between people's memories and decision making, which allows a participant to use different coloured needles or any different marks on the significant point of pictures and express meaning from their memories or opinions through making the marks.

Shao (2014) also refers to a study by Kessl and Reutlinger (2007) which describes the ultimate goal of social work and the relation between

physical and spatial contexts which is influenced according to various factors. There are three significant goals for social work which consist of the development and protection of activating resources in social networks, support and promotion of the effectiveness of public groups, services and understanding the participation of local communities. Shao (2014) references Deinet and Krisch's (2006) needle methodology which aims to achieve essential results by providing a visualisation of places that have certain special meanings from both perspectives of society.

In the second data collection process, the researcher asked twenty-five participants to mark with colours the elements on eight townscape scenes to evaluate four aspects consisting of historical value (yellow), social activities value (orange), aesthetic value (pink) and spiritual value (blue), using an iPad to collect the results. However, this method limits in-depth information in choosing the elements and only provides a low depth of insight regarding the quality of certain places. It requires another interview after the labelling process which is confirmed in Köster's (2010) study. This study delineates the rapidity of conducting results and can be "a mobile needle method" carried out on the road by asking pedestrians about certain places or social spaces on the map. It is advantageous for the study to recruit a lot of people in a short period of time who can immediately respond to the research questions. The results can evaluate different groups of opinion and directly activate people's participation throughout the process. However, the data collection process is advantageous for a short time only and is conducive to visualising the photo interactive interview and the "labeling preference of participants" on photos (Shao, 2014) (Figure 4-08 (a, b)).

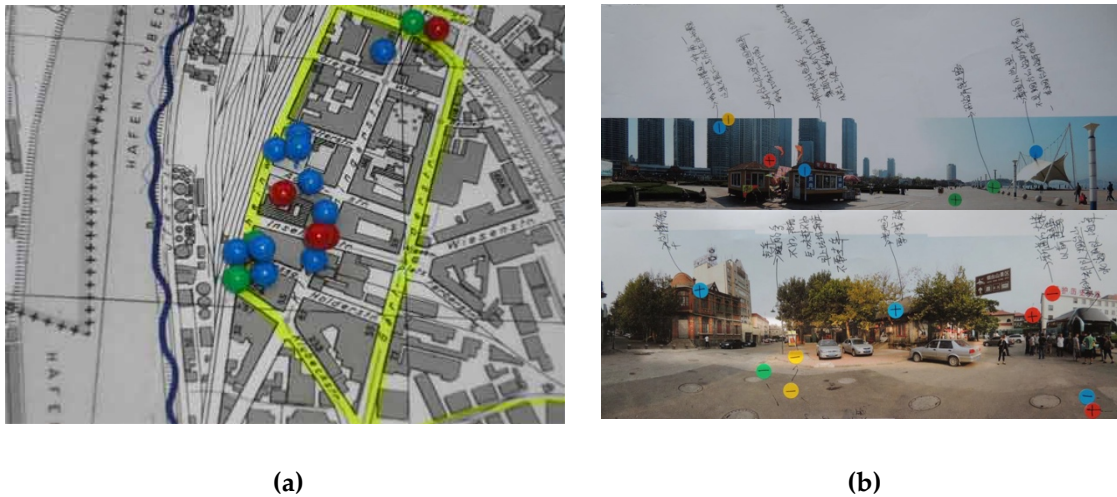


Figure 4-08: (a) Needle method (Shao, 2014: p. 69) referenced from Deinet & Krisch <https://www.sozialraum.de/nadelmethode.php> (b) Shao's study adapted the needle method into color marks to describe how people perceive the study's scenes. (Shao, 2014: p. 103)

4.5.6 Drawing

Brailas (2020, p. 4447) explains that drawings are employed by qualitative researchers in many creative ways and in many different contexts, and a variety of different terms are used to describe similar techniques. The use of drawing in visual and social sciences is not a groundbreaking methodology, however, it has become increasingly participatory. In modern social science research, drawing is used as an understanding of human subjects originating in visual anthropology (Lerat, 2013). The toolkit in visual research can be divided into two parts, firstly, mechanical tools (e.g. photography and video) and non-mechanical tools (e.g. drawing, playdough, Legos, and similar tools). Drawing tools are a non-mechanical visual production tool in the study of visual understanding (Brailas, 2020) Participatory drawing, as a quintessentially visual research method, authenticates “non-textual ways of knowing” by activating the “performative

dimensions” of image-making (Singhal & Rattine-Flaherty, 2006: p.327) referenced on (Literat, 2013: p. 85). The fundamental purpose of this method is to facilitate the expression of participants' perspectives and explanations through visual media. Harding (1987) defines drawing methods as a technique for gathering evidence which is interrelated in social research. Moreover, Moxon (2019) describes drawing methods potentially communicate a vision of a city and could be used to develop any field works that related to a development of city's vision.

Alexios Brailas (2020) proposes two approaches in drawing interviews which consist of the post-interview approach and pre-interview approach. Both approaches propose effective elicitation and performative dimensions in methodology. This method aims to contribute an abundant multimodal body of data through the meaning of human interaction which affects the practical community. Figure 4-09 depicts the post-interview approach utilizes the participant-created drawings following three steps. Firstly, a verbal interview following the drawing and finishing with a mini verbal follow-up interview to induce participants to express their thoughts on the drawings. Brailas (2020) suggests that semi-structured open-ended questions are needed to conduct the data. The verbal interview helps to release tension between participants and researchers (Brailas, 2020).

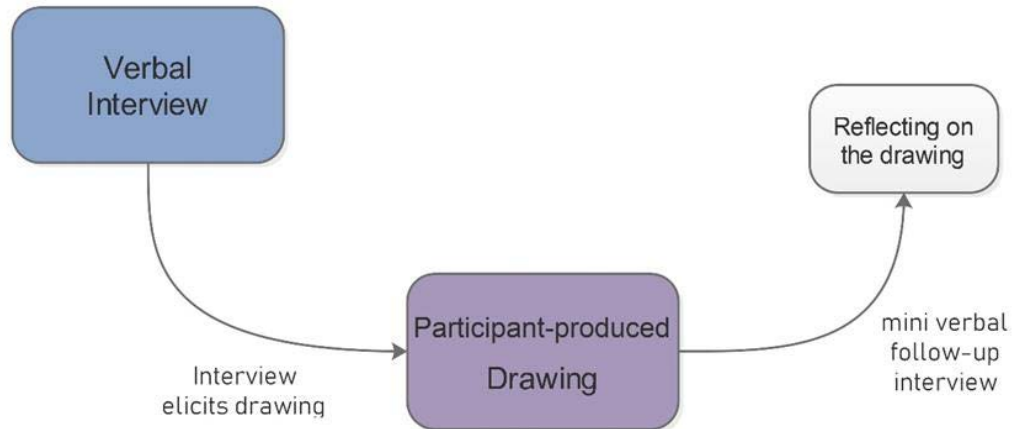


Figure 4-09: The post-interview approach (Brailas, 2020: p. 4450)

Figure 4-10 illustrates the pre-interview approach forms a short verbal discussion before the drawing process and summarises by using the drawing as prompt material for the full verbal interviews. This visual part is used to build bonding and as an elicitation technique for the concluding verbal part. The full-length verbal interview has not proceeded before the drawings which assume that the research agenda is less limited, and the pre-interview approach is less instructive when compared to the post-interview approach (Brailas, 2020). This research used the pre-interview approach to conduct the architects' perspectives on further management of streetscape characteristics and shophouse façade designs in Chiang Mai Old City. The pre-interview approach can collect genuine perceptions from participants compared to the post-interview approach which the start of the verbal interview before drawing would lead participants to answer questions to admire the researcher's objectives. Furthermore, it would provide a broader scale from the participant's drawing, which helped the researcher to understand the answer more deeply.

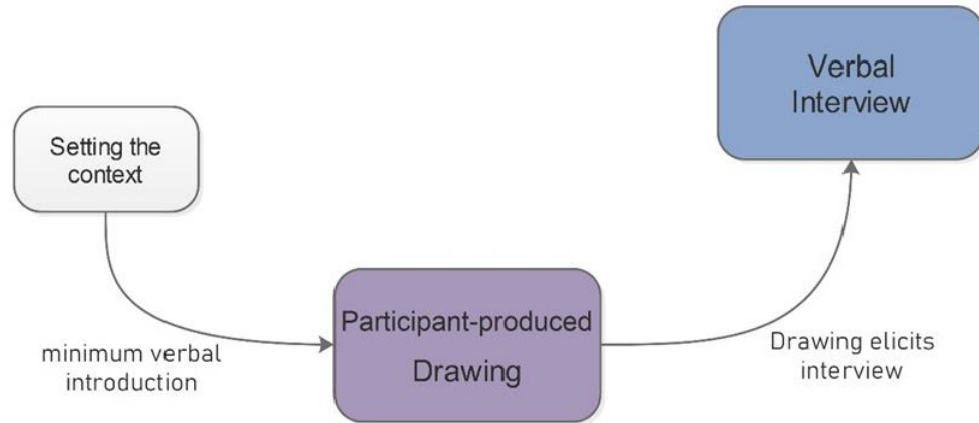


Figure 4-10: The pre-interview approach (Brailas, 2020: p. 4451)

4.6 Participant Selection

This research employed two data collection processes.: Firstly, a questionnaire with four hundred participants which were recruited incidentally in the Chiang Mai Old City, and a two focus groups with five participants in each group using two-way focus group discussion. Secondly, the data collection uses drawings suggested by ten local architects and in-depth interviews with twenty-five local participants (the sample size of these participants will be described in the next section). These collection processes collected data at different times as the study was divided into two time periods. Firstly, the researcher explored the distinctiveness of urban heritage and suggested to maintain built environment characteristics through a massive number of participants. After this process, the researcher collected in-depth emotions related to places and the built environment.

4.6.1 Recruiting Participants

This study recruited a diverse array of participants consisting of Chiang Mai local people, local architects, and local academics. When recruiting via personal and professional connections, Roulston (2021) outlines that researchers are “insiders” to their target group. This provides opportunities for getting recommendations from one person for other potential participants and allows for the chance to invite “expert recommendations”. Roulston (2021) also suggests that setting up a preliminary meeting is an advantage in searching for expertise in a field. Moreover, some of this research contains sensitive issues such as ethnicity, race, sexuality or age, and so the gatekeeper should be the primary source of contact before researchers access participants. The gatekeepers play the role of people who hold administrative positions, have in-depth information on the study topic, and they also act as a mediator for the community when it comes to sensitive issues. As the researcher of this study works as a lecturer at Chiang Mai University, in the recruiting process the researcher asked for expertise from every academic field such as urban design, architecture and also included the “Chiang Mai Heritage Committee Team” which had been suggested by the researcher’s colleagues.

Recruiting through face-to-face interactions is a primary procedure for recruiting participants by knocking on doors, standing on street corners or any places that are closely related to the study’s topic. In this study, the researcher stood in significant places in Chiang Mai Old City, such as the Three Kings monument square, Phar Singha temple, Tha Pare Gate square, and Chiang Mai City moat. Otherwise, recruiting occurred via fliers, newspaper advertisements, emails, and letters, which all played an important role as independent invitations for data collection and payment was provided for participators as an incentive.

The sending of letters and emails is frequently carried out in recruitment to meet the sampling criteria (Roulston, 2021). According to this study which involved many academics and local council groups, formal letters, and posters (Figure 4-11 (a, b)) depict both online media and on-site were used for invitations to in-depth interviews and participation in focus groups.



Figure 4-11: The recruitment poster was posted in public spaces around Chiang Mai Old City (Author)

4.6.2 Sample Size

Table 4-01 explains that there are two types of samples which consisting of probability and nonprobability samples (De Vaus, 1991). A probability sampling method is defined as a random selection from a larger population that is based on probability theory. ‘Nonprobability’ divides the sampling methods into two types, which are accidental or purposive. However, in applied social research,

there are sampling methods which are naturally purposive (Trochim, 2021). Therefore, this research used probability samples in the questionnaire, PEI and in-depth interview method according to production of representative samples. And use non-probability on drawing method which needed to be a specialist on designing a building and urban spaces.

Probability sampling	Non-probability sampling
The samples are randomly selected.	Samples are selected on the basis of the researcher's subjective judgment.
Everyone in the population has an equal chance of getting selected.	Not everyone has an equal chance to participate.
Researchers use this technique when they want to keep a tab on sampling bias.	Sampling bias is not a concern for the researcher.
Useful in an environment having a diverse population.	Useful in an environment that shares similar traits.
Used when the researcher wants to create accurate samples	This method does not help in representing the population accurately.
Finding the correct audience is not simple.	Finding an audience is very simple.

Table 4-01: Comparison of probability sampling and non-probability sampling (Trochim, 2021)

Questionnaire

The data collection process was divided into two parts. Firstly, the researcher conducted a survey on the distinctiveness of places in Chiang Mai Old City by using questionnaires. In the second data collection process, the researcher used questionnaires to ask twenty-five participants to participate in the in-depth interviews. In both data collections, the participants were recruited

with strict criteria: all participants must be local people who live or work in the Old City and consider themselves “Chiang Mai people”.

The first data collection used the short word answers; therefore, the sample size was calculated using the Taro Yamane formula (Yamane, 1967) which is generally used in survey research. The number of participants were initially calculated following the Bureau of Registration Administration of Thailand (2019) which stated that the population of Chiang Mai Old City (Muang Chiang Mai District) was 127,240 people in 2019. Moreover, to complete the calculation the researcher selected 0.05 points which signifies the margin error (e), resulting in a sample size of four-hundred participants. The second data collection was conducted in-between in-depth interviews and Likert scale questionnaires. The number of participants in this stage was twenty-five people in line with the criteria of in-depth interviews recruitment theory (will be explained in the next section).

$$n = \frac{N}{1 + N * (e)^2}$$

n = signifies the sample size

N = signifies the population being studied

e = signifies the margin error (It could be 0.10, 0.05 or 0.01)

Focus Groups

The size of the focus group has no specific regulation, however, there is a limitation of participants in a group discussion. Generally, the acceptable size is between six and eight participants, however, some studies use between four and fourteen participants (Nyumba et al. 2018). The number of respondents for discussion is another significant factor. It can be changed depending on the

topics and research purposes. According to methodological literature, in one process it ranges from six to twelve people. It is also suggested that six people would not dynamically results, and a group larger than twelve is difficult to manage as quiet participants are often ignored in large groups. Moreover, it affects the moderator's ability to control and take notes of the process. Other recommendations for the group size are eight people, which is considered to be a perfect number, as it is not too small and allows participants to create a group dynamic and capture a good range of responses. Adjusting the group size during the research process is possible, depending on moderator's observations of participants' involvement (Guest et al, 2013). However, the number of participants could be lessened into two or even three small groups, with each having their separate discussion (Nyumba et al. 2018).

Use smaller groups when	Use larger groups when
Participants are highly involved with the topic	Participants have limited involvement with the topic
The topic is emotional	The goal is to hear numerous brief suggestions (e.g., brainstorming)
Participants know a lot about the topic	The topic is simple
The topic is complex	You're looking for generalities or social norms
The topic is controversial	The topic is not controversial
You're looking for detailed to narratives	

Table 4-02: The comparison of different seize groups in focus group interview (modified from Guest et al, 2013: p 178)

In this study, the recruitment of participants was based on volunteers recruited from posters and public posts on social media. The participants were selected from local people who lived or worked in the Old Town and regarded themselves as “Chiang Mai people”. Therefore, ten participants were selected for this research, and this was considered broad enough to obtain a spectrum of viewpoints and not limited enough not to become disorderly or scattered (Guest et al., 2013).

In-depth Interview and Drawing

The sample size in the qualitative study has generally been smaller than when using quantitative methods. Qualitative research concentrates on earnings, and analytic processes are intensively conducted (Mason, 2010). The smallest number of participants for the qualitative study is fifteen participants as suggested by Bertaux (1981). However, Ritchie et al. (2003) recommend that a sample should “lie under fifty”. Morse (1994) suggests that there should be thirty to fifty participants in the interviews. Shinbira (2017), who studies *Defining Place Identity: Misurata, Libya*, used twenty-two participants to participate in the interviews. Nevertheless, Shao (2014) decided to use thirty participants in the study of *Local Identity Identification*, which used the needle method to collect the perception through the PEI process. After consideration, this research uses between twenty-two and thirty participants in the study.

As this study applied a quantitative method, there are two sections for the in-depth interviews. Firstly, twenty-five local people were questioned during the fieldwork. The study recruited participants who lived in Chiang Mai Old City and were aged over eighteen. The interview process asked the participants about

their perception and memory of the significant scenes of distinctive places and the quality of the streetscape in scenes using a questionnaire, PEI, and the needle method. Secondly, ten architects were recruited following the background of education and residency. The criteria of participants must be over eighteen and receive legal architect licenses from the Architect Council of Thailand; however, as the study recruited participants lower than the minimum of qualitative research criteria, according to the researcher, hardly to find participants in the COVID-19 situation.

4.6.3 The Personal Profile of the Respondents

The research recruits' participants in every method: a questionnaire, focus group, in-depth interview, and drawing. The eligible criteria for the research are "aged over eighteen years old", and "participants must consider themselves as Chiang Mai people". The sense of rootedness of people would reveal the distinctiveness following the participants' experiences. This section describes the respondents' personal profiles in each methodology revealed in the fieldwork process.

The Questionnaire

The questionnaire was conducted in Chiang Mai Old City (inner the rectangular old city wall) during February and March 2020. The questionnaire was designed to collect data from four hundred participants. The participants who inhabited and worked in the Chiang Mai Old City aged eighteen and above were recruited to participate in the survey. This section presents the personal details of the participants. A total of four hundred respondents were involved in the survey. 33.25% of the participants were males and 66.75% were females; 100% were either residents of, or worked in Chiang Mai Old City. Most

participants were between 23-29 and 30-39. Moreover, the residency data length shows that most participants lived in Chiang Mai for a short-term time of between 2-5 years, followed by 21-30 years. This would lead to explaining that even though the participants did not live that long, the participants felt attached to the Chiang Mai Old City enough and considered themselves Chiang Mai people.

Gender

Gender	Frequency	Percentage
Male	133	33.25
Female	267	66.75

Table 4-03: Gender in questionnaire section (source: survey by Author)

Age

Age	Frequency	Percentage
18-22	36	9.00
23-29	146	36.50
30-39	75	18.75
40-49	52	13.00
50-59	50	12.50
60-69	27	6.75
70-90	14	3.50

Table 4-04: Age in questionnaire section (source: survey by Author)

Length of residency

Age	Frequency	Percentage
Less than 1 year	11	2.75
1 year	39	9.75
2-5 years	124	31.00
6-10 years	44	11.00
11-20 years	51	12.75
21-30 years	65	16.25
31-40 years	26	5.75
41-50 years	15	3.75
51-60 years	10	2.50
61-70 years	11	2.75
More than 70 years	4	1.00

Table 4-05: Length of residency in questionnaire section (Source: survey by Author)***Focus Group***

The focus group was conducted in Chiang Mai Old City (inner the rectangular old city wall) during February and March 2020. The focus group was designed to collect data from the debate and discussion between two groups. The participants who inhabited and worked in the Chiang Mai Old City aged eighteen and above were recruited to participate in the survey through posters which post at CEA (Creative and Economy Agency of Chiang Mai), Social

Research institution of Chiang Mai University, public post statue in Chiang Mai Old City and social media.

This section presents the personal details of the participants. A total of ten respondents were involved in the survey. The participants (30%) were males and (70%) were females; 100% were original residents and worked at Chiang Mai Old City. Most participants were between 22-34 and 41-48. Moreover, the residency data length shows that most participants have lived in the city since they were born. Ten participants were randomly divided into two groups, age, gender, occupation, length of residency also not concerned in the division process.

Group 1 (G1)

	Age	Gender	Occupation	Length of residency
G1-01	32	Female	Researcher	32
G1-02	34	Female	Researcher	34
G1-03	45	Female	Business Owner	45
G1-04	48	Female	Business Owner	48
G1-05	32	Male	Architect	32

Table 4-06: Personal data of participants in Focus group G1. (Source: survey by Author)

Group 2 (G2)

	Age	Gender	Occupation	Length of residency
G2-01	42	Female	CMU officer	42
G2-02	45	Female	Business Owner	45

G2-03	41	Male	Freelance	41
G2-04	22	Male	University student	22
G2-05	33	Female	CEA officer	33

Table 4-07: Personal data of participants in Focus group G2. (Source: survey by Author)

In-depth interview

In the second data collection process, the in-depth interviews were conducted in Chiang Mai Old City (inner the rectangular old city wall) during October 2020. The in-depth interview was designed to collect data from the participants who inhabited or worked in the Chiang Mai Old City. Participants aged eighteen and above were recruited to participate in the survey. This section presents the personal details of the participants. A total of ten respondents were involved in the survey. 36% of the participants were males and 64% were females; 100% were residents or worked at Chiang Mai Old City. Most participants were between 31-36 and twenty-four per cent of participants were not satisfied to reveal their age. However, sixteen percent of participants are aged 41-46 and 58-65. Moreover, the residency data length shows that most participants (48%) lived and worked less than ten years in the old city, and 52% of participants lived more than ten years.

Participant Code Number	Gender	Age	Occupation	Length of residency	Born in Chiang Mai
In-S-F-0-001	Female	0	Hairdresser	10	Yes
In-S-M-22-002	Male	22	Government officer	10	Yes

Chapter 4: Research methodology and Analysis process

In-S-M-33-003	Male	33	Business owner	4	Yes
In-S-M-63-004	Male	63	Business owner	15	Yes
In-S-F-0-005	Female	0	Masseur	10	Yes
In-S-M-58-006	Male	58	Business owner	40	Yes
In-S-M-45-007	Male	45	Business owner	9	Yes
In-S-F-36-008	Female	36	Business owner	19	Yes
In-S-F-0-009	Female	0	Architect	5	Yes
In-S-M-35-010	Male	35	Business owner	10	Yes
In-S-F-31-011	Female	31	Interior Designer	31	Yes
In-S-F-29-012	Female	29	Business owner	5	Yes
In-S-F-31-013	Female	31	Business owner	31	Yes
In-S-M-31-014	Male	31	Chef	4	Yes
In-S-F-45-015	Female	45	Artist	20	Yes
In-S-F-29-016	Female	29	Business owner	29	Yes
In-S-F-41-017	Female	41	Barista	3	Yes
In-S-F-0-018	Female	0	Business owner	4	Yes
In-S-M-34-019	Male	34	Artist	9	Yes
In-S-F-0-020	Female	0	Hairdresser	6	Yes
In-S-F-31-021	Female	31	Government Officer	7	Yes
In-S-F-0-022	Female	0	Business owner	20	Yes
In-S-F-59-023	Female	59	Business owner	5	Yes

In-S-F-46-024	Female	46	Business owner	6	Yes
In-S-M-65-025	Male	65	Government Officer	40	Yes

Table 4-08: Personal data of participant in in-depth interview method. (Source: survey by Author)

Drawing

In the second data collection process, the research question stressed the further characteristics and management strategies for the future of the urban heritage's identity of Chiang Mai Old City. The researcher recruited ten licensed architects who lived and worked in Chiang Mai to participate in the design section study. Ten per cent were males and ninety per cent were female architects in this study. Eighty per cent of participants were born in Chiang Mai city. However, twenty per cent of participants moved from another province to study at Chiang Mai University and have worked in Chiang Mai since graduating.

	Gender	Age	Architect Licensed-	Length of residency	Born in Chiang Mai
Arch 01	Female	32	Yes	32	Yes
Arch 02	Female	32	Yes	32	Yes
Arch 03	Female	33	Yes	33	Yes
Arch 04	Male	35	Yes	18	No
Arch 05	Female	38	Yes	38	Yes
Arch 06	Female	31	Yes	31	Yes

Arch 07	Female	32	Yes	10	No
Arch 08	Female	31	Yes	31	Yes
Arch 09	Female	29	Yes	29	Yes
Arch 10	Female	31	Yes	31	Yes

Table 4-09: Personal data of participant in drawing method. (Source: survey by Author)

4.7 Research Methodology Framework

Figure 4-12 illustrates the conclusion of the research procedure and is divided into two parts. Firstly, the researcher explored the place identity of urban heritage in both place and built environment and further characteristics management strategies to answer three questions of the research study. The study collected data twice between February to March 2020 and in October 2022.

The Identity of Urban Heritage of Chiang Mai Old City, Thailand

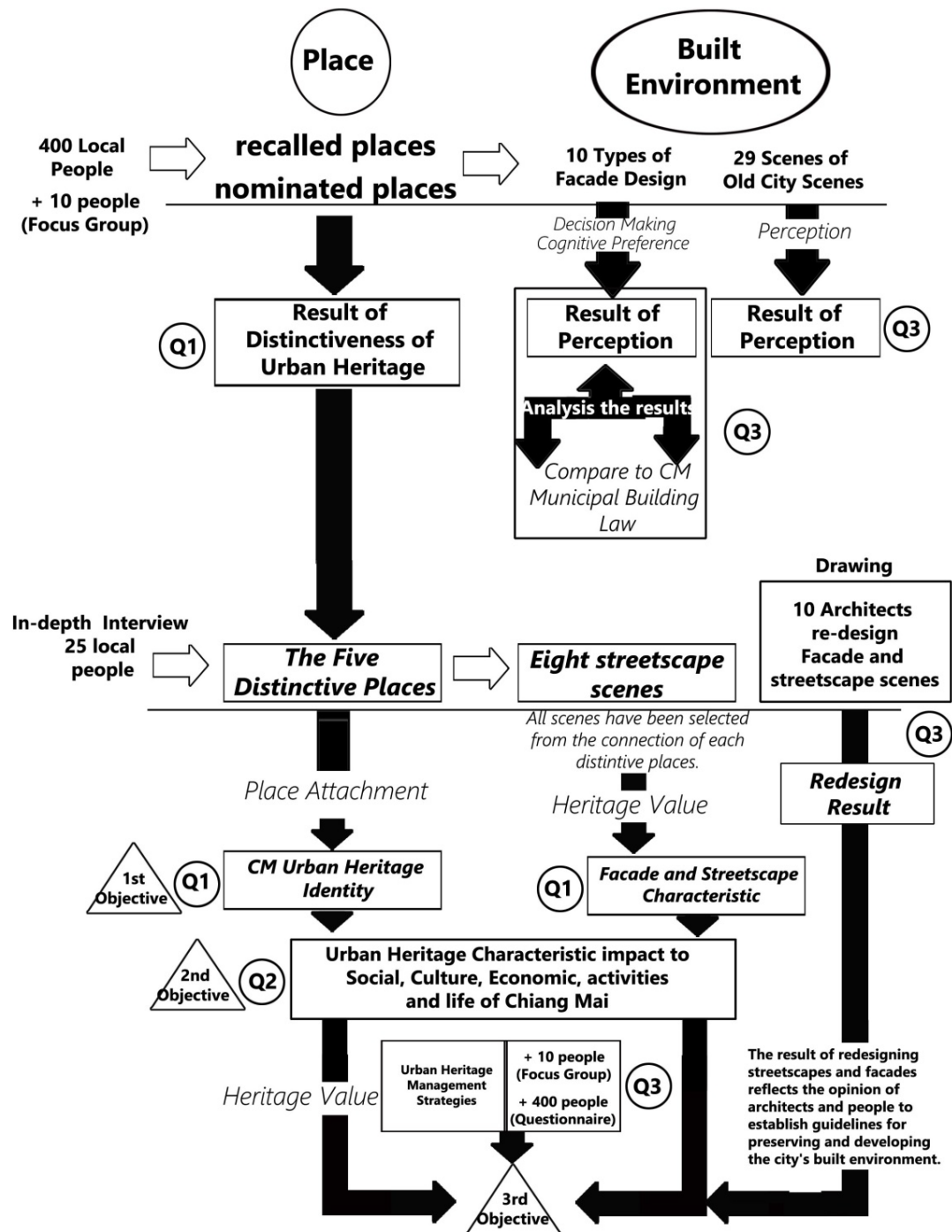


Figure 4-12: The diagram of methodology to reach objectives of the study (Author)

Figure 4-13 describes the outcome of the study which is divided into quantitative and qualitative processes. There are two sequences of data collection which were conducted in the first case selection to record precise perspectives to narrow down the results of the study.

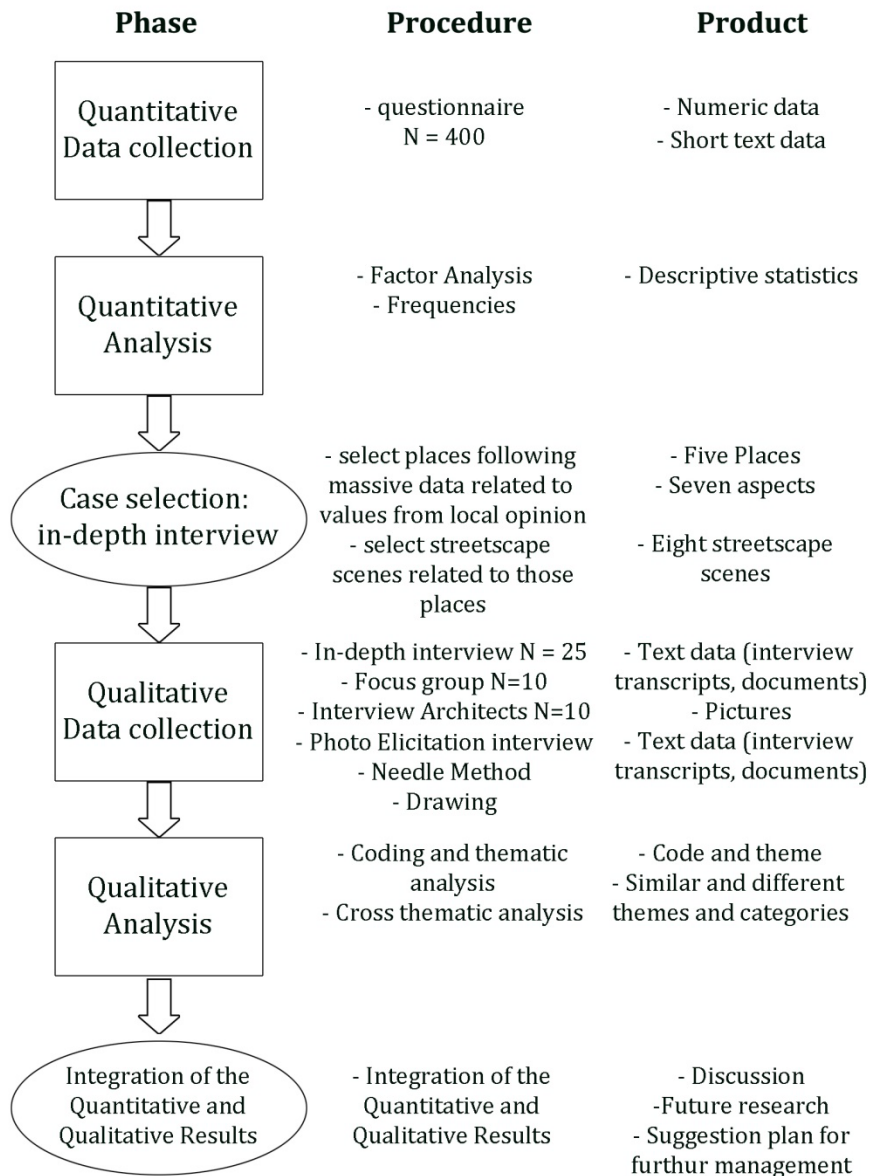


Figure 4-13: The diagram explains the data collection process which divides into qualitative and quantitative methods (Author)

4.8 Data Analysis Operation

This section explains the methods and data organisation, which were categorised and analysed to conclude the research study. The analysis process is challenging for the conclusion of the study as there has not been a fixed structure for the process. This section describes the process by which the data is organised and analysed.

4.8.1 The Qualitative Analysis Process of the Study

The data analysis of the qualitative data is generally concerned with text data from interview transcripts. Contrastingly, quantitative analysis specifically explores the statistics and consensus of independence of the research. The analysing of qualitative data is dependent on the researcher's analytic skills. In social research, the emphasis process is a “sense-making” and understanding phenomenon, rather than one for explaining or predication. Moreover, to analyse the data, it is necessary to be creative and investigative based on ethics and context.

Miles and Huberman (1984) describe a set of qualitative analysis processes through observation, in-depth interviews, focus groups, narratives of audio and video recordings. The inductive technique to interpret social phenomena and build theories from them was developed by Glaser and Strauss (1967), which illustrates specific coding techniques. The process of coding techniques is simply a method for classifying and categorising text data into a set of codes (concepts), categories (constructs), and relationships. There are three techniques for coding analysis on text data: open, axial, and selective.

The “open coding” process identifies the main idea which is hidden in text data. It is related to the phenomenon of interest. Generally, raw textual data is

examined line by line to decrypt and identify the idea, actions, perceptions, and interactions of relevance on the coded data. The central concept is linked to a specific coding unit before validation. The most essential task while coding is to identify the characteristics of each concept, such as proportion, colour, or level, so the similar data will be grouped.

Data categorisation is needed to decrease confusion and the amount of data to build a "wider perspective" or a "big picture of issues". It can be achieved by combining them into subcategories and moving to higher-order categories. Each categorization helps to identify patterns of data in the research. The second phase of theory is axial coding. This process merges categories and subcategories into relationships that answer the study's hypothesis. The final stage of ground theory is selective coding, which is an identification process that combines the variable core systematically and logically in relation to the main categories. Strauss and Corbin (1990) recommend that identifying core categories may need to integrate with several techniques consistent with the storyline technique and memoing or concept mapping. These techniques are concerned with the observed and refined phenomenon of a story. Memoing uses substantive concepts coded in relation to define patterns by using diagrams, tables, etc. Concept mapping is a presentation that uses graphics to explain the relationship between the concepts. After the data has been coded, in the final stage, researchers combine it in one sheet and present the graphics linked to each other by using arrows to point to each subjective. Finally, the variation of categories ensures that it appears and compares with raw data. However, if the results contradict the evidence, the coding process should be reprocessed to reconcile contradictions in the variations.

1. Determine and organize theoretically sensitive types of data	
2. Identify content areas	
In each Content Area	3. Conduct a manifest analysis of content data
	4. Conduct a latent analysis of content data
	5. Analyze interaction data
	6. Integrate the results in each content area (integrate the results obtained through steps 3 to 5)
7. Integrate and report the results of all previous steps for all content areas	

Table 4-10. The Steps of the Focus Group Data Analysis Framework (Nili et al. ,2017: p. 6).

According to the seven processes of focus group analysis (Table 4-10), firstly, the study considered the appropriate attention to all types of data, including verbal and non-verbal data such as the specific behavior “smiling to participants 001” rather than just mention general emotions, such as “happy”. Secondly, read through of focus group transcript to identify contents areas and extract all related text also included non-verbal text. In this process, the study identified seven aspects: landmark, identity, historical values, particular characters, everyday life, and community. Furthermore, manifest contents separately by sorting each content area’s meaning units, condense text and non-verbal into a description and code them. The coding unit used to categorize into subcategorized according to the similarities of data. This process explores the interaction of each data analysis, including verbal and non-verbal data on a table. The critical phase of the analysis is that all contents must be integrated into “subgroup” and “groups” to conclude the content area’s overall results. Finally, to report the results, a text is presented to explain in-depth and a table for a presentation (Table 4-11) (Nili et al. 2017; Phetsuriya & Heath, 2021: p.9).

Group: Distinctiveness of Urban Heritage of Chiang Mai Old City, Thailand					
Subgroup: Urban factors		Subgroup: Culture and Tradition			Subgroup: Human factors
CMU1	CMU2	CMU3	CMU4	CMU5	CMU6
(MU1)	(MU2)	(MU3)	(MU4)	(MU5)	(MU6)
G1L	G1I	G1HV	G1CA	G1PC	G1C
G2L	G2I	G2HV	G2CA	G2PC	G2C
GDL	GDI	GDHV	GDCA	GDPC	GDC
CMU = Condensed Meaning Unit			MU = Meaning Unit		
GXX = Group (No.)(CMU)			GDX= Group Discussion (CMU)		

Table 4-11. The example of focus group analysis in this study (Phetsuriya & Heath, 2021: p.10).

(L= landmark, I= identity, HV= historical value, PC= particular character, C= community, CA= cultural activities)

4.8.2 The Quantitative Analysis Process in the Study

There are two choices for analysing quantitative data in the social sciences field. Numeric data consists of descriptive analysis and inferential analysis. In this study, descriptive statistical analysis was used to describe the data in the basic features of a study and provides simple descriptive summaries of the sample and the measures (Bickman & Rog, 2009; Bhattacharjee, 2012; and Maravelakis, 2019). It is a simple presentation that describes what the data shows. In a research study, there is a copious amount of measures and data, however, this process helps to simplify the large amounts of output in practical summaries (Bickman and Rog, 2009).

After extensive data collection processes such as surveys, interviews, or experimental data, they must be converted into readable data, put into numeric format and be prepared for an analysis process executed by a computer program

(Microsoft Excel). The preparation of data has four steps consisting of data coding, data entry, missing values, and data transformation. The data coding process is a process of converting data into numeric format. The codebook is a vital tool for the coding process, as it contains detailed descriptions of the variable data (numeric, text, etc.). This process is for massive complex studies which involve many variables and evaluations (Bickman & Rog, 2009; Bryman, 2008; and Davies, 2020).

Data entry is a process of entering data into a spreadsheet, text file, or directly into a statistical program. The size of data is important for choosing a suitable program for the analysis process. For instance, smaller data sets with less than 6,500 data can be stored in a spreadsheet on Microsoft Excel. Though entering data is a simple process, it should be frequently checked for accuracy during the entry process. The third process is the missing value process, which is an essential section of data collection (Bickman & Rog, 2009; Bryman, 2008; and Davies, 2020). This problem should be detected on the pretest and solved before the main data is entered. The last process is data transformation, which is vital for transforming the data values before the interpretation of value meaning. There is an alternative process of transformation which is increasing the individual scale, weighted index, and categories of data. Summaries of descriptive statistics can be presented as graphs, in tables or as numbers (Bickman and Rog, 2009).

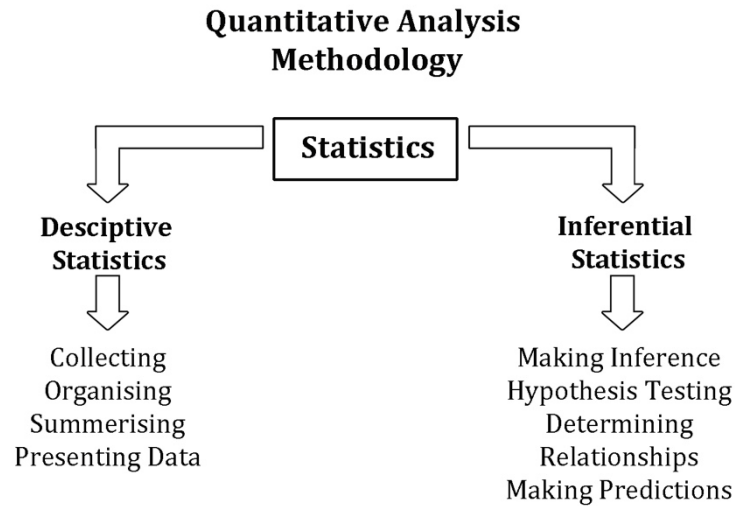


Figure 4-14: Quantitative analysis methodology (Author)

4.9 Strengths and Limitations of the Methods

According to mixed methods, the first limitation regards the issue of data collection during the pandemic (February 2020 to February 2022), and the recollection process to confirm the study's results. While the researcher was able to recruit sampling in empirical data collection, it was difficult to collect during the pandemic due to the population not being in public spaces. The researcher decided to collect data in the second data collection process by using video conferencing on Skype or the Line social media application (table 4-12). In addition, the available participants were interrupted while interviewing according to the unstable internet signals. However, all efforts were made to overcome these difficulties, including arranging appointments and recruiting participants from social media.

First Data Collection	Collected Via	Second Data Collection	Collected Via
Questionnaire, PEI (N = 400)	On-site	In-depth interview, PEI and Needle Method (N = 25)	Online +On-site
Focus group (N=10)	On-site	Drawing (N = 10)	Online

Table 4-12: Table of data collection process (Author).

The second limitation of the methodology occurs in the needle method technique. In the collection process, the researcher asked participants to mark the pictures and write any suggestions on them. According to the collection process occurred via online, the participants were unable to write the answer by themselves and asked the researcher to write the answers following their words.

The third issue occurred in the design of shophouse facades and streetscape scenes. The limitation of this method was the local participants' lack of drawing ability. As expected, the local people refused to draw pictures due to a lack of self-confidence and found it difficult when they did attempt to draw. The researcher decided to change the participants from local people to local architects instead.

4.10 Chapter Conclusions

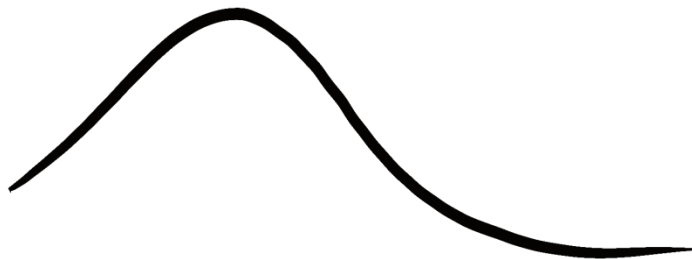
This chapter has described the methods which have been used in this research study and introduced the paradigm of knowledge in methodology, the strategies, inquiry of the research questions, and the methodological framework.

The chapter discussed the use of mixed methods in research. It can be concluded that mixed methods can enrich and validate the research data and the methodological paradigm.

Therefore, the mixed method approach was chosen to conduct the data collection process, which consisted of questionnaires, in-depth interviews, drawing exercises and focus groups. The majority of the analytical procedure was based on an inductive strategy which utilised empirical evidence. It described the procedure used to answer each of the research questions and achieve the research objectives. Moreover, referencing previous studies on the topic of place identity, the result was that the process used both quantitative and qualitative methods or mixed methods. Most of the research techniques in this study considered people's perceptions, recollections, and definitions of the urban heritage environment. The next chapter presents the results to answer the first research question, which focuses on how local people define place attachment to world heritage nomination sites and recalling places from their experiences.

Chapter 5

The Tangible Values of the Identity of Urban Heritage of Chiang Mai Old City



The slope from the Doi Suthep Mountain started from the west towards the east. The perfect site followed Tai Yaun Knowledge for agricultures.

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

Chapter 5

The Tangible Values of the Identity of Urban Heritage of Chiang Mai Old City

5.1 Introduction

Figure 5-01 describes the process study of this chapter. Defining the Identity of the Urban Heritage of Chiang Mai Old City, Thailand outlines the relationship between people's emotions and place. This chapter aims to define distinctions within the extensive data taken from four-hundred participants, before defining sense attachment to the city's urban heritage from twenty-five participants. The main reason for the repeat process of the study is to increase the understanding of the result of participants' experiences and emotions and describe in-depth explanations of distinctive places. The inter-relationship of distinctiveness and place attachment will be applied in the discussion of the results.

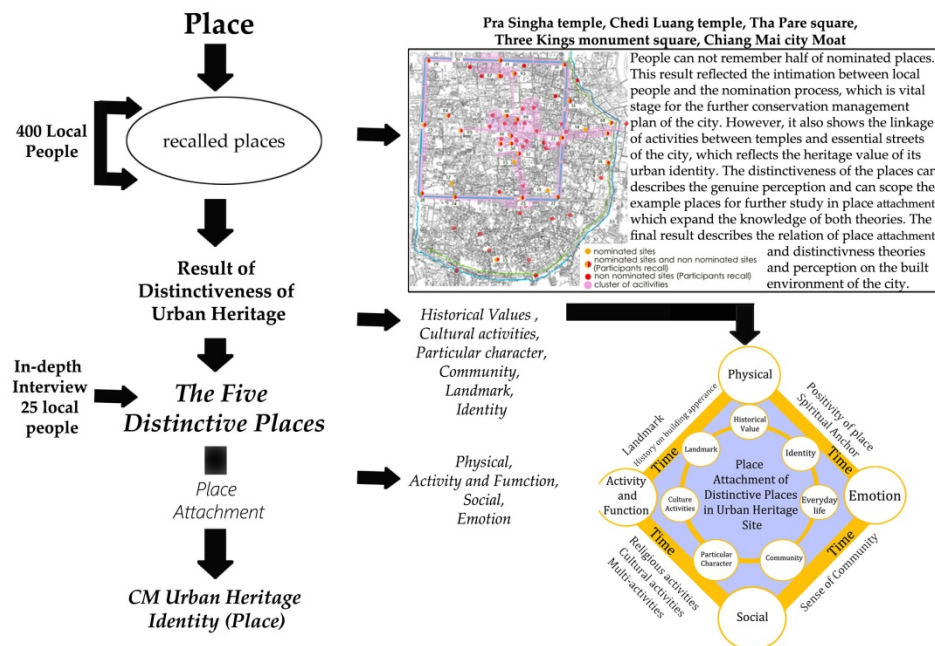


Figure 5-01: Process study of chapter 5 (Author)

5.2 The Distinctiveness of Urban Heritage in Chiang Mai Old City

This study aims to define the distinctiveness of the urban heritage of Chiang Mai Old City in the pilot study before using the specific questionnaire for each distinctive place. Distinctiveness theory was mentioned in the previous study of Phetsuriya and Heath, (2021) which was built upon research by EI Hosary et al. (2018) and Ginting and Wahid (2017). Ginting and Wahid use Breakwell developed through Lalli (1992); Lynch (1960); Twigger-Ross and Uzzell (1996) in defining the distinctiveness of identity. It consists of landmarks, uniqueness, particular characteristics, and different perceptions. However, this study broadens the aspects of evaluation through the participants' answers regarding historical value, cultural activity, everyday life and identity (Phetsuriya and Heath, 2021). In addition, urban heritage studies are always related to communities and the everyday lives of local people. This evidences the value of local people's attachment and maintains the 'living city' status.

This chapter will explain the result of the first research question, which concentrates on the distinctiveness of the urban heritage of Chiang Mai Old City. Furthermore, the results will be used to define the sense of attachment to those distinctive places following local perception. These defining processes would validate the genuine human perception and expand the knowledge of urban heritage and human perception of the built environment theories.

5.2.1 The Recollection of Important Places in Chiang Mai Old City Following Participants' Experiences

This part concentrates on the participants' recollection processes. This process aims to understand the genuine opinions of local participants of

places that are distinctive and based on the local community's experiences. In the questionnaire, the four-hundred participants were asked to recall and indicate the most memorable place based on their experiences and give short reasons in order to explain their perception of the places. Moreover, this part included focus group results. The research considers both results using the recollection process, and the outcome explains the quality of the results.

Participants recalled thirty-eight places which included eighteen nominated sites (not highlighted in blue). Others recalled places consisting of religious places, temples, *Kum Jao* (Palaces), urban heritage attributes, streets, local museums, and local authorities' buildings. All of the short reasons are divided by categorising the familiarity of wording according to distinctiveness theory (explained in Chapter 3.2.5). Moreover, the focus group with ten participants used a two-way setup (five person per each group) which allowed the participants to discuss (i) What is the distinctiveness of the urban heritage of Chiang Mai Old City?; and (ii) What are the places in the Old City that are important to you?" They were also asked to articulate why these questions can help define the urban heritage identity of the Old City.

No.	Name of the place	<i>x</i>	Landmark	Historical Value	Particular Character	Cultural and Religious activities	Everyday life	Identity
1	PRA SINGHA TEMPLE (5)	243	11	117	33	76	2	2
2	CHEDI LUANG TEMPLE (2)	224	4	98	9	107	5	1
3	THREE KINGS MONUMENT SQUARE	129	21	57	40	3	8	0
4	THA PEAR GATE SQUARE (22)	76	15	23	17	1	12	7
5	CHIANG MUN TEMPLE (3)	59	0	37	2	19	1	0
6	PUN TOW TEMPLE (10)	48	0	9	5	34	0	0
7	CHIANG MAI MOAT (31)	44	6	21	7	0	3	8
8	BURIRAD PALACE	29	0	17	11	0	1	0
9	CHIANG MAI GATE (23)	27	5	8	8	0	5	1

10	INTHAKIN TEMPLE	24	0	16	4	3	1	0
11	DUANG DEE TEMPLE (9)	22	0	1	15	6	0	0
12	CHANG PUAKE GATE (21)	21	4	6	9	0	2	0
13	LARM CHANG TEMPLE	19	0	8	3	7	1	0
14	FORMER CITY HALL	19	0	15	4	0	0	0
15	PRASART TEMPLE	17	0	6	7	4	0	0
16	CHIANG MAI WOMEN CORRECTIONAL INSTITUTE	16	0	15	1	0	0	0
17	SUAN DOK GATE (25)	13	0	6	3	0	4	0
18	INTHAKIN PILLAR-GURJAN TREE (30)	12	0	6	1	5	0	0
19	YUPPARAD SCHOOL	11	0	8	3	0	0	0
20	SRI PHUM FORT (20)	11	1	1	2	0	7	0
21	PAN OUN TEMPLE	10	0	0	3	7	0	0
22	SAN PRUNG GATE (24)	10	3	3	0	0	1	3
23	U-MONG TEMPLE	9	0	1	1	7	0	0
24	KOUN KHA MAH TEMPLE	8	0	2	1	5	0	0
25	SUMPAW TEMPLE	8	0	0	3	5	0	0
26	SANMUANGMA TEMPLE (7)	7	0	3	0	2	2	0
27	DOK AUENG TEMPLE	6	0	0	0	5	1	0
28	WUA LAI WALKING STREET	6	0	3	3	0	0	0
29	JED RIN TEMPLE	6	0	0	4	0	2	0
30	CHANG TAM TEMPLE (15)	6	0	0	4	2	0	0
31	MUEN RAN TEMPLE	5	0	1	0	2	1	0
32	THA PARE WALKING STREET	5	0	3	2	0	0	0
33	CHAI PRA KIAT TEMPLE	4	0	1	1	2	0	0
34	BUAK HARD PUBLIC PARK	3	0	0	3	0	0	0
35	MUNG RAI KING STUPA	3	0	2	1	0	0	0
36	GA THUM FORT (27)	3	1	0	0	0	2	0
37	GU HUANG FORT (28)	3	1	0	0	0	2	0
38	HUA RIN FORT (29)	3	1	0	0	0	2	0

Table 5-01: The results of the recollection of important places in Chiang Mai Old City (Phetsuriya & Heath, 2021: p. 10)

Focus Group: Distinctiveness of Urban Heritage of Chiang Mai Old City, Thailand						
Subgroup: Urban factors		Subgroup: Culture and Tradition			Subgroup: Human factors	
Landmark (L)	Identity (I)	Historical Values (HV)	Cultural and Religious Activities (CA)	Particular Characters (PC)	Community (C)	
	<p>“Whole body of the city representing the identity of Chiang Mai Old City”(G1I)</p> <p>“the uniqueness of local raw materials (brick) on city wall and forts represented the landmark of place and leads local people to disguise the landmark of place”(G1L)</p> <p>“If we talk about what we recognise and see when traveling around the city, it would be the moat, the gates and the forts because once we give directions to someone, we always mention these urban artifacts to give them the sense of direction” (G2L)</p>	<p>“The building style of the temples provides a narrative of the way of life of people. The extraordinary space which appears in those buildings also tells the story from the past to the present of Lanna identity” (G1I)</p> <p>“identity is represented through our own spiritual being, however, the physical features and social life in the city are also the image of the city which consists of the red truck (Rod Dang - the main vehicle of transportation in Chiang Mai), the uniqueness of the Chiang Mai people’s personality which is described as being shy, and speaking politely and softly. It also includes Northern Thai food, culture and the unique style of clothes.” (G2I)</p>	<p>“The archeological sites in Chiang Mai Old City reflect the value of Lanna history” (G1HV) (G2HV)</p> <p>“Timeline of architects and buildings in the city could define the history of place.” (G1HV) (G2HV)</p>	<p>“I join the Inthakin festival every year at Chedi Luang Temple” (G1CA) (G2CA)</p> <p>“If I could pick any place to make merit, it would be in the Old City rather than anywhere else” (G1CA) (G2CA)</p> <p>“the main idea of Inthakin is to worship the pillar of the city by using flowers (Kun Dok), ...in the past a lot of people who lived in the community grew many types of the lucky flower bushes (a Thai belief) in front of their houses and used these flowers for the ceremony and to share with the neighbourhood.” (GDCA)</p>	<p>“Northern Thai dishes tell the story of history and culture. Furthermore, the Northern costumes which we have worn since we were young and have worn as part of school regulations every Friday are also a key part of the city’s character.” (G2PC)</p> <p>“...see the difference of the regional costume in Northern provinces as people still wear it in everyday life but, once I went to Bangkok everyone asked me whether I had just joined a wedding reception, Or “why do you dress like an old lady?” (G2PC)</p> <p>“crafts in the North are unique and hidden amongst the community in the alleys of Chiang Mai Old City.” (G1PC)</p> <p>“There are lot of craftsmanship communities with trades such as Goldsmiths (Chang Thong), Painting (Chang Tam), Gong (Chang Gong), Northern hair pins decorated with golden flowers (Dok Mai Wai). These are the artifacts which unintentionally combine with society, place, space, and the community of the Old City.” (G1PC)</p>	<p>“... community still strong enough to survive in economic changes but I feel regret when I see everyone changing their identity to serve the tourism industry. It would be great if the council supported their community heritage careers” (G1C)</p> <p>“I feel proud of my city and proud to tell everyone that I live here.” (G2C)</p> <p>“I think Chiang Mai people retain their way of life from the past and still have their Lanna spirit and it is important that local people still join cultural activities, follow traditions and adapt these to the current situation.” (G2C)</p> <p>“Local people retain the vital aspect to increase the identity and economy in the old city because they have learned how to use old things commercially and preserve them for the community’s advantage.” (G2C)</p>

Table 5-02: The result of focus group analysis (Phetsuriya & Heath, 2021: p.18)

The results include two studies consisting of a questionnaire and a two-way focus group. The study contains seven sections to describe the distinctiveness of Chiang Mai Old City's urban heritage comprising of: Landmarks; Historical Value; Particular Character; Cultural and Religious Activities; Identity; Everyday Life; and Community.

Landmarks

The questionnaire results show that local people mostly chose the Three Kings Monument in the 'Landmarks' section. Moreover, the participants provided short reasons as to their selection of places in the Old City consisting of: "It is a landmark of the city"; "The place reminds me of the true Chiang Mai; "It is easy to find this place and it can also be an assembly point for a gathering of friends"; "Travellers can find this place easily when visiting the Old City"; etc. Phetsuriya & Heath (2021: p. 11) refer to the significance of location in Lynch's study, which states that: "A landmark is not necessarily a large object; it may be a doorknob as well as a dome. Its location is crucial: if large or tall, the spatial setting must allow it to be seen; if small, there are certain zones that receive more perceptual attention than others..." (Lynch, 1960: p. 101).

The Three Kings monument Figure 5-02 (a) was built thirty-seven years ago. It is a royal monument of the Three Lanna monarchs who built the city of Nopburi, Si Nakhon Ping (Chiang Mai) Phaya Mangrai, Phaya Ngam Muang, and Pho Khun Ramkhamhaeng. In the Northern Thai dialect, the square is called '*Khuang*'. Its location is on the main road of the city, which means it remains as an "assembly point" until the present day. The place is the only open urban space in the city, and it is a vital place for local authorities to use for sacred ceremonies or festivals. Currently, the place provides various activities such as street dancing, skateboarding, art exhibitions, and political

protesting. Lynch (1981) describes ‘activity focus’ in urban space due to enclosed high-density elements and the surrounding areas of streets, meaning it attracts groups of people to use its urban features.



Figure 5-02: (a) Three Kings Monument square (Author) (b) Tha-Pare gate square (Author)
(c) Chiang Mai city moat (Author)

The focus group also discussed the subtle elements of the city. The first group brought up the general material which has been used in Chiang Mai’s urban artefacts such as its city gates, the city fort and temple walls.

“The uniqueness of local raw materials (brick) on city walls and forts represented the landmark of the place which leads local people to disguise the landmark of place” (G1L).

However, the second group pointed out specific places consisting of the Chiang Mai City Moat, gates, and forts (Figure 5-02 (b), (c)) stating that:

“If we talk about what we recognise and see when travelling around the city, it would be the moat, the gates and the forts because when we give directions to someone, we always mention these urban artefacts to give them the sense of direction” (G2L).

This relates to ‘spatial prominence’ in Lynch’s study (1960) which explains the visible elements in a location contrasting with the surrounding components. Although both groups had different ideas for the ‘Landmarks’ section, their suggestions support the current scenario of Chiang Mai’s local

landmarks consisting of the bricks in the city walls, forts, and the Chiang Mai city moat (Phetsuriya & Heath, 2021).

Historical Value

Historical value played a vital part in historical cities and was most recalled by the local participants in Chiang Mai Old City. Reigl (1982) describes historical value as something that is obviously comprehended and integrated into all things in the previous era that can never be recreated. Moreover, in modern conceptions, it can be assumed to be an irreplaceable and inextricable link to development and evidence of human activity.



Figure 5-03: Pra Singha temple (Author)

In the questionnaire, the Pra-Singha temple (Figure 5-03) was mostly recalled in the 'Historical Value' section. When discussing this place, the participants repeatedly gave short answers such as "Old place with history" and felt that it is "a valuable and important place". Moreover, the participants revealed their opinions in terms of the relationship between their memories and history through statements such as "It has been a special and well-known place for a generation." Interestingly, some of them imparted their own knowledge of the place in relation to the history of the city with facts such as:

"It was a temple before Siam altered it" and "It was an important place for the city and had been transformed into a city hall when Siam colonised Lanna."

According to the focus group results, both groups did not mention any specific places. However, there were statements like:

"The archaeological sites in Chiang Mai Old City reflect the value of Lanna history" and the "Timeline of architects and buildings in the city can define the history of place. (G1HV) (G2HV)"

These results support the study of Wells (2010, p. 3) which states that "Historical value can be divided into two elements: association of the older built environment with historical events or people from the past and the ability of building fabric to convey information on past cultural practices, such as craftsmanship." According to the results, it can be assumed that the local people acknowledge the value of architecture and buildings and realise the value of places which engage with local community's history.

Identity

Chapter 3 described the value and definition of 'identity'. The results following the recollection process expand upon its meaning in urban heritage study. Identity can be the characteristics of a place that make it memorable, or even forgettable, as well as the names or symbols that turn identity into a brand (Boussaa, 2021: p. 68).



Figure 5-04: Red truck (main transportation of Chiang Mai city) (Author)

Local people recalled Tha-Pare Gate square and Chiang Mai Old City moat the most in relation to identity. Both places are historical urban open spaces with key locations and display remarkable shapes for urban artefacts compared to other cities in Thailand. Lynch (1960, p. 132) defines “identity as a sense of place which is the extent to which a person can recognize or recall a place as being distinct from other places as having a vivid, or unique, or at least a particular, character of its own”. This is supported by the study of Rifaioğlu and Güçhan’s (2007, p.2) which underlines that “identity becomes the main feature that confers unique characteristics to a city or a local place”. The local people expressed opinions on the significance of the places from the results, stating “the place is an image of the city” and that they “represent the reputation of the city”. These findings reveal local people's experiences in relation to regional identity in urbanism. This can be understood as the historical cores of a city which contribute to its characteristics and are multipurpose for people living in the town centre (Nathiwutthikun et al., 2008).

For the identity section, the study focused on the word ‘identity’ in the focus group discussions. There were several sentences that concerned the ‘identity of the city’, with the first group describing the:

“Whole body of the city representing the identity of Chiang Mai Old City” and that “The building style of the temples provides a narrative of the way of life of people, the extraordinary space which appears in those buildings also tells the story of Lanna identity from the past to present.” (G1I)

Moreover, in the discussion the second group revealed an inextricable linkage between physical features and community. The group noted that

“Identity is represented through our own spiritual being, however, the physical features and social life in the city also represent the image of the city, consisting of the red trucks (Rod Dang (Figure 5-09 (a))—the main vehicle of transportation in Chiang Mai), the uniqueness of the Chiang Mai people’s personality which is described as being shy and speaking politely and softly. Nevertheless, it also includes the Northern Thai food, culture and the unique style of clothes.” (G2I)

These responses reveal that local people's experiences relate intimately to urban identity. Hayden (1995, p.9) refers to urban landscapes as a “storehouse” for social memories with the whole experience of a place being constituted of the interaction between the activity, form and meaning. It can be assumed that the identity of the place is embodied by local people's memories which consist of character activities and everyday life in the place.

Particular Character

The uniqueness of activities in these places supports the particular activities aspect in urban distinctiveness theory. El Hosary et al. (2018) focus on the local distinctiveness of urban spaces by using tangible and intangible aspects. The variety and diversity of places are the keys to local distinctiveness theory which consists of local people interacting with distinctive physical, social and economic characteristics.



(a)



(b)

Figure 5-05: (a) Three Kings Monument square in the afternoon (Author) **(b)** Lanna traditional silver bowl by Chang Ngen (source: https://www.matichonweekly.com/column/article_470054)

The Three Kings Monument (Figure 5-05 (a)) was the most remembered as a space for activities. There are multiple activities consisting of general activities, commercial activities and traditional-religious activities such as the floral festival and Kun Dok festival. Interestingly, some of the participants recalled the markets around the Tha Pare Gate Square and Pra Singha temple which was highlighted as a famous place for food. Participants also described the walking street around those famous places stimulating the local economy, alongside the usage of temple spaces for food markets. Otherwise, the Three Kings Monument Square was singled out for its location and numerous activities and was also mentioned as being “located in my neighborhood so it reminds me of childhood memories” (Phetsuriya & Heath, 2021: p.12). The interchangeability of place usage shows the intangible characteristics of urban heritage identity as Sadowski (2017, p.127) explains “cultural heritage carries a meaning broader than a ‘cultural object’ and there are other markers of national or group identity, such as intangibles, language, traditional cultural expressions, folklore, genetic recourses, and intellectual property.”

The first group mentioned the vitality of crafts in the local community which represents the value of Chiang Mai's cultural heritage. The groups agreed that:

"Crafts in the North are unique and hidden amongst the community in the alleys of Chiang Mai Old City." They also noted that "There are lot of craftsmanship communities with trades such as Goldsmiths (Chang Thong), Painting (Chang Tam), Gong (Chang Gong), and Northern hair pins decorated with golden flowers (Dok Mai Wai). These are artefacts which are unintentionally combined with the society, place, space, and community of the Old City." (G1PC)

In the discussion on particular activities in places, the second group expressed that *"Northern Thai food has signature dishes which tell the story of the history and culture. Furthermore, Northern costumes which we have worn since we were young as part of school regulations every Friday are also a key part of the city's character."* The group also identified how they *"...see the difference of regional costume in Northern provinces as people still wear them in everyday life but, once I went to Bangkok everyone asked me whether I had just joined a wedding reception or why I was dressed like an old lady" (G2PC)*

This discussion reveals that the City's cultural heritage occurs anywhere that Chiang Mai people visit. Thus, it can be assumed that language, crafts, traditional dress and the spiritualism of the Northern region becomes part of the cultural heritage materials of Chiang Mai Old City's urban heritage identity.

Cultural and Religious Activity

Cultural and religious activities are a key aspect in the study of urban heritage research. They are the core of the city's community and are closely related to religious and local beliefs. Phetsuriya & Heath (2021, p.13)

illustrates that cultural activities create “meaning” and embody the identity which reflects the values of the city. This relates to the study of Landry (2002) which states that a strong culture can produce a positive image of a place.



Figure 5-06: (a) Chedi Luang Temple (Author). (b) People engage with cultural activity in the night (Author).

The Chedi Luang temple (Figure 5-6 (a)) scored the highest in the Cultural Activities section. It is in the heart of the city and the space is generally used for religious occasions (Figure 5-6(b)). Moreover, the reputation of the place and location leads local people to visit to make merit and to use for Buddhist ceremonies. Most of the participants revealed that “Kun Dok Festival” or “Inthakin Festival” both have the same meaning of “City Pillar worship”. This festival takes place over eight days, beginning on the twelfth day of the waning moon of the sixth lunar month. City Pillars are important to the Thai community as they house the city’s guardian spirit, which protects its citizens. Chiang Mai is the only place in Thailand that holds the City Pillar Festival (Phetsuriya & Heath, 2021: p.16 and Ongsakul et al., 2005).

In the focus group discussion both groups expressed familiar experiences regarding the religious festivals in Chiang Mai Old City. They stated that: “I join the Inthakin festival every year at Chedi Luang Temple” and “If I

could pick any place for making merit, it would be in the Old City rather than anywhere else". (G1CA) (G2CA)

Both groups also discussed the meaning of festival, concluding that

"The main idea of Inthakin is to worship the pillar of the city by using flowers (Kun Dok), ...in the past a lot of people who lived in the community grew many types of lucky flower bushes (Northern Thai belief) in front of their houses and used these flowers for the ceremony and to share with the neighborhood." (GDCA)

According to the results, it can be assumed that local people identify religious festivals and activities that are relevant to culture and tradition as part of the "Cultural Value" of the city. Moreover, the occasion of festivals has transformed the value of locations and space according to the social and cultural significance of place which relevant to Perry et al. (2020) who explains that the inherent relationship between festivals and physical spaces is in forming the tangible heritage of a place. Moreover, the identity and value of place can be defined and supported by the festival.

Everyday Life

"Cities and towns are a combination of buildings and people. Indeed, people are usually connected with their physical and social environment. They are attracted to open spaces when the environment succeeds in becoming an important part of their everyday life and meets their needs, expectations and beliefs" (Faragallah, 2018: p.3971). The connection between spaces and users of urban space creates different meanings and functions within cities. In terms of everyday life, socio-cultural value is showcased through local people's routine activities.

The results of four hundred participants reflect the significance of everyday life in urban spaces. Everyday life has been described by Upton

(2002, p.707) as “seemingly unimportant activities and a set of functions connecting and joining together systems that might appear to be distinct. The everyday is that which remains after one has eliminated all specialized activities... everyday space lies in between such defined and physically definable realms as the home, the workplace and the institution, it is the connective tissue that binds everyday lives together.” Most of the participants chose Tha-Pare Gate square as ‘the place that I see every day’, ‘on the route to work’ and that they ‘see the place while driving in the city.’.

Generally, Tha-Pare Gate is the most attractive place for local people and tourists according to its location and the activities it hosts. Moreover, the area connects the square and pavement around the Chiang Mai city moat. It reflects Neve’s (2018, p.165) argument that “the streets of our town, workplaces, home, squares and monuments, and so on are naturalised by cultural habits, routines, and meanings acquired by education or social relations.” Furthermore, everyday life is concerned with places appreciated through people’s experiences rather than historical value (Mosler, 2019).

Community

Sapu (2009, p.2) examines community participation in heritage conservation as in Southeast Asia, the concept of ‘community’ is complex. Richter et al. (2020) explained in Thailand context, that community heritage is not valued as community rarely involved in a preservation process. Generally, it is agreed that communities occur when people get together and form groups out of both self-interest and the interest of the wider group. It is often said that people ‘belong’ to a community, i.e., they feel loyal to the group, and share in its goals, values, and beliefs. Ratanakosol et al. (2016) argues that the identity of community has the capability to evoke pride, self-respect, unity, a sense of place and social responsibility for the community.



Figure 5-07: The engagement of community in cultural activity (Author)

The first focus group expressed their feelings towards the community in Chiang Mai Old City as a

“... community still strong enough to survive economic changes but I feel regret when I see everyone change their identity to serve the tourism industry. It would be great if the council supported their community heritage careers”. (G1C)

The second group of participants expressed her pride in the city, stating that:

“I feel proud of my city and proud to tell everyone that I live here.” She also added that *“I think Chiang Mai people retain their way of life from the past and still have their Lanna spirit and it is important that local people still join cultural activities, follow traditions and have adapted these to the current situation.”* (G2C) (Figure 5-12)

Moreover, participants in the second group revealed the vital value of community in economic terms. They contributed the supporting reasons to the first group’s statement:

“Local people retain the capability to increase the identity and economy of the Old City because they have learned how to use old things commercially and to preserve them for the community’s advantage.” (G2C)

Ketz and Moe (2012) assert that the sustainability of a community’s economic concerns lies in the formation of viable partnerships and financial instruments with the heritage sector. If this is followed, the community aspect within a city’s identity can be strengthened. It can be assumed that the authenticity of the place is facing challenges according to the stimulation of the local economy. The results from the focus group suggest that the Chiang Mai people understand and have an awareness of local economic management which is bound to intangible heritage.

5.2.2 Conclusion of the Local People’s Recollection of Chiang Mai Old City

There are seven sections in the study of recollections of places in Chiang Mai Old City following local people’s experiences (Table 5-03). These consist of Historical Value, Everyday life, Particular Character, Cultural Activities, Landmarks, Community, and Identity, respectively. The participants were not forced to contribute their preference for specific places, as the researcher gave them independent opportunities to express their experiences. Figure 5-013 describes that most of the participants scored the Pra Singha temple highly for Historical Value. The Pra Singha temple is an ancient temple that has been located in the central city axis for almost 675 years. Its history with the city is evidence of the historical value of the city and its cultural activities (Ongsakul et al., 2005). Chedi Luang temple was the favourite in the Cultural Activities section, as the participants have vivid memories of performing Buddhist activities such as praying for merit, lighting

candles to ward off bad luck and bring joy to the new age or making auspicious markings on a new car. As the Chedi temple is a significant place and has been announced as a “royal monastery”, its location represents Buddhist-Hindu belief and cosmology. Chedi Luang has the highest pagoda in line with the meaning of “Luang” (in Northern Thai dialect) as “Gigantic”, and is located in the centre of the city. It symbolizes the heaven of Indra, God of Heaven. Three Kings Monument Square scored highly in the Particular Character and Landmark sections. Its location and functionality relate to the study of Stephen Carr et al. (1992) who describes open space that can provide satisfaction in terms of urban attributes and social engagement. Bala (2016) defines landmarks as signs and signals for visitors and local people. The utility of these places is multi-functional, including cultural ceremonies, urban activities, political activities, socializing and other general activities. There are also representations of landmarks in the Old City shown through the neutral behaviour that occurs in urban space. Tha-pare Gate Square was most selected in the Everyday life section. Interestingly, as a square and a well-known place in the city, the square reveals its own values. Giombini (2020) asserts that significant places in cities are more than extraordinary places in local people’s minds but turn into being part of their souls. Chiang Mai moat was highlighted the most in the Identity section. It can be assumed that local people acknowledge its uniqueness and are proud of it. The relation between place identity and pride of place (PoP) is demonstrated in the significance of the relationship between person and environment (Bonaiuto et al., 2020)

To conclude, the local people rarely diverged from choosing the nominated places in the dossier from the Chiang Mai Heritage team (CMHT). However, twenty places which are not included in the nomination were selected by the local people following their own experiences. This conveys the

reliability of local community’s perceptions of places as a key factor in conservation processes.

Rank	Aspects	Place	Typical words from Participants to Place
1	Historical Value	Pra Singha Temple	Ancient place, Important place; historical traveling; conservation place; realised by historical location; knowledgeable place; activities place
2	Cultural and Religious Activities	Chedi Luang Temple	Pray to the Buddha; Inthakin Festival; making merit; lighting candles for blessing; a pagoda; special festival; visited for a special religion ceremony
3	Particular Character	Three Kings Monument Square	Located in neighborhood; childhood memories; merchandise; good place for food; activities space; place for traveling
4	Everyday life	Tha Pare Gate Square	On the route to work, had visited the place; seen the place
5	Landmark	Three Kings Monument Square	Landmark; memories of Chiang Mai; travel landmark; easy to find the place
6	Identity	Tha Pare Gate Square Chiang Mai City Moat	Identity; image of Chiang Mai City; reputation value
7	Community	Whole city	The corresponding between communities creates stronger bonding of Chiang Mai local community

Table 5-03: The conclusion of the recollection of the important places in Chiang Mai Old City (Phetsuriya & Heath, 2021: p. 18)

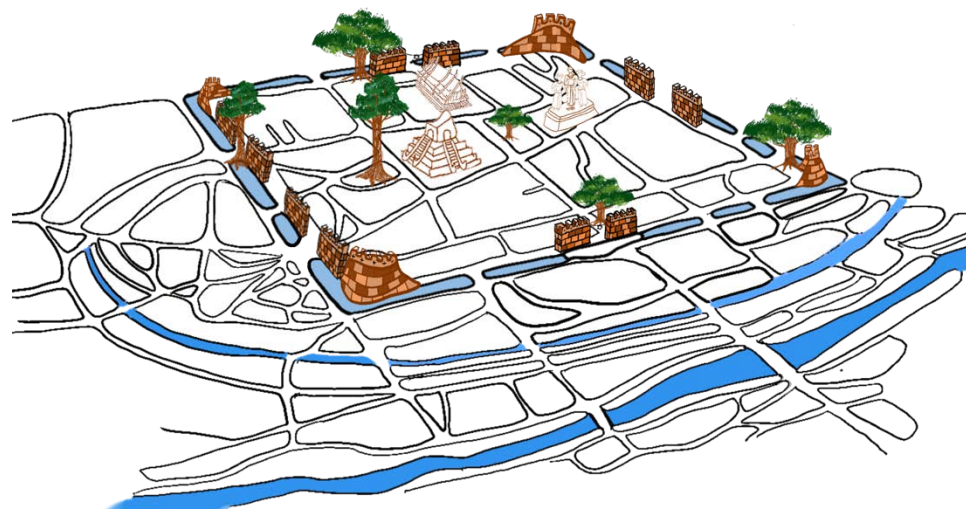


Figure 5-08: The conclusion of the recollection process on urban heritage of Chiang Mai Old City (Author)

5.3 The Distinctiveness of Urban Heritage in Chiang Mai Old City

According to the results, there are seven aspects in the distinctiveness of Chiang Mai’s urban heritage identity consisting of Historical Value, Cultural Activities, Particular Character, Everyday Life, Identity, Landmarks,

and Community in the perceptions of the local participants. All of these aspects explain the distinctiveness of the city and it may be assumed that local people perceive it in a similar way to the study of local distinctiveness by El Hosary et al. (2018). This complied natural features, man-made structures, cultural identity, people, food, drinks, crafts, and industry. Ginting and Wahid's (2017) study is included in the explanation of defining distinctiveness, as the study had improved upon knowledge following Breakwell (developed by (Lalli 1992; Lynch 1960; Twigger-Ross and Uzzell 1996). The result increased studies into core elements, defined as historical features, which hold value in an urban city. Such dynamic elements play a crucial part in this study; most participants mentioned cultural identity, foods, crafts, and people, representing intangible heritage distinctiveness in the survey.

Rank	Distinctiveness aspects
1	Historical Value
2	Cultural and Religious Activities
3	Particular Character
4	Everyday Life
5	Landmark
6	Identity
7	Community

Table 5-04: The ranking of local citizen's perception on distinctiveness aspects. (Author)

All these aspects are crucial to urban studies. They may be altered in the next few years, depending on local people's perceptions, political and cultural changes, climate change, etc. This is supported by Hawke (2012) who references Relph (1976) in describing that the reinforcement of change in an individual experience is a part of place attachment and its distinctive characteristics. Hawke (2012, p.38) argues that place can continue to support 'place-referent continuity' for individuals, even when the physical heritage of the place has changed beyond recognition.

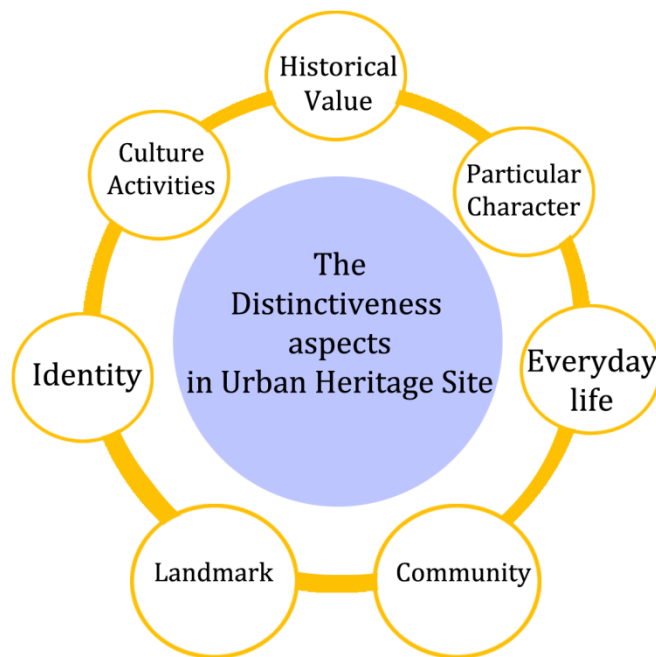


Figure 5-09: The conclusion of distinctiveness aspects (Author)

To analyse the urban heritage identity of Chiang Mai Old City, Figure 5-09 illustrates the relationships between the nominated sites and the recalled places from the participants of Chiang Mai's urban space. The linkage between places has been marked in figure 5-10 by the local engagement to the places which includes the streets around the city. The main streets of the axis of the city consist of Ratchadamnoen road and Phar Pokglaw road. This result would lead to further study of the relationship between heritage value and the built environment among a group of significant temples and places which reflect the seven aspects of the distinctiveness of Chiang Mai's urban heritage. The built environment study will include the multi-integration of buildings and infrastructure in urban living. The experience of the urban environment could lead to the study of mapping and evidencing value, including the socio-cultural value of the city. This question will be answered in section 5.6.

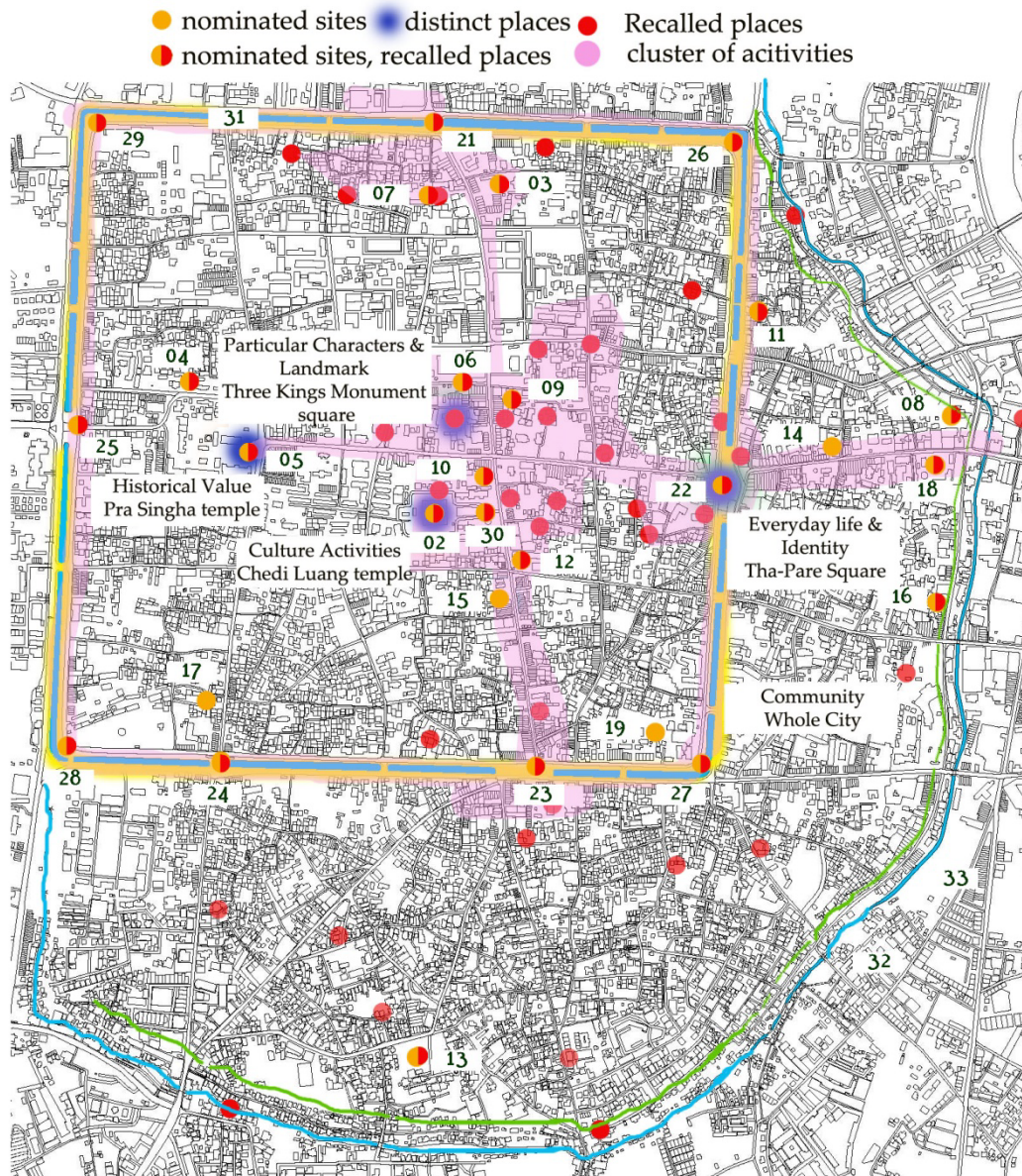


Figure 5-10: The linkage between nominated sites and recalled places (Author)

The study found that the distinctiveness of urban heritage consists of these seven aspects. However, a further question is how to conduct the value of each aspect to explain emotional and socio-physical engagement and distinctiveness of cities. In this study, the researcher questioned the place attachment of five distinctive places of Chiang Mai Old City consisting of Pra-Singha temple, Chedi Luang temple, Chiang Mai Old City moat, Three Kings Monument square, and Tha-Pare Gate square.

5.4 Place Attachment to the Five Distinctive Places of Chiang Mai Old City, Thailand

Place attachment is defined as person to place bonding and is proposed in the psychological system as an “attachment figure” (Scannell & Gifford, 2014; p.23). Low and Altman (1992) describe place attachment as an affective bonding between people and place. The meaning of place attachment is an emotional connection to a specific place and its urban attributes. The emotional bonding of individuals or communities to places is the result of place attachment.

Following the findings of the distinctiveness of the Urban Heritage of Chiang Mai Old City, the study results show five places that local people selected the most, consisting of Pra-Singha temple, Chedi Luang temple, Chiang Mai Old City moat, Three Kings Monument square, and Tha-Pare Gate square. There are several important factors of place attachment that shape the identity of place. This consists of four aspects: emotional attachment; social attachment; physical engagement; activities and function attachment. To carry out an evaluation of the data, the chapter will be divided into four parts according to the place attachment approach.

5.4.1 The Emotional Attachment Factors Influencing Place Attachment

“Place attachment involves positively experienced bonds, sometimes occurring without awareness, that are developed over time from the behavioral, affective, and cognitive ties between individuals and/or groups and their socio-physical environment. These bonds provide a framework for both individual and communal

aspects of identity and have both stabilizing and dynamic features” (Brown & Perkins, 1992, p. 284).

According to the framework, the study discusses visual form, including tangible features and intangible values that link to emotion. The relationship between people and the environment on place attachment theory concerns emotion as a central perception within people experiences (Russell and Snodgrass, 1987). Tuan (1977) describes place attachment as emotion that places express. It does not just concentrate on physicality, but invokes sentimental emotions which consist of pride, loyalty and love. Five questions were asked in this part to understand the local participant's emotions towards five distinct places. Firstly, most participants felt the most attached to Chiang Mai Old City Moat (4.52) and rated Tha-Pare Gate square (4.16) second. Three Kings Monument Square (4.12) ranked third, followed by Chedi Luang Temple and Pra Singha temple (3.76) respectively.

Sense Attachment (Emotional)		Tha Pare Gate square	Three Kings Monument Square	Chiang Mai City Moat	Pra Singha temple	Chedi Luang temple
I feel very attached to the place	Mean	4.16	4.12	4.52	3.76	4.00
	Std.	1.10	0.93	0.71	1.23	1.12
I have positive experiences of the place	Mean	4.24	4.08	4.32	3.80	4.00
	Std.	0.78	0.91	0.90	1.12	1.00
I feel satisfied when I visit the place	Mean	3.88	3.88	4.12	3.68	4.00
	Std.	1.17	1.05	1.05	1.28	1.12
I feel secure when I visit the place	Mean	4.08	4.16	4.00	4.20	4.20
	Std.	1.25	1.21	1.35	1.19	1.15

Table 5-05: The sense attachment on emotional to five distinct places

Cognitive Emotional

The participants In-S-M-35-010 reviewed Chiang Mai Old City Moat as being an attractive feature of the city, stating *"It is a place that I see every day. Special occasions or festivals are always set around the moat."* Participant In-S-F-41-017 described how Three Kings Monument Square attracts her: *"It is an urban public space that anyone can go to to do any activities. It is an assembly point for tourists or people who visit Chiang Mai. I see this place every day because it is on the route to my workplace."* These responses demonstrate the significance of emotion and experiences for people who *"see the place every day"*. This relates to Moore and Greafe's (1994) study which explains that the frequency of place usage and time spent on a place is a direct variable to values of place attachment. It can be concluded that the frequency of seeing a place *"every day"* can create an attachment to the place.

Participants had the most positive experiences at Chiang Mai Old City Moat (4.32). Three Kings Monument Square (4.24) was rated second, followed by Three Kings Monument square (4.08), Chedi Luang Temple (4.00) and Pra Singha temple (3.80). Participants felt the most satisfied with Chiang Mai City Moat (4.12), Chedi Luang temple (4.00), Tha-Pare Gate Square (3.88), Three Kings Monument square (3.88) and Pra Singha temple (3.68), respectively.

The participants relayed their positive experiences of these places:

"Chedi Luang temple is close to my accommodation, and I usually visit to make merit and meditate. It is convenient for me to visit Chedi Luang temple" (In-S-F-59-023). Participant In-S-F-31-011 described Pra Singha temple as a *"Spiritual Anchor"* as she visits the place and chants for positive energies. The positive feelings towards the places in this study are expanded upon by O. Douglas et al. (2018, p.641) stating that positive perceptions of various attributes of the built environment have generally been found to predict increased satisfaction with the neighbourhood. Aesthetically pleasing urban open spaces maintain

quality of life in the built environment of urban space. A key factor of creating place positivity is the specific focus on neighbourhood quality of life such as the economic value of public space, the impact on physical and mental health, the benefits for children and young people, reducing crime and the fear of crime, the social dimensions of public space, movement in and between spaces, increasing biodiversity and natural value (Carmona et al., 2003). In addition, urban open spaces have a positive impact on the levels of neighbourhood satisfaction (Lee et al., 2016) and the evoking of human emotion in a place also links to the presence of water and sounds such as fountains, moats etc. (Sepe, 2017). This reflects the results of this study that Chiang Mai people mostly feel satisfied and have positive feelings towards Chiang Mai Old City moat and the squares.

Secure Emotional

The fourth question asked about the security of these five places. The two places that local participants mostly feel secure are Pra Singha temple (4.20) and Chedi Luang temple (4.20). All of the urban spaces were rated lower. This suggests that local people feel secure when visiting a religious place more so than a public open space in the city. Moreover, the in-depth interviews did not elicit any mention of security from the participants. Sepe (2017) states that feeling secure in urban public spaces is a fundamental emotion. These results can be explained in two ways; firstly, local people feel insecure and unwelcome when attending urban open spaces due to the lack of managed security, lighting, walkability etc. In contrast, local people may have mixed feelings about being attached to religion and feeling secure enough when joining in with religious activities or believing that religious places provide '*moral or meritorious areas*' which provide security.

There are two elements found in this study in table 5-05: the positivity of place and spiritual anchoring of a place. The feeling of the positivity of place occurs due to the quality of a place and space in the city, which consists of multiple elements which support the well-being of people in a community. Participants feel unwelcome and insecure in public open spaces such as squares in the study. However, the engagement between local people and religious places is more common. Mesquita (2003) describes that emotion towards cultural engagements shape experiences of cultural heritage which relates to local people experiences. Secondly, the spiritual anchoring of a place can describe a place that helps keep us grounded, connected to what matters most, and able to cope with life's challenges. As a result, spirituality and religion should both be considered, though they are not the same. Religion may include spirituality, but spirituality may be not described as religious (Goussous and Al-Hammadi, 2018). In these terms, it can be assumed that participants' feelings towards religious places as 'spiritual anchors' involves both religious and spiritual emotions.

5.4.2 The Social Engagement Factors Influencing Place Attachment

Social engagement in place attachment is tied to various parts of community perception, emotions and behaviour. The core elements of sense of community define a connection of emotional experiences, history and interests. This part asked the participants about social engagement between local people in five places. The question concerned community engagement in relation to places. Firstly, the Three Kings Monument square (4.32) ranked the highest in the Chiang Mai Old City community, followed by Chedi Luang

Temple (4.20), Pra Singha Temple (4.28), Tha-Pare Gate Square (3.92) and Chiang Mai City Moat (3.88).

Social Attachment of Place

The participant In-S-M-33-003 explained the usefulness of Three Kings Monument square for local community occasions: *“Three Kings Monument square is an important spot for the local community, it is always lively. On Sunday this place changes to become a part of the walking street. The local community can enjoy this square and street from Radchadumnoen road to Sam-Ran road.”* Participant In-S-F-45-015 mentioned *“The link between Chedi Luang temple and Three Kings Monument square is the heart of this city, it also has many important buildings such as a former palace which has been changed to Chiang Mai Museum and the former City Court.”*

The second question asked about the social life of Chiang Mai Old City. Local participants agreed that the Chedi Luang temple (4.36) is the most representative of their social life. The participants rated Pra Singha temple (4.28), Three Kings Monument (3.96), Chiang Mai City Moat (3.92) and Tha-Pare Gate Square (3.76), respectively. In the in-depth interview Chedi Luang was recounted as having *“A significant religious event all year round, but the most important festival that represents the uniqueness of Chiang Mai is Inthakin Festival. Lots of people go there to make merit and worship the pagoda.”* (In-S-M-34-019)

Participants mostly agreed that the Three Kings monument square (3.24) provides a space for the neighborhood and local community. Pra Singha temple (3.04) and Chedi Luang temple (3.04) came afterwards, followed by Chiang Mai City Moat (2.72) and Tha-Pare Gate Square (2.64) respectively. Participant In-S-F-29-016 mentioned community activities, stating *“I’ve attended as a volunteer to join city cleaning at Three Kings Monument and Tha-Pare*

Gate square.” Furthermore, In-S-F-31-011 described their experiences: “I always join the festival along this street (Prapokklao Road). All of the festivals occur in this public space, which is connected by the Three Kings Monument and Chedi Luang temple.” In-S-M-34-019 argued for the quality of the heart of the city, saying “I always felt Three Kings monument square has an important meaning to me. It is a place that is intimate to the community, but local people cannot fully live their lives in it due to the lack of green space and flexibility of the place.”

Social and Community

Social engagement in the community can be described as rootedness and bonded emotions in the community, which is a part of place identity (Riger and Lavrakas, 1981). It can be assumed that the Three Kings Monument square represents a deep bond with the community and urban open space, which occurs through many general and formal events and cultural activities. Moreover, the imageability of the place establishes place attachment of the city. The node on the square and the main axis of the city creates a rootedness of community belief and engagement in a historic place. Moreover, the participation of neighbourhoods contributes to community place attachment which develops from a sense of community (Rivlin, 1987). It can be presumed that local people gain attachment following volunteering duties which relate to the city and cultural activities in the square, making them willing to engage with the place for recreational activities and other occasions.

Participants rated Three Kings monument square (4.40) as being the heart of the community and making the community stronger. This was followed by Chedi Luang temple (4.28), Chiang Mai city moat (4.24), Pra Singha temple (4.24) and Tha-Pare Gate square (4.12), respectively. In their interview, In-S-F-0-009 recounted their view of Chedi Luang temple: *“I was born here, in this city, and this temple is the heart of the city. The huge scale of its*

pagoda, even though it was ruined due to an earthquake, remains a valuable part of the city's history. It is also a magnet for local people to make merit, worship during the Inthakin festival and worship the pagodas in important religious events. All events are arranged by the local community and are not managed by the council, showing how the community keeps in contact and is strengthened by religious events." The participants in the in-depth interview were recruited from local people who lived in the old city; the defining can describe the significance of "Citizenship" and "Sense of belonging" in these terms. It could represent a sense of community. Citizenship can be described as the attributes of ownership, consisting of essential things, such as the state of being a member, interpersonal influence, achieving mutual needs, fulfillment of needs, and shared emotional connection (McMillan and Chavis, 1986). It could be argued that in terms of the site, which is strongly attached to religion and community, local citizenship would be a significant factor in the expression of the knowledge of historical sites and the collaboration between religious places and community by trust of the owner of places and citizens.

Socialising in a place plays a role in the relationship between society and culture in the community. Most of participants rated Pra Singha temple (4.52) the highest, followed by Chedi Luang temple (4.40), Three Kings monument square (4.36), Tha-Pare Gate square (4.16) and Chiang Mai city moat (3.80). In-S-M-63-004 described a place bonding between society and culture in their community: *"Pra Singha temple represents the 'landmark' of the city due to its location on main roads for the community: on Radchadumnoen Road and Samran Road. There are paths that community can use to join cultural activities at temples which link to famous temples on the roads."*

A sense of community is defined as the connection between the emotions of members of a community and history (Nasar & Julian, 1995). A sense of community can be described as mutual trust, connection with society, contribution, and community values. It encourages cooperation on a

neighbourly level. From this it can be surmised that temples in historical contexts become places where local communities have emotional attachments to places with historical and cultural values.

Sense Attachment (Social)		Tha Pare Gate square	Three Kings Monument Square	Chiang Mai City Moat	Pra Singha temple	Chedi Luang temple
The place is the main attachment of the community	Mean	3.92	4.32	3.88	4.28	4.20
	Std.	1.12	0.80	1.20	0.93	0.95
The place represents the social life of CMOC	Mean	3.76	3.96	3.92	4.28	4.36
	Std.	1.16	1.09	1.38	0.79	0.75
I participate with neighborhood and local community at the place	Mean	2.64	3.24	2.72	3.04	3.04
	Std.	1.65	1.76	1.81	1.76	1.76
I consider that the CMOC community is strong following the importance of the place.	Mean	4.12	4.40	4.24	4.24	4.28
	Std.	1.13	0.86	1.16	0.77	0.79
The place is the main relationship of social and culture in the community	Mean	4.16	4.36	3.80	4.52	4.40
	Std.	0.98	0.90	1.41	0.82	0.86

Table 5-06: The sense attachment on social to five distinct places

From these results (table 5-06), it can be concluded that a sense of community and community events are related to each other and reflect the heritage value of the city. As Brown et al. (2003) explains, social interaction and community-neighbourhoods can create the values of community attachment. Mihaylov & Perkins (2014) also describe the creation of social cohesion which relates to activities in a community. Farahani (2016) elucidates that community activities may be related to history or tradition and occur involuntarily. They also connect to the neighbourhood area and satisfy the community. The religious community performs their worship through attending religious edifices, which serve as an identification of the community as a 'religious community' (Farahani, 2016). Accordingly, the historical

community events in Chiang Mai Old City demonstrate the sense of community in terms of history, religion, tradition, and culture.

5.4.3 The Activities and Functional Factors Influencing Place Attachment

The activities and functional aspects of place attachment are dynamic elements of the urban environment that generate a distinctiveness of place (Ujang & Dola, 2007). The activity reflects the quality of the built environment and urban place, and human activity increases the quality of the place (Jacobs, 1961). This part concentrates on activities and functions attached to five distinctive places. The Three Kings monument square (3.76) received the highest score in experiences and cultural activity. This was followed by Pra Singha temple (3.68) and Chedi Luang temple (3.68), Tha-Pare gate square (3.48), and Chiang Mai city moat (3.20).

Culture and Religious Activities Attachment

Participant In-S-F-29-016 explained their experiences of cultural activities at Three Kings monument: *“Cultural activities in Chiang Mai in my opinion are related to religion and belief of the city, such as the sacred worship of the ghost who protects the gates of the city and the ceremony to worship the Three Kings monument statue.”* Chedi Luang temple (4.24) was rated the highest as the place where local people participate in religious activities. This was succeeded by Pra Singha temple (4.16), Three Kings monument square (2.68), Tha-Pare Gate square (2.64) Chiang Mai city moat (2.20). Participant In-S-M-33-003 explained their experiences of religious activities attached to Pra Singha temple: *“I always visit Pra Singha temple for religious events, the place has lots of religious activities.”* Participant In-S-M-63-004 also described Pra Singha temple

as *"a place of religious activity."* In-S-M-22-002 the Three Kings Monument square is described as *"located in the heart of the city with all of its history here, which you can see with the statue of friendship between the three kings who created this city. The square always has traditional events. One of the moments I love the most is seeing Lanna perform with the statue in the background. It makes me nostalgic for the history of this place."* Brokalaki, Z., & Comunian, R. (2019) in their study *Participatory Cultural Events and Place Attachment: A New Path towards Place Branding?* Conclude that cultural events, art, and creativity positively impact the development of local communities. Cultural activities can massively impact city branding by providing social interaction and economic value.

Entertainment Activities Attachment

For entertainment activities under arts and events, residents gave the highest score to Three Kings monument square (2.76), then Tha-Pare gate square (2.48), Chiang Mai city moat (2.36), Pra Singha temple (1.72), and Chedi Luang temple (1.64), respectively. In-S-F-0-018 recounted the Three Kings Monument as *"A place which always has Chiang Mai cultural events": "It always has cultural and social events on this spot of the city. I attended many events here; last time, it was for the Chiang Mai design week which arranged art sculptures around the square."*

It is possible therefore that Chiang Mai people perceive the Three Kings Monument square as the place for cultural activities in the city which advantage both the local economy and communities. This place is also adaptable for modern events such as Chiang Mai design week and other artistic visual events. It also retains the cultural and religious values of the place due to its unbreakable attachment to local activities and community. The

flexibility and adaptability of this place leads to its validity that can be maintained for generations.

Political Activities Attachment

Political activities emerge in every city in the world and the attachment of local people to politics is a way of life. In this study, local people expressed the most attachment to Tha-Pare gate square (2.48) for engagement with political activities. This was followed by Three Kings monument square (2.12), Chiang Mai city moat (1.16), Pra Singha temple (0.60), and Chedi Luang temple (0.56). Participants in the interview did not mention being experienced in political activities. However, local people do feel politically attached to urban open spaces, such as squares, more so than significant buildings. As explained by Franck and Stevens (2007), squares gain the quality of “accessibility” and unlimited usage for private and public functions. This is supported by Huning’s (2008) study which dissects the significance of urban space in relation to power and the connection between people and urban space. For Huning (2008, p. 199) local urban space gains importance as a setting for political deliberation and cultural representation, to challenge conditions, power relations, and national and international policies in a globalised era. The Tha-Pare Gate square (4.56) was rated the highest for being the liveliest place in the city. This was succeeded by Three Kings monument square (4.20) Pra Singha temple (4.20), Chedi Luang temple (4.12), Chiang Mai city moat (3.84). In their interview, In-S-F-0-020 described his own daily routine. *“I work here everyday as I clean the streets around here. I like the green spaces on the sides of the square as they provide relief from the heat and sweat. The greenery adds a liveliness to this place, and I can see and listen to the fountain the most from this square, which gives me relief from the disharmony around the square.”*

According to these results, it can be presumed that the Tha-Pare gate square is a space enclosed with buildings. It allows people to gather for various purposes such as social activities, cultural activities, protest activities, relaxation, commercial purposes, etc. The result relates to Spignardi's (2020) study of lively urban spaces which explains that these activities can be performed in lively spaces where people can exchange ideas and learn about society. Zakariya et.al (2014) also describes a square as a space for people that shows the relationship between physical characteristics and social livability.

Exercise Activities Attachment

The local people mostly chose Chiang Mai city moat (2.24) for exercise, followed by Three Kings monument square (1.44), Tha-Pare gate square (1.40) Pra Singha temple (0.88), and Chedi Luang temple (0.88) respectively. In his interview In-S-F-41-017 described his own daily routine: *"I go to Three Kings monument 3-4 days a week and join the exercise in the morning. There are lots of exercise activities there such as Tai Chi and Chi Gong. And in the evening, I see groups of teenagers gathering for skateboarding as well."* In-S-F-41-017 described their routine of visiting activities at Tha-Pare gate square. *"I appreciate Tha-Pare gate square so much, it is different from other city spaces in Thailand. I like to walk around the square for exercise and walk along the Chiang Mai city moat as it connects the square and the moat."*

Kostrzewska (2017) underlines the essence of physical activity as a component of a healthy lifestyle that can be integrated into urban public space. The quality of physical features creates integration, inclusion, and allows for the social function of physical recreation. The study also mentions that the urban characteristics of a city and urban facilities serve various user behaviours in the city. This statement relates to the results of this study pertaining to perspectives on exercise activity space in urban public space in

Chiang Mai Old City. The linkage between the Chiang Mai Old City moat pavement and Tha-Pare Gate square invites a massive number of local users to exercise according to the unique connection of the pavement and square. It can be ascertained that the uniqueness of physical attributes increases the identity and social behaviour of Chiang Mai Old City.

Street Food Attachment

The final question in this section records the perceptions of local people on defining markets and good food. Three Kings Monument square (2.68) received the highest score followed by Chiang Mai city moat (2.44), Tha-Pare gate square (2.40), Chedi Luang temple (2.20), and Pra Singha temple (2.08). In-S-F-31-013 expressed their experiences of the Three Kings Monument as " *a place that I can find food, local products and a place for relaxation.*" In-S-M-34-019 stated: "*Close to the Three Kings monument square there are lots of restaurants- I would say it is a small market close to the square. I like Kow-Mun-Gai (steamed rice with chicken fat and topped with boiled chicken) at Kiat - O Cha restaurant. And the fresh orange vendors in front of those restaurants.*"

Embaby (2014) describes the commercial square concept from ancient societies that were the centre of commercial and social activities in cities. The surrounding elements such as connected shops, squares or urban open spaces can characterise the identity of a city and its utilities. As shown in these results, local people are aware of the commercial purpose of the square and the surrounding shops. It can be concluded that local people perceive the function of spaces and their nearby elements. Three King monument square contributes social value, economic activities, a sense of place with cultural memory and services for commercial function.

Sense Attachment (Activity and function)		Tha Pare Gate square	Three Kings Monument Square	Chiang Mai City Moat	Pra Singha temple	Chedi Luang temple
I experienced cultural activities in the place	Mean	3.48	3.76	3.20	3.68	3.68
	Std.	1.70	1.71	1.65	1.79	1.84
I experienced political activities in the place	Mean	2.48	2.12	1.16	0.60	0.56
	Std.	2.20	1.96	1.59	1.11	0.96
I participated in religious activities at the place	Mean	2.64	2.68	2.20	4.16	4.24
	Std.	1.80	1.84	1.77	1.70	1.47
It is the liveliest place in CMOC	Mean	4.56	4.20	3.84	4.20	4.12
	Std	0.96	1.00	1.24	1.04	1.20
I exercise at the place	Mean	1.40	1.44	2.24	0.88	0.88
	Std	1.63	1.70	2.06	1.45	1.45
I joined an entertainment event at the place	Mean	2.48	2.76	2.36	1.64	1.72
	Std	1.75	1.78	1.91	1.60	1.51
I joined the market and found good food from the place	Mean	2.40	2.68	2.44	2.08	2.20
	Std	1.89	2.01	2.16	1.80	1.89

Table 5-07: The sense attachment on activity and function to five distinct places

From these results in table 5-07, it can be concluded that a sense of activity and functions relate to occasion and the daily lives of local people. It also reflects positive interactions between humans' places and activities. The cultural activities and religious activities in the urban space of Chiang Mai Old City play significant roles in representing the intangible value of the city and the sociability of five distinct places.

The multiple activities at the Three Kings monument square and Tha-Pare gate square reflect the local community's preference for gathering for cultural activities, entertainment, political activities, and shopping for local foods. The squares have the potential to provide informal and formal activities in the city. In addition, Chiang Mai city moat welcomes local people to use it as a field for exercise, due to the greenery, the visual of the water, and the size and distance of its shape. Nevertheless, it can also be assumed that

local people enjoy going to temples for religious activities, which is common sense in this kind of historic city. Ryan et al. (2005) examines the importance of emerging place attachment in providing open spaces in a community, and that the specific design of an urban open space can contribute to the quality of space that meets the preference of various and diverse activities. Additionally, the natural elements in urban open spaces invite local people to spend time outside and bond with their community (Kuo and Sullivan, 1998).

5.4.4 The Physical Factors Influencing Place Attachment

The physical attributes in the environment are primarily assessed through experiences. Currently, visual qualities are significant in-built environment perception research, and multisensory qualities such as hearing, smelling and touchable are crucial as well (Carmona et al., 2010; Sepe, 2013). The aesthetics of physical appearance consisting of colour, scale, mass, built environment and activities around urban spaces have a significant impact on place identity (Carmona et al., 2010).

Location Attachment

The local participants expressed their perceptions of the physical locations and explained their experiences in terms of attachment to the specific location. To examine this, this part contains four questions. Firstly, the participants agreed that Pra Singha temple (4.92) is located in the most valuable location, reflecting the city's value. This is because the location of Pra Singha temple is at the end of Rachadamnoen road which is the city's main axis road. The in-depth interviews also referred to the participant's perceptions of its location.

“All of the temples and Chiang Mai City Moat are urban artefacts which indicate the edge of the Old City” (In-S-M-33-003) “The Forts at every corner of the city signify the location and boundary of the city (In-S-F-0-022) “ Scannell & Gifford (2010) assert that physical features can link together place attachments or create categories of places to which people become attached. The fact that local people recognise the boundary of these places reflects Tiedsell’s et al.’s (1996) description of a cultural quarter that can be designed following boundaries. In Chiang Mai Old City, the boundary is clearly defined due to the perfect geometrical shape of the urban heritage such as the Chiang Mai Old City moat and forts. This supports location theory which explains visual cognition. This theorises recognising where a place is by using a physical attribute as an element to notice and remember (Appleyard, 1969). Physical features also provide satisfaction within place attachment due to the place showcasing attractive features (Arnberger & Eder, 2012). Thus, it can be assumed that physical attachment can be described through location and the physicality of place can contribute to the sense of direction and the margins of a city.

Building Style Attachment

The results for the attractive building styles of five places demonstrate that Chedi Luang Temple (4.52) has the most attractive building style. However, Pra Singha temple (4.40) ranked second, followed by Chiang Mai Old City Moat, Tha-Pare Gate square, and Three Kings Monument square. The participants in the depth interviews also mentioned building style, stating: *“Old buildings look beautiful; they reflect Lanna Culture” (In-S-M-22-002), “All temples in this area show the identity and style of Lanna” (In-S-F-41-017)*

The historical building style results show that the Chedi Luang temple (4.56) was rated highest, followed by Pra Singha temple (4.52). The participants gave the highest score to places which are religious buildings.

Other places rated between 4.00 - 4.20 points consist of Chiang Mai Old City Moat, Tha-Pare Gate square and Three Kings Monument square, respectively. Participant In-S-F-0-005 described their experiences relating to historical places and cultural expression on buildings: *“When Pra Singha temple has an old traditional religious ceremony, people dress in Lanna traditional dress. It shows the temple’s history and brings us back to the past.”*

Participant In-S-F-59-023 mentioned a cultural ceremony which gave historical value to the place: *“I think Chedi Luang temple reflects the most on historical value according to every religion. Cultural and traditional ceremonies were created here and continue to happen here.”*

The results in terms of building style and historical value of these buildings reflect the value of these places. This can be defined through satisfaction, memory, experience, and physical appearance. Physical appearances are formed to meet the individual needs of creating the characteristics of a place. Feelings on physical, social and emotional levels indicate levels of satisfaction. Personal satisfaction and place attachment are gained following the place contributing to users conducting social activities (Shinbira, 2017). Physical appearance can reflect individual and community attachment through experiences, memories, and satisfaction through social activities.

Landmarks and Identity Attachment

The last question in this part described how do participants recognize the landmark among these five places? Tha-Pare Gate square (4.68) has been rated in the first rank and followed with the Three Kings Monument (4.64). All three places have been pointed at a high score between 4.60-4.32 points consisting of Chedi Luang temple, Pra Singha temple, and Chiang Mai Old City Moat. Relatively with the in-depth interview result, In-S-F-46-024

mentioned, *“Tha-Pare Gate square is the landmark and identity of Chiang Mai because the place is located on the city’s entrance. Also, the place is multi-purpose for occasions such as Songkran Festival, council events and walking streets.”* In-S-F-41-017 mentioned the Three Kings Monument as *“a landmark where people gather for ceremonies and urban activities. It also reminds me of the power of the kings’ friendship that created Chiang Mai.”*

This section outlines that local participants define squares as landmarks of the city. Maslovskaya (2019, p.5) states that if dominant buildings and structures on the square are visible from various points, the square itself may become a key landmark. A square can have more impact as a landmark if the square’s ensemble is placed on a hill soaring above the city. Maslovskaya (2019) and Carmona et.al (2010) assert that a square's location is significant as well as the built environment in the background of its location. This confirms that the landmarks of the city and monument locations are crucial, and they should be functional and aesthetically pleasing.

Sense Attachment (Physical)		Tha Pare Gate square	Three Kings Monument Square	Chiang Mai City Moat	Pra Singha temple	Chedi Luang temple
The location of the place reflects the value of city	Mean	4.64	4.72	4.76	4.92	4.84
	Std.	0.75	0.54	0.52	0.27	0.47
The place has an attractive building style	Mean	3.84	3.72	4.04	4.40	4.52
	Std.	1.43	1.40	0.97	1.08	1.00
The place represents historical value according to building style and history	Mean	4.12	4.00	4.20	4.52	4.56
	Std.	1.09	1.15	1.00	0.91	0.91
The place is a landmark of CMOC	Mean	4.68	4.64	4.32	4.52	4.60
	Std.	0.90	0.63	1.31	0.91	0.76

Table 5-08: The sense attachment on physical to five distinct places

Table 5-08 shows two significant physical factors: historical buildings' appearances and landmarks. The quality of history on buildings' appearances plays a vital role in place attachment and the image of Chiang Mai Old City.

Nasar (1998) identifies historical buildings as being capable of conveying meaning for city branding, which embraces the recollection of the place's image. Nasar also outlines the significant value of local residents' evaluations which are needed to retain the meanings of elements. Local residents' perceptions play a crucial role in describing the relationship between individual and place, and there is a reliance on local people's knowledge of places (Gustafson, 2001). The value of historical buildings' appearances can be represented through their façades as discussed by Tze Ling Li (2007) who states that façades can provide narratives of changing social, political, cultural and economic conditions. This reflects the evolution of the community's identity and place attachment regarding rejection and acceptance of historical façade elements through social, political, and commercial decisions.

Nevertheless, in terms of landmarks, Chiang Mai people revealed their attachment to the Three Kings Monument square as a city landmark. Its location engages communities and represents the uniqueness of its history of urban open space. Lynch (1960) and Moughtin et al. (1999) affirm that urban open spaces can be defined as landmarks due to their varying definitions. Maslovsky's study (2019) *The Role of Urban Squares in the Spatial Concept of Being* describes a square as "a spatial landmark", which people recognise from outside. While they may not pay attention to the whole of the square, they are reminded of its importance, which may contrast with the background of the square.

5.4.5 The Time Factors Influencing Place Attachment

This section described the time factors that influenced the attachment to places in the old city following the expression of twenty-five local citizens. Time plays a vital role in creating place attachment. The duration of human presence in a place relates to the place attachment as Hammon (1992) affirms

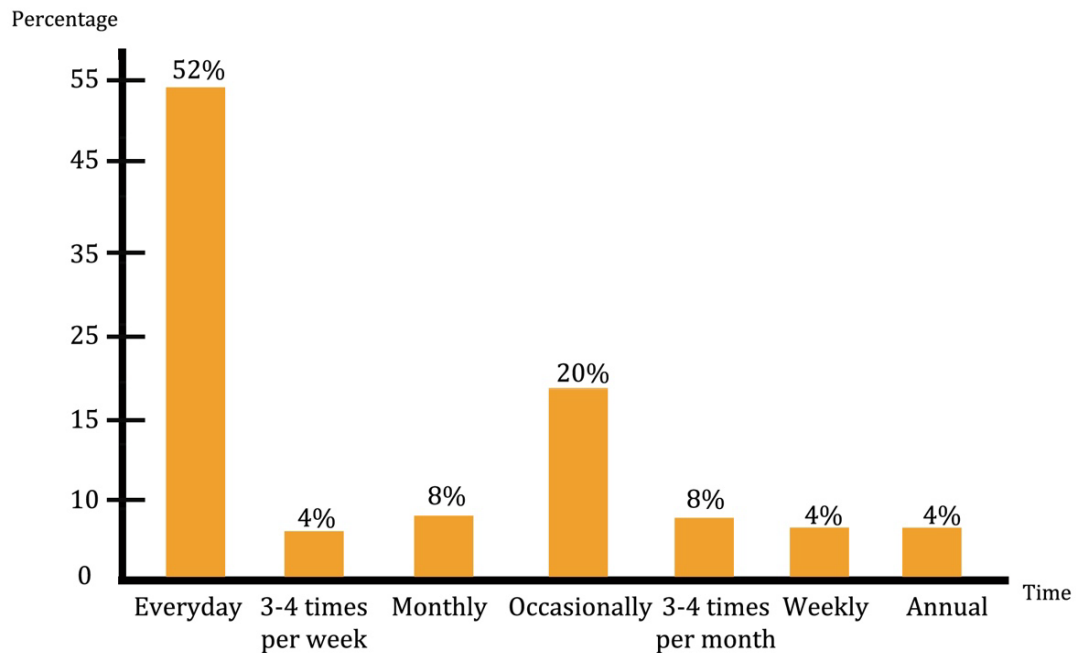
that attachment feelings increase due to the length of residency, with the duration being directly variable to place attachment feeling. However, local social involvement is also crucial in increasing attachment and ascribing meaning and emotion to a place (Hummon 1992; Lalli 1992). The study concerns two factors: frequent usage and length of residency.

Participant Number	Code	Age	Places that frequently visit	Frequently Usage	Length of residency
In-S-F-0-001		0	Chedi Luang temple	Everyday	10
In-S-M-22-002		22	Walking Street	3-4 times per week	10
In-S-M-33-003		33	All city gates	Everyday	4
In-S-M-63-004		63	Pra Singha temple	Everyday	15
In-S-F-0-005		0	Chedi Luang temple	Occasionally	10
In-S-M-58-006		58	Pra Singha temple	Monthly	40
In-S-M-45-007		45	Chedi Luang temple	Monthly	9
In-S-F-36-008		36	Chedi Luang temple Pra Singha temple Tha Pare Gate Square	Everyday	19
In-S-F-0-009		0	Chedi Luang temple	Annual	5
In-S-M-35-010		35	Three Kings Monument Square	Everyday	10
In-S-F-31-011		31	Pra Singha temple	Annual	31
In-S-F-29-012		29	Suan Bouk Hard Park	3-4 times per month	5
In-S-F-31-013		31	Four Forts	Everyday	31
In-S-M-31-014		31	Chedi Luang temple	Everyday	4
In-S-F-45-015		45	Not specified	Everyday	20
In-S-F-29-016		29	Burirattana Palace	3-4 times per month	29
In-S-F-41-017		41	Three Kings Monument Square	Everyday	3
In-S-F-0-018		0	Pun Tow temple	Occasionally	4
In-S-M-34-019		34	Three Kings Monument Square	Occasionally	9
In-S-F-0-020		0	Chedi Luang temple	Everyday	6
In-S-F-31-021		31	Chedi Luang temple	Everyday	7
In-S-F-0-022		0	Three Kings Monument Square	3-4 times per month	20
In-S-F-59-023		59	Chedi Luang temple	Everyday	5
In-S-F-46-024		46	Chedi Luang temple	Occasionally	6
In-S-M-65-025		65	Three Kings Monument Square	Everyday	40

Table 5-09: Personal data of participant in in-depth interview method. (Source: survey by Author)

Frequent Usage

The urban planning of Chiang Mai Old City consists of buildings and public spaces located within the city. The major elements in the city are religious places (temples), squares, and heritage sites such as the five city gates, old city walls, the four forts in the corners of the city and the ancient square (*Kuang*). The column chart 5-01 illustrates the frequency usage of five distinctive places in second data collection from the in-depth interviews with twenty-five participants.



Column chart 5-01: The frequency usage of places

Despite the gathering of cultural and religious activities in the area, Rachadamnoen road and Pra-Pokklaw road are most frequently visited for religious activities and only occasionally visited on cultural and religious in significant days relating to personal desire and community management. Other activities are also undertaken by the local people such as exercising at Tha-Pare gate square and shopping at Tha-Pare walking street. However, the column chart 5-01 reveals that the most frequently visited types of religious places are Chedi Luang temple, Pra Singha temple, and Three Kings

monument square. The connection between these places leads to a vital shaping of the urban heritage characteristics of the city. The results indicate that the engagement between local communities, religious places and intangible elements is essential evidence to conclude that the religious places and squares in the city influence local people in their everyday lives. *“Tha-Pare Gate square, Chedi Luang temple and Pare Singha temple remind me of Chiang Mai. These are the places that I visited almost everyday, as I partake in Thai-Northern culture and as a Buddhist, I make merit on every Buddhist Holy Day which occurs 3-4 days per month.”* (In-S-F-36-008)

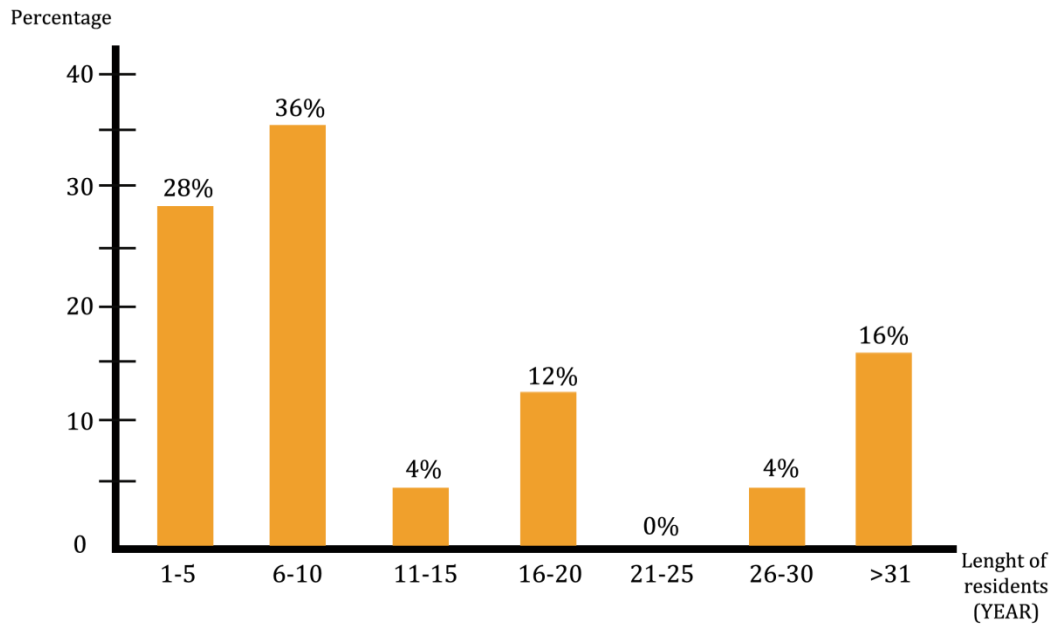
The specific physical attributes of the religious sites reflect the engagement through time with intangible heritage such as cultural and religious activities. Multi-purpose activities are a minor part of the results however, this can be changed through social dynamics. The significance of time describes the rate of place attachment between people to places. The findings related to Smaldone’s (2006) study which asserts that visiting frequently affects the meanings of place attachment and meanings may need to be assessed through dividing into types. The changing time scale is constantly related to the relationship between people and place. Additionally, Moore and Greafe (1994) point out that a strong attachment is directly related to the frequent usage of place.

Length of Residency

Length of residency is associated with emotion and perception which creates an attachment to a place (Stedman, 2006). The length of residency is strongly associated with place attachment and its association between the emotional attachment of a person and a place which creates the meaning of said place (Stedman, 2006; Lewicka, 2011). In accordance with previous

research, a stronger attachment can be created through long-time residents and emerge from a genuine sense of community (Lewicka, 2011). This demonstrates that the relationship between people who inhabit a place becomes meaningful following the local respondents' deeply rooted tangible and intangible values.

Most research argues that long-term residents relate to strong place attachment; however, these results could argue that a strong attachment in a historical city occurs following the value of place, socio-cultural engagement and long-short length of residency. The previous statement supports McCool and Martin's (1994) study which describes the rapid engagement of newcomers in a famous tourist city that develop a sense of attachment may be caused following the usage of the local physical environment as a frame of reference rather than interpersonal relationships that may have formed the context of the old-timers' response (McCool and Martin, 1994: p.34). In contrast, Beckley (2003) argued that the physical environment attracts newcomers and social factors are significant for local people, it can suggest that social and physical aspects directly vary according to length of residence. Meanwhile, Bernardo et al. (2016), said the newcomer requires a period of time to blend in with the distinctive value of community. This emerged the argument that 'How the length of residence affects the perception on sociocultural and physical elements of Chiang Mai Old City?'



Column chart 5-02: The length of residency

Local participants revealed their feelings towards a place in terms of its length of residence and rootedness in the city. Most respondents, when asked why they felt attached to Chiang Mai Old City, said:

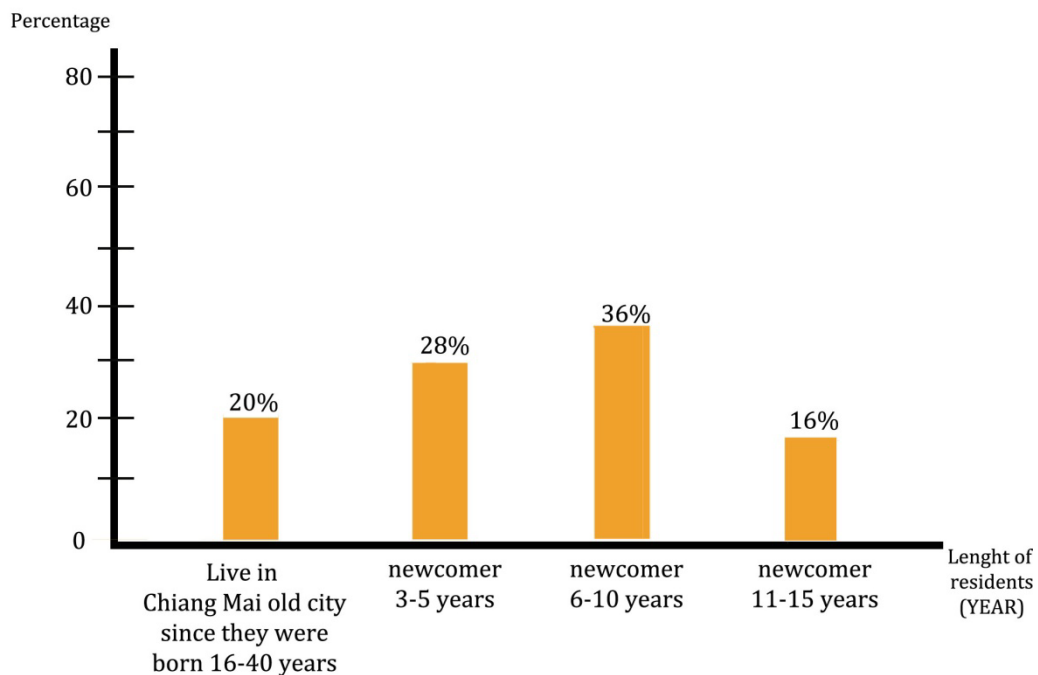
'I am attached to Chiang Mai Old City because I was born, grew up, studied, and work here. It is my home, when I was young, and is the city of festivals. I always join the parade on the streets.' (In-S-F-31-011).

'I see the beautiful culture and have joined many local activities since I was born. It is unique compared to other cities. I feel proud to be a part of this city and call myself "Chiang Mai people".' (In-S-F-0-022)

'Chiang Mai is not my hometown but currently, it feels like one. Since I moved here twenty years ago, I have absorbed the reputation of Northern people as kind and humble. I imitated speaking in the Northern dialect which is charming and represents the distinctive soul of Northern people.' (In-S-M-45-015)

Column chart 5-02 depicts the summary results of the length of residencies in Chiang Mai Old City from the in-depth interview of twenty-five participants in second data collection. The result shows that all of participants

are Chiang Mai people; however, sixteen per cent of participants have lived in the city more than thirty-one years. Thirty-six per cent of participants have lived in the city for six to ten years, while twenty-eight per cent of participants lived there for one to five years.



Column chart 5-03: The length of residency compares between the number of newcomer and people who were born and lived in Chiang Mai Old city

Although twenty per cent of participants have been living in the city since they were born, and others have lived in the city for three to fifteen years, both groups feel sentimental towards the city. Rootedness in a city depends on the value of the city and the sense of belonging factors (Relph, 1976). Relph's (1976) study describes that rootedness is not the only component to define the strength of place attachment, but it generates a strong sense of belonging needed to be concerned about long-term engagement. Almost half of the participants in this study have lived in Chiang Mai Old City for less than twenty years but are strongly attached to the city. This reflects a statement by DCLG (2009, p. 29) which describes that 'People want to belong and can change the flexible elements of their identity more

easily than in the past, providing opportunities to increase locals' sense of belonging.'

Evidently, in the current era, newcomers to Chiang Mai Old City embrace the chance to become a part of the community, and their length of stay does not matter due to the result showing the participants provide the value which shows the strongest attachment to those five distinct places. The result could support Relph's (1976) and Lewicka's (2011) discussion that long-term engagement can stimulate a sense of belonging. However, short-term residency also creates a sense of belonging, it depends on the representation of the value of a place which makes people attach to places.

5.4.6 Conclusion of Place Attachment to The Five distinctive Places

Five elements are explored in the place attachment section to describe how local participants feel attached to five distinct places in Chiang Mai Old City (Figure 5-11). They consist of physical, emotional, social, time, activities and functional factors. These elements can describe the place attachment of the city. Giulian (1991) and Twigger (1996) explain that place attachment is connected to an emotional core and bonding to a place and significant environment which evolves over time (Scannell and Gifford, 2010).

The results examine local people's feelings towards five distinct places (follow chapter 5.2) following the definition of urban heritage's distinctiveness which is illustrated in figure 5-10. They explain the core elements of place attachment in the tangible part of urban heritage in Chiang Mai Old City, within historical, religious, and cultural perspectives. For place attachment in terms of physical factor relationship to activities and function aspects, local people indicated historical buildings' appearances and landmarks as a primary attachment component for the physical attributes of Chiang Mai Old

City. This links to Appleyard (1969) theory that physical quality can create the remembrance of a place. In addition, the identical physical of historical elements can represent the identity of a place (Chang et al., 2023).

Emotional factors are attached to local people's experiences which reveal that the positivity of memories consists of positivity felt towards physical aspect and its role as a spiritual anchor. Mesquita (2003) explains how emotion shapes intangible value following people's experiences. A 'spiritual anchor' can be described in the Chiang Mai context as 'the involvement between religious and spiritual people, as supported by Goussous and Al-Hammadi (2018), who outlines the relation between religion and spirituality as a mandatory feeling in a historical context. It can be assumed that local people perceive the city as a valuable intangible aspect and a spiritual anchor.

In relation to explaining the emotion and social, the study shows that participants engage in building a sense of community and with community events; these both make up the daily lives of local people. Ryan (2005) explicates that squares in a city can instigate place attachment through quality of place and providing various activities. In terms of this study, the square provides multiple religious, cultural and modern activities and encourages communities to gather at an open space to increase community bonding (Kuo and Sullivan, 1998).

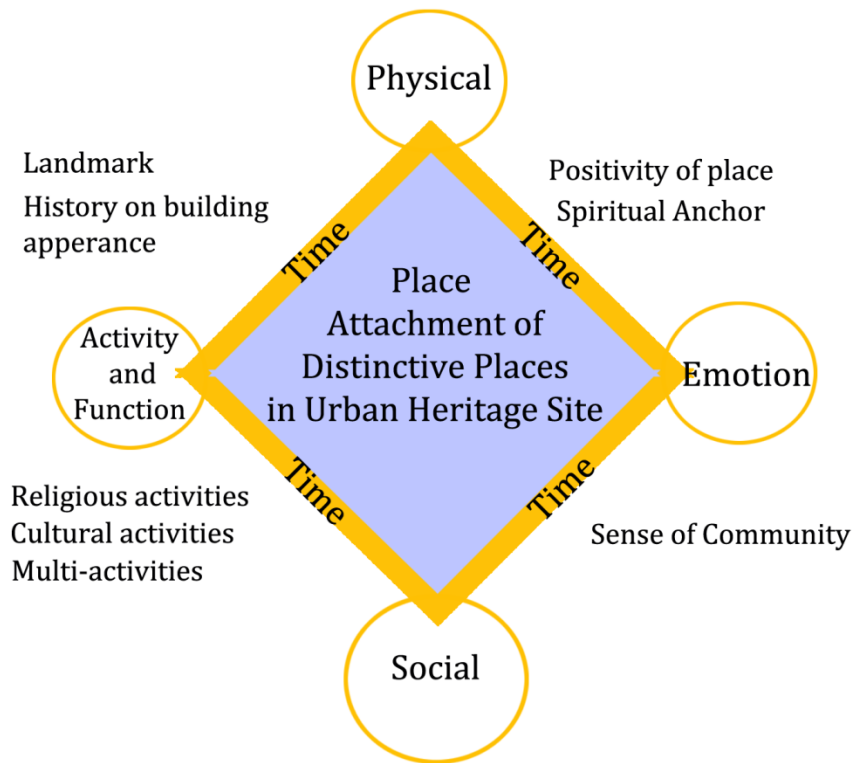


Figure 5-11: The conclusion of place attachment of distinctive places (Author)

The relationship between social activity and function can describe integrating social communities with daily life activities in Chiang Mai Old City. The tangible aspect, such as a city's urban space, provides opportunities for formal and informal activities, such as cultural and religious activities or entertainment, political activities, and shopping for local foods. It can be concluded that the social aspect is a primary establishment of diverse activities and functions of places in a city (Ryan et al., 2005). Specifically, the social aspect of historical sites related closely to local communities can provide cultural-religious activities. This supports the study by Kuo and Sullivan (1998), that the bonding of communities depends on the natural elements of urban spaces.

Furthermore, the factor of time plays an important role in embracing and shaping the whole city through the dynamics of society, religion, culture, tradition and politics in the city. Moore and Greafe's (1994), Lewicka (2011), and (Taylor, 1996) assert that frequency of usage and long length of residency

are significant factors to establish a strong attachment to a city. However, this study found that long-term stays do not matter in terms of instigating strong feeling towards the city, and the value of the city itself is capable of creating attachment to a place. This relates to information from DCLG (2009), Bernardo et al. (2016) and Beckley (2003) which describes that newcomers can adapt to becoming part of a community in a short time due to the influence of physical elements inducing newcomers to move in and individual decision to change their identity to blend in a community.

To summarise, the study demonstrates that local perceptions of place attachment to distinct places are created through factors of attachment. The emotional factor reveals the positivity of local people towards the city, and discussions of social engagement explicitly divulged the rootedness of religion, culture, and community activities across time.

5.5 The Inter-relationship of Distinctiveness and Place Attachment theory

This research is primarily designed to define the characteristics of urban heritage in terms of the place and built environment that dominate people's perceptions and have the capacity to show the significance of human perception. This study found Pra-Singha temple, Chedi Luang temple, Chiang Mai Old City moat, Three Kings Monument square and Tha-Pare Gate square reflect the rootedness of attachment between local people and places. The five elements of place attachment integrated seven aspects of distinctiveness to explain perceptions of these five places and their uniqueness in attachment theory consisting of the physical, social, and community activities throughout time.

This chapter explained the identifiable place quality and characteristics of the urban heritage of Chiang Mai Old City, which is relevant to

distinctiveness and place attachment. The place attachment theory is a popular theory in social and psychological studies as it provides substantial factors to establish place identity. The elements of distinctiveness theory can be described in both intangible and tangible aspects. It can be used in a primary stage in defining genuine places for mega scale city.

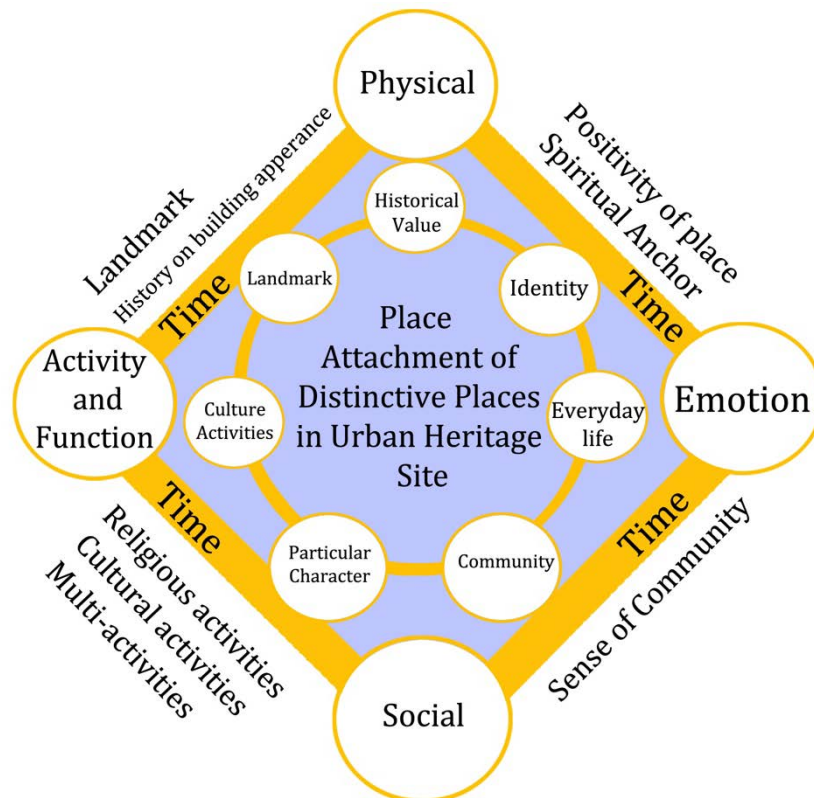


Figure 5-12: The conclusion of relation between distinctiveness and place attachment
(Author)

Figure 5-12 explains the relation between physical attachment and activity and functional factors established the landmarks and historical value of places within the definition distinctiveness. These two studies examined local people's perceptions of the tangible value of physical attributes and the integration of historical value, which is an intangible value of the city, through their experiences. Likewise, as the imageability theory within the 'Landmark' section has been mentioned in the result's study, it can be concluded that

Lynch's theory still effectively contributes to discussions of the imageability of Chiang Mai Old City.

The activity and functional factors are related to the social factor, as engagement is achieved through cultural activities and particular character value in distinctiveness. Both studies explained the religious, cultural and various other activities which create attachment between local people and the city and highlight its intangible value. In correlation to Lewicka's (2008) study, desirable activities can emerge through good quality physical components and can establish a strong attachment to a place.

Finally, the attachment between the physical and emotional factors described as a '*Spiritual Anchor*' shows local people's positive feelings about the city. Distinctiveness can be explained by three factors: identity, historical value, and everyday life (Burns, 2000; Kenny, 2004). It can be presumed that local people acknowledge their pride in the city through its historical value and their everyday lives. Identity can be examined through pride of place (PoP). Scannell and Gifford (2017) suggest that desirable places can induce people to join and represent the people's pride. In this study, the historical value and everyday life sections show the pride and emotion attached to the city and its tangible and intangible value.

The results also explain that time plays an extensive role in all factors. Long-term residents and frequent users of a place create stronger place attachment. Likewise, intangible values such as cultural and religious activities are also rooted in short-term residents and create a sense of belonging to the city. In conclusion, the engagement between place attachment and the distinctiveness study demonstrates the value of local people's expressions towards the city in factors consisting of history of building appearance, spiritual of place, multi activities, religious-cultural activities, sense of community, and positivity of place.

People acknowledge seven positive perceptions which can be distinguished from other cities (Twigger-Ross et al., 1996). Moreover, place attachment is defined in detail as a bonding between people and place (Altman & Low, 1992). This study provided a significant explanation of the place identity of Chiang Mai Old City. Its tangible value consists of temples, squares, and the unique city moat. In contrast, its historical value, cultural activity, religious activity, and community engagement constitute the intangible value of the city. These factors can be identified as the '*Place identity of Chiang Mai Old City*'.

5.6 Tangible Value in the Built Environment of Chiang Mai Old City

This section is divided into two parts. Firstly, the study focuses on the understanding of local communities of 'shophouses'. Shophouses play a significant role in the city's presentation and represent the place's identity, including its social values and aesthetics. Significantly, shophouses' façades face losing their identities which affects the urban landscape in relation to the perception of the city's urban heritage.

Currently, shophouses are not allowed to be built in conservation areas according to the council tends to decrease the number of temporary commercial buildings and increase the number of residents following the rise of the globalised tourism industry. However, they remain critical to the city as shophouses endure over centuries. The opinion of local communities would help suggest further managements of façade modification. This study does not aim to preserve or reform the past; however, the research upholds that opinions are crucial in shining a new light on the city.

In urban heritage identity studies, the understanding "Streetscape Character" is demonstrated through place perception of significant places in

the Old City. They are on paths that everyone walks, rides, and drives through, and they capture the memories of people in the city’s environment. The streetscape character of the main street represents the urban identity of the city.

As stated at the beginning of Chapter 4, the data and analysis process use mixed methods to produce answers. Throughout the Streetscape Characteristic Identification process, assessments of socio-cultural values are introduced within the opinions provided by local communities’ opinions, which consists of “Chiang Mai people” and “Local Architects”. As Figure 5-13 illustrates, the process study of "architect’s opinions”, was reprocessed to recheck participants’ perceptions of architectural redesigns of the built environment. These are the suggestions for retaining the urban heritage characteristics of Chiang Mai Old City which will be described in Chapter 7.

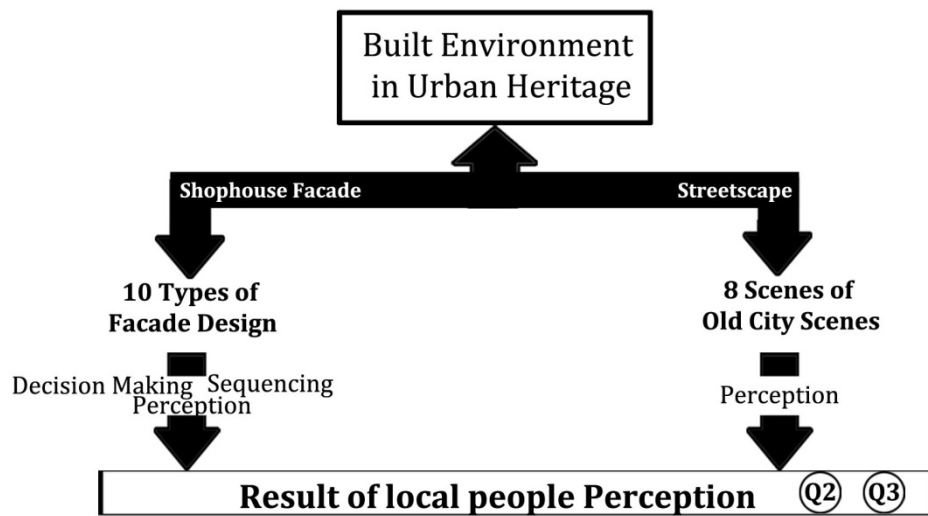


Figure 5-13: The process of defining the built environment’s characteristics (Author)

5.6.1 The Perception of Local People towards Shophouse

Façades

This section focuses on how local people make decisions on which buildings adhere to Chiang Mai Municipal Building Law (CMMBL). Why does the study of façades and streetscape matter within an urban identity study? The built environment of the city creates an identity of place and an understanding of the value of proper design in the built environment leads to the development of public spaces.

The richness of its values can form the identity of the built environment, it is also an expression of the richness of the social and cultural life in that city (Cullen, 1971). Collective identities are social structures which are built by means of social life. The identity of the built environment and the social and cultural identity of society mutually affect each other. For this reason, these values form the identity of the physical environment which organizes life in the city. The urban environment reflects the different lifestyles in the city in different periods, along with its socio-economic situation and technologies which reflect knowledge, preferences, and abilities (Carmona et al, 2010). An evident physical component of the urban environment are façades which play a significant role in contributing to the identity of the city (Cullen, 1971; Fathi and Heidari, 2018). Façades are a mixture of physical forms and natural components of urban spaces, which are created by the aesthetics and proportionality of the urban environment (Fathi & Heidari, 2018: p. 72).

Table 5-10 showed a photo book of ten façades and asked the four hundred participants their opinions on which ones are suitable for Chiang Mai Old City. The analysis process used the Whole Counting Method as described in Chapter 4. The results can be divided into three parts, consisting of 'high', 'neutral' and 'low'. The decision-making theory is regarded as a

cognitive process resulting in the selection of a belief or a course of action among several alternative possibilities. Decision-making is the process of identifying and choosing alternatives based on the values, preferences, and beliefs of the decision-maker.

First era of Chiang Mai shophouse (Pic 01)	Two storey first era of Chiang Mai shophouse (Pic 02)	First era of Modern shophouse (Pic 03)	Two storey commercial shophouse (Pic 04)	Two storey commercial shophouse in early Modernism (Pic 05)
				
				
Gingerbread Shophouse (Pic 06)	Contemporary modern Lanna Facade (Pic 07)	Foreign Ornament Facade (Pic 08)	Curtain Wall Facade (Pic 09)	Late Modern Facade (Pic 10)
				
				

Table 5-10: Shophouses Façade images have been chosen from *‘The perception of the Vernacular Characteristic on shophouses in Chiang Mai Old City, Thailand (Romcai, 2007) to use as a part of this study. The initial resources have been simulated into 3D sample pictures by the author.*

To analyse this section, the researcher uses a formula from Kuzovkin’s et al. (2018) study which focused on a selection of the best photographs in personal albums. It is an evaluation of image aesthetics used to assess user selection. It begins with a computation of the user preference score and the number of participants assessing these pictures. The reliability of the results uses a user confidence score to decide the preference score.

N_{sel_i} is the number of times image participants was selected, and N_{users} is the total number of participants

$$S_{u_i} = \frac{N_{sel_i}}{N_{users}}$$

S_{u_i} Describes the selection of the best picture due to user preference

Additional formula below used to better visualize agreement between users, it is a user confident score which indicates how decisive the preference score for the particular image. The confidence score is calculated using the inverse of the triangular function over the preference score which produces higher confidence when the preference is closer to 1 (every user has selected the image) or to 0 (no user has selected the image) (Kuzovkin et al., 2016: p.5).

$$C_{u_i} = \frac{1}{tri(2s_{u_i}-1)}$$

Formula 6-1: Formula for analysis of user selection results (Kuzovkin et al. ,2016: p 4)

Decision Making										
Decision Making	Pic 01	Pic 02	Pic 03	Pic 04	Pic 05	Pic 06	Pic 07	Pic 08	Pic 09	Pic 010
Whole counting (x)	128	117	15	261	300	249	74	23	3	31
S_{u_i}	0.32	0.29	0.03	0.65	0.75	0.62	0.18	0.05	0.00	0.07
C_{u_i}	0.59	0.58	0.50	0.74	0.80	0.72	0.54	0.51	0.50	0.51
Rank	4	5	9	2	1	3	6	8	10	7

Table 5-11: The arrangement of ranking according to confident score



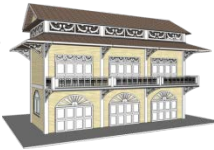




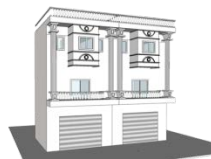

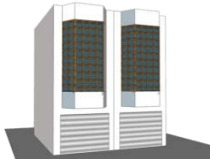
Rank	1	2	3	4	5
Process					
Decision Making					
	Pic05	Pic04	Pic06	Pic01	Pic02
Rank	6	7	8	9	10
Process					
Decision Making					
	Pic07	Pic010	Pic08	Pic03	Pic09

Table 5-12: The result of decision making following local people's opinions.

The result shows that participants mostly chose pic04, pic05 and pic06 respectively. There were three pictures chosen in the neutral ranking which consist of pic01, pic02 and pic07. Participants chose pic010, pic08, pic03 and pic09 less than the others. Moreover, the participants also used short words to describe each façade. To analyse this, the researcher divided them into five categories, consisting of Physical Appearance, Judgment, Physical Condition, Function and Atmosphere. Table 5-13, 14 explains the detail of preferences for the group which was rated the highest.

After defining the preference following the consensus of local citizens, the researcher tends to define the perception and meaning of facades in the old city through five factors such as Physical Appearance, Judgment, Function, Atmosphere, and Physical Condition which have been described in chapter 3.6.1. The collection of data was collected from the in-depth interview on second data collection through twenty-five participants.



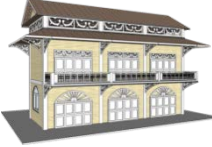
	Frequency (x)	Physical Appearance	Judgment	Function	Atmos- phere	Physical Condition
 Pic 05	300	-Perfect combination of design	-Beautiful	Commercial building	-remind to Tha-Pare area	-Old
 Pic 04	261	-Perfect combination of design	-Beautiful	-Perfect for living	-Corner building	- Old
 Pic 06	249	-Perfect combination of design - too many ornaments	-Beautiful	-hard to maintain	-	-Old

Table 5-13: The local people perception on highest rank of shophouse facade

Pic		Point	Ornament	Proportion	Material	Color	Function
04 Two Storey Commercial Shophouse	Mean	4.52	4.52	4.52	4.28	4.76	4.80
	Std.	0.58	0.58	0.71	0.54	0.52	0.50
05 Two storey commercial Shophouse in early Modernism	Mean	4.76	4.64	4.60	4.52	4.80	4.68
	Std.	0.43	0.48	0.64	0.50	0.40	0.47
06 Gingerbread Shophouse	Mean	4.87	4.64	4.80	4.76	4.72	4.32
	Std.	0.37	0.56	0.40	0.43	0.45	0.47

Table 5-14: The result on physical appearance of the highest rank of shophouse facade

There are several different sections comparing decision making and the questionnaire's results. Participants rated pic 06 the highest. The gingerbread house sections consist of ornament, proportion and material. As a gingerbread house has many ornamental details which were transferred through Myanmar's commercial route and local Lanna woodcarving techniques. Pic 05 shows a two-storey commercial shophouse in early Modernism which was rated highly in ornament and colour. In the function section, pic04 of a two-storey commercial shophouse scored the highest.

In terms of physical appearance, most of the participants referred to 'perfect combination of design' and 'too many ornaments', and judged the

appearance of these three façades designs as ‘beautiful’. In the function category, there were many statements relating to ‘commercial building’, ‘perfect for living’ and ‘hard to maintain’. Local participants expressed the use of the façades as reminders of the place of its buildings, such as ‘a reminder of Tha-Pare Road’ and ‘corner building’. The physical conditions of these facades were expressed by participants as ‘old’ which reflects the buildings’ ages.




	Frequency (x)	Physical appearance	Judgment	Function	Atmosphere	Physical Condition
 Pic 01	128	-too small -less height -Good proportion	-general	-Perfect for commercial	-hot	-Old
 Pic 02	117	-looks like a Chinese building -the combination of design does not relate to the city	-general	-Perfect for commercial	-	- Old -In the city
 Pic 07	74	-the combination of design does not relate to the city	-general -weird	-Perfect for commercial	-	- Old -In the city

Table 5-15: The local people perception on the neutral group of shophouse facade




Pic	Point	Ornament	Proportion	Material	Color	Function	
01 First Era of Chiang Mai Shophouse	Mean	3.16	2.29	2.72	3.24	3.72	2.60
	Std.	0.89	0.95	0.93	0.83	0.97	0.70
02 Two storey First Era of Chiang Mai Shophouse	Mean	3.16	3.08	2.88	3.28	3.76	3.68
	Std.	1.10	0.95	0.83	0.89	1.01	0.74
07 Contemporary modern Lanna Facade	Mean	3.4	2.76	2.92	2.64	3.40	3.48
	Std.	0.70	0.66	0.70	0.56	0.64	0.65

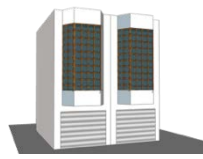
Table 5-16: The result on physical appearance of the neutral group of shophouse facade

For the facades in the neutral group (Table 5-15, 16), participants gave the highest score to pic01: the first era of Chiang Mai shophouse. Thus, in each

section the façade received lower points compared to the two facade designs in the same range. For pic 02, the two storey first era of Chiang Mai shophouse, the participants rated it highest in ornament, material, colour, and function. The proportion section was given to pic 07, the contemporary modern Lanna façade.

In terms of physical appearance, most of the participants stated that the facades were 'too small', 'less height' or had 'good proportions', 'looks like a Chinese building' and 'the combination of design does not relate to the city'. In the judgment section participants expressed their feelings about the facades as 'general' and 'weird'. Participants revealed their shared opinions on facades that were 'perfect for commercial' in the function section and described the atmosphere of pic01 – the first era Chiang Mai shophouse - as 'hot'. Finally, the physical conditions of these facades were expressed as 'old' and being 'in the city'.

	Frequency (x)	Physical appearance	Judgment	Function	Atmos- phere	Physical Condition
 Pic 10	31	-the combination of design does not relate to the city	-Beautiful	- Hard to use	-remind to Chiang Mai University	-Old but modern
 Pic 08	23	-the combination of design does not relate to the city -the design does not represent Lanna and Chiang Mai	-faceless -weird	-Perfect for living	-uncomfortable	- Outdated
 Pic 03	15	-looks like a Chinese building -the combination of design does not relate to the city	-weird -unlike	-	-uncomfortable	-Outdated -modern



Pic 09

3

-the combination of design does not relate to the city -the design does not represent Lanna and Chiang Mai

-not beautiful

-the design does not give good ventilation -not good functional building

-too dark - uncomfortable - hot

-Outdated

Table 5-17: The local people perception on the low group of shophouse facade

Pic		Point	Ornament	Proportion	Material	Color	Function
03 First Era of Modern Shophouse	Mean	3.36	2.56	2.48	2.36	2.72	2.56
	Std.	1.11	0.96	0.82	0.75	0.67	0.71
08 Foreign Ornament Facade	Mean	2.24	1.92	2.04	1.60	2.44	3.28
	Std.	0.66	0.86	0.67	0.57	0.65	0.89
09 Curtain Wall Facade	Mean	1.92	1.56	1.56	1.48	2.32	2.12
	Std.	0.70	0.82	0.58	0.50	0.69	0.83
010 Late Modern Facade	Mean	2.56	2.64	2.68	2.36	3.20	3.20
	Std.	0.76	0.90	0.94	0.56	0.70	0.70

Table 5-18: The result on physical appearance of the low group of shophouse facade

In the 'Low' group (Table 5-17, 18), Pic10 of the Late Modern façade was rated the highest and pic09 of the curtain wall façade was rated the lowest. Pic10 of the Late Modern façade received the highest score in every section in terms of physical appearance, as most of the participants felt that 'the combination of design does not relate to the city', 'the design does not represent Lanna and Chiang Mai' and it 'looks like a Chinese building'.

In the judgment section, the result was given in contrast following the participants expressed their negative perceptions of facades as 'faceless', 'weird', and 'not beautiful', however pic10 was the only one pic that rated as a 'beautiful' building in the 'Low' group. There were various expressions used in the function category, beginning with 'hard to use', 'perfect for living', 'the design does not give good ventilation' and it is 'not a good functional building'. Local participants expressed the atmosphere of the façade as

reminders of the place of its buildings such as a 'reminder of the way to Chiang Mai University' and 'uncomfortable'. There were multiple opinions given on these facades' physical conditions, such as 'old but modern', 'outdated' and 'modern'.

The results show the different perceptions of facades, which can be divided into three groups: high, neutral, and low. The participants gave positive judgments towards a façade designed in the period of King Rama V before the influence of Modernism. Some of the participants acknowledged the ethnicity of some facades, like pic03, which was influenced by Chinese shophouses, as generally, it has Chinese stucco decorations on the façade (Romcai, 2007).

Local people felt positively towards early façades and colonial decorative styles; therefore, participants judged the Western designs negatively, as they do not adjust to the aesthetics of the Old City. The visual quality of the built environment is primarily associated with aesthetic and spatial qualities consisting of façade design, building appearance and atmosphere around the urban space (Nasar, 1998; Carmona et al., 2010). Most of the participants revealed their feelings towards the façades' as nostalgic. The physical conditions of all façades were described as 'old' and 'outdated' following the buildings' ages.

For physical preferences, local participants preferred the two-storey building (rather than three storeys) and the local ornaments of Lanna contemporary design rather than glass curtain walls or stuccos. The material section revealed that the participants preferred mixed materials, especially wood and cement. For façade colours, most of the participants preferred the images which have earth tones such as brown, cream, and white.

These results demonstrate that local participants share their preferences for heritage value in the city. According to the result, pics 04, 05 and 06 were the most appreciated by the local participants. Thus, it can be concluded that

these images represent the façade characteristics of the city which contribute to the identity of the city's built environment. There are multiple ways to create a façade which coordinates with the law and historical context. The preferences of local people are part of the management plan to reform the built environment in this heritage city.

5.6.2 The Perception of the Social Value of Shophouse façades in Local People's Perceptions

After examining physical appearance, this study defines the social value of shophouse facades through local participants' perceptions. This reflects the society and culture of the city through a strong engagement with the history and society of the city. As Mamat and Abdul Aziz (2020) state, façades are 'faces' and display various histories. Façades also contribute to the city's historical fabric, the cultural landscape of the city, and the identity of the community. A façade can be further defined as a visual historical record and a narrative of the time period of the building. The visuals of the built environment and the style of a building can indicate the socioeconomic status of the city. Carmona et al. (2010) suggests that a façade should create a sense of place and have a coherent character that both acknowledges convention and enters into a dialogue with adjacent buildings.

This part explains the integration of society and values of façade character (Table 5-19) which consists of a representation of history and the overall value of the city.

Pic	The façade represents the history of the city		The facade design would help to increase the value of the city	
	Mean	Std.	Mean	Std.
01 First Era of Chiang Mai Shophouse	Mean	3.48	4.12	
	Std.	0.91	0.78	
02 Two storey First Era of Chiang Mai Shophouse	Mean	3.16	3.68	
	Std.	1.17	1.10	
03 First Era of Modern Shophouse	Mean	1.92	3.28	
	Std.	1.07	1.15	
04 Two Storey Commercial Shophouse	Mean	4.84	4.36	
	Std.	0.37	0.90	
05 Two storey commercial Shophouse in early Modernism	Mean	5.00	5.00	
	Std.	0.00	0.00	
06 Gingerbread Shophouse	Mean	4.52	4.88	
	Std.	0.50	0.33	
07 Contemporary modern Lanna Facade	Mean	2.56	1.96	
	Std.	0.91	1.01	
08 Foreign Ornament Facade	Mean	1.16	1.76	
	Std.	0.37	1.36	
09 Curtain Wall Facade	Mean	1.36	1.88	
	Std.	0.99	1.50	
010 Late Modern Facade	Mean	2.12	2.24	
	Std.	1.16	1.26	

Table 5-19: The result of social value of the shophouse facade

Façades are part of the historical narrative of the city, as they were built in a different era and represent various styles. Pic05 of the two-storey commercial shophouses in an early Modern style scored the highest of all, followed by pic04 and pic06 respectively. This suggests that local people

prefer colonial and early Modernist façade designs. As façades contribute to the cultural landscape and narrative history of the city (Carmona et al, 2010), local participants agreed that façades provide valuable historical accounts of the city. Aside from the aesthetic of facades, they also display ornaments which reflect the history of the community (Li, 2007).

The decisions as to preferences for facade design styles are affected by the city's urban environment characteristics. Local participants agreed that the era of building style originating from the reigns of King Rama IV and V reflects the history of the city, as it was the beginning of economic growth caused by the railway between Bangkok and Myanmar through the Ping River (Ongsakul et al., 2005; Romcai, 2007). This completely changed the urban characteristics of Chiang Mai Old City from groups of individual houses to rows of shophouses and also increased the socio-economic status of the city.

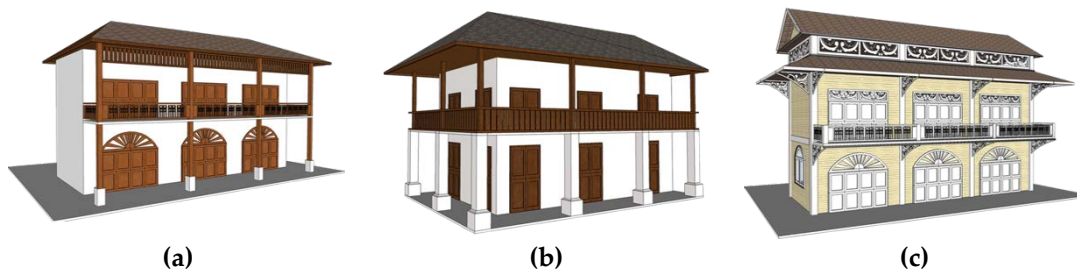


Figure 5-14: (a) pic05 (b) pic04 (c) pic06 (Author)

The local participants selected three facades as the most 'beautiful', 'perfect to live by' and having a 'perfect combination of design'. When discussing the value of an urban environment, visual aesthetic appreciation plays a major role in raising the city's value (Carmona et al., 2010). This relates to Nasar (1998) who outlines the five attributes of a 'liked' environment that includes the historical environment which provokes favourable associations.

5.7 Conclusions of façade characteristics study

The understanding of Chiang Mai Municipal Building law and local participants' perception of building façades in Chiang Mai Old City can provide other perspectives. These results conclude that local people do not understand the significance of Chiang Mai Municipal Building law. When examining the details, they realised some significant parts that appear in mass visuals such as building height, building shapes, roof styles, building styles and commercial signs.

Local Chiang Mai people positively perceive shophouse façades for both their physical and social values, reflecting the mix between Lanna wooden carvings and cement construction, which was a new technology in that era. In general, people personalise their belongings in correlation with long time usage, as Bentley et al. (1985) underlines. To conclude, local participants prefer pic04, 05 and 06 as having the preferred characteristics of a shophouse façade design in Chiang Mai Old City.

5.8 The Local People's Perceptions of Eight Scenes of Chiang Mai Old City's Streetscape

Before dissecting heritage value in the city's streetscape, the questionnaire covered disharmony in twenty-nine scenes of streetscapes. The aim is to assess the variance in the scenes based on local people's perceptions of understanding problems to propose a conservation plan to improve the physical attributes of the streetscape. The results will be explained in Chapter 7. However, this study defines urban heritage characteristics, which include exploring streetscape characteristics that represent the heritage values of the city. The study points to eight streetscape scenes (Table 5-20) that connect the five distinctive places in Chapter 5: Tha-Pare Gate square, Chiang Mai City

Moat, Three Kings Monument square, Chedi Luang temple, and Pra Singha temple. The location of each streetscape scenes has been indicated in figure 5-15.

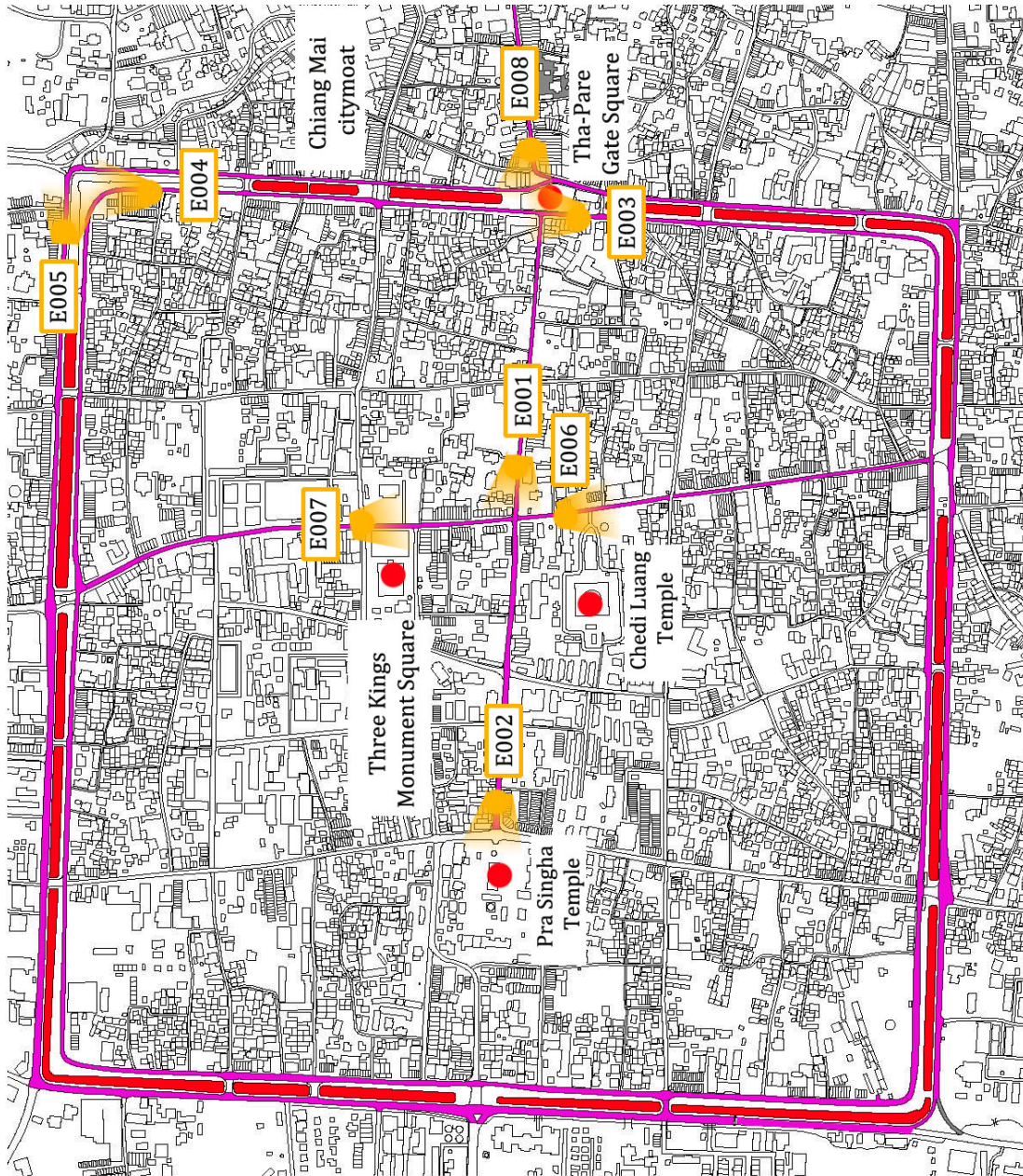


Figure 5-15: The Key map of these streetscape scenes (Author)

No	Scenes
EA 001	
EA 002	
EA 003	
EA 004	





EA 005	
EA 006	
EA 007	
EA 008	

Table 5-20: The eight streetscapes which linked to five distinct places (Author)

The process study of this section was involved in the second data collection, which collected the data through PEI and Needle method. The twenty-five participants gave answers to the researcher by marked each of spot on the streetscape's scenes. Each mark was indicated in four values of the

streetscape scene: Historic Value (Yellow), Social Value (Orange), Aesthetic Value (Pink) and Spiritual Value (Blue).

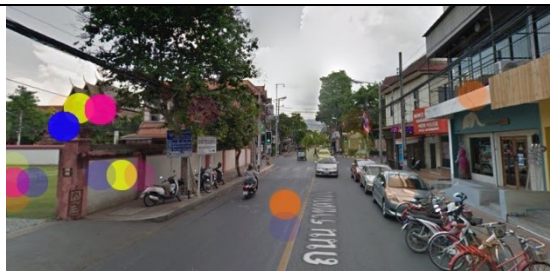
5.8.1 Heritage Value in Eight Scenes of Chiang Mai's Streetscape

The identity of Chiang Mai Old City is found in its unique places. Informed by the perception of local people, Phetsuriya and Heath (2021) mention five such distinctive places in the city that represent the urban heritage identity. These consist of two significant temples in the city, two urban spaces, and the Chiang Mai City Moat. These places reflect the values of cultural heritage and the outstanding universal value of the city, which has led the way for its nomination process to be a UNESCO world heritage site. Unfortunately, in its application, the Chiang Mai Heritage Committee (CMHC) neglected to focus upon the built environment, despite this being crucial in maintaining and improving the city's unique townscape scenes and developing a built environment characteristics assessment plan for the city.

Although the nominated places are at the centre of the nomination process, the built environment is also linked to the distinctive places that affect the heritage city's environment. In addition, the built environment plays a key role in affirming the cultural, economic, and social (Watson and Bentley, 2007). A streetscape's visual aesthetics are vital in contributing a satisfying experience of the city for its communities. The process of defining heritage value lies in the understanding and responses from local people, which helps communities to increase their sense of local identity (Shao, 2014). Moreover, a description of streetscape character provides useful information for the tourism industry and can help to prevent inappropriate development from devaluing a city's identity (Walsh, 2012).

In a critical urban heritage environment such as Chiang Mai, the city's approach needs to embrace both the local people and the local council. The positive perception of a visual image of urban space requires local communities to participate in the conservation process as part of increased engagement between the authorities and the community. This research aims to define the perception of local participants in terms of the socio-cultural value of townscape scenes that contribute to the heritage value of the Old City.

EA 001



Source: Author

- <i>Historical Value (Yellow)</i>	Puntow temple, Palace wall, Mangrai stupa
- <i>Social Value (Orange)</i>	Road, Building, Palace Yard, Vehicle
- <i>Aesthetic Value (Pink)</i>	Puntow temple, Palace wall, Palace Yard
- <i>Spiritual Value (Blue)</i>	Puntow temple, Palace wall, Palace Yard

EA 002



Source: Author

- <i>Historical Value (Yellow)</i>	Pra Singha temple
- <i>Social Value (Orange)</i>	Pra Singha temple, Shophouse
- <i>Aesthetic Value (Pink)</i>	Pra Singha temple
- <i>Spiritual Value (Blue)</i>	Pra Singha temple, Red truck

EA 003



Source: Author

- <i>Historical Value (Yellow)</i>	Tha-Pare Gate city wall
- <i>Social Value (Orange)</i>	Tha-Pare Gate city wall
- <i>Aesthetic Value (Pink)</i>	Tha-Pare Gate city wall
- <i>Spiritual Value (Blue)</i>	Tha-Pare Gate city wall, red truck

EA 004



Source: Author

- <i>Historical Value (Yellow)</i>	Sri Phum Fort and city wall
- <i>Social Value (Orange)</i>	City wall, Nirote Tree
- <i>Aesthetic Value (Pink)</i>	Sri Phum Fort and city wall
- <i>Spiritual Value (Blue)</i>	Sri Phum Fort and city wall





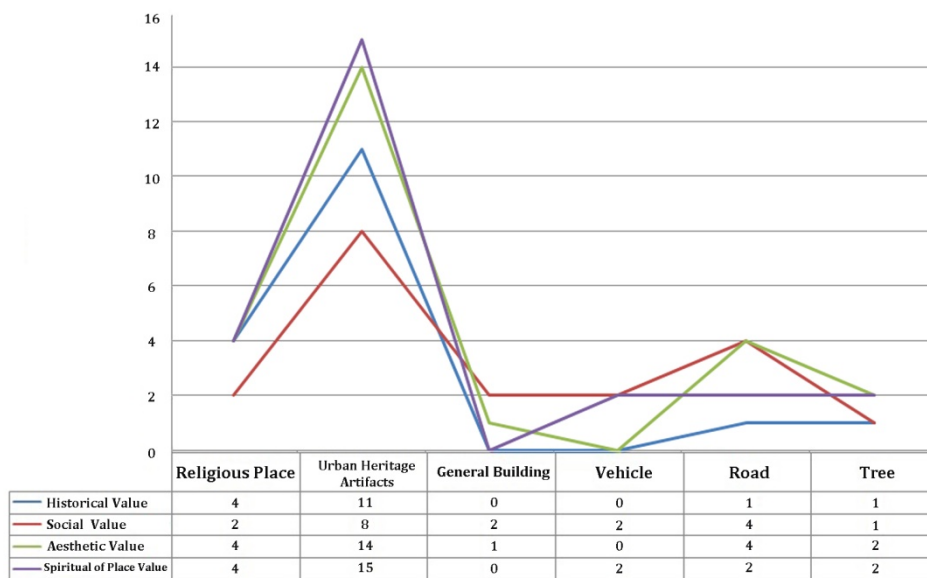
EA 005		EA 006	
			
Source: Author		Source: Author	
- <i>Historical Value (Yellow)</i>	Sri Phum Fort, Chai Phum temple	- <i>Historical Value (Yellow)</i>	Chedi Luang Temple
- <i>Social Value (Orange)</i>	Chai Phum temple, City Moat, Road, Vehicle	- <i>Social Value (Orange)</i>	Chedi Luang Temple, Vehicle
- <i>Aesthetic Value (Pink)</i>	Sri Phum Fort, Chai Sri Phum temple, City Moat, Road	- <i>Aesthetic Value (Pink)</i>	Chedi Luang Temple, Tree
- <i>Spiritual Value (Blue)</i>	Sri Phum Fort, Chai Sri Phum temple, City Moat	- <i>Spiritual Value (Blue)</i>	Chedi Luang Temple, Yang Tree
EA 007		EA 008	
			
Source: Author		Source: Author	
- <i>Historical Value (Yellow)</i>	Three Kings Monument, Inthakin temple, Road, Tree	- <i>Historical Value (Yellow)</i>	Tha-Pare Gate, city wall
- <i>Social Value (Orange)</i>	Three Kings Monument, Road	- <i>Social Value (Orange)</i>	Tha-Pare Gate, city wall, Road
- <i>Aesthetic Value (Pink)</i>	Three Kings Monument, Museum Square, Inthakin temple, Road, Tree	- <i>Aesthetic Value (Pink)</i>	Tha-Pare Gate, city wall, Road
- <i>Spiritual Value (Blue)</i>	Three Kings Monument, Museum Square, Inthakin temple, Road, Tree	- <i>Spiritual Value (Blue)</i>	Tha-Pare Gate, city wall, Road

Table 5-21: The result of the socio-cultural values using the Needle method (Author)

This study employed mixed methods and the results of the study can help to inform the initial urban built environment characteristics for Chiang Mai Old City. The outcomes of this research suggest that the city needs to consider managing policy parallel with the heritage site nomination process. This study looks at the implementation of cities that confront the loss of built environment characteristics in the World Heritage Site nominating process.

The PEI method used in this study aims to define the socio-cultural values (heritage values) of significant scenes in Chiang Mai Old City's townscapes through the questions related to participant's memories of these scenes. The eight scenes were located on Radchadumnoen road, Pra Pokklow road, Tha-Pare Road, and Moon Muang Road. The PEI was used in collaboration with the Needle method to highlight elements in the scenes.



Graph 5-01: The conclusion of socio-cultural values of the scenes (Author)

According to the results, the study revealed the participants' perceptions (graph 5-01) of the socio-cultural values of the scenes in four aspects: Historical Value; Social Value; Aesthetic Value; and Spiritual Value. The participants mostly highlighted the urban heritage artifacts in the scenes. Secondly, religious places were pointed out in every scene, and even when they were obscured by other features the participants could recall the temples from their memories. Roads and trees were also mentioned in all of the sections whereas general buildings were only identified in the social activities and the aesthetic sections. Nevertheless, participants highlighted the vehicles in the scenes in relation to social activities. They also pointed out the "Red

Trucks" (a unique mode of Chiang Mai local transportation) with regards to the spiritual value of the city.

Cultural expression

Twenty-five participants drew upon their diverse memories of the studied sites. For example, participant In-St-M-22-002 described their memory of Songkran Festival at Thai New Year and Lanna New Year on the 13th April, saying that: *"I can remember since I was young, I spent all day around this road and walked around Chiang Mai City Moat. Until the present, I enjoy the festival with friends and any other special cultural occasions. This is held at Tha-Pare Gate square and a parade goes along the road."* Moreover, participant In-St-F-29-012 mentioned that: *"I have joined the floating lantern parade every November for Loy-Kra-Tong festival (worship of the goddess of water in the Lunar Calendar Full Moon). This was the first time I wore authentic Lanna traditional dress and held the lantern on the parade, which was such a memorable experience for me."* To summarise, local people expressed their attachment to cultural festival events and tangible objects that contribute to the intangible value of the place. This relates to the findings of research by Phetsuriya and Heath (2021: 13) who argue that urban characteristics can be defined through cultural activities and 'meaning' to support the identity and value of the city. Similarly, Landry (2002) relays how the image of a place can be defined by a strong culture.

Socialising

Participant In-St-F-45-015 described a community event held on a nearby road by saying that: *"I have joined the walking street in the Old City every weekend, as it normally is held on Sundays at Radchadumnoen Road and Pra Pokklaow road. I also like to join the lantern decoration activity at Three Kings Monument in November."* Participants In-St-F-31-013 and In-St-F-0-018 also

shared a similar experience: *"I used to ride a motorcycle through the narrow alleys in the Old City; this made me know the place better than the main road because it has a local community hidden in those alleys which contain their social life, as opposed to the outside roads where all of the buildings are for tourism."* Interestingly, participant In-St-F-31-021 described their bond with the streets by revealing that *"I always meet friends on this street."* These responses relate to the studies of Yatmo (2008) and Oranratmanee and Sachakul (2014) who both affirm that streets in Southeast Asian culture encourage both social and economic growth within a community.

Perception

Most participants revealed a positive perception of the scenes, with participant In-St-F-0-009 revealing that: *"The city reminds me of when I joined past Songkran festivals, the weather was like a flame in the air, but I had been soaked by water along the way from Tha-Pare Gate to Pra Singha temple."* Participant In-St-M-45-007 also mentioned that: *"People in this city have a unique personality when compared to other regions, as they are always polite and courteous, and I feel comfortable, and it is safe to walk in this city."* These diverse perspectives of the streets in Chiang Mai Old City with their cultural festivals and social life concur with the study of Oranratmanee and Sachakul (2014) who describe the need for urban space and streets in Southeast Asian cities to be multi-use and flexible to facilitate the daily lives of local people.

Aesthetics

Participant In-St-F-0-009 explained that they were *"reminded of the archaeological sites in the city, as they are beautiful and perfectly blend in with the city."* Moreover, participant In-St-M-65-025 gave their view on the city's cultural attractiveness by stating that: *"The Old City's streets always have*

beautiful cultural and religious parades especially during the Songkran Festival when all of the trees on the streets are in full bloom, the magenta colour of Inthanin tree, and yellow petals in the air in the Summer of the “Lom Lang” flower or Ratchepruek (Cassia fistula).” Participant In-St-M-31-014 mentioned the cultural landscape in the background of the city describing how: *“I joined the walking street on Sunday at Phapokklow road around 6 pm., I could see the sun setting behind Inthakin temple in the shadow of Suthep Mountain, and the light of Suthep temple-mountain induced me to take a moment to look at it.”* This relates to a previous study by Todorova et al. (2003) which describes how the quality of a street can be improved through local people’s appreciation of street flowers and trees. Indeed, nature can play a vital role and influence preferences in relation to streetscape design and the greenery of a city. In terms of urban landscape aesthetics, O’Donnell (2008) outlines the spirit of the historical urban landscape that combines humanity and nature. The urban architecture and landscape provide both tangible and intangible heritage values in a place.

The results reveal that most local participants agree that scene E007 represents the archetype of Chiang Mai Old City’s streetscape in terms of its physical aspects. According to E007, streetscapes have been improved by prioritizing space in the city from the past until the present as it is still being used for cultural and religious activities. It also shows the connection between the urban open space of Three Kings Monument square and the former city court, which has been changed into a local museum on the other side of the square. It was further improved in preparation for the UNESCO nomination process in 2015 (Prachatum, 2021). These findings relate closely to the study *‘Eliciting cultural heritage values: landscape preferences versus representative images of the city’* by Manal Ginzarly and Jacques Teller (2018). This states that the most preferred landscape photo needs to be designated by a designer in order to represent the quality of an open space. Comparatively, the Chiang Mai local

people indicated the strengths of scene E007 in every aspect. However, this had not been a nominated heritage site. It can therefore be assumed that the participants chose the scene that mainly reflects the space's visual qualities and streetscape.

5.8.2 Quality of Streetscapes

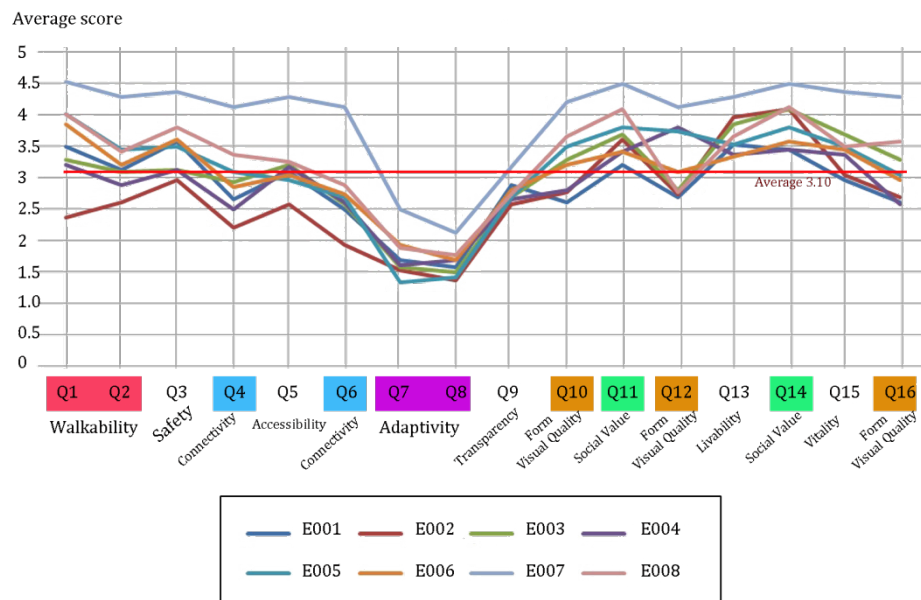
The researcher used the questionnaire to ask twenty-five participants with sixteen questions which were divided into ten sections to describe the quality of the streetscape of the eight scenes. The results are illustrated in graph 02 with E007 being valued highest in every question suggesting that the local people rated this most representative of the streetscape quality of Chiang Mai Old City.

Old	E001	E002	E003	E004	E005	E006	E007	E008
Q1	3.48	2.36	3.28	3.20	4.00	3.84	4.52	4.00
<i>SD.</i>	1.12	1.46	1.33	1.00	0.95	0.98	0.58	0.81
Q2	3.12	2.60	3.08	2.88	3.44	3.20	4.28	3.40
<i>SD.</i>	1.20	1.63	1.35	1.20	1.26	1.15	1.10	1.00
Q3	3.56	2.96	3.12	3.12	3.48	3.60	4.36	3.80
<i>SD.</i>	1.12	1.56	1.61	1.20	1.22	1.15	0.75	0.86
Q4	2.64	2.20	2.92	2.48	3.08	2.84	4.12	3.36
<i>SD.</i>	1.35	1.41	1.32	1.15	1.32	1.21	0.97	1.15
Q5	3.08	2.56	3.20	3.16	2.96	3.04	4.28	3.24
<i>SD.</i>	1.32	1.44	1.19	1.06	1.27	1.51	0.84	1.09
Q6	2.48	1.92	2.56	2.60	2.68	2.72	4.12	2.88
<i>SD.</i>	1.26	1.32	1.41	1.19	1.31	1.33	1.12	1.30
Q7	1.68	1.52	1.56	1.60	1.32	1.92	2.48	1.88
<i>SD.</i>	1.10	1.15	1.19	1.04	1.02	1.38	1.58	1.45
Q8	1.56	1.36	1.48	1.68	1.40	1.68	2.12	1.76
<i>SD.</i>	1.12	1.15	1.12	1.02	1.19	1.43	1.58	1.42
Q9	2.88	2.56	2.68	2.64	2.68	2.80	3.16	2.72
<i>SD.</i>	1.09	1.12	1.10	1.03	1.31	1.32	1.40	1.1
Q10	2.60	2.76	3.28	2.80	3.48	3.20	4.20	3.64
<i>SD.</i>	1.11	1.23	1.13	1.15	1.15	1.25	1.00	1.22
Q11	3.20	3.60	3.68	3.40	3.80	3.40	4.48	4.08
<i>SD.</i>	1.11	1.41	1.02	0.91	0.81	1.19	0.58	0.99

Q12	2.68	2.72	2.80	3.80	3.72	3.08	4.12	2.76
<i>SD.</i>	1.14	1.27	1.19	1.08	1.20	1.15	1.16	1.12
Q13	3.52	3.96	3.84	3.36	3.52	3.32	4.28	3.64
<i>SD.</i>	1.19	0.97	1.06	1.18	1.04	1.14	0.89	0.99
Q14	3.44	4.08	4.08	3.44	3.80	3.56	4.48	4.12
<i>SD.</i>	1.15	1.25	0.95	0.82	0.81	1.22	0.65	1.01
Q15	2.96	3.04	3.68	3.36	3.48	3.44	4.36	3.48
<i>SD.</i>	1.05	1.33	1.24	0.95	1.08	1.08	0.70	1.04
Q16	2.60	2.68	3.28	2.56	3.04	2.96	4.28	3.56
<i>SD.</i>	1.11	1.34	1.24	1.32	1.33	1.27	1.17	1.29

Q(x) = question (x), S.D. = Standard Deviation

Table 5-22: The conclusion of quality of streetscape scenes (Author)



Graph 5-02: The conclusion of quality of streetscape scenes (Author)

General factors of street’s quality: Walkability, Accessibility, Connectivity, Safety, Form, Visual Quality, Transparency, Livability, Vitality, Adaptivity and Social Value

Walkability (Q1) The street is clean and well organized. (Q2) I feel satisfied walingk on this street. Connectivity (Q4) The street is perfectly connected between each pavement. (Q6) The pavement/space on the street had been designed for universal

users. **Accessibility** (Q5) *I can easily access the pavement.* **Safety** (Q3) *I feel safe walking on this street.* **Form and Visual Quality** (Q10) *It has an attractive landscape.* (Q12) *The streetscape is green and shady* (Q16) *The façade design represents the historical value related to the streetscape* **Transparency** (Q9) *I can easily access the shops along the street.* **Livability** (Q13) *I have a social life integrated with this street.* **Vitality** (Q15) *I feel engaged with the streetscape.* **Adaptivity** (Q7) *I think everyone can use the street for commercial purposes.* (Q8) *I think everyone can use the pavement for commercial purposes.* **Social Value** (Q11) *The streetscape reflects the value of history in Chang Mai Old City.* (Q14) *I consider the socio-cultural value of this street to reflect the value of Chang Mai Old City.*

Participants were mostly satisfied with the walkability aspect of scene E007 (Q1= 4.52, SD= 0.58) (Q2= 4.28, SD= 1.10), which is a central urban space of the city. The Three Kings Monument Square is the most satisfying place to walk and with easy access to the pavement. However, most participants felt uncomfortable in terms of walking and access to the pavement in the E002 scene (Q1= 2.36, SD= 1.46), (Q2= 2.60, SD= 1.63), (Q4= 2.20, SD= 1.41), (Q5= 2.56, SD= 1.44). This is the end of the Radchadumnond Road and it leads to the significant religious place that is a nominated site in the Chiang Mai Heritage dossier. The pavement in E002 is crowded with people and vehicles and it is a significant point for tourists and local people. Most buildings along the street have been changed from private residences to hotels, shops, convenience shops, spas, and education institutes. The accessibility aspect can be described following local people's perception of E007 the most, which scored (Q5 = 4.28, SD= 0.84). They identified that the pavement and public space is easier to access than E002 (Q5= 2.56, SD= 1.44). Most local people agreed that the connectivity aspect was shown in E007 (Q4 = 4.12, SD= 0.97, Q6= 4.12, SD= 1.12) and less in E002 (Q4= 2.20, SD= 1.41, Q6 = 1.92, SD= 1.32). It can be assumed that people can see the improved space and streetscape clearly in E007. People also feel safe in E007 (Q3= 4.36, SD= 0.75) and less safe

in E002 (Q3 = 2.96, SD= 1.56). On the form and visual quality, participants rated E007 with the highest score, which included the most attractive landscape (Q10 = 4.20, SD= 1), the greenest and shady streetscape (Q12= 4.12, SD= 1.16), and the façade of the scene mainly representing the historical value of the city (Q16 = 4.28, SD= 1.17). Contrastingly, E001 scored lowest in terms of the attractive landscape and green aspects (Q10= 2.60, SD= 1.11, Q12= 2.68, SD= 1.14). Moreover, E004 was rated as the lowest in terms of how the façade represented the historical value.

Scene E007 again scored highest in terms of the transparency, livability, vitality, and adaptivity aspects (Q9 = 3.16, SD= 1.40, Q13= 4.28, SD= 0.89, Q15= 4.36, SD= 0.70, Q7= 2.48, SD= 1.58, Q8=2.12, SD= 1.58). However, in relation to the adaptivity aspect, participants gave scores below the average, with participants reacting negatively to the commercial functions and pavement in every scene. However, E002 was rated lowest (Q9= 2.56, SD= 1.12) in the transparency aspect, and E004 in terms of the lack of social life integrated to the people (Q13= 3.36, SD= 1.18). Participants also did not feel engaged when walking in E001 (Q15= 2.96, SD= 1.05), whilst the adaptativity of the street and pavement to commercial purpose was rated the lowest for E005 (Q7= 1.32, SD= 1.02) and E002 (Q8= 1.36, SD= 1.15). Again, E007 achieved the highest score on both questions, with the values of history (Q11= 4.48, SD= 0.58) and socio-cultural value (Q14= 4.48, SD= 0.65) both clearly demonstrated in this scene. Contrastingly, E001 recorded the lowest in terms of both the social value (Q11= 3.20, SD= 1.11) and the socio-cultural value (Q14= 3.44, SD= 1.15).

To discuss of the results, in terms of adaptivity and a focus on the commercial activities on streets and pavements, there was no consensus in terms of local people's opinions. There have been many previous studies that describe the significance of the street as a place of commercial activity. For example, Allison et al. (2021) examines the mobilization of the streets and the

role of food vendors in urban life. These findings contrast with the results from the adaptivity section in this research. Indeed, Allison et al. (2021) relays that streets provide temporary practice spaces for commercial density that supports livelihoods in the community. Yatmo (2008) explains that in Southeast Asian culture, street markets are regular urban phenomena that include mobile and flexible characteristics. In this research however, though the advantage of the commercial activities in supporting the community is part of a livable city, the participants revealed that the commercial activities on the street disturbed the visual aesthetics in each of the eight heritage scenes. Also, they suggested that they preferred a permanent place for commercial activity rather than temporary spaces and the inherent problems that arise from these. Furthermore, Oranratmanee and Sachakul's (2014) study examines the significance of streets in Southeast Asia and the growth of socio-economic development the cities. However, their study points to possible over-consumption of space and the over-proliferation of commercial activities on streets due to higher demand, alongside a lack of awareness and control from local authorities.

The participants in this research recalled memories of religious festivals along the streets for each of the scenes in the cultural expression and social activities sections. Significantly, they agreed that religious festivals are a magnet for community assembly that is relevant to the history of Chiang Mai. They also mentioned the Three Kings Monument square as a significant urban space for local rituals and as a key gathering place for religious occasions and festivals (Ongsakul et al., 2005; Phetsuriya & Heath, 2021). Perry et al.'s (2020), research also highlights that those festivals have a transformative role and the capability to contribute to unique cultural identities. Indeed, drawing upon the memories of local participants reveals that festivals contribute significant intangible value to the street scenes of the city. The values of the participants

also revealed three major elements consisting of flower petals, religious activities, and people's personalities.

Interestingly, Todorova et al. (2003) and Kim et al. (2021) also identify that street trees in cities contribute various benefits and are significant to citizens' perceptions of place. Indeed, in Chiang Mai Old City, the Inthanin and Ratcha-pruek flowers (local species of trees) were highlighted as having a positive effect on people and represent the aesthetics of urban visual characteristics. In terms of feelings, it is also important to consider Chiang Mai people's opinions on the Old City's personality. Interestingly, Kluckhohn and Mowrer's (1944) study '*Culture and Personality: A Conceptual Scheme*' references personality as an individual's "social stimulus value" based on research by May (1930). They problematise this statement and instead suggest the definitions of "communal personality" and "social character" as components of personality in biological, cultural, social, and physical environments. As such, the positive identification of local people's personality in Chiang Mai Old City reveals the community's social character and communal personality in the city.

The most significant part of this study is the socio-cultural values, which analyse historical value, social value, aesthetic value, and spiritual value of the Old City. Socio-cultural values are found chiefly in urban heritage artefacts and religious places in the city. This reflects research by Mason (2002: p.11), which explains that socio-cultural values are traditionally at the core of conservation. Indeed, values are attached to an object, building, or place because they hold meaning for people or social groups due to their age, beauty, artistry, or association with a significant person or event and therefore they contribute to the processes of cultural affiliation.

Main factors	Cultural / Social		Perception / Aesthetic			Sociocultural Value			
	Sub Cultural Expression	Social Activities	Sight	Memories	Feeling	Historical Value	Social Value	Aesthetic Value	Spiritual Value
Results	Religious activities and festivals	Use urban space for meeting friends and gathering for cultural activities.	- Local plants on streets Archeological sites	Positive memories of the streets and mostly related to everyday life of local people which are tied to religion and cultural activities	Positive feelings on local people and the streets. Negative feelings on direction on the city	- Urban heritage artifacts - Urban heritage artifacts -Religion places -Religion places	- Urban heritage artifacts -Religion places -Road -Vehicle -General building -Tree	- Urban heritage artifacts -Religion places -Tree	- Urban heritage artifacts -Religion places -Tree
Specific place, object and activity	-Song Kran , -Inthakin , -Floating lantern	Community gathering for cultural activities	Inthanin flower Ratchapruok flower	Make merits at temples	People with a nice personality	-	-	-	-

Table 5-23: The comparison of four defining processes

5.8.3 Conclusion of Façade and Streetscape Characteristics

The shophouse façade design, which local people prefer, is a mixture of the traditional Lanna style and cement construction. It carries history and meaning in long-term usage, which is pic04, 05 and 06 that characterises Chiang Mai Old City. Moreover, people mostly connected to the scene of E007 which has already been reformed following the revitalisation of the Chiang Mai urban space project.

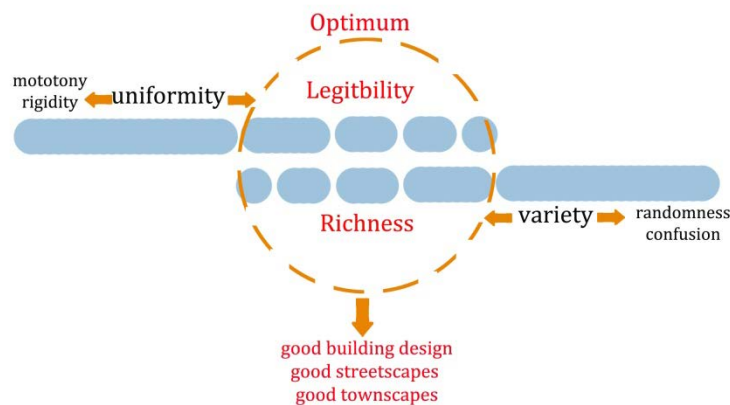


Figure 5-16: The combination between uniformity and variety (modified: Guise and Webb, 2018; p.174)

Figure 5-16 describes Guise and Webb's (2018) idea of punctuation in the built environment that describes streetscape design's relative uniformity, which explicates the balance between a classical street design and variety that can contribute to the harmony of streetscape design. The range of identical buildings or bays can appear monotonous. However, the slight projection forward building lines, slightly recessed bays for planting a tree, or the interruption of building shape, materials, and shape are accepted. The value of punctuation in a street scene is to stimulate a sense of place and legibility of street design (Guise and Webb, 2018). This can explain the perception of all streetscape scenes in Chiang Mai Old City stimulated by punctuation idea as buildings of the scenes were not arranged in linear or represented legibility of building connection, however, the urban artefacts which represented the richness such as temples, city wall, palace brought the blending of richness value to the city scenes.

E007 streetscape design is a good example as the improvement of the place is proper, order and mixed with Chiang Mai's cultural variety on streetscape which can provide the richness of the scene and contributes the good streetscape of the city. Additionally, the scene is located in the main square of the city which hosts many cultural activities and festivals. They also considered that this was relevant to memories that reminded them of the religious activities in the perception section.

Furthermore, the colour of the local flowers together with local people's personalities was a key component of the participants' feelings. Finally, the urban heritage artifacts in every scene help to reveal the city's socio-cultural values. Nasar (1998) argues that historical and natural environments can increase the impact of visual aesthetics. Nevertheless, the characteristics of this city's historical streetscape have been utterly hidden in the people's memory rather than in physical representations which appeared in the sample scenes presented to the participants. As such, it can be surmised

that local people recognise the socio-cultural values of each streetscape scene through their own personal experiences.

5.9 The Conclusion of Tangible Value in the Built Environment of Chiang Mai Old City

This part highlights the built environment characteristics and heritage value of the urban streetscape of Chiang Mai Old City which local people value. The character of the shophouse façades in the city has been revealed through the participants' responses, which is a mixture of the original Lanna design and Western knowledge. The design was perceived as 'old' and 'historical', reflecting Nasar's (1998), assertion that historical environments can induce positive personal preferences. In addition, Gospodini (2004), mentions the integration between built heritage artefacts and innovative designs, which can construct the identity of a place following the distinctiveness of the built environment and the adjustment of unfamiliar environments.

In terms of urban city scenes, the streetscape of E007 provides space for people partaking in various activities and it was picked as the streetscape which represents the characteristics of the city. The activities on the streets, such as daily activities, cultural activities, religious activities, or recreational events that engage with the community, are identified as meaningful city spaces. Furthermore, the naturalness of streetscapes in the city provokes positive experiences and positivity in space (Carmona et al., 2010).

The results show that ordered physical features and managed spaces become the built environmental characteristics of the city, as perceived by the participants' experiences and memories. The heritage value of streetscapes is related to historical attributes, natural objects, people, and cultural events in the scenes that explain the meanings ascribed to places associated with social

and cultural values. It can be assumed that the built environment characteristics and heritage value can be generated from human experience. Nevertheless, the historical city is supposed to maintain and revitalise the distinctive character of the streetscape to preserve local heritage, culture and identity. It could be assumed that the built environment plays a vital part in defining urban heritage identity.

5.10 Chapter Conclusion

This chapter concentrates on tangible heritage value of Chiang Mai Old City, by applied two steps of data collection processes. The first collected the distinctiveness of places following four hundred local citizen's perception. The finding can be described in seven aspects: historical value; culture activities; particular character; landmarks; identity; community; and everyday life. The result reveals the five distinct places consists of Pra Singha temple, Chedi Luang temple, Three Kings monument square, Tha-Pare gate square, and Chiang Mai old city's moat. The result of this stage was applied in the defining of place attachment by pointed the five distinctive places as sample places to explain in four elements consist of social, physical, emotion, and activities related to function.

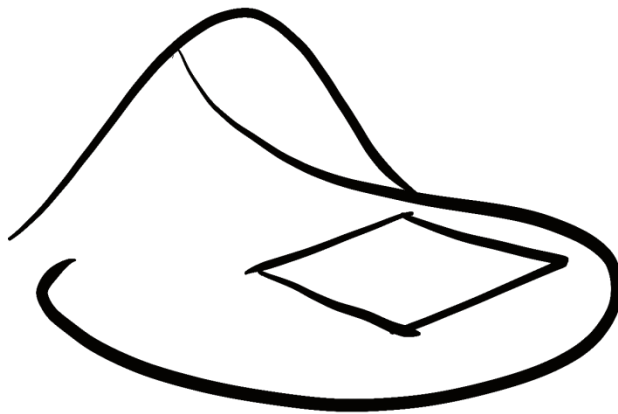
The result of place attachment and distinctiveness can describe the interrelationship between these theories. The distinctiveness of urban heritage identity contributes the genuine values from massive places through physical settings, a relationship of place and participant's memory which can explain the sense of places. It also can support and expand on a delicate finding of distinctiveness theory. However, the theory is unconcentrated on emotional and person's time aspects factor, which has been discussed in urban identity study for a long time (Burns, 2000; Kenny, 2004); the study aims to apply the place attachment to define the relationship of those aspects.

Therefore, the study of place attachment that performs the finding of emotions to places can be able to explain the linkage of distinctiveness value to social, physical, emotional, and activities related to functionality. This stage concludes that all five distinct places have an inseparable ability to perform tangible heritage value; the positivity emotion to places is a crucial sense to contribute the urban heritage characteristics. Moreover, the time or length of residency is a vital aspect to percept the city's distinctiveness; however, the value of the physical setting itself can increase the sense of belonging of newcomers. Meanwhile, those places are part of vital space to perform intangible heritage value, which will be explained in Chapter 6.

The section on defining the physical elements and characteristics of built environments provides an understanding of the positivity of local citizen's perceptions of those connected scenes with five distinct places. The façade and streetscape scenes had been rated and given the values of scenes capable of suggesting further city management strategies. It also describes the unstructured façade and streetscape scenes design make the 'temples' or 'heritage artifacts' punctuation effect on the built environment, representing the outstanding from a mess of unattractive built environment scenes. The next chapter will describe and discuss the results related to intangible heritage in local people's perspectives, urban heritage characteristics, and how traditional urban spaces impact social, cultural, economic, activities, and life in Chiang Mai.

Chapter 6

The Intangible Values of the Identity of Urban Heritage of Chiang Mai Old City



Mae Kha Steam flowed down from Doi Suthep mountain circled the town.

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

Chapter 6

The Intangible Values of the Identity of Urban Heritage of Chiang Mai Old City

6.1 Introduction

'Intangible cultural heritage' (ICH) is defined by Federico Lenzerini (2011: p.107) as: the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts, and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. Intangible cultural heritage represents human spiritual values (Member States, 2001), which transmitted from generation to generation (Howard, 2003; Smith, 2006). It is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history (Smith, 2006), and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity (UNESCO, 2019; Member States, 2001) which emerging from traditions, festivities, language, housing, social and daily life (Member States, 2001). Intangible value also related to the characteristic of its context which appears in community's life that provides the participation of communities' practices in fields that increasing the education of its context (UNESCO, 2019).

Chiang Mai's urban heritage characteristics included places, urban space and built environment, reflecting the integration between people and urban heritage values, both tangible and intangible. This chapter describes the relationship between urban heritage characteristics and society, culture, the economy, activities, and life (Figure 6-01) following the results of chapter 5 which were unable to separate the explanation of intangible value from tangible value. Social aspects affect urban heritage characteristics in multiple ways, as they are a

powerful dynamic of change in society. As urban heritage identity always relates to cultural values, cultural heritage, and cultural environments, whatever their size and scale, are an essential resource to build identity and a sense of belonging and can foster social cohesion, pride, and integration (The Creative Europe Programme of the European Union, 2021: p.8).

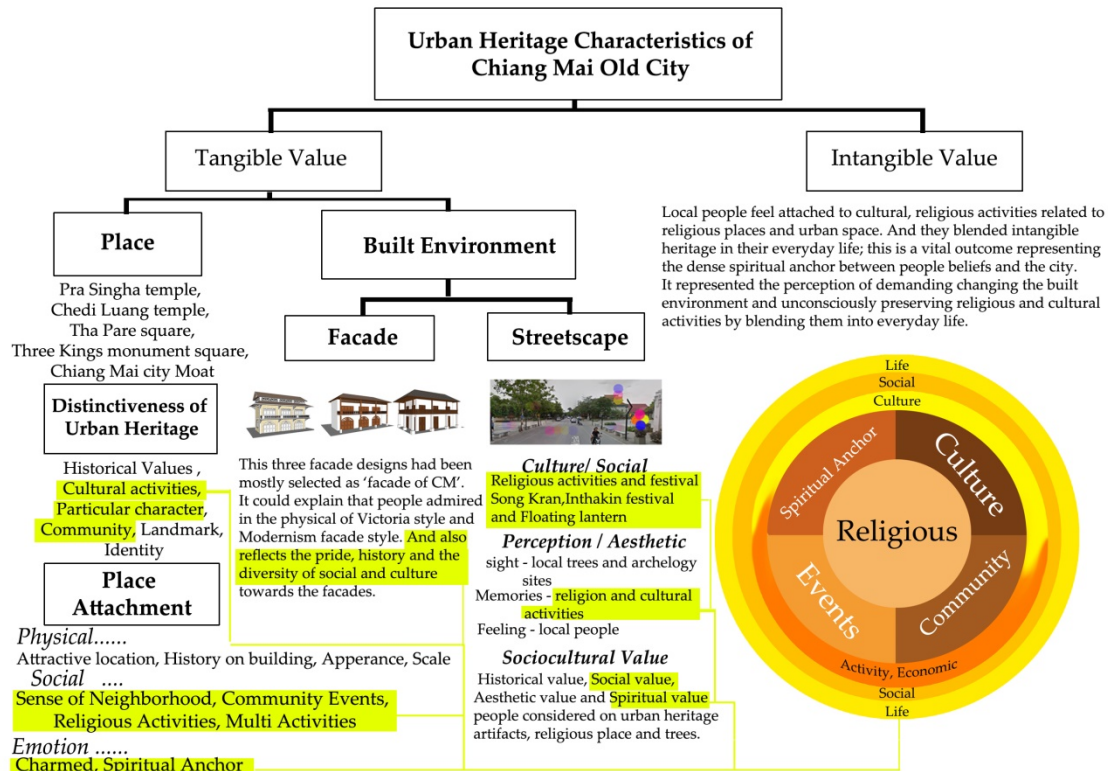


Figure 6-01: Process study of chapter 6 (Author)

There are numerous ways that the historic environment contributes to the national economy and to local economies (Historic England, 2020). Moreover, engagement in activities and life are part of the role of cultural heritage in improving health and wellbeing. Heritage has been identified as a 'crucial context in which people live their lives and that heritage supports a powerful sense of place, being and purpose' and heritage-based activities are recommended for socialising (Heritage Counts, 2020).

This chapter outlines five topics in relation to the results in Chapters 5. These revealed that religious places and public urban spaces contribute to the city's urban heritage characteristics, consisting of Pra Singha temple, Chedi Luang temple, Three Kings Monument square, Tha-Pare Gate square, and Chiang Mai city moat. The six topics consist of the intangible value of the urban heritage of Chiang Mai Old City, the impact of urban heritage characteristics on society, economics, culture, activities, and life in Chiang Mai Old City and finally, the significance of intangible heritage value on local people.

6.2 The Intangible Value of the Urban Heritage of Chiang Mai Old City

Chapter 5 explains the relationship between distinctiveness and place attachment theory on distinct places which concentrate on tangible value. This chapter aims to describe the intangible value following distinctiveness aspects consistent with historical value, cultural activity, particular character, community, everyday life and identity (Phetsuriya and Heath, 2021). This chapter will explain the result of the second research question, which concentrates on the intangible value of the urban heritage of Chiang Mai Old City that relate to socio-economic, socio-cultural, activities and life of local community.

Following Chapter 5, the Landmarks aspect describes the relationship between physical appearance and memory of place. The Three Kings Monument was mostly chosen for its landmark aspects. However, regarding intangible aspects, some participants chose Pra Singha temple and Chedi Luang temple as the 'Landmark and religion activities place', 'Kun Dok festival' and 'make

merits'. It is likely to describe the religious activities occurring in religious places and significant urban space traditionally used as the Three Kings monument square or "Kuang" (Northern Thai dialect). Apart from the appearance of landmark aspects that can provide the image of the historical city, it can induce local citizens' perception to recognize the intangible value which appears in those landmarks such as religion-cultural activities, Kun dok, and make merits.

Historical value is inseparable from tangible value; Chapter 5 explains that the Pra Singha temple represents the city's historical value. However, in terms of the intangible value of the historical value aspect, the perception of local citizens may be unable to reveal the intangible value related to historical value according to the short answer from the questionnaire provided limited time and required advanced history knowledge.

Cultural Activities and Particular Characters aspects describe activities related to culture, religion, and general activities. Chapter 5 pointed out that the physical settings of the Three Kings monument square reveal particular characters and Chedi Luang temple cultural activities. The tangible value of places in the historical site can contribute to cultural activities and provide possible general community activities. Community aspects are a crucial element that drives intangible value, mainly concentrated through local citizen participation. The relationship between places and community is a strong engagement that can be described through urban artifacts and architecture.

Finally, the intangible value of identity aspects was mentioned in Chapter 5, which is Northern Thai food and the Northern dialect of local people represent the humility and charisma of the local community, which become the city's identity and positive reputation. The following section will explain the impact of intangible value on society, culture, economy, activity and life through the conclusions and observations of the researcher.

6.3 The Impact of Intangible Value on Cultural Space on Society in Chiang Mai Old City

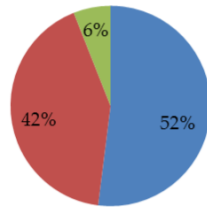
As a society, understanding our heritage helps make sense of our place in the world. It helps create a sense of familiarity and belonging, bringing communities together and connecting us to our shared past in all its diversity (Heritage Counts, 2019: p.3). The characteristics of Chiang Mai Old City have been described in terms of historical value, cultural activity, religious activity, and community engagement which establish the intangible value of the city.

The urban heritage characteristics of Chiang Mai Old City improve the sense of belonging and increase the connection between society and cultural heritage. According to Chapters 5, the five highlighted places and urban open spaces enable sociability and an urban social life. Public spaces such as Three Kings Monument square, Tha-Pare Gate square, and Chiang Mai city moat were mentioned as significant places of social engagement. This statement relates to Cattell et al., (2008), who asserts that heritage public spaces enable sociability and have a positive impact on quality of life.

Urban heritage characteristics enrich the everyday lives of Chiang Mai people as local people frequently visit these significant places as part of their routines. The results on pie chart 6- 01 show that fifty-two percent of the surveyed local people mostly engage with temples and religious places in the Old City, followed by forty-two percent for urban public spaces and six percent for general buildings. Engagement with these places reflects that the society of Chiang Mai Old City is highly concerned with emphasizing historical value and cultural activities (Figure 6-02).

The local people engagement on Urban Heritage places in Chiang Mai old city

■ Temples ■ Urban public space ■ General building



Pie Chart: 6-01



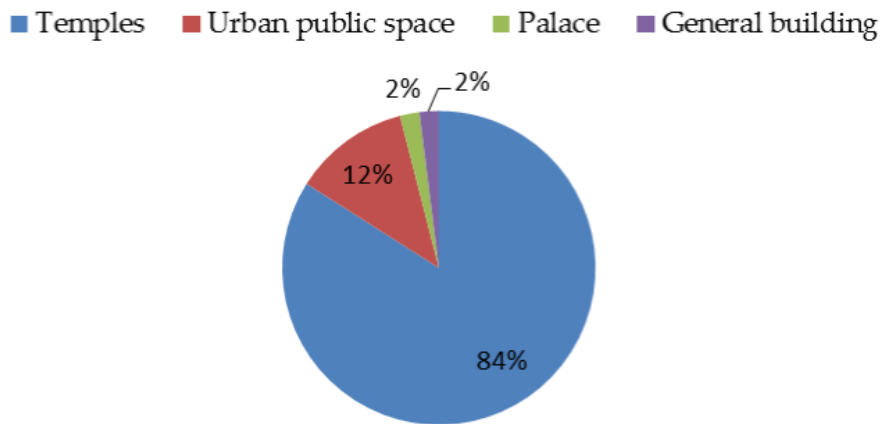
Figure: 6-02

Pie Chart: 6-01: The engagement of local people to urban heritage of Chiang Mai Old City

Figure: 6-02: local people join the religious activity in the night at Pra Singha temple (Author)

Heritage is all around us, and communities that engage with significant heritage artifacts can in turn provide value to the community. Heritage is part of the urban fabric of everyday life, providing opportunities for people to engage in the tangible and intangible value of the city. Moreover, a sense of local pride was highlighted in the society section. Pride for heritage can be expressed through the positive emotion of respect and it depends on preferences for heritage attributes characteristics (Maldonado et al., 2008). In these findings, pride, according to local people, is centred around temples, urban public spaces, palaces, and general buildings. It can be concluded that the pride of Chiang Mai's Old City society is directed towards every temple in the area. Morrison (2016) describes the significance of urban pride as supplicating urban development. This mirrors the purpose of this study's examination of urban heritage identity to propose further characteristics management strategies for the city to be nominated as a new world heritage site.

Pride on Urban Heritage places in Chiang Mai old city following local people perception

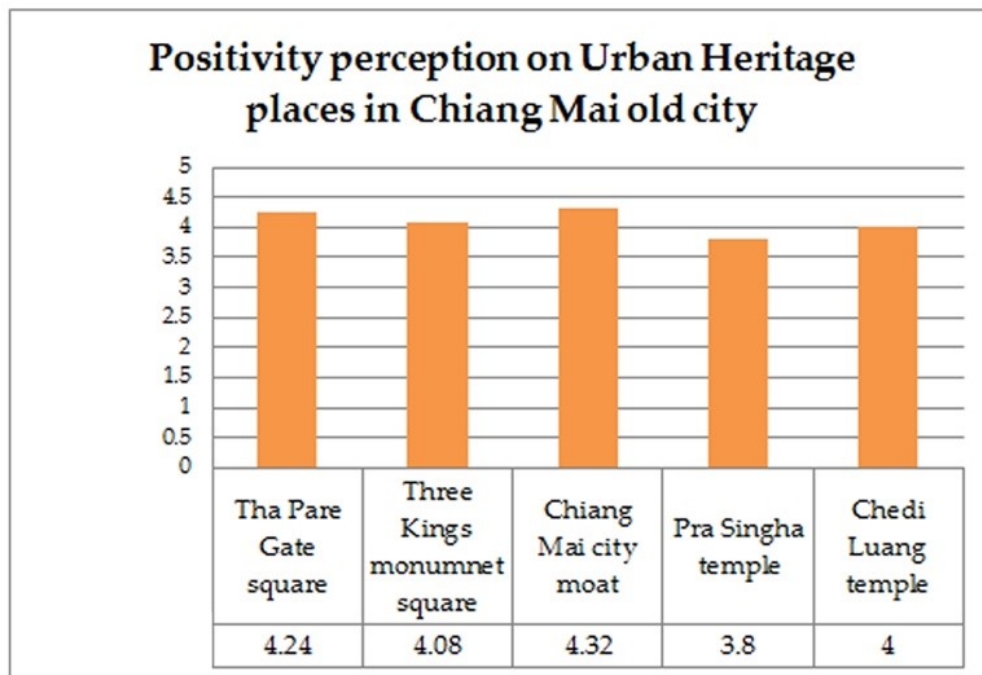


Pie Chart: 6-02: Pride of place following the local people perception

The society section also concentrates on experiences and connections formed with places. Chiang Mai people are attached to 'historic' places such as temples and public open spaces rather than general places. People also have positive experiences through cultural activities and events in public open spaces which represent a stronger sense of place. Heritage Counts (2019) finds that a sense of place will be stronger if people live amongst a large number of heritage assets and 'more historic' environments.

The historic environment in the urban heritage of Chiang Mai Old City can increase social connectivity and strengthen relationships between the community and heritage values. The urban heritage characteristics of places and environment provide an opportunity for people to gather, relax and join in with cultural activities. Urban heritage engages the past and generates a sense of belonging, enjoyment, confidence, and happiness, influencing our quality of life and life satisfaction. From these results, urban heritage characteristics have impacted the well-being of local people, as the positivity expressed towards heritage attributes correlates with life satisfaction and happiness. According to

Heritage Counts (2019), visiting heritage sites increases the well-being of youth and people. Column chart 6-01 shows that local people mostly have positive perceptions of the Chiang Mai city moat as the place links urban heritage attributes and its historic environment. This is alongside vital urban open spaces that provide chances for local people to involve themselves in multiple activities such as sports, social events, and cultural activities. In contrast, two temples were rated the lowest point in this category. It can be argued that religious places may only provide specific experiences in comparison to public open spaces which can host various activities.



Column chart 6-01: Positivity perception on urban heritage places following local people’s perception

The urban heritage characteristics of Chiang Mai Old City impact society in multiple ways such as increasing engagement with urban public space utilities, pride of place according to local people’s emotions, and positive feelings which affect the well-being of local people.

6.4 The Impact of Intangible Value on Culture in Chiang Mai Old City

"Culture is an acquired knowledge people use to interpret experience and generate behavior."

- James Spradley, Anthropologist (1972, p. 6)

Culture is a social component passed down from generation to generation and is called "the way of life for an entire society". Smith (2006) states that to express community identity, 'cultural tools' are required to define the identity of a place. The result of chapter 5 demonstrates that culture strongly influences local people's perceptions of the urban heritage identity of Chiang Mai Old City. Culture is apparent in all of the study's results including historical value, cultural activity, particular character, everyday life, community landmark, and identity.

The historical value section revealed that local people are attached to religious experiences and historical attributes according to their knowledge of its significance. The results also correlate with the study of Well (2010) who argues that an older built environment and cultural heritage skills such as craftsmanship can provide the historical value of a community. Thus, the engagement of local people with religious places in Chiang Mai Old City contributes to the cultural value of places. Cultural activities are at the core of communities that strongly engage with religious and local beliefs. Culture is hidden in festivals and religio-cultural activities such as the Inthakin festival, Songkran festival, and Loy Kratong festival (Floating lanterns). These events affect the value of local culture throughout history until the present.

The particular character section described the activities related to personal behavior, commercial, and religious-cultural activities in public open spaces. This directly affects cultural value as most activities are staged as temporary events or regular events. The results point to the sacred places in the city consisting of Three Kings Monument square and Tha-Pare gate square, which represent multi-purpose areas for sacred ceremonies in the local community. Aulet & Vidal (2018, p. 245) affirm that the values of religious heritage can be both monumental and religious: in other words, these are spaces that enhance the value of cultural and historical elements (architecture, for example) and religious elements (the value of their use as sacred spaces).

In the everyday life section, local people generally engaged the most with activities in the Old City and typical spaces like temples and city squares. Everyday life consists of repetitive activities, including walking, eating, and going to work, that are lived through (Mosler, 2019, p.780). The urban open space and the whole city of Chiang Mai Old City organises everyday social spaces and their functions, forms, and meanings. This can be described as a 'continuous movement' relating to people and changes in society and daily life (Mosler, 2019). Finally, the everyday life section is concerned with lived experience through people's perception rather than historical value. Additionally, the everyday life factor also directly affects the community through the general relationship of the social and urban community. The personal lifestyle of urban communities has the potential to attract tourists by using intangible cultural heritage, enabling cities to be developed as learning resources, using experiences, creative tourist activities, and interactions between tourists and local people (Somnuxpong, 2020, p.130). Moreover, the encouragement of local authorities to use intangible cultural heritage for tourism in Chiang Mai is crucial as it can

improve the economy and skills within communities and adopt Lanna cultural values as an additional experience for tourists (Somnuxpong, 2020).



(a)

(b)

Figure 6-03: (a) Tha-Pare gate square (Author) (b) One of the city fort and Chiang Mai city moat (Author)

The landmark section refers to the brick materials of the forts and city walls (Figure 6-03 (a), (b)), which contribute to the sense of direction in the city. It provides a 'historical sense' by using local materials and becomes the main representation of "Chiang Mai craftsmanship culture". Jones and Svejnova (2017) mention that the interaction of architectural material defines the distinctiveness of a city and its evolution through time. Nevertheless, the study describes materials that also generate orientation within a location and the readability of landmarks as well. The final aspect is identity, which local people refer to as the whole fabric of Chiang Mai Old City. It includes all tangible and intangible values, which relate to the cultural heritage of Chiang Mai Old City such as the Northern language, dress, food, music, buildings, and historic spaces comprise social customs, aesthetics, and spiritual beliefs, which are capable of characterising and identifying the distinctiveness of a society (Willis, 2014).

6.5 The Impact of Intangible Value on the Economy in Chiang Mai Old City

Economics is an important factor in historical cities, as it can provide an opportunity for investment from business owners. Heritage affects the shaping of peoples' perceptions and the distinctiveness of a place. Moreover, in commercial terms, heritage plays a crucial role in the prosperity of local economies and provides positive emotions which attract consumers by using the uniqueness of heritage assets (Mason, 2002). Furthermore, festivals, heritage monuments, and archeological sites contribute enormously to such state activity and tourism provides a tremendous boost to the state's myth-making projects by appropriating state-sanctioned images that are used in numerous marketing campaigns (Lauzon, 2010, p.58).

The uniqueness of heritage can generate a creative economy and sustainable community economics. This statement describes the heritage economy of Chiang Mai Old City in two parts: religious commercialism, and the effects of tourism. All of the distinctive places are a magnet for Chiang Mai's local economy. Significant temples and urban open spaces instigate local people to invest in religious and cultural products and events. Buddhist practices are also part of local economic development, while still following Buddhism's principal doctrines of ceasing to suffer from mental issues. Buddhists also engage in religious consumerism by buying charms, candles, and other objects to make merit with monks (Dunn & Jensen, 2019). Buddhists believe this is the way to cease suffering mentally in the present and to be blessed for the future. This belief allows for massive investment in the religion of local economies in Chiang Mai Old City: for example, the '*Inthakin*' festival (City pillar worship) held in June. Generally, people prepare the dish '*Souy Dok*' (Figure 6-04 (a)) at home and

share it with their communities. It has become the main object in the identity of Chiang Mai Northern Buddhism to use in religious activities, and so the local community stimulates the local economy by selling 'Souy Dok' to people who come to join the festival. The festival also positively affects the local economy, which is depicted in figure 6-04(b) as the local authorities decided to arrange a walking street in front of the temple along to Three Kings Monument square. However, the utility of Buddhism in a commercial way has been discussed for centuries. According to monks cannot touch money or be a part of commercial objects or recite incantations over charms and Buddhism artifacts. Thus, the community becomes a part of temples to collect money and use that money to improve and pay bills to those temples that initiate religious-cultural activities. It becomes a significant way to improve and accelerate the local community economy.



(a)



(b)

Figure 6-04: (a) 'Souy Dok' a banana leaf funnel with flowers, candle and incense for worship in the Lanna tradition (Author) (b) The 'Inthakin' ceremony arranged at Chedi Luang temple and

the open walking street in front of the temple (Unseen Chiang Mai Facebook, 2022: accessed: 1st of June 2022

source: <https://www.facebook.com/photo/?fbid=546901320329911&set=a.213833830303330>)

Secondly, tourism has a considerable impact on Thailand's economy, and Chiang Mai is one of the most desirable destinations in the country for tourists. Sangkakorn (2014, p.1) mentions that Chiang Mai, once unpopular among Chinese tourists, has become rapidly popular following the launch of the movie "Lost in Thailand" which became a phenomenon. Chiang Mai has become a magnet for tourism, before COVID-19 impacted global tourism. The result in chapter 5 shows the uniqueness of the Old City in physical, social and cultural aspects which reflect the urban heritage identity of the city. These raise the values of tangible and intangible heritage that international tourists search for. In addition, Suprapa Somnuxpong (2020, p.130) describes the unique physical, social and cultural characteristics of the city along with its policy of promoting its creative economy so it can become a creative city in craft and folk arts. Together with various creative activities that are held in Chiang Mai, this award could help to raise the city's image and promote creative tourism. The uniqueness of Chiang Mai gives a possible opportunity to set up the Chiang Mai creative city project, which was supported by the Creative Economy Agency (CEA). The research from the CEA (2022) mentioned that the city could be a creative district due to the variety of activities compared with the criteria of the UNESCO Creative Cities Network and the European Union's framework for developing a creative district. It is linked to the Cultural Significance of tangible and intangible heritage, concentrating on "Authenticity" and the transmission of knowledge from generation to generation. And the involvement of the local community in creative crafts and expression of "craftmanship" knowledge. However, the over

consumed of tourist in Chiang Mai city still beware from local communities, due to previous situation from overload Chinese tourists in Chiang Mai (Sangkakorn, 2014). Isaree Baedcharoen (2016) points out the increased number of tourists in the city, which the local people expressed mixed emotions about as their concern is that globalisation would ruin the city's identity.

6.6 The Impact of Intangible Value on the Activities and Life in Chiang Mai Old City

A sense of identity can increase 'social connectedness between people and places. According to the results from Chapters 5, the participants mostly revealed that their engagements with religious-cultural activities are one of Chiang Mai's main urban heritage characteristics. This is followed by general activities such as walking street markets, commercials, exercise, etc. Such religious-cultural activities matter as 'Heritage' is a manifestation of the past' and 'Most cultural events and festivals relate to religion historically, and often to religious conflict' (Moulin-Stožek, 2018: p.1).

Figure 6-05 illustrates the significant religious places and urban open spaces in the results of the study demonstrate the historical value and religious heritage of the city. Chedi Luang temple, Pra Singha temple, Three Kings Monument square, Tha-Pare gate square and Chiang Mai city moat are the nodes of activities in the Old City. This is supported by Radosavljevic et. al. (2019) who affirms nodes can be implemented to explore the network and communication between urban heritage elements and people's perceptions. Heritage nodes should be utilised for their new generative value and as new planning and

design instruments for the revival and regeneration of cities in a sustainable way. They must be also be perceived for their networking potential, thus influencing the urban environment and having a spatial, social and economic impact through strong bonds with the local community and connections with other heritage nodes and actors (Radosavljevic et. al., 2019, p.3).

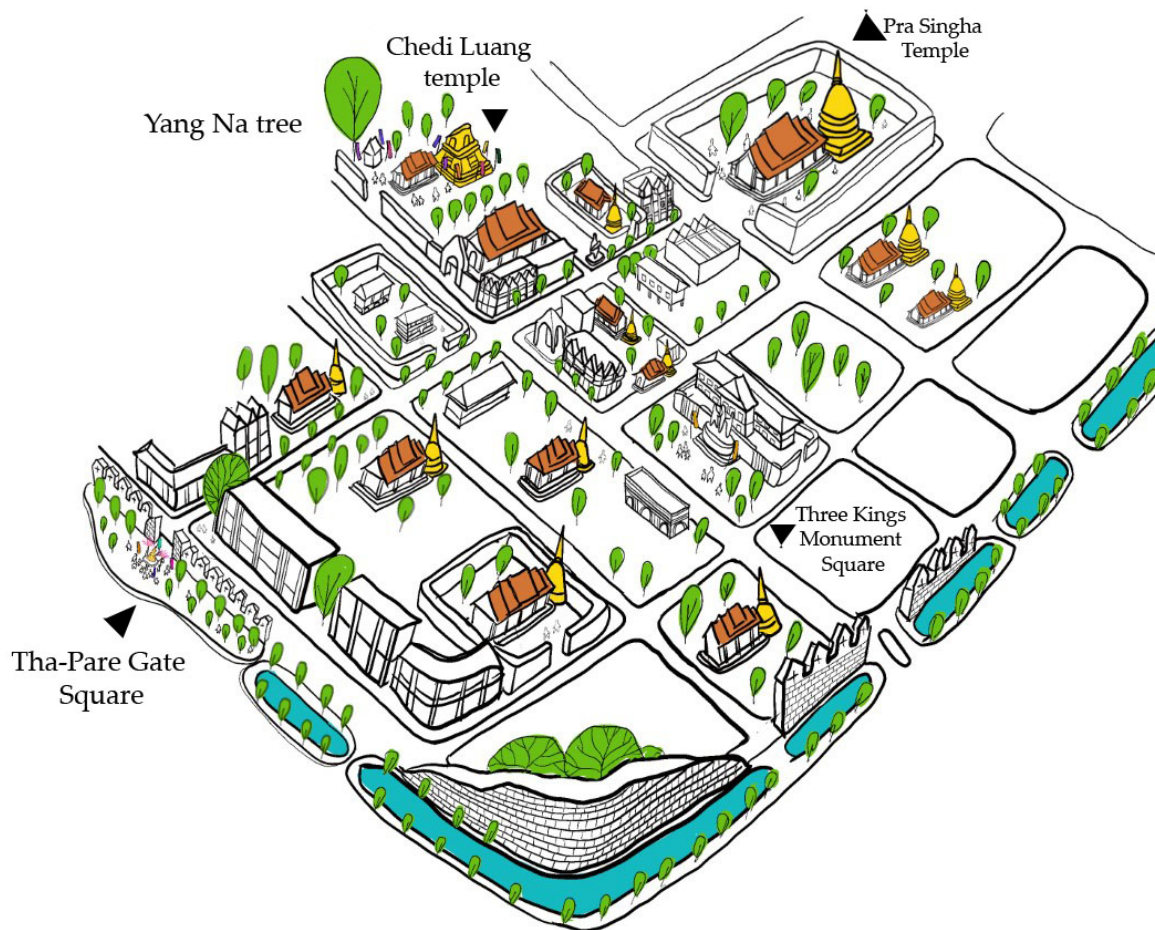


Figure 6-05: The illustration of five distinctive places (Author)

The urban heritage characteristics of Chiang Mai Old City mostly impact the religious-cultural activities as local participants engage in religious activities

in both places and open urban spaces. An example of religious-cultural activities are making merit on Buddhist holy days or special occasions like the 'Inthakin' festival (City pillar worship ceremony) and gatherings on special Buddhist days, linking community and religion. Therefore, a living religious heritage is a crucial part of conveying spiritual identity in everyday life. This understanding requires a recognition of the significance of a place's intangible and tangible heritage (Stovel et al., 2005). Figure 6-06(a) shows that local people understand the purpose of the built environment in religious heritage areas. Watering the '*Yang Na tree*' is part of a Buddhist merit ceremony. As described in Chapter 3, the '*Yang Na tree*' at Chedi Luang temple represents the center of the universe in cosmological ideology and the '*navel*' of the human body in Thaksa ideology which refers to the city as a human body. Worshipping the city pillar and watering the '*Yang Na tree*' are metaphors for giving life to the city and respecting religious beliefs, which is the spiritual anchor of local people.

The activity and life section which details the religious-cultural activities of Chiang Mai people shows that they remain at the root of the heritage identity of the city and figure 6-06(a) shows that the lives of people and the role of heritage remains the same. As Giombini (2020) explains, the loss of attractiveness in heritage does not mean that people neglect the value of such places; rather, they attach to the inner souls of people instead. It can be concluded that Chiang Mai people realise the religious-cultural activities as part of a city's cultural value and they blend into Chiang Mai people's spirituality.



(a)



(b)

Figure 6-06: (a) Watering the 'Yang Na tree' ceremony to protect the heart of the city (Author)
(b) People at Tha-Pare gate square (Author)

6.7 The Significance of the Value of Intangible Heritage on Local People's Perception

Figure 6-07 describes the engagement between local people and intangible heritage values that are mainly based around religion through culture, community, spirituality and events. These factors are inseparable from tangible and intangible values of the places and spaces. In Chapter 5, the research concludes that the physical characteristics of urban heritage religious places and urban open spaces in the city provide distinctiveness to the city. The intangible cultural heritage of the city is also represented by the local community of Chiang Mai through places and the seven aspects of distinctiveness consisting of

historical value, cultural activities, particular character, identity, landmarks, community, and everyday life. Community-based expression induces local communities to participate in the recognition process of their urban heritage identity (Carrera 2003; Vecco, 2010)

However, after considering the details of each aspect, the research finds that local people place religious aspects at the centre of their society, encircled by culture, events, community, and spirituality. Within a site that is becoming a new World Heritage site, as Chiang Mai Old City is, it can be assumed that a religious community is a major part of preserving and investing in heritage. Religion is a vital part of human history, in every era, as the existence of religion can be evidenced through local narratives and traced through architecture, urban planning and sacred spaces (Aulet & Vidal, 2018). Understanding the continuity of religious and sacred heritage will provide awareness of protecting authenticity, acknowledging spiritual significance, and gaining knowledge of history in the community. Likewise, religious architecture in urban space shapes the surrounding environment which in turn relates to local identity. Chiang Mai Old City represents the relation between community and religious activity. The city area is approximately 1.5 kilometers squared and there are three hundred temples located in the old city. These temples serve local people in different areas and support one another. Subsequently, the local community participates in every temple and the temples themselves characterise the surrounding environment of the city through the religious-cultural activities.

Local participants placed cultural activities as the most important element of intangible value. The culture of Chiang Mai heightens the value of religious architecture, which is represented through local rituals, beliefs, religious ceremonies, and events. Cultural activities perform a vital role in the urban heritage characterising process as they contribute to the meaning of 'living

heritage' and keep the city going. The significance of Chiang Mai culture was affirmed by UNESCO (2019) stating that Chiang Mai is unlike the historical sites of Sukhothai or Ayutthaya as those cities were deserted. Thus, Chiang Mai remains a living city and full of life. Nevertheless, people are also rooted in Lanna culture, which is rarely seen in other heritage sites. The linkage to spirituality once again confirms that religion is a key factor for local people. 'Spiritual anchor' is a suitable phrase to describe the perceptions of the local people of the city. This can be further explained by King (2003), who defines people's engagement with religious congregations as a 'spiritual anchor' and expands the concept of 'anchors' to context, relationships, and anything related to individual purpose.

Chiang Mai people may anchor themselves in Buddhist activities to follow their parents by attaching to religious traditions, rituals, and festivals. It is logical to happen in every religion that the belief from one generation always passes to further generations. Burr et al. (2015) described in the study of *Generation to Generation: Passing on Religious and Spiritual Beliefs and Practices* that parents who agree on religious beliefs, values, and practices elevate their ability to transmit their beliefs to their children more successfully (Burr et al., 2015: p.187). It related Layton et al. (2011, p.402), who mentions that adolescents see their parent(s) as religious authorities. This induces younger people to follow in their family members' footsteps and engage with the community.

Religious sites and sacred places in Chiang Mai old city can be designated as the 'spiritual centre of the city' as it refers to the atmosphere surrounding the sacred spaces (Shackley, 2001). This kind of atmosphere provides calm and quiet in formal spaces and the surrounding environment. However, this can be interfered with by religious events and festivals. The results point out that these events or festivals are significant for Chiang Mai Old City as they gather and

manage the community. Most of the events are organised before dawn if the festivals require quiet or formal rituals involving monks. However, the informal festivals that are related to the moon need to happen at night around the temples. The events or festivals in the city are mostly related to religion. Therefore, some festivals have been modernised, such as Chiang Mai Design week, the Floral parades or tourism campaigns. Religious events have the most intangible value that local people acknowledge.

Finally, Chiang Mai city cannot contribute to increasing its cultural heritage value without the community. The city's value cannot just be evaluated through buildings, architecture, and urban heritage artifacts as it needs to be a 'living space which contributes to society' to define its distinctive value. Therefore, the distinctiveness of urban heritage is physical and related to religion, culture, and beliefs that influence the significant sacred places of the community. The circle of intangible heritage in Chiang Mai Old City supports the city's heart.



Figure 6-07: the conclusion to explain the relationship of local people and intangible value of the city (Author)

6.8 Chapter conclusions

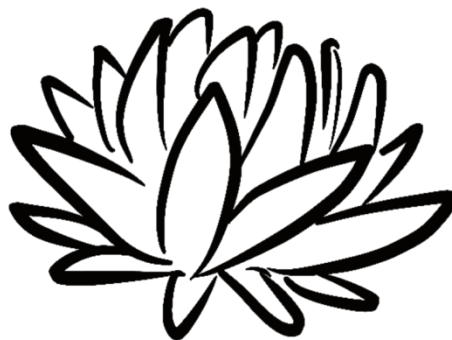
To conclude, local people mostly engaged with the religious aspects of urban heritage characteristics in Chiang Mai Old City and the sacred spaces of the city such as the temples and urban open spaces consisting of Pra Singha temple, Chedi Luang temple, Three Kings Monument square, Tha-Pare Gate square, and Chiang Mai city moat. The five elements which local people evaluated consist of society, economics, culture, activities, and life in Chiang Mai Old City, alongside the significance of intangible heritage value in local people's perceptions.

This chapter explains the factors that are impacted by urban heritage characteristics. Firstly, the social factor highly increases engagement with urban public space utilities between communities and spaces. The community requires spaces to assemble and propel the power of the community. Pride of place is also a vital element for protection and preservation strategies relating to the positivity of place that increases the rate of local people's well-being in Chiang Mai. Secondly, the cultural factor is a key element that explains each aspect of distinctiveness. However, the whole city of Chiang Mai impacts culture and tangible and intangible values. The third factor is economics, which can be divided into local economics and the tourism industry. The findings point to local religion-cultural artifacts such as 'Souy Dok' that stimulate the local economy. Becoming a World Heritage site would increase tourism investment in the Old City. The fifth element impacted by urban heritage characteristics is activities and life. The discussion revolved around the engagement of religion-cultural activities rooted in heritage values. The city's activities are the node of the communities, which are temples and urban open spaces.

Finally, the local people's perception of the intangible heritage value of Chiang Mai Old City reflects the previous finding. Local people placed religion at the heart of city values and cultural diversity, spirituality, events, festivals, and community. These findings confirm that the city cannot be rated according to its physical appearance but rather requires an exploration of its 'living society' to define the distinctiveness and identity of the city. The next chapter will describe and discuss the results of urban heritage characteristics management strategies following local people and local architects' suggestions.

Chapter 7

The Comparison of Urban Heritage Management Strategies following Local Perceptions and Heritage Management Policy



There is a large reservoir in the northeast of the land.

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

Chapter 7

The Comparison of Urban Heritage Management Strategies Following Local Perceptions and Heritage Management Policy

This chapter focuses on the analysis of data associated with the local people's suggestions on preserving and improving the urban heritage characteristics. This is associated with the results of chapters 5 and 6, which discussed tangible and intangible values and compare with the general process of World Heritage Management policy.

7.1 Introduction

After defining place identity and built environment characteristics in Chapters 5 and 6, this chapter aims to answer the third research question to extricate the issue of urban heritage characteristics and management plans in terms of both intangible and intangible characteristics using suggestions from architects and the local community (Figure 7-01). The biggest challenge for urban heritage management is continuity and compatibility, as the historic setting needs to keep changing in form and function. Research reveals that World Heritage properties are mainly being threatened by aggressive development and management deficiencies (Turner et al., 2011).

In terms of identifying factors and issues, citizen participation is a crucial part of the Burra Charter process, which requires the attention of citizens in all processes. However, in the designing section, the researcher specifically recruited local architects instead of local citizens according to local people's unable perform drawing and the complicated managing community's involvement (Clark, 2014). Architects are a significant factor in urban design and buildings, which correlate to the local community and authorities. The design process becomes a design narrative, and local people's opinions are significant factors in the design process. It should be stressed that

'responding to local character' rarely means that the design replicates the existing built environment (Guise & Webb 2018: p.223).

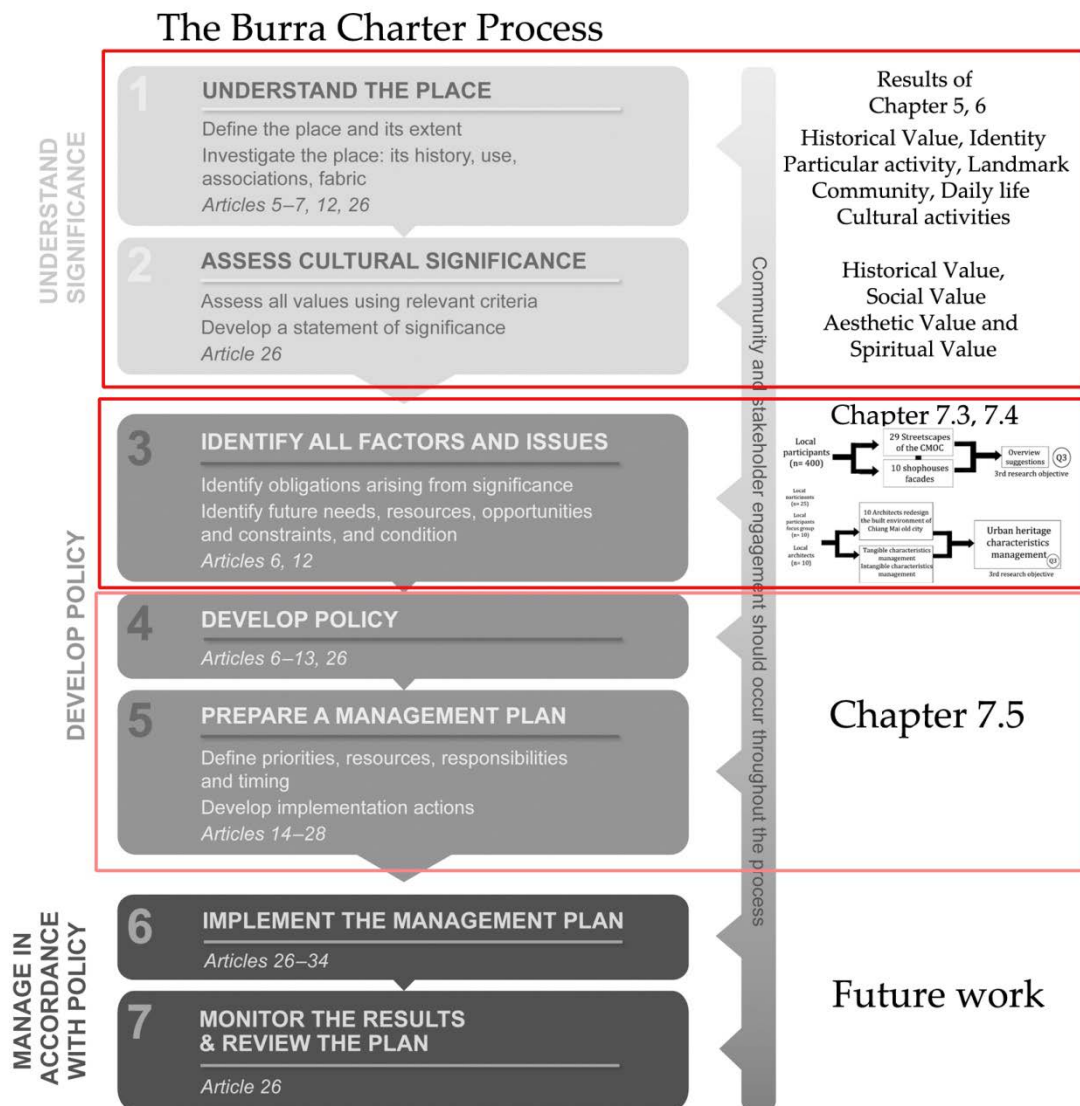


Figure 7-01: Process study of chapter 7 combine with The Burra Charter process (ICOMOS, 2013: p.10: modified by author)

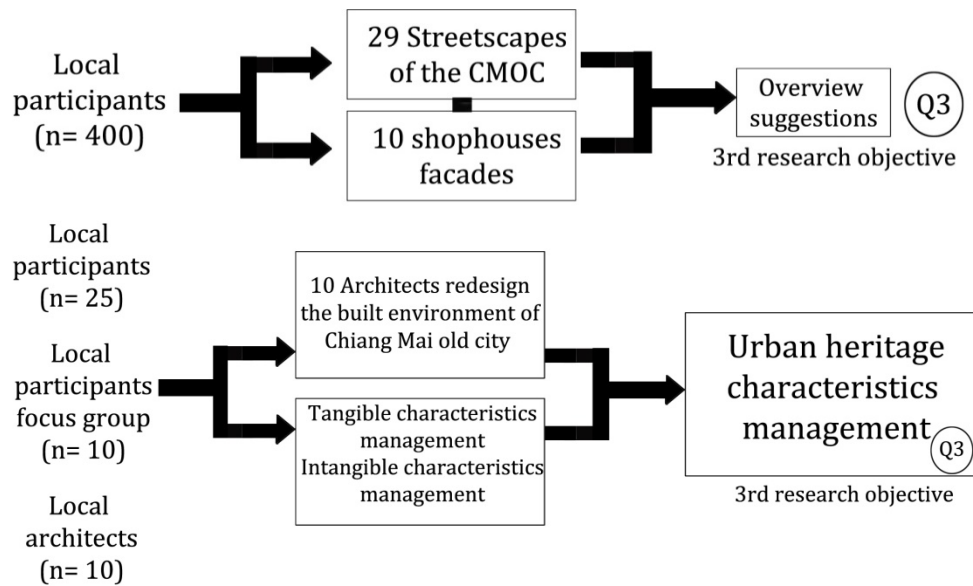


Figure 7-02: Defining of issue and factor on development policy following citizen’s participation in chapter 7.3 -7.4 (Author)

Additionally, local communities play a significant role in collaborating with local authorities in the development of urban heritage characteristics management. This study explores suggestions for management of urban heritage characteristics in Chiang Mai Old City from the locals' perspectives compared to the academic person in the field. This chapter is therefore divided into tangible characteristics management strategies, and intangible characteristics management strategies which are both explained through architectural redesigns ideas and local people's perspectives (Figure 7-02).

A heritage management strategy plays as a provider of the integration of management which controls the procedure of management such as the identification and assessment of heritage values and development, management of heritage value and training and promotion of heritage value (UNESCO, 2015). However, this research will limit the study on the stage of example of heritage value management policy for Chiang Mai Old City.

7.2 The World Heritage Management Policy Based on Values Following Local Citizen Participation

The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance or the Burra Charter process (ICOMOS, 2013) is a typical process that all heritage follows to generate the significance of a place's culture which includes seven processes (figure 7-03) such as understand the site, access culture significance, identify all factors and issues, develop policy, prepare a management plan, implement the management plan and monitor the results. However, the understanding of the site and culture significance shown in chapters 5 and 6 that described the value of urban heritage into seven aspects through community-oriented tool. The dynamic of values has been described by Randall Mason (2008, p.304) that: "The centrality of values to the protection and on-going management of cultural heritage underpins their relevance to planning theory and practice. An increasing contemporary emphasis on values has been accompanied by the emergence of a values-based approach to the management of cultural heritage and what has been dubbed a 'values-centred theory' (Mason, 2008, 304)".

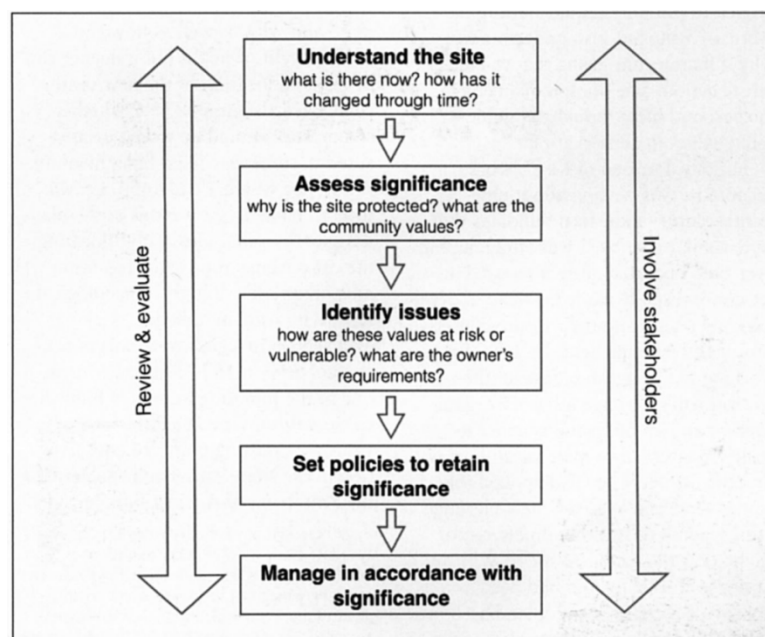
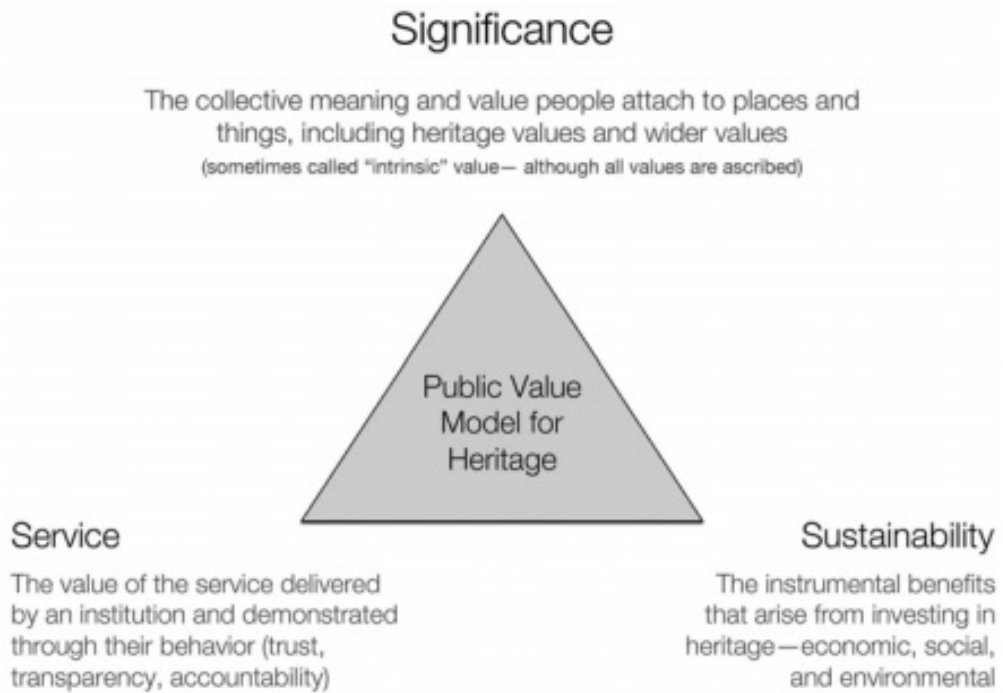


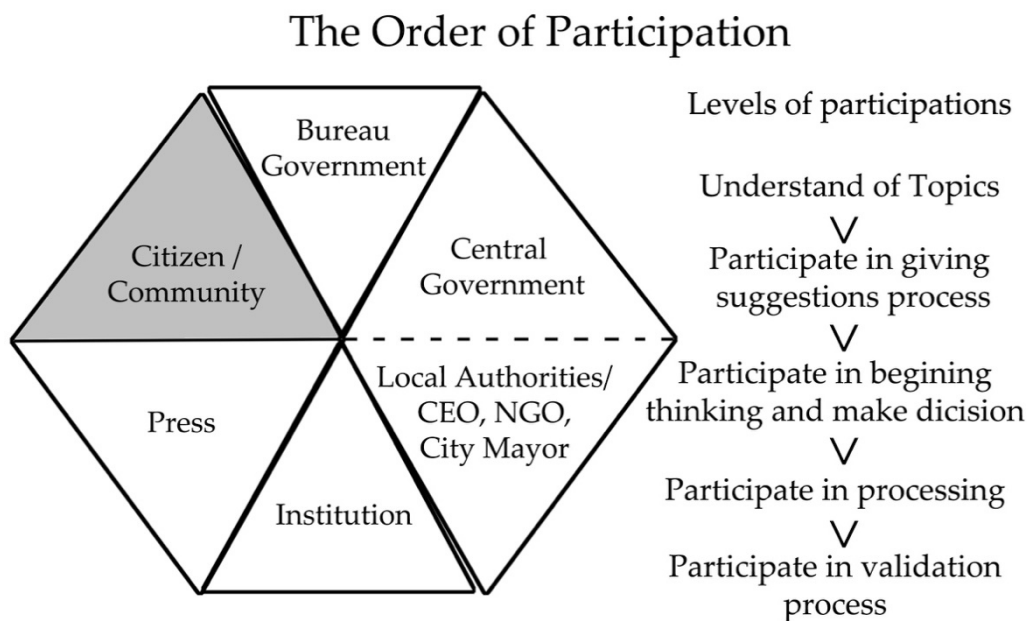
Figure 7-03: Define the Heritage Management Policy (Clark, 2014: p.65)

Kate Clark (2014) questioned in Values-Based Heritage Management and the Heritage Lottery Fund in the UK that – why does heritage matter? And the study answered that apart from tangible aspects, however, cultural heritage influences a society as well and a society becomes a vital part on direct the way of heritage management of a site. The use of cultural heritage value traditionally engaged to the history and materiality of places.

There are different ranges of approaches to capture the value of heritage. Gain and Stoker (2009) explained that public values may be required to be concerned on this stage as it contains many qualities such as trust, transparency, and accountability. Hewison and Holden (2011, p.77) also addressed that protection of community's anchor which represents intrinsic value may; whether it was delivering wider economic, social, and other benefits (sustainability, or "instrumental" benefits); and whether it as an organization behaved in a manner that was trustworthy and accountable (through the service it provided to the public, or "institutional" values). Moreover, compared to the Thailand Charter on Cultural Heritage Management which addresses fundamental principles to preserve the cultural heritage and Values and Evaluation of Cultural Heritage Values. However, the Charter requested the participation of community and local citizens in conservation and management of cultural heritage in every process. This chapter will explore the significance of understanding and determining policy by defining all factors and issues and developing policy based on valued by community and values of places (ICOMOS Thai, 2007; ICOMOS Thai, 2011). The study used the tripartite model and Thai Charter participation model to collect the public value of heritage (figure 7-04 (a), (b)).



(a)



(b)

Figure 7-04: (a) The tripartite model for the public value of heritage (Clark, 2019: p.77), (b) The order and levels of participation (ICOMOS Thai, 2007 modified by Author)

After the defining process of urban heritage’s significance, which was explained in Chapters 5 and 6, the study uses the result to be a part of the

heritage management policy for Chiang Mai Old City. The Burra Charter states that the process should be analysis and understanding of places through physical, documentary, oral, and other evidence, drawing on appropriate knowledge, skills, and disciplines (ICOMOS, 2013). The next stage includes writing up the cultural significance and management policy for the place should address all relevant issues, use, interpretation, management, and change. Furthermore, it should be embodied into a management plan for the place, which will be concluded in the further section.

ICOMOS (2013, p.4) mentioned that the values-based approach of the Burra Charter is encapsulated in a simple and logical process, which is:

1. Understand significance (understand the place and assess cultural significance);
2. Determine policy (identify all factors and issues, develop policy, prepare a management plan);
3. Manage in accordance with policy (implement the management plan, monitor the results, and review the plan).

7.3 The Understanding of Urban Heritage's Significance of Chiang Mai Old City

According to the description of the Monuments, Sites, and Cultural Landscape of Chiang Mai, the Capital of Lanna at the UNESCO World Heritage Convention (UNESCO, 2015) addressed the significance of Chiang Mai Old City, which is related to ceremonies and celebrations. The ceremony and celebration are mainly relevant to the belief of "Ghost, Ancestor spirit and Giant who protect the city", and people belief the urban heritage artifacts such as all forts and gates were possessed by these good spirits and had a priority to protect the city and people.

However, the result from Chapters 5 and 6 explained the characteristics of tangible and intangible aspects that reflect the identity of the urban heritage of Chaing Mai old city through distinctiveness and a sense of attachment following citizen's participation. Figure 7-05 shows seven aspects related to the urban heritage values of Chiang Mai Old City: historical value, identity, a particular character, landmark, community, daily life, and cultural activities. These factors pointed to five significant places: Tha-Pare gate square, Three Kings Monument square, Pra Singha temple, Chedi Luang temple, and Chiang Mai Old City's moat.

Moreover, four values were used to describe the cultural significance of urban heritage's identity of the city. To be discussed, the finding following local people's perceptions did not explain the value of the places in historical knowledge; hence they expressed their attachment to genuine experiences and length of residency. Therefore, the social value feels of history and feeling 'protected from spiritual and Buddha' are mainly concerned by local people.

The Understanding of Urban Heritage's Significance of Chiang Mai Old City

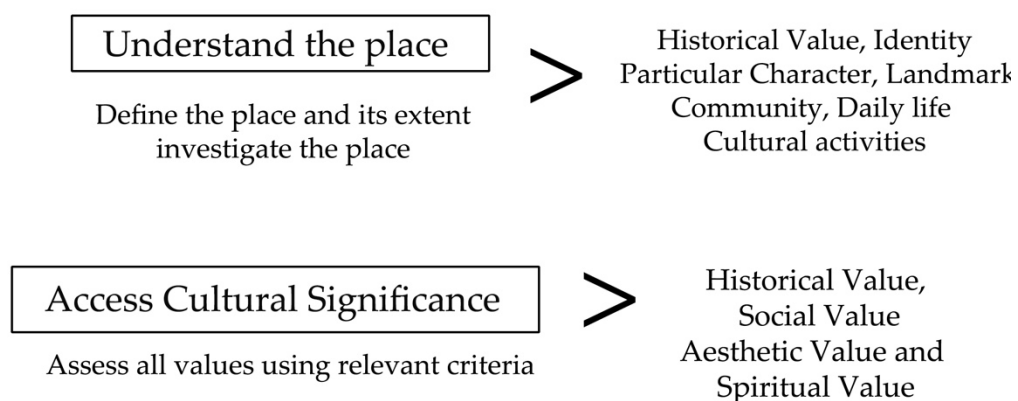


Figure 7-05: The understanding of urban heritage's significance of Chiang Mai Old City (Author)

Proposed location	Descriptions	Historical Value	Social Value	Aesthetic Value	Spiritual Value
Chedi Luang temple	The ancient temple and sacred place for Buddhist located in the center of the city, which metaphoric as “Navel” of the Human body	✓	✓	✓	✓
Phra-Singha temple	The sacred place for Buddhist and represents the significant of Lanna temple design wisdom	✓	✓	✓	✓
Three Kings Monument Square	An open urban space in the center of the city, where located the statue of Three Kings and traditionally called “Kuang” means the assembly point in Northern-Thai Lanna dialect	✓	✓		✓
Tha-Pare Gate Square	An open urban space in the East of the city. The main gate which is connected with Tha-Pare Road.	✓	✓		
Chiang Mai City Moat and fortification of city	The outstanding design of urban planning which represented the ancient wisdom of irrigation, the fortification and gates also mentioned as ‘spiritual protection of the city’	✓	✓	✓	

Table 7-01: The significance and Values of Chiang Mai Old City through local citizens perception (Author)

According to the defining the distinctiveness from chapter 5, it could be concluded that Cultural Significance is related to five significant places and four values (Table 7-01). The following section will discuss the issues and factors that require urban heritage management to contribute solutions for improving and maintaining the heritage value of the city.

7.4 Identify of Factors and Issues

The researcher questioned the fundamental knowledge related to citizens’ understanding according to the participation of local citizens, which consists of the understanding conservation area and Chiang Mai Municipal Building Law and the built environment issues and suggestions following local participation.

7.4.1 The Local People's Understanding of Chiang Mai Old

City Area

The Municipal Building Law of Chiang Mai Old City was announced in 2014. The law covers conservation areas that are divided into four parts. It consists of the inner old city area (blue highlighted), Chiang Mai Old City moat and the buffer zone (highlighted in light blue), the inner ancient city wall (highlighted in green) and the ancient city wall (highlighted in purple) (Figure 7-06). However, this study concentrates on the inner area of the Old City wall (highlighted in orange), which is a significant area of the Old City and is part of the nominated area.

Attachment map of Chiang Mai Municipal building law

Title : Restriction area for construction, adaption and re-function of buildings
in Sri Phum District, Chang Moi District, Pra Sungha District
Chang Klan District, Hai Ya District, Chiang Mai Province, 2013

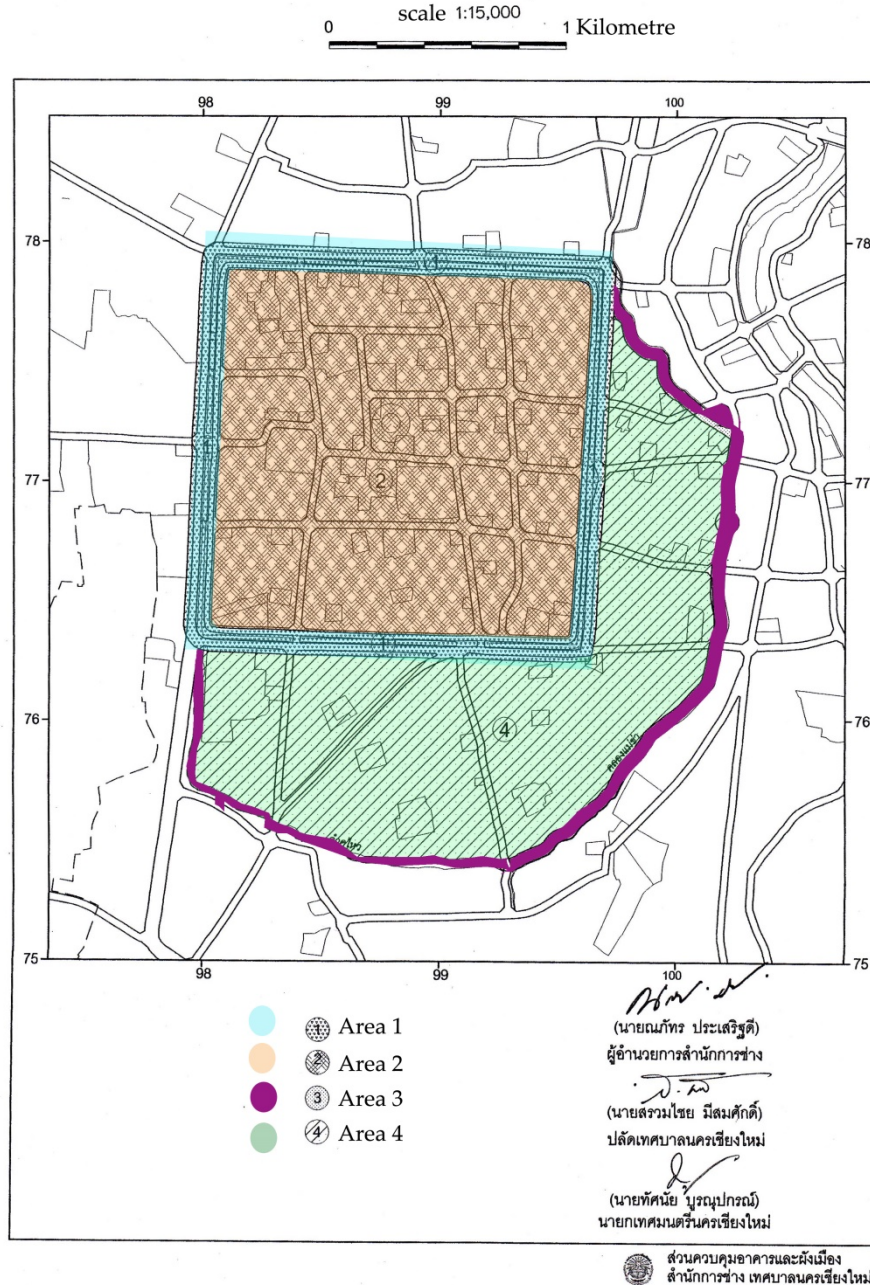
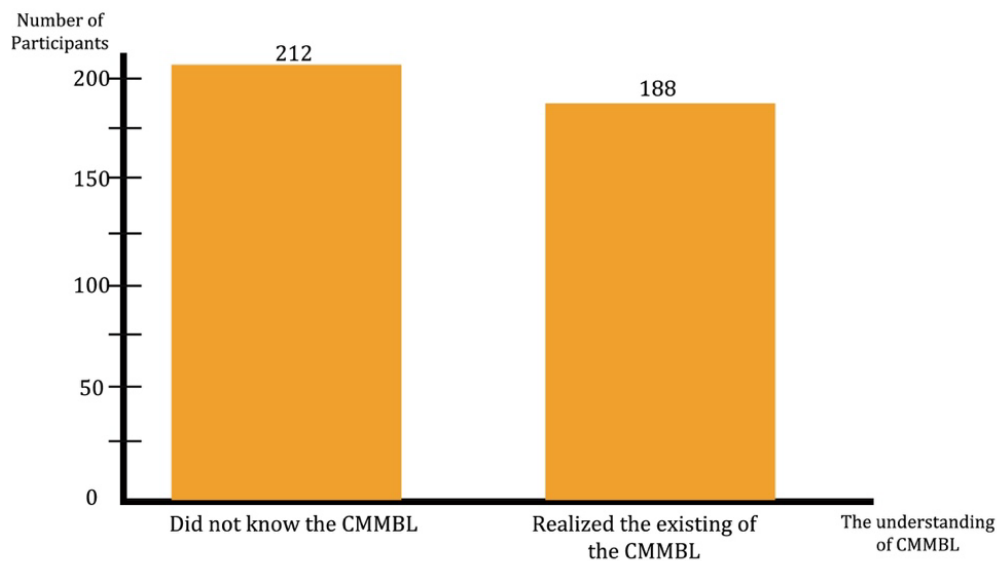


Figure 7-06: The Map of Chiang Mai's Conservation area in correlation with Chiang Mai Municipal Building Law (Source: http://www.onep.go.th/nced/wp-content/uploads/2016/10/132_33g_100258_1.pdf modified and translated by author)

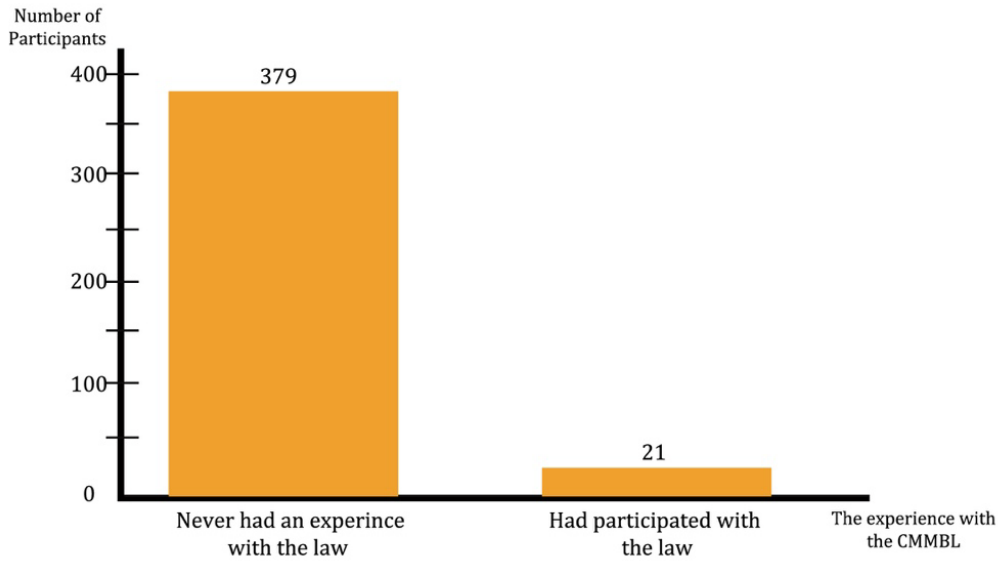
The first question in this part asked four hundred participants, 'Do you know that Chiang Mai Old City has a municipal building law to control buildings' designs in conservation areas?' The results reveal that more than half of the

participants did not know about the Chiang Mai Municipal Building Law (Column chart 7-01). Evidently, the Chiang Mai council department lacks the drive to make local people understand such critical information. However, the results in column chart 7-01 also show that even half of the people realized the existence of the law, but column chart 7-02 describes that ninety-five per cent of the local participants conceived that they never had an experience of it.

From this it can be assumed that most of the local people in Chiang Mai Old City did not know that they needed to follow this law. These results suggest a need for further heritage management and a plan to promote the importance of Chiang Mai Municipal Building Law to local people, which would improve their sense of belonging and responsibility to the city, starting with their own properties.



Column chart 7-01: The local people understanding of Chiang Mai Municipal Building Law



Column chart 7-02: The local people experience with the Chiang Mai Municipal Building Law

The second question in this part asked four hundred participants, “*Could you draw a boundary of the conservation area of the Chiang Mai Old City on the map?*” Figure 7-07 illustrated the cognition of Chiang Mai Old City conservation area following local participants’ cognition shows the four-hundred lines have been drawn on the map. According to the analysis method, the map shows the highest density from the durable border around the edge of Chiang Mai Old City Moat, the area close to the inner and outer city wall.

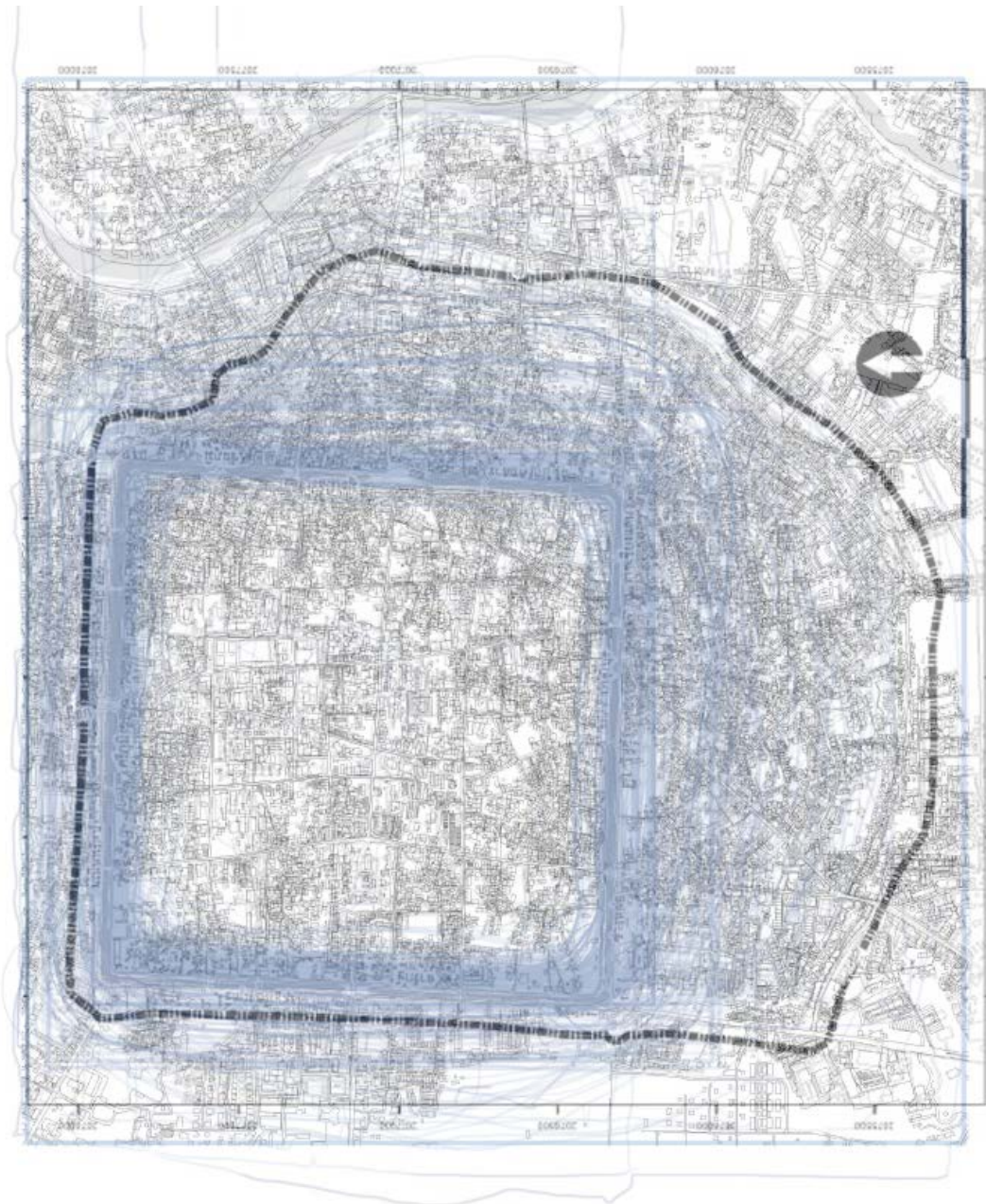
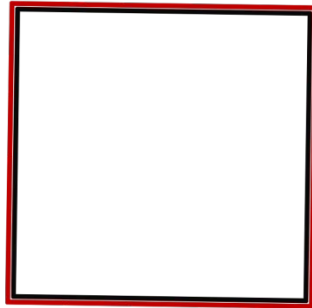
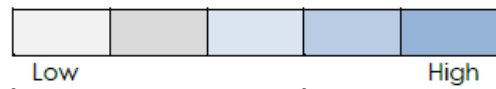


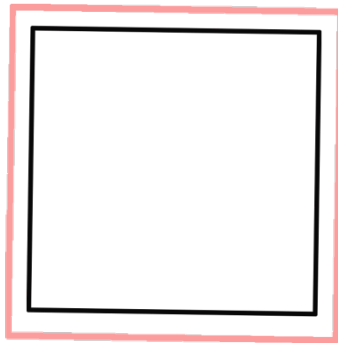
Figure 7-07: The result of local citizen acknowledges the conservation area (Author)

Density scale



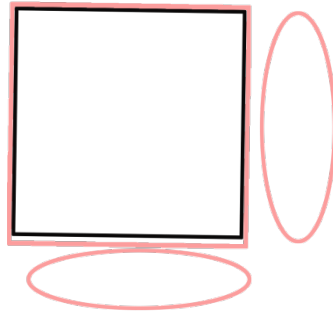
158

Rectangular city wall



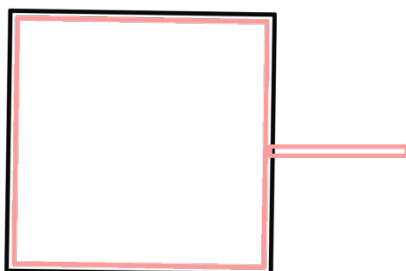
86

Rectangular city wall + buffer zone



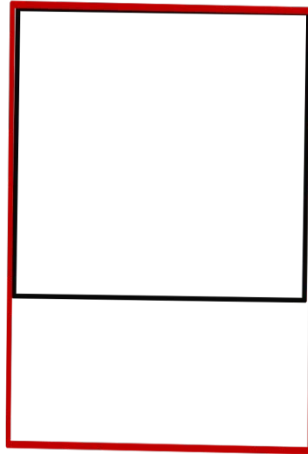
55

Rectangular city wall + buffer zone
(East + South)



28

Rectangular city wall
+ Tha Prae Road



24

Rectangular city wall + buffer zone
(South)

Table 7-02: The answer of participants on conservation area (Author)

According to the result from table 7-02, the participants' perception of conservation area edge has been divided into five types. First, one hundred fifty-eight participants recognized the rectangular city wall shape as the city conservation area. Furthermore, eighty-six participants included the buffer area around the city wall as a conservation area. Fifty-five participants identified the rectangular city wall, the South and the East area of the city, which may be recognized through their own experience and social-economic reasons. As mentioned by the history of Chiang Mai city, in the east of the city is the main entrance since the past and continues until the present; it connects to the Tha Prae Gate directly and is a substantially merchandised route for the Silk Road along the Ping River. Also, twenty-eight people mentioned the rectangular city wall and pointed to the Tha Prae Road, according to the local authorities announcing the policy to improve the streetscape. Lastly, twenty-four participants realized the rectangular area and South of the city. To conclude, local citizens perceived some part of conservation but not the whole area; none of them could contribute the correct answer.

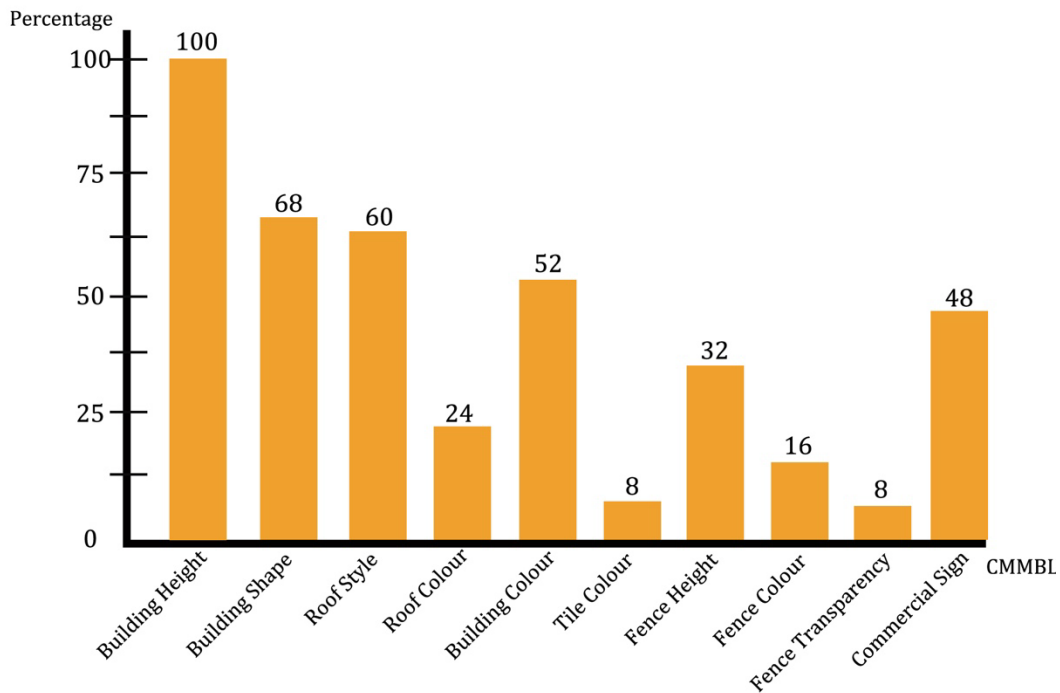
According to these results, it requires further exploration of the local people's understanding of Chiang Mai Municipal Building Law by

concentrating on the details of shophouse designs according to the management process requires the understanding of the top-down policy issue.

7.4.2 The Local People's Understanding of the Details of Chiang Mai Municipal Building Law

This part of research collected from twenty-five participants in the second data collection concentrated on local people's understanding of Chiang Mai Municipal Building Laws relating to shophouse design. Ten sections that appear in Chiang Mai Old City's municipal building law consist of building height, building shape, roof-style, roof colour, building colour, tile colour, fence height, fence colour, fence transparency, and commercial signs.

Column chart 7-03 depicts the levels of local people's understanding of each detail of Chiang Mai Municipal Building Law. There are four sections that local people recognised above 50 per cent: 'Building Height', 'Building Shape', 'Roof Style', and 'Building Colour'. There are two regulations which have been rated between 49 to 25 per cent consisting of 'Commercial Signs' and 'Fence Height'. Four sections of Chiang Mai Municipal Building Law were barely recognised and understood by local participants, consisting of 'Roof Colour', 'Fence Colour', 'Fence Transparency' and 'Roof Colour' respectively.



Column chart 7-03: The local people understanding of each section on Chiang Mai Municipal Building Law (Author)

Building Height

According to the results, the building height was mostly recognised by local participants. One hundred percent of the participants recognised height as an important regulation for restricting the visual disharmony within the city. Currently, Chiang Mai is facing challenges from investors who are aiming to take advantage of the law's vulnerability. As the law does not cover the buffer zone and significant streets, figure 7-08 depicts that in 2019 an investor from a famous company proceeded with a fourteen-floor residency and mall building project which is positioned on the axis of the main road in the city. The site is included in the buffer zone according to the area boundaries in the Chiang Mai Heritage Site proposal document. However, it remains a point of conflict in local communities (Khaosod, 2019).

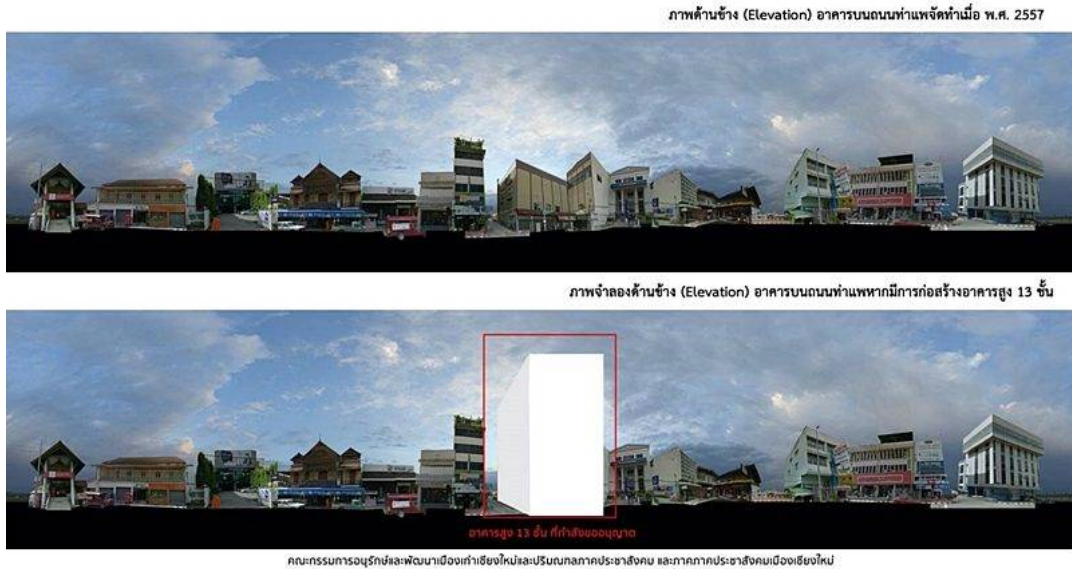


Figure 7-08: The simulation of the new building at Tha-Pare Road (the main road leading to the old city) and comparison to the current view. (Khaosod, 2019) Resource: https://www.khaosod.co.th/around-thailand/news_4300189

From the results of the 'Building Height' section, most of the participants described the importance of building height restrictions for the city. Thirty-three participants answered in relation to the law. In-S-F-0-001 mentioned that *"buildings in the Old City should not be higher than 12 meters, as it would affect the view of Doi Suthep Mountain"* In-S-M-45-007 also stated that *"...if the building height is more than 12 meters, investors would take all of the area in the Old City and change it into a commercial place like a mall"*. Interestingly, In-S-F-0-020 argued of the law's section *"I think it should be changed to 'not higher than 9 meters', as there are enough three storey buildings in the Old City"*. It can be assumed that local participants are aware of the value of the image of the city, some people mentioned their perspectives on the urban landscape which reflects an engagement between people's experiences and socio-cultural factors (Shinbira, 2017). Furthermore, local participants stressed that tall building heights in the buffer zone affect the visual image of the city.

Building Shape

Building shapes directly affect the city's image as they stimulate perceptions of the continuity which is part of the establishment of a place's identity. Chiang Mai Municipal Building Law restricts the shape of buildings into only one shape, which is a rectangular form. Figure 7-09(a) demonstrates the appropriate building shape following the law. Figure 7-09(b) also illustrates the Modern building shape in the Old City which appeared before the announcement of the Chiang Mai Municipal Building Law.

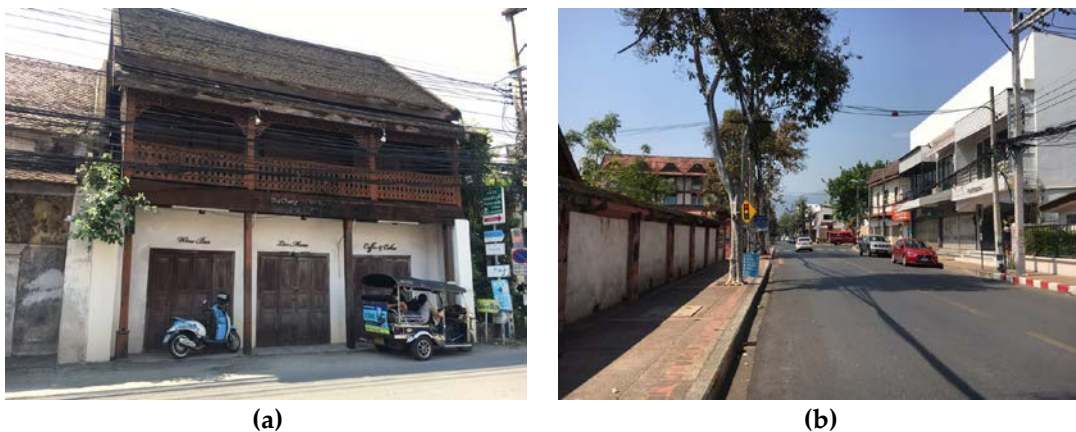


Figure 7-09: (a) the appropriate building shape following the law (Author) (b) The Modern shophouse style on the significant road (Author)

According to the results, sixty-eight per cent of local people answered about the relevance of the law. Participant In-S-M-35-010 explained that *"I don't understand this description of this section at all; what is the meaning of a rectangular building shape or a sphere shape? Do any buildings in the world have this kind of shape? Why don't you just show an example of building shape instead?"*. In-S-F-29-016 mentioned the importance of building shape *"It would help to increase the harmony of the city"*. This suggests that local people are concerned about building shapes, which affect the image of the city. Riza & Doratli (2015) and Carmona et al. (2010) assert that the continuity of buildings creates a place's identity. However, visual contrast can also have a positive impact on place identity as by providing a juxtaposition. To conclude this section, the

participants generally suggested examples and uncomplicated information to follow. The law does not contribute ideas for other designs which could provide further building designs for contextual juxtaposition. This would be a challenge for the city to overcome the dominance of local authenticity and create new contrasting designs for place identity.

Roof style

Roof styles are quintessential to Thai architecture (Figure 7-10), especially in the Northern region. Indeed, the roof styles can be defined as the identity of ethnicity, culture, and history (Kuaraya, 2020). The gable roof is the most suitable style for tropical climates due to its capability to drain rainwater and circulate air in the house. Over a hundred years ago, Lanna houses generally had large gables and sloped down to the covers of the houses, as the inside of the roofs did not cover the ceiling for ventilation. The hipped roof style covers all directions of the house. This roof style was influenced by Westerners that came to Lanna in the reign of King Rama V.

The Manila style roof is a hybrid between the gable and hipped styles. There are small gables which help with ventilation. This roof style was famous in Lanna approximately 70-80 years ago. It was also popular to build houses in the *Tai Lue*, *Tai Khoen* and *Thai Yong* groups. It can be assumed that these *Tai* people were the first initial group who influenced the building roof styles of Lanna architecture (Kuaraya, 2020).

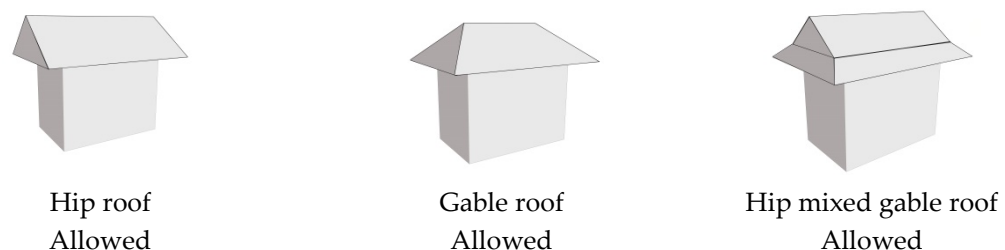


Figure 7-10: The allowance of Lanna roof styles in Chiang Mai municipal building law. (Author)

Sixty per cent of participants suggested that roof styles need to be controlled. All of the participants answered that gable roofs, hipped roofs and gable mixed with hipped roofs should be forced into designs by the law. In-S-F-0-001 mentioned that “*similar roof styles would lead to a harmonious view*” and In-S-M-35-010 felt that “*The roof styles show the tradition of Lanna buildings*”. The participants mentioned the roof styles restricted in the old city area and their effect on the townscape skyline which is a part of the townscape visuals.

Roof Colour

The roof colour section is mentioned in the law; however, the participants were only slightly concerned about it as an issue for the city. Twenty-four percent of the participants recognised the significance of this section but there was no mention of this section in the interviews. In Edinburgh World Heritage’s ‘*Historic Home Guide*’ (Mayhew, 2022), the roofs section describes the details of Scottish heritage roofs including maintenance and solutions for homeowners in Edinburgh. Another important case is the famous coastal site of Dalmatian, (which has been called the ‘Pearl of the Adriatic’) in the Old City of Dubrovnik in Croatia. Figure 7-11 (a), (b) illustrate the harmony of roof colour which distinguishes the red roof tiles of the city. Due to earthquakes and war, seventy percent of the terra cotta roof tiles have been damaged, thus, it is rare to find the tile’s colour for restoration. This process was supported by UNESCO in 1993 by shipping the tiles from Toulouse, France to Dubrovnik (Tamindzija, 2022). This shows how the city retains its cultural heritage value. This could prompt the Chiang Mai Heritage committee to consider such processes and local people’s opinions.



Figure 7-11: (a) City view of Edinburgh source: <https://windows10spotlight.com/images/37ead036ac993bd6a2e2380184810fac> **(b)** Old City of Dubrovnik at Croatia source: <https://www.total-croatia-news.com/dubrovnik-blog/18089-the-story-behind-dubrovnik-s-rooftops>

Building Colour

Building colours in Chiang Mai are a primary issue to be discussed according to the local news in 2022. Figure 7-12(a) illustrates a turquoise high-rise building with thirteen floors located along the Ping River. The local people's congress, including the *Rak Muang Chiang Mai Community Network*, complained that the colour contrasts with the environment and affects the cultural landscape of the Old City (Thai PBS, 2022). However, according to Chiang Mai Municipal Building Law which was announced in 2014 and does not include the Ping Riverside, any building colours are legal even if it contrasts with the environment and local consensus. In contrast, figure 7-12(b) depicts a house located in the inner city with vivid colours, which goes against building laws. The owner of the building will receive the notice from the city council, however, in 2022 the building remains the same colour. This

is evidence of the lack of local authority control in building law even though this house is located close to the Old City.



Figure 7-12: (a) The hotel is located on the Ping River close to the Old City and was painted a turquoise colour (Thai PBS, 2022). (b) These multi colours were painted on this accommodation which is in a strict area controlled by CHIANG MAI MUNICIPAL BUILDING LAW .

Building colour was the fourth section that local people were concerned about. Fifty-two percent of local people agreed that *“Similar colour tones would create harmony in the city between nature and buildings”*. Colour control issues are mainly concerned with human visuals. However, In-S-M-33-003 felt that *“All of the colours in the questionnaire would suit this city, I think the harmony of a city covers all elements of a city, not only building or roof colour. The sign is the main trouble here.”* The study *Colours Convey Lanna Identity in the Lamphun and Chiang Mai Area* by Karuna et al. (2017) outlines the value of colour in distinguishing areas which are identification tools of the local environment, especially in the historical area of Chiang Mai Old City. The study suggests choosing the closest colour to original materials to uphold the Lanna identity of Chiang Mai and Lamphun.

Tile Colour

Tile colour was briefly mentioned in the Chiang Mai Municipal Building Law, however, the participants did not recognise or consider this section as a critical issue for the city. Only eight per cent of participants

recognised this section and there was no reference to it in the interviews. Most of the heritage site's guides rarely give suggestions on the tiles of the owner's residence, thus the restrictions mostly apply to public areas such as pavements, conservation streets, walls, squares, and some spaces around religious places. Figure 7-13(a) illustrates the walls and floor tiles of the Alhambra Palace in Granada, Spain which reflects the intangible value of Muslim ceramic artwork. It is evidence of political change, war, and the transmission of knowledge from the Greco-Roman and Byzantine eras. Figure 7-13(b) shows the restrictions on building materials used in restoration of tiles at Verona, Italy which is mentioned in the study *Sustainability of Urban Heritage Preservation, the Case of Verona, Italia* by Sergio Zancheti and Gabriel (2010). Verona and Granada retain their intangible value following ancient knowledge. However, Thai-Lanna traditional buildings rarely have floor tiles due to Northern building construction techniques which generally use wood as a floor material. Hence, it should be discussed how this law creates the distinctive value of the city and represents perceptions of preserved areas within Chiang Mai heritage management plans.



Figure: 7-13: (a) Tiles, Alhambra, UNESCO World Cultural Heritage Site, Granada, Andalusia, Spain source: <https://www.dosde.com/en/tilework-in-the-alhambra-of-granada.html>. **(b)** Stone pavement at Verona heritage site, Italy source: <https://www.slideshare.net/JSalvaGuill/2018-03-13-verona-outside-paving-in-a-world-heritage-site-93080762>

Fence Height, Colour, Transparency

The fence height of individual residences is detailed in the law as it is a part of the façade on the street. Thirty-two percent of participants considered this an important part of the law. Figure 7-14 (a), (b) illustrate the use of fence style while walking in the city the variety of fence heights can be observed. The scale, materials and colour affect the perception of heritage value and visual harmony within the city. The heritage team in Adelaide, Australia (2019) note that an original fence can enhance the heritage value of a place and display the historic character of the city.

Sixteen per cent of the participants concurred that fence colours influence the image of Chiang Mai Old City. Figure 7-12(b) depicts the variety of vivid colours painted on one fence. However, this is illegal as it affects the built environmental characteristics of Chiang Mai Old City. According to the technical notes for Adelaide city, the colour of a fence in historical sites or along street boundaries should be considered as it reflects the heritage value and identity of the place. Eight per cent of local participants recognised the vital role of fence transparency. This is a limited awareness compared to other parts of the world, such as the city of Greater Bendigo, as Australian design guidelines mention 'fence transparency' in the section on heritage design guidelines. Understandably, local residents did not recognise this section as the law uses verbose language when describing each detail. The style, form, scale, materials, transparency and colours of fences should be designed in line with the historically accurate character of the locality.



Figure 7-14: (a) A fence of Chiang Mai city museum (Author). (b) A fence of a local residency (Author)

Commercial Sign

Sathapitanonda (2011) describes the mess of commercial signs in Thailand by pointed to the unvalued of regular building style. There are other types of buildings that, when the buildings are not declared to be preserved, they are considered to have lost their function or artistic value. This kind of architecture is obscured by these cheap commercial billboards, presenting a visual disharmony in many cities such as Bangkok, Phuket, Lampang, Chiang Mai, and others.

According to the result and Sthapitanonda, it could be assumed that the failed management of commercial signs affects visitors' perceptions and the positive image of the Old City in Chiang Mai. Furthermore, the buildings in the old city also misused its function which required the local authorities' policies to control its appearance. This related to the study of "The effects of commercial signs on user's sense of visual quality in historic city centres of different urban contexts" by Portella, (2008, p.12) who suggested that a general approach to control commercial signs in historic city centres should instigate the development of policies to control the percentage of streetscape façade coverage by shopfronts and window displays and the location of these signs on building facades as these factors influence the satisfaction of users from different urban contexts.

Figures 7-15 and 7-16 depict the visual pollution on the Chiang Mai Old City gates as the scale and the colour of commercial signs disturb the continuity of the city's built environment. The statement related to the study by Hongthong and Raksawin (2014) mentioned that the buildings on Tha Pare gate square, which entirely decorated the commercial signs on the façade, will receive the least preference from participants and reduce the quality of the context environment. The building facades are used for commercial purposes and disturb the continuity of the city's visual environment. This could support the statement of Portella (2014) that the location of signs influences user perception.



Figure 7-15: A commercial sign on the shophouse façades at Chang Pueak gate (Author)



Figure 7-16: A commercial sign on the shophouse façades at Tha-Pare gate square (Author)

In their interview, In-S-F-59-023 criticised commercial signs by saying *“The law never had been used strictly. I believe the council does not work on this problem, and I think it is related to Label Tax profits.”* Participant In-S-M-45-007 also complained about the signs: *“.... If you walk in the city, you will see lots of signs, and none of them look relevant to the city at all.”* The statistical results show that forty-eight per cent of the participants acknowledge the commercial sign section. The participants mostly selected Sign 3, Sign 4 and Sign 5 and excluded Sign 1 which is relevant to the Chiang Mai Municipal Building Law (Figure 7-17). However, the questionnaire showed the criticisms of Sign 2 as there was a consensus that *“The sign should not be this height as it will ruin the urban vista of the city”*.



Figure 7-17: The simulation of commercial signs allowance in Chiang Mai Municipal building Law (Author)

It can be assumed that local residents are aware of the law and can have a say in the problems of commercial signs in the Old City. Supporting these results, Chiang Mai News (2018) reported on the problems with billboards in Chiang Mai. The local authorities legally dismantled and collected illegal signs, and yet there are still billboards installed on the streets in the outer and inner moat including Kad Luang market, Nimmanhaemin road, Tha-Pare Road, Ratchadamnoen road, and Phra Pok Klao road, etc. These will increase in the future, as currently some of the pavements are full

of installed signs which block the walkway. Moreover, the lights from digital commercial signs interfere with driving visibility at night.

The commercial sign section is an important part of a revision to meet the criteria of a heritage site. As the built environment of the Old City is part of its visual perception, it can increase heritage value through its scenes. To conclude, the local participants mostly recognised five sections in Chiang Mai municipal building law consisting of building height, building shapes, roof-styles, building styles and commercial signs. The other five sections were of less concern: fence height, roof colour, fence colour, tile colour, and fence transparency. It can be assumed that people who live in the city hold the perceptions of the urban masses rather than paying attention to the details in objects.

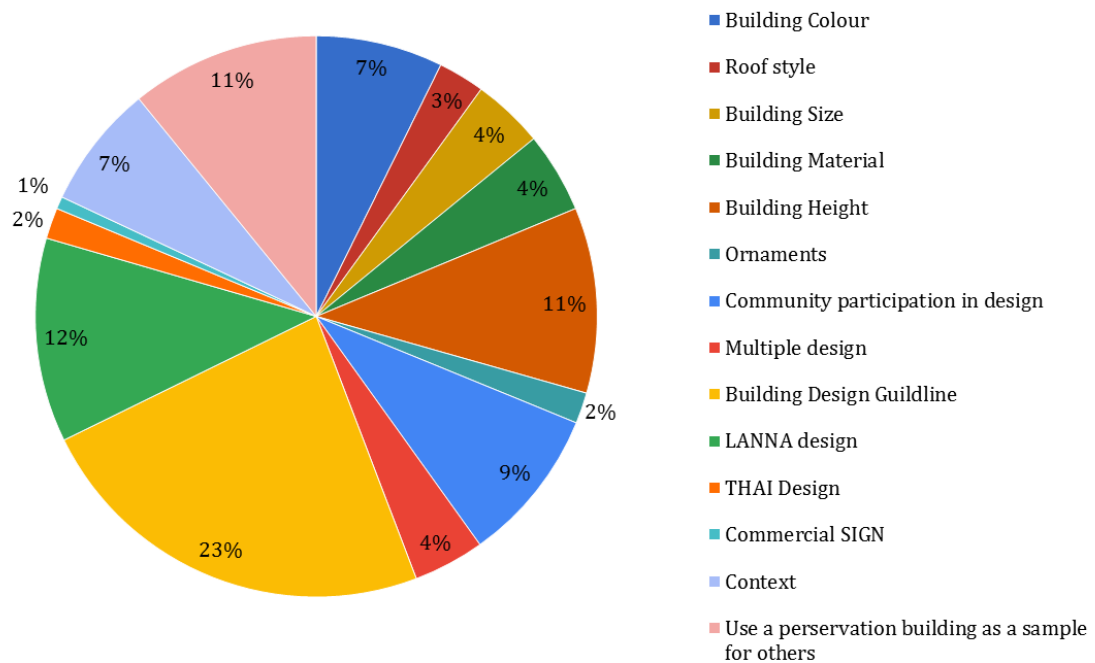
7.4.3 Built Environment issues and suggestions following local participation

Chapters 5 and 6 discuss the tangible and intangible characteristics of Chiang Mai Old City. The research questions what local people suggest for managing urban heritage characteristics. As the study engaged with public value and collaboration between individual residents and local authorities in public value model for heritage management. This section uses the results following four-hundred participants from questionnaire in the first data collection process.

Suggestion for Developing Facade Designs

The façades of shophouses are apparent in every city and become part of the city's value. This study reveals that most of the local participants suggest that the local city council should provide façade design guidelines. Pie chart 7-01 depicts that there were several other aspects that local participants

mentioned such as the integration of Lanna design, the use of preservation buildings as a guideline, the external elements of façades and context which façade design guidelines should cover.



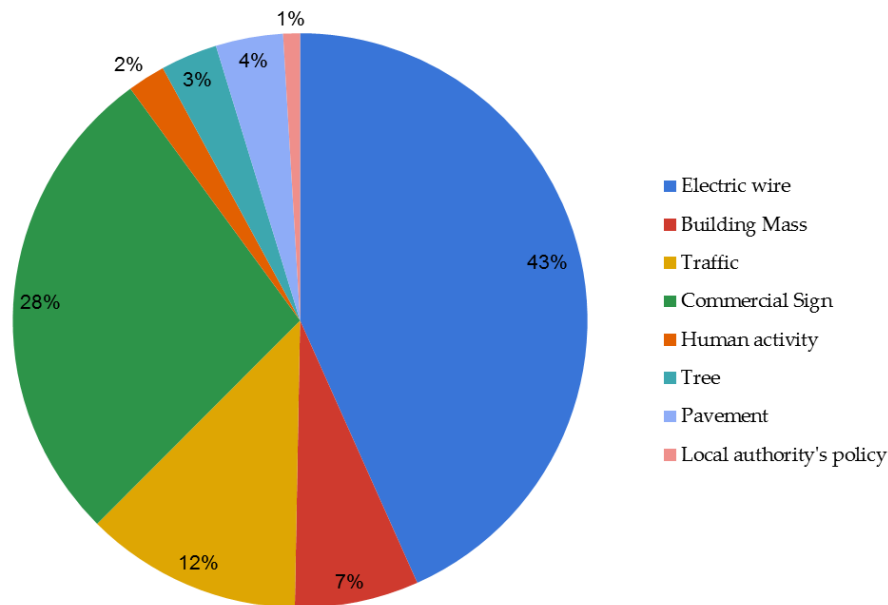
Pie chart 7-01: The local people suggestion for developing the shophouse's facade characteristics (Author)

Shophouse façade design guidelines present a challenge to every heritage site. For example, George Town in Penang, Malaysia faces the difficulty of stakeholders following the authority's guidelines and business owners requiring financial incentives and expert support plans for heritage conservation buildings. However, communication between stakeholders and authorities requires explicit agreements and collaboration for any development decisions (Zubir et al., 2018).

Suggestion for Developing Physical Attributes in Streetscapes

The twenty-nine scenes of streetscapes that link each nominated site in the Old City were analysed by local participants. Pie chart 7-02 illustrates that

forty-three per cent of local participants pointed out the electric wires and twenty-eight percent of the participants highlighted the commercial signs as a significant problem which needs to be solved. They also mentioned building mass, building height, traffic, humans, pavements, trees, and the local authority's policy.



Pie chart 7-02: The local people suggestion for developing the streetscape characteristics (Author)

The result explains the agreements and conflicts over the streetscape scenes. Local people identified multiple issues and suggestions for developing the streetscape characteristics of Chiang Mai Old City. The guidelines consist of traffic arrangements, pavement redesign, increasing green space, and removing eyesores.

Commercial Signs and Electric Wires

Advertisements on facades, electric wires, and billboards distract from the continuity of aesthetic visualization in cities (Cvetković & Petronijević, 2018). This is reflected in this study's results, which mentioned electric wires, billboards, and commercial signs in each of the answers as disturbing the

visual harmony of the city. Figure 7-18 shows the streetscape visual improvement by removing the electric wire along Tha-Pare Road in 2020. Currently, the city council also announced the elimination of all-electric wires in the city moat area and Nimmanhaemin road (PRDChiang Mai, 2022).



Figure 7-18: Tha Pare Road streetscape, the main road to Tha Pare gate square (source: <https://news.trueid.net/detail/bxPIIBEGzYqx>; Access 1 November 2022)

Indeed, participants' suggestions included: *“Move all of the electric wires underground”, “All of the billboards need to be removed from the city”, “Commercial signs in the city need to follow regulations that adhere to the mood and tone of the city, so they are not freely designed.” and “The colour, size and mass of buildings needs to be considered.”*

Pavements

Many scholars assert that Southeast Asian Street markets represent the characteristics of space usage on pavements. However, the surveyed Chiang

Mai people argued that “food vendors should be restricted or stopped”, “It makes the city hectic and busy”, “there needs to be wider pavements for walking”, “there are trees fully planted on pavements with no space for walking” and “using cool materials such as water stones to reduce heat on the pavements”. These suggestions relate to using cool paving materials to improve the urban microclimate, as Santamouris et al. (2012, p. 135) states that “cool materials present a high solar reflectivity and emissivity which have been proposed as an effective mitigation technique when applied to buildings and open spaces.” Currently, the Chiang Mai council collaborated with Urban Design Development Center (UDDC), the Thai Urban Designers Association (TUDA) and local architecture Design studios to create the development plan for walkability in Chiang Mai Old City (figure 7-19). The result revealed that local participants admire the project and prefer the further experiment process for developing the built environment policy for Chiang Mai Old City (Chiang Mai We CARE, 2021).

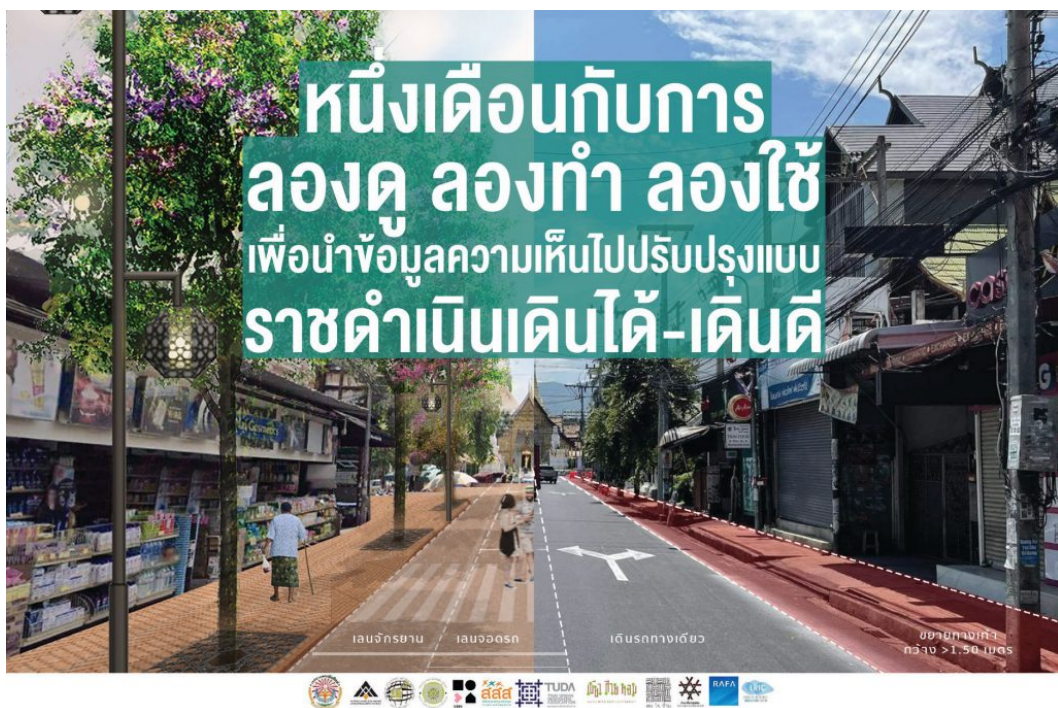


Figure 7-19: Radchadumnoen road simulation to improve the walkability of the city by UDDC (source: <https://chiangmaiwecare.com/เชียงใหม่เดินได้เดินดี/> : Access 1 November 2022)

Greenery

Urban green spaces range from large urban parks, urban woodlands, green fields, street trees, and private green spaces such as gardens, roof gardens, wall creeper greens, and domestic greens (Anguluri & Narayanan, 2017; p.59). Figure 17-20 shows that Chiang Mai municipality area covered about 40.22 square kilometres. The present situation of green space is found that the city has 0.47 square kilometres of green space for recreation and landscape. Sustainable green areas include green areas for nature conservation 0.03 square kilometres. Utility green area 0.27 square kilometres and a green striped area of 0.03 square kilometres. The Office of Natural Resources and Environmental Policy and Planning (2020) proposed that the city should have an appropriate ratio of service green area of at least 4.0 square metres per person and the ratio of sustainable green space per population is 12.0 square metres per person. At present, Chiang Mai Municipality area has 3.47 square metres of green space per person. Sustainable green space 6.48 square metres per person which is less than the ratio suitable for the city (Sunanta and Summaniti, 2021).

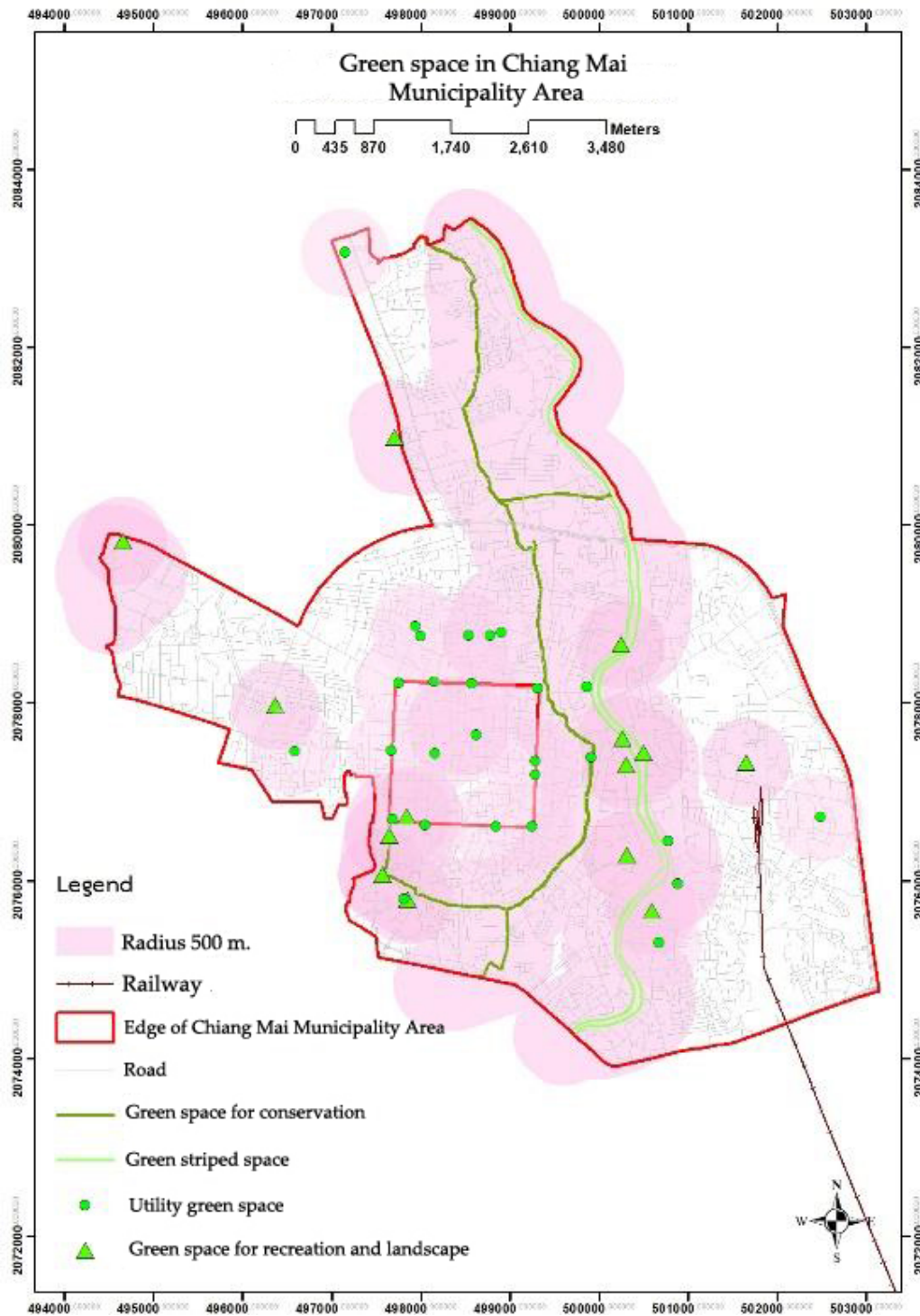


Figure 7-20: Green space in Chiang Mai City (Sunanta and Summaniti, 2021: p.241 modified and translated by Author)

Likewise, the phenomenon of continuous urbanization in Chiang Mai has affected land use and reduce the green space. The people of Chiang Mai consider the value of urban open space to be in parks and squares. Many of them mentioned that the city *“Needs greener space or parks to spend time in on*

days off.”, “Plant more trees along the street especially between Tha-Pare gate and Sri Phum Fort, as it would support the Chiang Mai city moat” and “I suggest planting local trees with vivid colours.”

Traffic Management

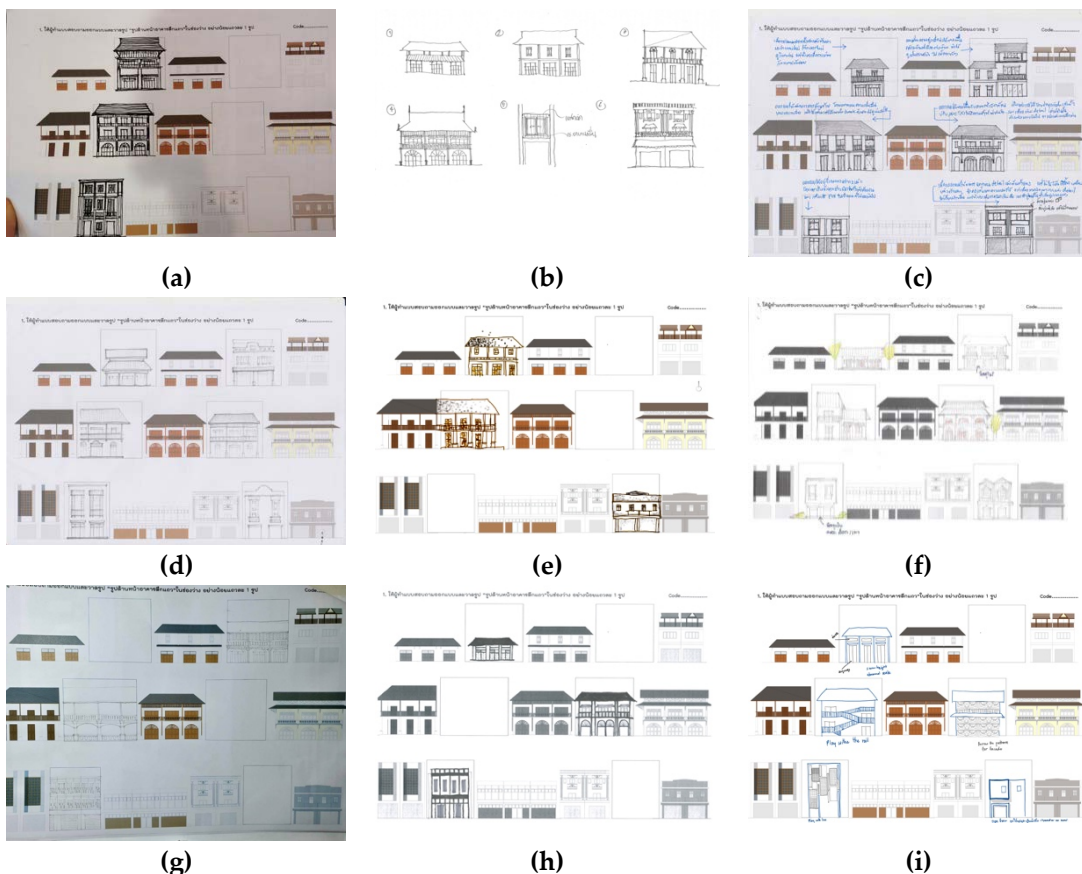
Jittraphirom et al. (2017) described how the transportation system of Chiang Mai city has had lots of problems since the beginning of the modern era. Currently, the problem evolved from the unprepared and lack of management of dependency on private motorized vehicles and non-systematic public transportation. The statement related to participants' suggestions, that twelve percent of participants remarked, *“the public transportation of Chiang Mai should be changed”, “Arrange parking spaces or buildings for motorcycles and cars so they do not park in narrow streets”*. These suggestions from local people show the need for fundamental welfare from the local government that does not include expensive technology. The people of Chiang Mai ask for simple changes in the city. These suggestions relate to a study by Thompson et al. (2020) which affirms that urban design intervention can decrease dependence on private vehicles and increase road safety in cities.

7.5 Architectural Redesigns of Physical Attributes

This section describes the design factors of physical elements by ten architects who play an important role in controlling the quality of buildings and urban design. In this study, the research asks the local community to draw designs. However, all of the participants refused to participate in the drawing process. This part is divided into two sections: facade redesign and streetscape redesign.

7.5.1 Façade Redesign

The section concentrates on how architects would redesign shophouse façades in the Old City. Figure 7-21 illustrates the designs of ten local architects, and the questionnaire has three rows according to the preference results from Chapter 6. The first row shows the neutral rank consisting of pic01, pic02 and pic07. The second row contains pic05, pic04 and pic06 which were respectively rated the highest. The bottom row depicts the lowest rated pic03, pic08, pic09 and pic10. The participants acknowledged the meaning of preferences in the drawing sheet which was designed with blank spaces between pictures related to preference results (Full answer sheets are attached in Appendix H-p.478).





(j)

Figure 7-21: The drawing of façade redesign by ten local architects (Author) (a) Arch01 (b) Arch02 (c) Arch03 (d) Arch04 (e) Arch05 (f) Arch06 (g) Arch07 (h) Arch08 (i) Arch09 (j) Arch10

The results of the façade redesigns can be divided into seven factors which affected the architects' design processes, consisting of ornaments, proportion, materials, colours, function, continuity, and relation to Chiang Mai Municipal Building law. Table 7-03 explains the result from the design process as (✓) means the factor was involved in the design and (✗) means the factor was not involved in the design.

	<i>Arch01</i>	<i>Arch02</i>	<i>Arch03</i>	<i>Arch04</i>	<i>Arch05</i>	<i>Arch06</i>	<i>Arch07</i>	<i>Arch08</i>	<i>Arch09</i>	<i>Arch10</i>
Ornaments	✓	✗	✓	✗	✓	✗	✗	✗	✓	✓
Proportion	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓
Materials	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
Colours	✗	✗	✗	✗	✓	✓	✗	✗	✗	✓
Function	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
Continuity	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓
Relation to Chiang Mai Municipal Building Law	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓

Table 7-03: The summary of architects' redesign of facades

Table 7-03 that most architects concentrated on the proportion and continuity aspects of facade designs over ornaments, materials, colours and function. However, some designs do not adhere to Chiang Mai Municipal Building Law. Thus, it can be concluded that local architects still contribute to design ideas through the environmental context although the designs would

be illegal. This will be a desperate issue within the architecture design society of Chiang Mai. After the analysis, the researcher chose the six façade designs which relate to Chiang Mai Municipal Building law to be design guidelines for façades on shophouses in Chiang Mai Old City (Figure 7-22).

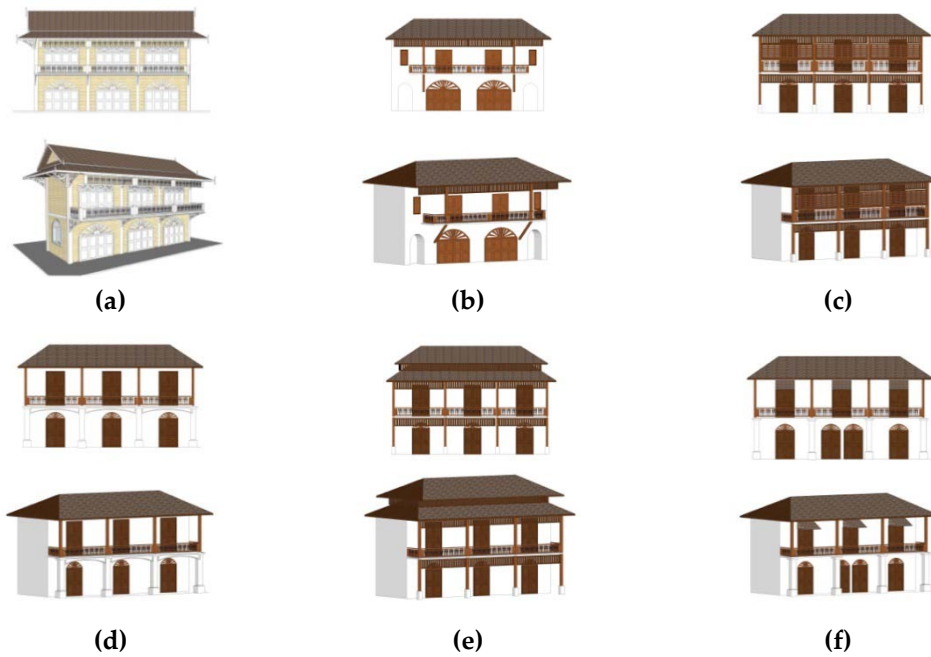


Figure 7-22: The result of façade redesign from ten architects and simulation into 3D by the author (a) pic 001 (b) pic002 (c) pic003 (d) pic004 (e) pic005 (f) pic006

7.5.2 Streetscape Redesign

As a professional architect working primarily in the urban and building design field, the researcher asked ten architects who work and live in Chiang Mai Old City to redesign eight streetscape scenes that link five distinctive places following the study of Phetsuriya and Heath (2021). Table 8-04 describes that there are ten aspects that the architects suggested to develop the streetscape in Chiang Mai Old City which consist of pavements, lighting, bicycle lanes, tram lanes, greenery, landscape, Lanna cultural expression, urban open space improvements, sculptural street furniture and seating.

	<i>Arch01</i>	<i>Arch02</i>	<i>Arch03</i>	<i>Arch04</i>	<i>Arch05</i>	<i>Arch06</i>	<i>Arch07</i>	<i>Arch08</i>	<i>Arch09</i>	<i>Arch10</i>
Pavements	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lighting	✓	✗	✗	✓	✓	✓	✗	✗	✓	✓
Bicycle lanes	✗	✗	✗	✗	✓	✓	✗	✓	✓	✓
Tram lanes	✗	✗	✗	✗	✓	✗	✗	✗	✓	✗
Greenery	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Landscape	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lanna cultural expression	✗	✗	✓	✓	✗	✗	✗	✗	✓	✓
Urban open space improvements	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sculptural Street furniture	✗	✗	✗	✗	✓	✗	✓	✓	✓	✗
Seating	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓

Table 7-04: The summary of architects' redesign of streetscapes

Ten architects agreed that the eight streetscapes should address various issues such as electric wires, traffic management, signage, visual pollution, greenery and urban open spaces for the community. There are four aspects that architects uphold as significant things which are needed to improve pavements, greenery, landscape, and urban open spaces. Meanwhile, lighting, bicycle lanes, and seating were mentioned after those aspects. Street furniture and cultural expression were pointed out by four architects consisting of cultural Lanna decorations such as 'Tung' (weaved flags with Lanna traditional symbols) and contemporary art sculptures. The final aspect that architects suggested was tram lines.

The suggestions for architectural redesign can be divided into four sections: streetscape, transportation lanes, greenery, and street furniture as part of cultural expression. According to the study that would like to validate local people's satisfaction with the streetscape redesign, the researcher simulated all eight scenes following the local architect's suggestion in figure 7-23.



Figure 7-23: The result of eight streetscape scenes redesign from ten architects and simulation into 3D by the author (a) E001 (b) E002 (c) E003 (d) E004 (e) E005 (f) E006 (g) E007 (h) E008

7.5.3 Fundamental Elements of Streetscape; Pavement, Lighting, Seating

There are several elements that local architects mention in their design, beginning with wider pavements allow for more walkability in the city according to the pavement around city has a variety of dimension. They suggested there should be an increase of two or three meters to remove obstructions along the pavements. Arch 010 described this issue as 'endless', *"Chiang Mai's inner Old City has weird city planning. The city's exterior is rectangular, but the streets were not designed to accurately the city's shape, affecting the city's pavement design. I suggest reconsidering the city planning because otherwise it is pointless to just say 'make wider pavements'"*. Lighting was the second concern in redesign as it is a vital component for making a city safer (Carmona et al., 2010). The architects suggested placing seats in urban open spaces and along significant pavements that have the space to contain these objects and increase comfortability in public spaces (Whyte, 1980). Arch 009 explained that *"Seating is an important element in cities as they allow for gatherings of people in urban open spaces, to let people spend time on other activities."* This response relates to Gehl (1987), who argues that a successful place needs to consider spaces for gatherings and seating that creates a high-quality public environment.

7.5.4 Transportation Lanes

Most of the architects suggest that the city needs to have bicycle lanes and tram lanes to reduce personal cars and motorcycles. These should be accompanied by designs to close some streets that link urban open spaces or squares to become walking streets, restricting certain types of vehicles, not opening walking streets during rush hour, and managing parking buildings outside of the city. Arch05 mentioned a case study of people in Denmark who

can use bicycles to get around everyday due to the built environment of the city's streetscape. *“Tram lanes would be too far from Chiang Mai, and I think we should start by solving traffic congestion and building parking buildings outside of the city. However, I encourage the idea of public rail transportation which would benefit the city in many aspects.”* (Arch05)

7.5.5 Greenery, Landscape and Urban Space

Greenery is preferable in streetscape scenes as it is a part of human life. Many architects suggested increasing the city's greenery to meet the minimum rate about 0.5 square metres per person to support walkability. *“Chiang Mai's weather is hot and humid; when we walk on the pavement without an umbrella or a hat, the sun can burn us badly. From my experience in the city, I think it is important to increase green spaces that support walkability. There are two ways to increase greenery: firstly, planting more trees to increase shading along pavements. Secondly, vertical garden arrangements on façades can expand greenery within the visual aesthetics of the city.”* (Arch02). Furthermore, trees increase the visual value of the city scene, as mentioned by Arch 003, who suggested for scene E002 that *“As this street leads to Pra Singha temple, I suggest planting trees along the street to create a clear path to the temple. This design contributes to the visual value that supports the built environment and heritage sites.”*

7.5.6 Street Furniture as Cultural Expression

There were several ideas provided by the architects about street furniture. Street furniture includes hardscape elements such as electric poles, lighting, benches, police boxes etc. (Carmona et al., 2010) considers them to be a family of items, in keeping with the quality of the environment that unifies an urban area to provide a coherent sense of identity (Gillespies, 1995, p.65). Arch 004 described that the majority of the streetscapes in Chiang Mai Old

City “*should have some traditional flags along the electric poles to reflect Lanna culture in the scenes.*” Additionally, Arch009 spoke about modern sculptures on scenes. “*Chiang Mai Old City hosts the Chiang Mai Design week event every year. The event creates another identity for the city which is a city of design. If we could encourage artists to join the local authorities in the revitalisation project, it would completely change the face of the city.*” This relates to Gillespies (1995) statement that artists should be invited to design street furniture for locations that express strong characteristics.

To conclude, the local architects suggested the redesign of both shophouse’s facades and streetscape to blend in the Chiang Mai Old City’s environment and maintain the Lanna identity. It could be concluded that local architects are still concerned about the uniqueness of Lanna's appearance on its façades and streetscapes.

7.6 Perceptions of Redesigning the Built Environment

This part describes the result of the second data collection which recruited twenty-five local participants' perceptions of the redesigns of both the façades and streetscape of Chiang Mai Old City. The purpose of this section is to confirm the perceptions of the redesign of the built environment. This leads to suggestions for façade and streetscape characteristic management strategies. This part consists of two sections: the perceptions of the new redesigned facades and the perceptions of the new redesigned streetscapes.

7.6.1 Perceptions of the New Redesigned Façades

From these results it can be assumed that local participants share common preferences according to Chiang Mai Municipal Building law and perceive the heritage value of the city. The results show the relevant

preferences towards all of the redesigned images and for every section, such as ornament, proportion, materials, colours and function (Table 7-05). Pic05 received the highest score in all of the sections.



Figure 7-24: The local people rated pic 05 in the highest score (Author)

		Pic 01	Pic 02	Pic 03	Pic 04	Pic 05	Pic 06
Ornament	Mean	3.92	3.52	3.96	3.92	4.16	3.76
	S.D	0.86	0.82	0.97	0.75	0.80	0.96
Proportion	Mean	4.00	3.52	3.92	4.00	4.08	3.68
	S.D	0.91	0.96	0.90	0.76	0.86	1.02
Materials	Mean	3.84	3.72	4.00	4.00	4.12	3.84
	S.D	1.02	0.79	1.04	0.81	0.83	0.98
Colour	Mean	3.80	3.84	4.04	4.04	4.20	3.92
	S.D	1.08	0.80	1.01	0.84	0.86	1.03
Function	Mean	4.00	3.52	3.92	4.00	4.08	3.68
	S.D	0.99	0.86	1.01	0.81	0.89	1.08

Table 7-05: The local perception on the physical of redesigned shophouse façades

From the results of the social, historical and value sections (Table 7-06), participants gave the highest score to pic05 (Figure 7-24), which reflects the building styles in the eras of King Rama IV and V. This suggests that local participants prefer to identify history through new building façades. Carmone et al. (2010) and Keperling (2020) confirm that the history of the city can be narrated through façade designs. Local participants also believe that the façade design in pic05 can contribute to the value of the city.

		Pic 01	Pic 02	Pic 03	Pic 04	Pic 05	Pic 06
The façade represents the history of the city	<i>Mean</i>	3.92	3.52	3.96	3.92	4.16	3.76
	<i>S.D.</i>	1.12	1.01	0.94	0.75	0.95	0.77
The facade design would help to increase the value of the city	<i>Mean</i>	4.00	3.52	3.92	4.00	4.08	3.68
	<i>S.D.</i>	0.80	0.99	1.01	0.84	0.86	0.91

Table 7-06: The local perception on the social and history of redesigned shophouse façades (Author)

7.6.2 Perceptions of New Redesigned Streetscapes

The research examined streetscape quality in terms of walkability, safety, connectivity, accessibility, transparency, social value, vitality, visual quality, and livability. The results (Figure 7-25) reveal that most of the local participants agree that the redesign of scenes E002 and E003 improved the visual quality of Chiang Mai Old City's streetscape and increased the quality in terms of their physical aspects. In contrast, Chapter 6 described the local people's preference for old qualities in the streetscape scenes. E007 was rated the highest as the local authorities' plan improved the design by adding space for religious and cultural activities in preparation for the UNESCO nomination process in 2015, designed by famous Thai architects (Prachatum, 2021).



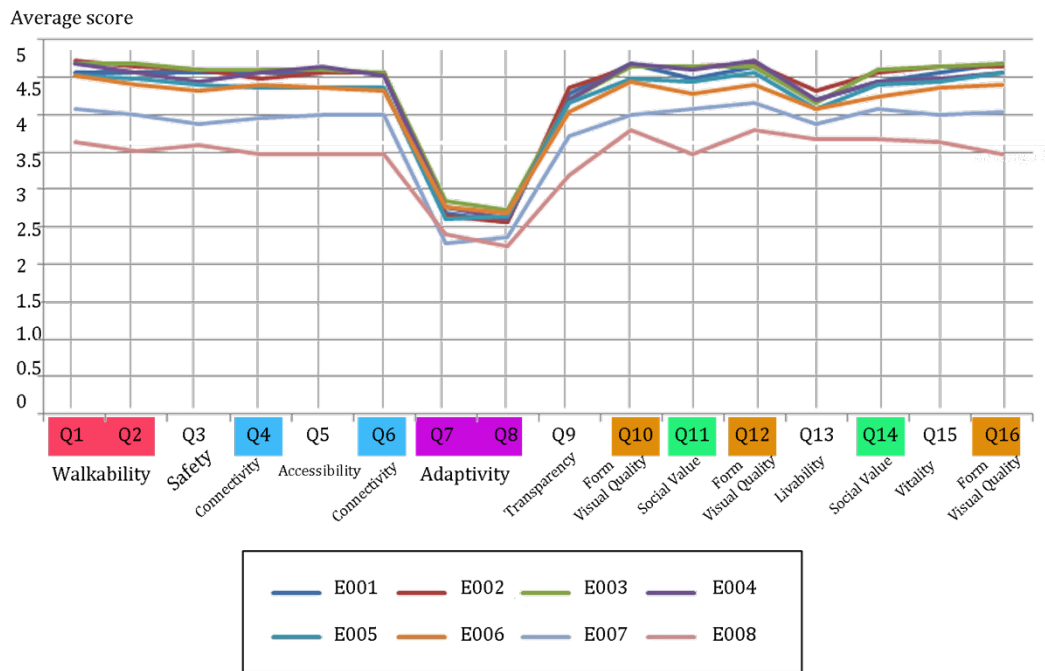
(a)



(b)

Figure 7-25: (a)Pic E002 (b) pic E003 were rated in the highest score (Author)

Chapter 7: The Comparison of Urban Heritage Management Strategies Following Local Perceptions and Heritage Management Policy



Graph 7-01: The result of quality of streetscape following local perception

	E001	E002	E003	E004	E005	E006	E007	E008
OQ1	3.48	2.36	3.28	3.20	4.00	3.84	4.52	4.00
ReQ1	4.56	4.72	4.68	4.68	4.52	4.52	4.08	3.64
OQ2	3.12	2.60	3.08	2.88	3.44	3.20	4.28	3.40
ReQ2	4.56	4.64	4.68	4.56	4.48	4.40	4.00	3.52
OQ3	3.56	2.96	3.12	3.12	3.48	3.60	4.36	3.80
ReQ3	4.56	4.60	4.60	4.44	4.40	4.32	3.88	3.60
OQ4	2.64	2.20	2.92	2.48	3.08	2.84	4.12	3.36
ReQ4	4.56	4.48	4.60	4.56	4.36	4.40	3.96	3.48
OQ5	3.08	2.56	3.20	3.16	2.96	3.04	4.28	3.24
ReQ5	4.56	4.56	4.60	4.64	4.36	4.36	4.00	3.48
OQ6	2.48	1.92	2.56	2.6	2.68	2.72	4.12	2.88
ReQ6	4.56	4.56	4.56	4.52	4.36	4.32	4.00	3.48
OQ7	1.68	1.52	1.56	1.60	1.32	1.92	2.48	1.88
ReQ7	2.68	2.64	2.84	2.76	2.60	2.76	2.28	2.40
OQ8	1.56	1.36	1.48	1.68	1.40	1.68	2.12	1.76
ReQ8	2.56	2.56	2.72	2.60	2.64	2.68	2.36	2.24
OQ9	2.88	2.56	2.68	2.64	2.68	2.80	3.16	2.72
ReQ9	4.28	4.36	4.20	4.20	4.16	4.04	3.72	3.20
OQ10	2.60	2.76	3.28	2.80	3.48	3.20	4.20	3.64
ReQ10	4.68	4.64	4.64	4.68	4.48	4.44	4.00	3.80
OQ11	3.20	3.60	3.68	3.40	3.80	3.40	4.48	4.08
ReQ11	4.48	4.64	4.64	4.60	4.44	4.28	4.08	3.48
OQ12	2.68	2.72	2.80	3.80	3.72	3.08	4.12	2.76

ReQ12	4.64	4.68	4.64	4.72	4.56	4.40	4.16	3.80
OQ13	3.52	3.96	3.84	3.36	3.52	3.32	4.28	3.64
ReQ13	4.20	4.32	4.16	4.20	4.08	4.08	3.88	3.68
OQ14	3.44	4.08	4.08	3.44	3.80	3.56	4.48	4.12
ReQ14	4.44	4.56	4.6	4.44	4.40	4.24	4.08	3.68
OQ15	2.96	3.04	3.68	3.36	3.48	3.44	4.36	3.48
ReQ15	4.56	4.64	4.64	4.48	4.44	4.36	4.00	3.64
OQ16	2.60	2.68	3.28	2.56	2.04	2.96	4.28	3.56
ReQ16	4.68	4.64	4.68	4.56	4.56	4.40	4.04	3.48

OQ(x) = Old pic question (x), ReQ(x) = Redesign pic question (x)

Table 7-07: The comparison of perception on street quality of old pics and redesign pics (Author)

The results (Graph 7-01) explain that streetscape quality of the redesign pics rated higher in every section, except in the adaptivity section. The local people dislike having food vendors and temporary kiosks in these scenes which contrasts with the study by Yatmo (2008) that defines commercialism on streets in Southeast Asia as a phenomenon. Indeed, they may be regular occurrences that local people are used to. However, local people also are aware of solutions to improve the visual management of streetscapes. Additionally, street markets in Southeast Asia can provide socio-economic development in cities (Oranratmanee & Sachakul, 2014). Although, an extreme abundance of street markets would still affect the visuals of the city and the quality of its streetscapes.

7.7 Development Policy for Improve and Preserve Urban Heritage Identity of Chiang Mai Old City

This study attempts to follow the Burra Charter process to develop the management strategy; this section describes and concludes the previous result into the fourth stage of the Burra Charter process as developing policy and preparing a management plan following the bottom-up process and compare to the current heritage management policy in Thailand. Currently, there are

two departments in one institution that controls the management of cultural heritage. Ministry of Culture: The Fine Arts Department (FAD) and the Office of Cultural Promotion, the FAD mainly takes responsibility for the conservation and management of tangible heritage (Richter et al., 2020).

Furthermore, in term of the cultural landscape of old towns and the nomination of World Heritage Sites (both cultural and natural sites) and hosts the Cultural and Natural Environment Management Bureau are directly controlled by the Office of Natural Resources and Environment Management Bureau. However, the NGO that manages the conservation of cultural heritage sites of the globe and established charter in Thailand, which is called “the International Council on Monuments and Sites Thailand (ICOMOS Thailand)” (Krairiksh, 2013). The institute becomes a part of preservation advisor to UNESCO on World Heritage Sites and developed a “Thailand Charter on Cultural Heritage Management”, which contains principles, values, a master plan and concerns of cultural heritage management (Richter et al., 2020: p,13).

In this part, the result from chapter 5, 6, 7.3, 7.4, 7.5, and 7.6 will be established the possible bottom-up approach of Urban Heritage Management strategies for Chiang Mai Old City through the participation of local citizens (figure 7-26). This definition will challenge the top-down approach which has been addressed the lack of community consultation and participation (Krairiksh, 2013). Lertcharnrit and Niyomsap, (2020) also support the cooperation between the FAD and other private and government agencies/organizations, public audiences, and stakeholders, on both local and national levels, will also help upgrade the quality of conservation projects. Public education programmes should be considered as part of an essential strategy to change public attitudes toward the past (Lertcharnrit & Niyomsap, 2020: p.195).

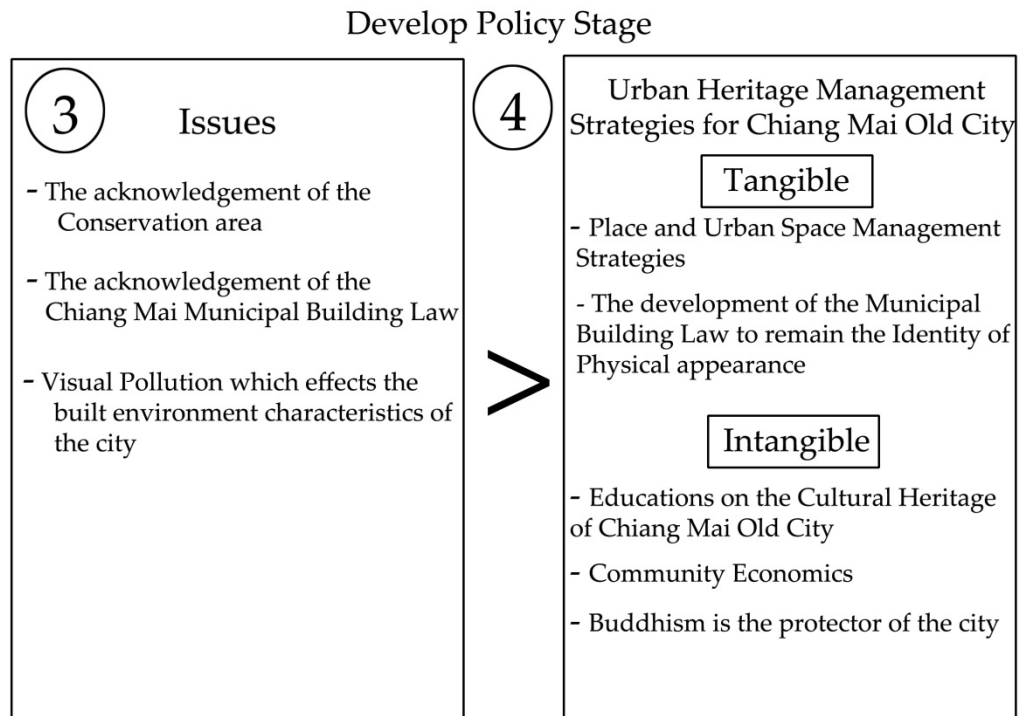


Figure 7-26: The Issues and possible ways to management the heritage value of Chiang Mai Old City (Author)

7.7.1 Tangible Characteristics Management Strategies

According to the definition outlined in Chapter 5, it can be concluded that the tangible value of Chiang Mai’s urban heritage consists of five distinctive places; Tha-Pare Gate square, Three Kings Monument, Pra Singha temple, Chedi Luang temple, and Chiang Mai city moat. Furthermore, the chapter described the built environment characteristics of Chiang Mai Old City, consisting of historical attributes, natural objects, people, and cultural events of scenes that explain the meaning of places associated with social and cultural values. These are used to explain strategies for managing characteristics through the thoughts and visions of local architects and citizens.

Place and Urban Space Management Strategies

Chapter 5 revealed that local participants selected five places that represent the distinctiveness and identity of Chiang Mai Old City. These consist of Tha-Pare Gate square, Three Kings Monument square, Chedi Luang

temple, Pra Singha temple, and Chiang Mai Old City moat. As Chedi Luang temple and Pra Singha temple represent the 'Religious Value', 'Historical Value' and 'Cultural Value', the participants did not express their perceptions towards the value of these aspects. Instead, participants mentioned the importance of place improvement according to changes of spirituality in the place characteristics management section, especially for these five distinctive places. *"I come to Pra Singha temple every Buddhist holy day (four days a month). The increasing number of tourists affects the spirit of the place as it has changed for commercial purposes instead of religious purposes. It is disappointing when you realise that the temple itself provides spaces for those purposes."* (In-S-F-0-022). Additionally, In-S-F-31-011 explained their feelings on Chedi Luang temple according to the new management of the place: *"I joined an event at Chedi Luang temple that has a light projection to display the pagoda (Figure 7-27). It is an incredible experience to behold the past and gloriousness of the city. It is fascinating that technology can increase the heritage value of this place."*

The in-depth interviews revealed one suggestion for lively urban spaces for communities. In-S-F-45-015 described implementing plans to encourage local communities to gather in open urban spaces for cultural activities. *"If local authorities manage Tha-Pare Kuang (square) better than they currently do, the place could be a magnet for local people and tourists. I think the place is too hot to spend a lot of time there, so there should be some seating shading added."* In-S-M-63-004 expressed, *"As I own a commercial mobile kiosk I spend a lot of time at Tha-Pare gate square. I would like to suggest increasing spaces for communities' so socialize such as spaces for relaxation, music, and adding trees to create an aesthetic landscape in the square."*

Strategies for place characteristics management can be created by following suggestions from participants as to improving urban spaces to be

lively places for community engagement, limiting commercial ventures in temples and integrating technology to increase heritage value. Finally, amending Chiang Mai Municipal Building Law should be prioritized as it can solve these current issues.

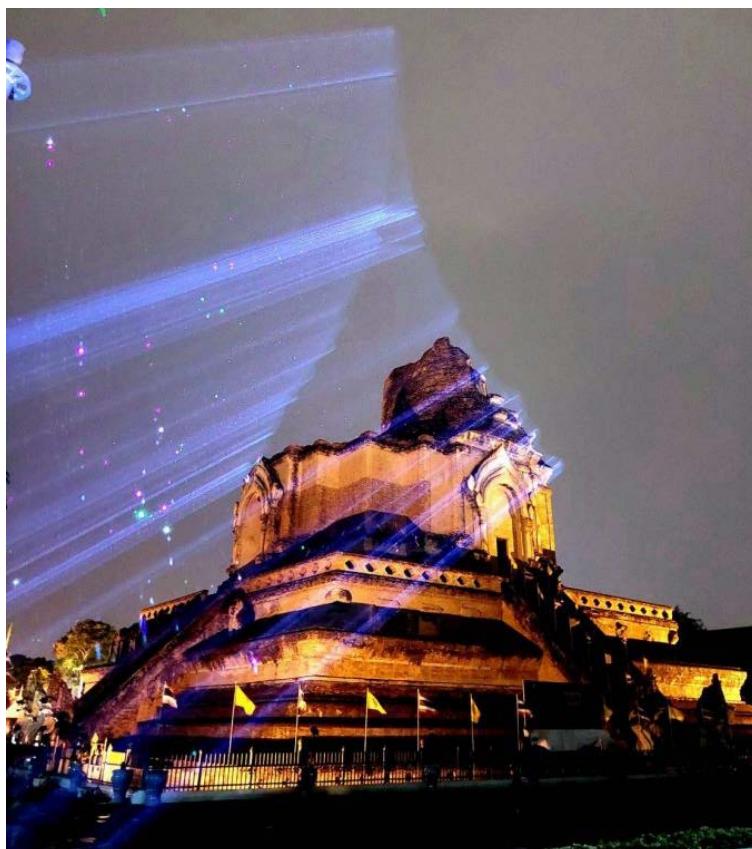


Figure7-27: Light projection project to reveal the Chedi Luang pagoda before the grand earthquake of 1545 AC. (source: <https://www.bltbangkok.com/lifestyle/art-culture/36549/> accessed: 1 January 2022)

The Development of the Municipal Building Law to Remain the Identity of Physical Appearance

According to chapter 7.4, the result reflects that local citizens lack knowledge of Chiang Mai Municipal Building Laws, and Chiang Mai people questioned the management of local authorities, asking: “Do we have anyone who takes responsibility for heritage management?” As mentioned in the report ‘Assessment of Local Authority Heritage Priorities and Support Needs’ by

Woodley et al. (2021: p.9), which describes the role of local authorities in being responsible for heritage assets, managing change and protecting heritage sites as the local planning authority benefits from culture, leisure and tourism which establishes a creative economy.

The focus group participants mostly suggested amending Chiang Mai Municipal Building Law as a priority for changing current issues. The participants stated *“I never knew that we have a law that controls the façades of buildings. I think we need to control lots of things in façade designs such as height, colour, elements, and style”*. The further management policy supports the welfare of local people in the city through reducing taxes, utility bills, and financing the preservation of buildings following Chiang Mai Municipal Building Law. *“There should be more budgeting and support from local authorities”* the first focus group replied.

7.7.2 Intangible Characteristic Management Strategies

Intangible values are hidden in every dimension of people's memories of spaces that they engage with. Following the definition given in Chapter 5, the intangible characteristics of Chiang Mai appear in cultural activities which are integrated into places and spaces. Furthermore, Chapter 6 outlined the socio-cultural values of city scenes, which reflect the intangible-built environment characteristics, consisting of people and cultural events that explain the meaning of places associated with social and cultural values. However, this part of the study looks at the other side of managing cultural activities and religious engagements in the city which are permanent values. The welfare and satisfaction of local people so that they remain living in the city is a major factor of conservation.

Educations on the Cultural Heritage of Chiang Mai

Old City

“When you produce education materials with communities, the children see themselves and their grandparents in the materials. That is a source of pleasure. It provides the opportunity for the survival of the heritage into the future.” *Nigel Encalada, Director of Belize’s Institute for Social and Cultural Research of the National Institute of Culture and History (UNESCO, 2019: p.4)*

Safeguarding the intangible cultural heritage, education plays a vital role in contributing the main programs through context-specific content and pedagogy for education programs following Intangible Cultural Heritage Quality (UNESCO, 2019). The education of local people on matters of cultural heritage has become a trend in heritage study programs which target the young generation (Stone, 2004; Şimşek et al., 2013). This statement relates to the local people's suggestion to maintain the intangible values of Chiang Mai. Firstly, local participants mentioned learning about culture in schools through the addition of Lanna studies in syllabi for the younger generation. *“I definitely suggest adding Lanna studies in every school located in the Old City”* participants in the focus group suggested. However, such a compulsory course for youngsters could cause issues. Some participants in the focus group discussion argued that *“Currently, every school in the city has a subject called “Tong Tin Kong Raw” (Our local study). Thus, this is not effective for the current situation. I suggest a diverse learning process that involves modern culture, such as cultural activities on social media, creating clubs that can share local knowledge and contemporary local music.”*

Lertcharnrit and Niyomsap (2020), who practice the archeology field, gathered with youngsters who lived and studied in Phromthin Tai sits, Lopburi, Thailand, and mentioned that all students know the site quite well

and understand the local material culture. They observed and conducted the degree of knowledge of students through the practiced workshop. The result shows that all students can contribute the correct knowledge according to teachers teaching their local site's history and culture. It could be an excellent example for any heritage site that requires the sustainable development of cultural heritage management policies. Moreover, the Heritage education matters to the economy, not just about the involvement with students and schools. The setting of spaces for cultural heritage knowledge such as museums, historic houses, churches, parks can receive interested attention and income from tourisms (GEM, 2020). The next part will discuss heritage management and community economics.

Community Economics

Heritage is now considered to be an important factor in economic development. It is considered to be an instrument for satisfying the demand for leisure activities, an opportunity for deprived areas to create new jobs, a source for economic innovations, and a way to uphold the identity of the local authorities (Grefe, 2021: p.2). Firstly, the local participants of the focus group pointed out that *“Currently, there are many hotels and tourism businesses in the Old City. A few years ago, we had Chinese tourists everywhere in the city, and every shophouse supported the Chinese tourists without any concern for the identity of Chiang Mai. There are many commercial signs displaying Chinese languages along the street, and this almost changes the city into China instead of Chiang Mai.”* Another focus group participant pointed out the sustainability of local economics to support the local economy and using tangible and intangible heritage as cultural products on the market instead of changing for tourism.

To conclude, the local participants suggested sustainable strategies to manage the intangible characteristics of Chiang Mai Old City: education on Lanna culture, the establishment of local authorities' policy, and increasing

community economics, which is created following economic gain from cultural value.

Buddhism is the Protector of the City

According to the answer in chapter 5, the highest score of the place that local people attached to temples. This could be assumed that Buddhism architecture in the old city plays a vital role in representing historical value. The statement is supported by the study of Heritage management, education, and community involvement in Thailand: A central Thai community case that mentioned the temple serves as a community centre for various religious and public activities and festivals and acts as the protector of the cultural heritage site (Lertcharnrit & Niyomsap, 2020: p.192). However, temples in the Chiang Mai Old City are normally staged in sacred places which are represented as 'spiritual anchors' for local citizens. Khanjanusthiti (2017, p.72) supported that Buddhist architecture can also be experienced on different levels, such as in places of religious significance; religious rituals are very much a part of the spirit of the place. It could be assumed that in any city that strongly performs religious rituals in religious architecture, it may be possible to represent the 'sense of place' and become the distinctive and protector of cultural heritage in the cities.

7.8 Chapter Conclusions

The results of this chapter (Figure 7-28) are divided into two sections. Firstly, the strategies to maintain the tangible characteristics of the Chiang Mai Old City which consist of place and urban management and built environment characteristics. These results include further management of the appearances of places and the built environment in the local people and architects' perspectives. Secondly, intangible characteristics management strategies were also suggested by local participants.

This chapter has explored local people's suggestions for Chiang Mai Old City's tangible and intangible management strategies. The results show that people significantly suggested improving Chiang Mai Municipal Building Law in relation to building design. It also delineates the results of the current understanding held by local people of Chiang Mai Municipal Building Law. It concludes that local people should be required to participate in creating further municipal building laws and realize it is a part of living in the Old City. Moreover, the value of the law should be clearly explained through its various advantages that stimulate support and cooperation from the stakeholders and local businesses of the city, such as the increasing economy, tourism, aesthetics, and value of the city's visuals. Significantly, the heritage nomination is a priority of the Chiang Mai Heritage Committee. Exploring each section of Chiang Mai Municipal Building Law reveals that the distinctive materials and patterns of shophouse façade components should be more studied and carefully included in further management plans and Chiang Mai Municipal Building Law.

Furthermore, local participants pointed to the streetscape issues, which require the local authorities to cooperate with the stakeholders. Moreover, the suggestions for the management strategies also included creating lively spaces

for community engagement, limiting commercial spaces in temples and integrating technology to increase heritage value.

Additionally, the architects involved in the redesign process suggested façade design guidelines reflecting shophouse styles in the reigns of King Rama IV and V. Significantly, the local participants argued that pavements in Chiang Mai do not need to be provided as commercial spaces, which contrasts with a previous study that asserts that the commercial streets are part of Southeast Asian Street tradition (Yatmo, 2008; Oranratmanee & Sachakul, 2014).

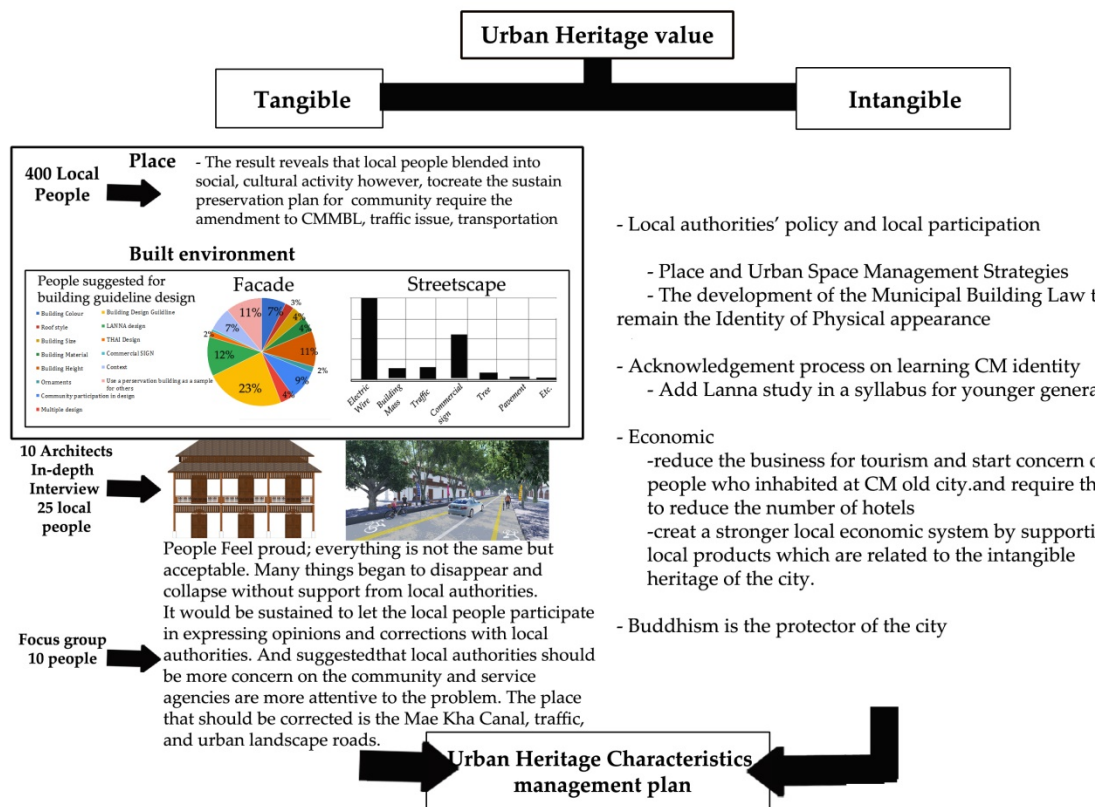


Figure 7-28: The conclusion of chapter 8 (Author)

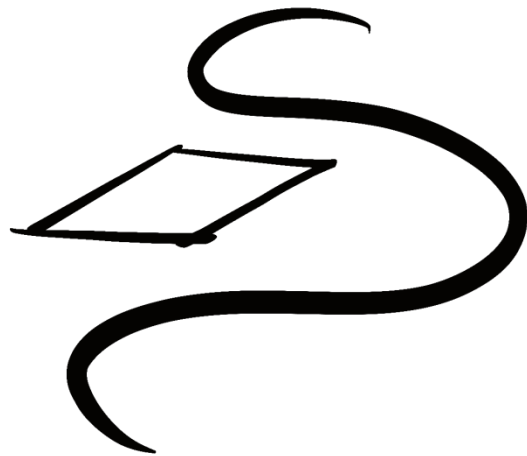
Finally, intangible characteristics management requires four factors: acknowledging the learning process of Chiang Mai identity, local authorities' policy, supporting the local economy, and maintaining the value of Buddhism as a protection of the city. All the suggestions are optimistic improvements for the characteristics of both tangible and intangible heritage in Chiang Mai Old

City. This relates to Guzmán et al. (2014) who mentioned that urban heritage management requires to preserve and promote cultural heritage, tangible and intangible, of the communities living in cities since heritage has been recognized to have a role in shaping the city's identity that represents cultural values in historic areas which related to the dynamic of social and economic. The importance of cultural heritage to the city is highlighted as crucial as the management of a city's physical assets (Guzmán et al., 2014).

The next chapter will summarise the research, dissect the main findings, contributions, limitations, and conclusions of the research, which represents the local people's attachment to places and the built environment, alongside suggesting further management strategies for maintaining the heritage value of Chiang Mai Old City.

Chapter 8

Research Conclusion



Ping River on the east is suitable for commercials.

(Modified from Ongsakul, 2005 and Penth, 2004 by Author)

Chapter 8

Research Conclusions

8.1 Introduction

This chapter presents the findings and conclusions of the research. The urban heritage identity has been defined as creating the urban characteristics of cities. This research attempts to define the distinctiveness of urban heritage, which is revealed through local participant's perceptions. The results are presented through seven factors and five distinct places from the consensus of local people's opinions. Additionally, the results led to defining the place attachment, which related to each place by explaining through four aspects: emotions, society, activities related to function, and meaning.

Moreover, the study also defined the built environment characteristics of the city, which is part of urban heritage identity in terms of the urban streetscape and building appearances. The results prove the importance of urban attributes and adapting Chiang Mai Municipal Building Law, alongside suggestions for further urban streetscape management. Moreover, the analysis of urban heritage identity also revealed the relationship between tangible and intangible aspects of society, culture, the economy and the way of life of the Chiang Mai people. The study then concluded further strategies for defining and managing the urban heritage identity of cities.

This chapter gathered discussion in critical analysis of the results and divides them into five sections. It presents a review of the research and highlights of the key findings of the study. Secondly, highlights the main findings of the research. This is followed by the contribution of research to the defining process of urban heritage in both place and built environment. The fourth section discusses the limitations of the study, and the final section presents the conclusion of the study.

8.2 Review of the Research

This research aims to define the identity of urban heritage which appears in tangible and intangible ways. The study also defines the built environmental characteristics of the city. All the defining processes were based on local participants in Chiang Mai Old City, Thailand. The crucial issues are:

1. Understanding the distinctiveness of urban Heritage following local people perceptions.
2. Understanding place attachment in relation to distinctive places in Chiang Mai Old City to define the urban heritage of the city based on local people perceptions.
3. Understanding the built environmental characteristics which is a part of the creation of urban heritage identity and suggestions for reforming the Chiang Mai Municipal Building law based on local people's opinions.
4. Assessing the urban heritage attributes and importance of other aspects which are related to the emergence of urban heritage identity.
5. Concluding the perspectives of factors from which urban heritage characteristics management strategies emerged following local people's suggestions.

The above issues have been addressed via three steps:

1. Relevant literature reviews have been carried out based on the concept of urban heritage identity, distinctiveness and place attachment related to components that form the tangible and intangible characteristics of the city.
2. In defining urban heritage distinctiveness in Chiang Mai Old City, relevant literature reviews were used in the defining process.

3. Data analysis of the data collected and an identification of the urban heritage characteristics of Chiang Mai old city has been carried out. The outcomes of the results described different features of individual aspects of the urban heritage identity of the city, which mutually supported the effectiveness of the data analysis methodology.

The significance of urban heritage identity was defined in Chapter 3, and provides a vital contribution to the definitions in Chapters 5 and 6. The advantages of realising a formal definition of urban heritage identity and the ability to contribute to management strategies was explained in Chapter 8. In conclusion, defining urban heritage identity provides an understanding of the tangible and intangible values that form management strategies. In turn, these help the Chiang Mai heritage nomination team, academics, and local authorities to better understand local participants' perspectives. Understanding local people's perspectives contributes to improving the city's management strategies.

8.3 Main Findings of the Research

To support the heritage nomination process

The principal theoretical implication is that this study adds to existing knowledge of urban heritage identity, specifically of place attachment, heritage value, and management strategies. This study will enrich knowledge for the ongoing nomination process, local authorities' policies (especially the Chiang Mai heritage team), and local people who should participate in the heritage nomination process.

'Engaging with heritage is a key shaper of urban experience and identities, the urban environment, and urban futures.' (UCL, 2019). This study reveals that local people's perceptions of urban heritage attributes and built

environments contribute to the feelings of communities towards these elements which leads to the development of proper characteristics management strategies in the city.

The advantage for local people

The study contributes to defining the identity of urban heritage identity and suggests further management strategies for Chiang Mai Old City following local citizen's perception. The study explicates the advantages for the local people by raising awareness of the heritage value of the city in both its places and built environment characteristics. The study also highlights that religious places, cultural activities, and historical attributes contribute to special experiences for the local people, in relation to the existence of history and religion in both urban space and the built environment. The study reveals such participants represent the general public's opinions and expectations of the city's future.

Overall, the participants expressed their aspirations for future management of the city's tangible and intangible values. The study also contributes to stimulating awareness of the city's utilities, maintenance, and development.

For amending Chiang Mai Municipal Building Law

The study states that Chiang Mai Old city requires amendments to Chiang Mai Municipal Building law. The results point out that local people are not aware of the law and how to follow it, which involves the proper regulation of facade design, built environment design and management strategies. The participants also admitted that planning and managing the law and design guidelines should be a priority for the city. As the results demonstrate the difficulties of understanding legal words, some participants suggested using illustrations, graphics, or leaflets instead of formal language

to induce local people to participate. Therefore, the experience of the built environment and the streetscape scenes need to be solved by providing better regulation in municipal law in terms of built environment management in Chiang Mai Old City. The streets of the Old City will become part of urban heritage once Chiang Mai Old City becomes a new heritage site. The strong enforcement of the regulation is required to formulate conservation planning and maintain the characteristics of tangible and intangible values in the Old City. However, amending municipal building law of the city may require the reconsidering of built environment design and specific regulations with stakeholders and local citizens every five years (DOPA, 2022) following Department of Provincial Administration's regulations.

For Chiang Mai's urban heritage management strategies

The overall finding of this research can be used to develop urban heritage characteristics management plans for Chiang Mai Old City. These tangible aspects include places, urban spaces, and the built environment. Five distinctive places have been addressed to define the identity of Chiang Mai Old City, which local participants described through 'Historical Value' and 'Cultural Value'. The five places consist of Tha-Pare gate square, Three Kings Monument square, Chedi Luang temple, Pra Singha temple, and Chiang Mai old city moat, which need to consider from having commercial purpose to having 'genuine value'. The urban space of squares and the city moat is required to improve lives and induce community engagement. The interesting suggestion from local participants that the integration of technology in heritage places may increase their value in this current generation.

To improve the built environment, the study shows that façades and the streetscape require changes through Chiang Mai Municipal Building Law and additional regulations on enforcing streetscape designs. Therefore, the

suggestions pointed to straightforward descriptions of the law and requirements for shophouse façade designs in the Old City. In terms of streetscape design, the local participants mentioned building mass, building height, traffic, humans, pavements, trees, and local authority policies.

To sum up, local participants suggested that the participation of local communities and local authorities will be required for the further management of place and built environment characteristics strategies.

8.4 Contributions of Research

There are three major contributions provided by this research: firstly, the study defines urban heritage identity. This study differs from previous research through its concentration on residents' perceptions of urban heritage identity. As distinctiveness theory applies urban heritage study and urban heritage tourism by El Hosary et al. (2018) and Ginting and Wahid (2017) which propose the main and sub elements to explain urban heritage identity.

Figure 8-01 illustrates the study which applies seven aspects of distinctiveness theory, consisting of landmarks, cultural activities, historical value, particular characteristics, identity, everyday life, and community (Ginting & Wahid, 2017 and El Hosary et al., 2018). It also applies place attachment theory to describe the value of distinct places in depth. The finding can propose a process for defining the genuine value of places and can describe the intense meaning related to place attachment. All seven aspects of distinctiveness theory can apply to describe relationships to place attachment aspects which contribute factors to clarify the further elements that engaged the place attachment of heritage places consisting of history of building appearance (El Hosary et al., 2018), spiritual of place (Scannell & Gifford, 2009), multi activities (El Hosary et al., 2018), religious-cultural

activities (Ginting & Wahid, 2017), sense of community and positivity of place (Lewicka, 2011).

Moreover, time plays a significant role in creating an attachment to places (Lalli, 1992; Stedman, 2006; Lewicka, 2010 and Shinbira, 2017); however, the study defines that the quality and value of places can increase the sense of belonging of newcomers. To conclude, religious and cultural value of heritage places play vital parts in connecting communities, events, culture, and spiritual anchor of the tangible and intangible attributes of this urban city.

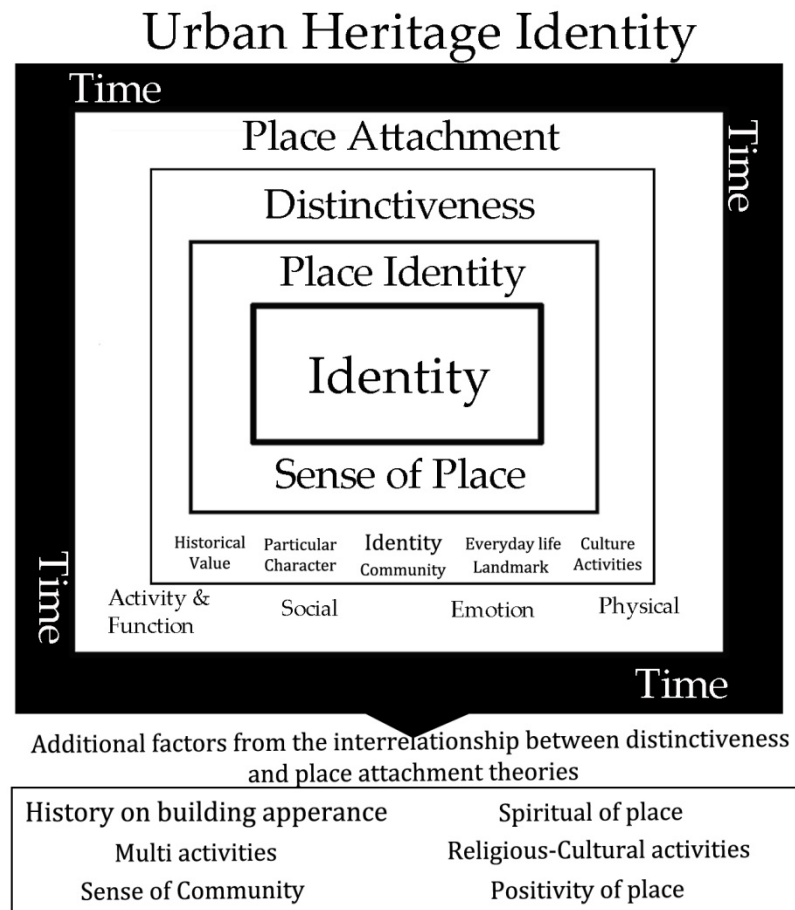


Figure 8-01: The outcomes of study (Author)

In the intangible value of urban heritage section was staged to explain the integration between people, society, culture, the economy and daily life (Lipe, 1984; Burra Charter, 1998; Nara Charter, 1994; Mason, 2002 and ICOMOS the Washington Charter, 1987). The results explain the relationship

between people and intangible value of urban heritage city as 'living society' which local citizen placed religion at the heart of city values and cultural diversity, spirituality, events, festivals, and community.

Secondly, the study contributes additional suggestions to designing guidelines for the built environment that reflects the city's socio-cultural values (Mason, 2002). Moreover, this study uses local identity theory to define heritage value in the selected scenes, alongside historical value, social value, aesthetic value and the spirituality of places (Lipe, 1984; Burra Charter, 1998; Nara Charter, 1994; Mason, 2002 and ICOMOS the Washington Charter, 1987). Urban heritage artefacts and religious places were mentioned in every section, and trees and vehicles were highlighted for their social value and aesthetic value. It could be concluded that heritage value can be perceived from the city's streetscape and become a vital element to establish the sense of place and heritage value engagement between nominated places. The perception of built environment can provide suggestions to reform and management strategies with heritage management policy.

Finally, these findings can be developed for further sustainable heritage management plans for the city once it passes the nomination process or support the amendment of municipal building laws of the city. This study also supports local people's participation in defining the urban heritage value and their suggestions for maintaining urban heritage characteristics following the Burra Charter nomination process (figure 8-02).

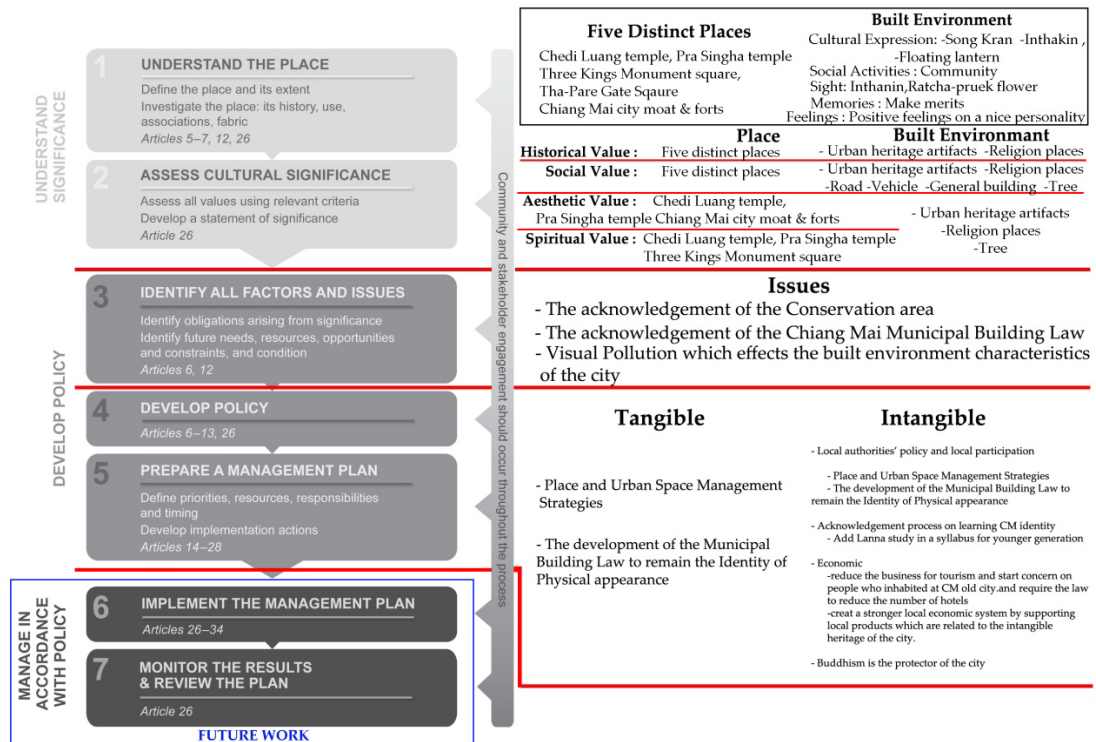


Figure 8-02: The outcomes of study compare with Burra Charter policy (Author)

8.5 Limitations of the Study

There are several limitations in this study, which should be highlighted. In the following part, the research's strengths and weaknesses are briefly evaluated.

Data collection

The first issue that occurred was related to linguistic matters. The data was collected in Thai and Northern Thai, so the survey and interview questions were translated from English to Thai. Moreover, some linguistic issues occurred in rephrasing words and translating and defining proper words to describe the answers from Thai to English, which required more than six months to finish. The participants were recruited on the streets and from places in the city, so the results might not have a chance to represent specific stakeholders or business owners' suggestions who are a crucial part of the city's economy. Further research should utilize more perspectives from

different groups of people in the city, such as stakeholders, business owners, academics, heads of communities, and council officers, to use the data for the comparative process from different processes, such as top-down process to bottom-up process and community suggestions. Many participants in the face-to-face interviews found that they wanted to avoid involving in the interview process; the researcher had provided the remuneration for them. Also, participants found that it took more work to answer questions of 'how' when discussing the reasons for the perception of heritage sites. The researcher attempted to simplify and ask indirect questions to make the topic understandable. Regarding the drawing process, local citizens denied involving in the study. They gave reasons as 'I cannot draw', 'I do not know how to start drawing'. The researcher decided to change the participants from local citizens to local citizens who worked as 'an architect' and lived in the old city.

Apart from the time usage on translation of the research's result. This study explores many elements, such as place, urban space, and the built environment. The researcher supposes to choose one idea or one main objective to explore in depth. As the researcher was required to challenge to explore another theory rather than Lynch's famous theory, which is explained in standard urban theory. However, the researcher applied urban heritage, identity, distinctiveness, and place attachment theories, which may be challenging to explore in limited of time periods. It was taken very long time to understand the relationship between theories and procedures to analysis.

Additionally, due to COVID-19, it took much work to recruit participants for the interview process. The pandemic took two years of travel restrictions, making the data collection process too slow. Consequently, the plan changed to conduct interviews online, which required support from Thailand as some local participants needed access to the technology. Finally,

the study's scope needs to be narrower than the time for research data collection.

Creation of the Questionnaire

This study explores many elements, such as place, urban space, and the built environment and challenges to use the interrelations between distinctiveness and place attachment theories. The first questionnaire used general questions to define genuine answers which did not follow the literature review. The advisor suggested using an open-ended questionnaire that could provide an independent answer from the theory's boundary. However, after the data analysis process, the researcher found that it was unable to receive the depth answers, so the researcher decided to integrate the place attachment to validate the result and expand to knowledge in the attachment to places. Due to this reason, the researcher had to create the second data collection on place attachment to clarify the definition. The second questionnaire and in-depth interview questions were designed following the place attachment theory, which provides the results related to the questions' sequences. However, the researcher is satisfied with the process because the results can contribute to the further knowledge and validation of the first data collection result that establish the new perspective of distinctiveness usage in urban heritage study.

Mixed Methods

The research used a mixed methods approach which requires the collection process more than one process. It is crucial to emphasize that multiple qualitative methods are necessary, combining several research techniques such as in-depth interviews, questionnaires, drawing, photo-

elicitation interviews (PEI), needle method, and visual recordings of the urban experience to understand the complexities of urban places.

The result from quantitative data is used to generate complementary data to validate the qualitative method and reduce bias from one-way resources. Precisely, the data from both methods were applied as supportive evidence for the research result. Furthermore, combining results between the qualitative and quantitative methods provided stronger outcomes. Therefore, applying only the qualitative method would be more suitable and efficient, especially when time and resources are limited.

8.6 Suggestions for Further Research

Generally, the study leaves an unanswered question, as the study explores urban heritage identity through local people's perceptions by defining distinctiveness, place attachment, built environment characteristics (figure 8-03), and sample of defining urban heritage management policy. This study leaves many questions in need of further investigation.

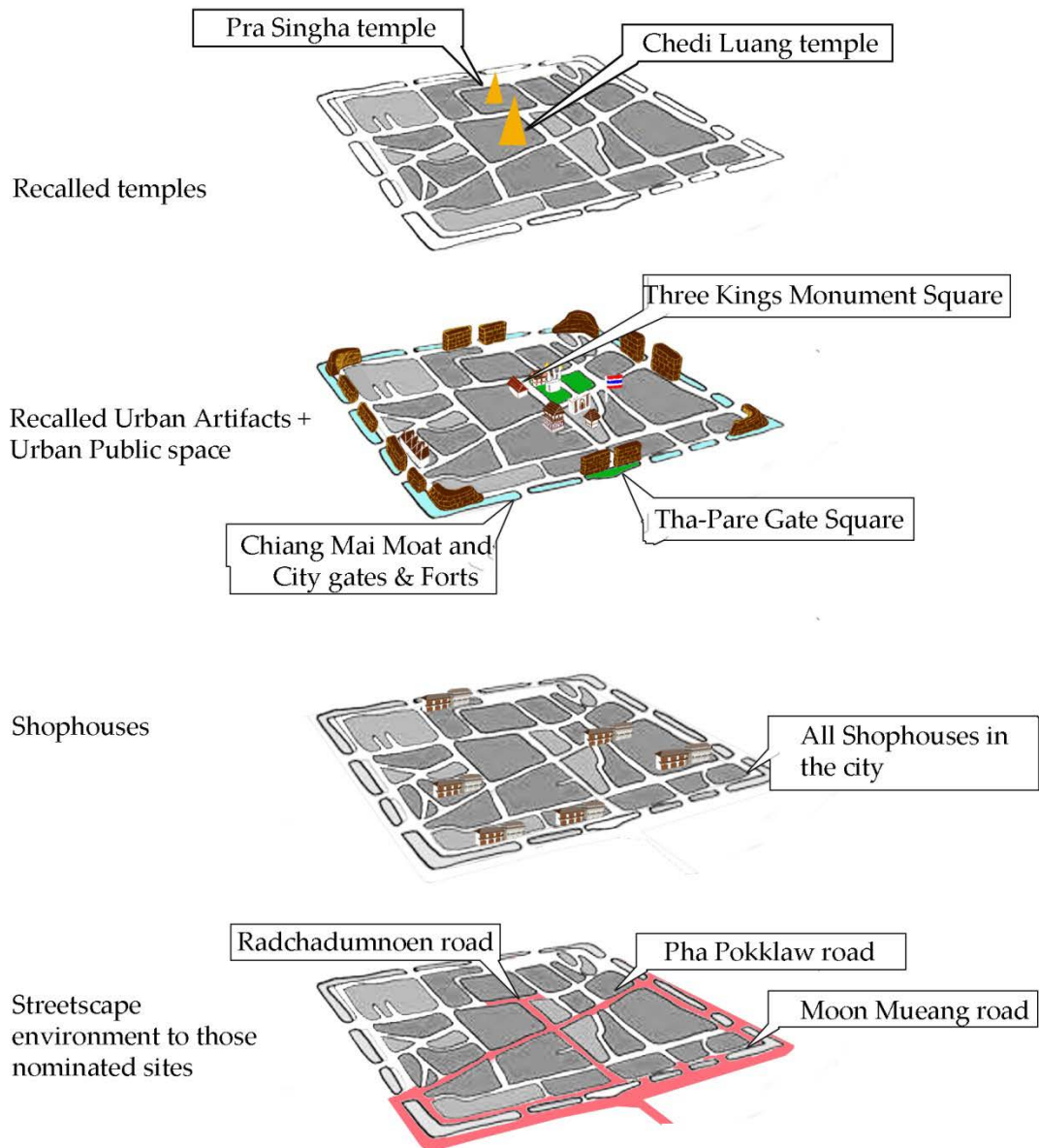


Figure 8-03: The layers of the urban heritage of Chiang Mai old city (Author)

(a) The findings of Chapter 5 and 6 suggested that the interrelationship of distinctiveness and place attachment theories on tangible and intangible value of urban heritage. The study concentrated on places and urban spaces, including the heritage values of built environmental scenes which provide the heritage value and the attachment with place, activity, emotional and social. Local citizen attaches to five distinct places which consist of temple and urban

heritage artifacts the interaction has been regarded as the most identifiable place qualities associated with urban heritage identity.

(b) The finding of the research suggests that the interaction between distinctiveness and place attachment theories contributes the elements to describe the value of place consisting of the history of building appearance, spirit of place, multi activities, religious-cultural activities, sense of community, and positivity of place. Moreover, the strong attachment to a place is influenced by the length of residency and the site's value; the socio-demographic characteristics are ineffective in the degree of attachment.

(c) Further research is needed as this research only studies the local authorities and visitors in the Old City. These would be exciting perspectives to compare and analyze. Similarities of distinctiveness theory from this study could be used to inform urban designs or local authorities in their reports for developing characteristics and managing urban heritage policy. The study recognizes the need for further characterization management strategies, which include design guidelines for the city.

8.7 Final Conclusions

This study has examined the nomination process for Chiang Mai Old City to become a new heritage site, the loss of identity, and urban heritage identity through local participants' perspectives. This involved the three inter-related concepts of identity: distinctiveness, urban heritage, and place attachment. These establish a balance between persons and their identification with religion places, urban artefacts and urban open spaces. Urban heritage identity is associated with the place's physicality and heritage attributes that reflect socio-cultural value. It can be concluded that urban heritage identity becomes significant through environmental psychology

concepts and not just a physical matter but also a quality that is associated with the physicality of a place.

By referring to the main aim of this study, it can be argued that urban heritage identity can become significant in urban study. Distinctiveness theory can be described related to place attachment by providing the genuine perception that integrated to the environmental psychology dimension of place. Emotional attachment and positivity of places provide the meanings on human perceptions and explain how local citizen perceive the tangible and intangible value that are associated to urban heritage identity.

The research used mixed methods in defining heritage values in distinctive scenes in the city. This study strongly believes that the findings demonstrate that local people can develop the urban heritage management policy of the city. The methodology of this study can be an assessment criterion for local authorities, urban designers, and heritage teams to find out whether their project will strengthen existing urban heritage identity.

Most importantly, this research has revealed new perspectives on urban heritage identity that interrelate between distinctiveness and place attachment, practical study methods, and has contributed to management strategies. In addition, continuing research into urban heritage identity will significantly improve knowledge development, practical support, and working with local people and architects to establish and maintain cherished distinctive places and living environments for urban residents. Finally, the researcher anticipates that this study will become a source of useful information for the Chiang Mai heritage nomination process and any city that intends to associate in the World Heritage nomination process.

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*Sample Questionnaire for PhD Thesis
University of Nottingham, United Kingdom*

The identity of the Urban Heritage of Chiang Mai Old City, Thailand

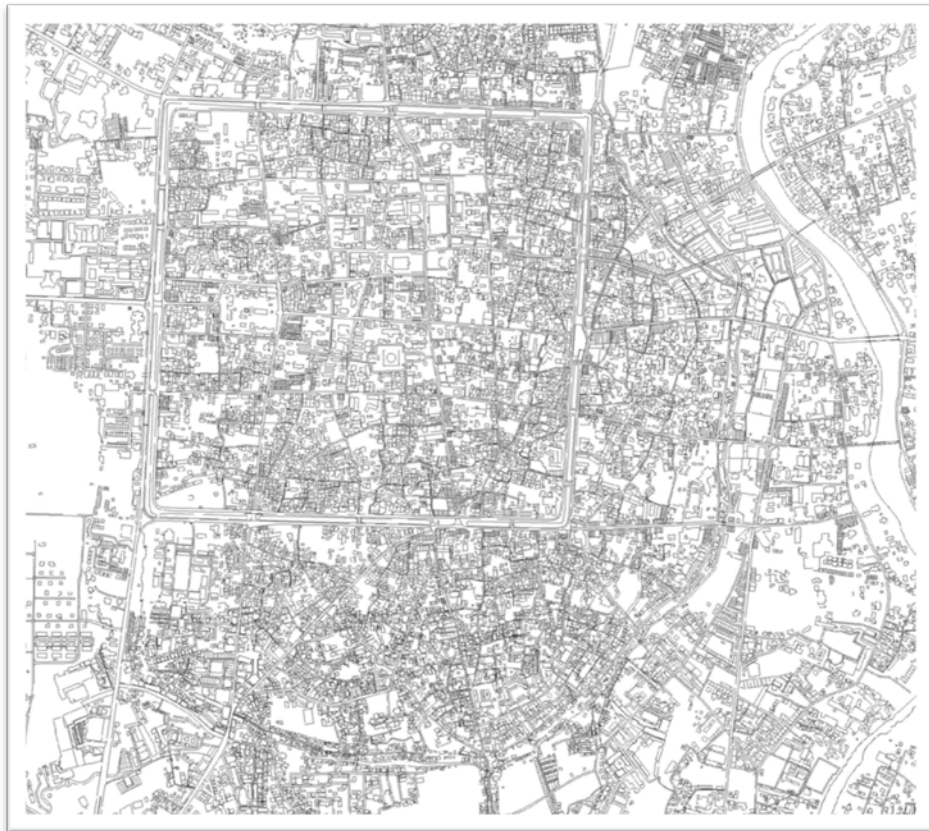
This questionnaire is a part of PhD thesis of Faculty of Engineering, Department of Architecture and Built Environment, University of Nottingham, United Kingdom. The main objectives of this research is defined the urban heritage identity of Chiang Mai Old City, Thailand by focusing on human factors which is affected to the dynamic of the identity of old city. In this questionnaire will mainly focus on local people opinion who inherited in the old city and also a scholar who has research which is participated with Chiang Mai Heritage. Below are a series of questions about Chiang Mai Urban Heritage. If you choose to complete the questionnaire all the information you supply will be reported in a summarized chapter in this research. This questionnaire will be taken time about 10 minutes. Thank you for taking time to complete the survey. Your valuable response will be used to create the sustainable creativity conservation for this precious city.

Name *(optional)*..... Age *(optional)*..... Gender *(optional)*

Occupation *(optional)*..... Type of participant's building

Do you live or work in Chiang Mai Old City? YES NO if not, where else?

Could you mark your accommodation you lived or work on the map? *(optional)*



How long have you lived or work in Chiang Mai or Chiang Mai Old City (Ku Muang)?

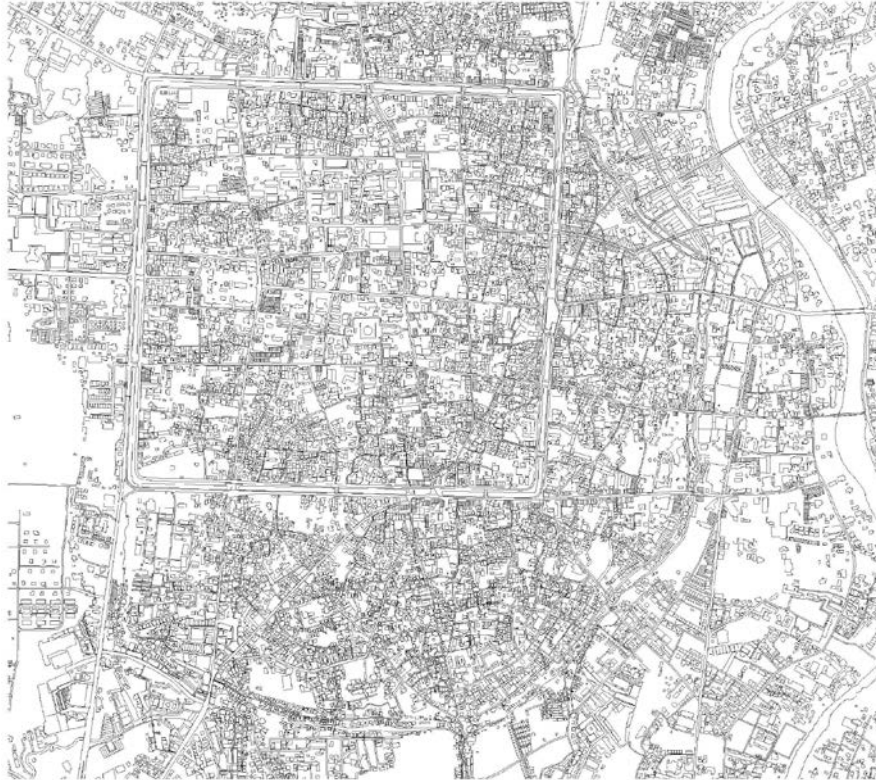
Are you considered yourself as Chiang Mai people? YES NO

Part 1 Architecture and Buildings

1. Do you know about the Chiang Mai Old City conservation area?

YES NO

2. Could you draw a boundary of the conservation area of the Chiang Mai Old City in the map?



3. Could you give names of any important buildings or architecture within the city? (As many as you can)

.....

.....

.....

.....

.....

4. Why are these buildings or architecture important to you?

Name of buildings	reason

5. Could you rate the value of these buildings or architecture and give a reason for how these buildings or architecture is valuable in your opinion? (if you cannot give a reason of each place, you can leave the table blank.)

5 – Most important place

4 – Important place

3 – Usually seen as sacred place but just an ordinary place.

2 – Ordinary place

1 – Not important place

I do not know this place

No.	Likert Scale	I don't know	Reason
Pic 001	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 002	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 003	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 004	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 005	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 006	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 007	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 008	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 009	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 010	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 011	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 012	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 013	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 014	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 015	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 016	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 017	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 018	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	

No.	Likert Scale	I don't know	Reason
Pic 019	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 020	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 021	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 022	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 023	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 024	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 025	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 026	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 027	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 028	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 029	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 030	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 031	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 032	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	
Pic 033	5 ----- 4 ----- 3 ----- 2 ----- 1	<input type="checkbox"/>	

Part 2 Municipal Building Law

1. Do you know about Municipal Building Law in Chiang Mai Conservation Area?

YES NO

2. Have you had any experiences of use or involvement with Chiang Mai Old City Municipal Building Law?

YES NO

3. Which buildings perfectly follow the Chiang Mai Old City Municipal Building Law?



Reference pics (Romcai, 2007)



Reference pics (Romcai, 2007)

4. Could you arrange the sequence from appropriate to inappropriate of building façades that are appropriate for Chiang Mai Old City?

5. Could you use the ornaments to create the suitable façade for Chiang Mai Old City? (Use Magnetic board)

6. Do you think the Chiang Mai Old City Municipal Building Law needs to include an appearance of building guideline?

YES NO

7. If you answer yes, what is your suggestion for the new guideline for Chiang Mai Old City?

.....

.....

Part 3 Townscape

1. Could you mention any disharmony in the environment that affect to Chiang Mai Old City which appears in these pictures?

No.	Disharmony in the environment	Suggestion
Pic E001		
Pic E002		
Pic E003		
Pic E004		
Pic E005		
Pic E006		
Pic E007		
Pic E008		
Pic E009		
Pic E010		
Pic E011		
Pic E012		
Pic E013		
Pic E014		
Pic E015		
Pic E016		
Pic E017		
Pic E018		
Pic E019		
Pic E020		
Pic E021		
Pic E022		
Pic E023		
Pic E024		
Pic E025		
Pic E026		

2. What is the problem of Chiang Mai Old City's visual cultural environment?

.....

3. Do you think the Chiang Mai Old City Municipal Building Law needs to contain a built environment strategies guideline?

YES NO

4. If you answer yes, what is your suggestion for the new guideline for Chiang Mai Old City?

.....

The identity of the Urban Heritage of Chiang Mai Old City, Thailand

This in-depth interview is a part of PhD thesis of Faculty of Engineering, Department of Architecture and Built Environment, University of Nottingham, United Kingdom. The main objectives of this research is defined the urban heritage identity of Chiang Mai Old City, Thailand by focusing on human factors which is affected to the dynamic of the identity of old city. In this interview will mainly focus on local people opinion who inherited in the old city. Below are a series of questions about Chiang Mai Urban Heritage. If you choose to complete the questionnaire all the information you supply will be reported in a summarized chapter in this research. This interview will be taken time about 45 minutes.

Thank you for taking time to complete the survey. Your valuable response will be used to create the sustainable creativity conservation for this precious city.

Participant information

Name (Optional)..... Age (Optional)..... Gender (Optional)

Occupation (Optional) Type of participant's building

Do you live or work in Chiang Mai Old City? YES NO if not, where else?

How long have you lived or work in Chiang Mai or Chiang Mai Old City (Ku Muang)?

Are you considered yourself as Chiang Mai people? YES NO

Part one : Interview (15 Minutes)

Personal Perception

What is the word or thing that remind to Chiang Mai Old City in your opinion?

How would you describe the CMOC in term of Physical appearance (Physical Aesthetic)?

Where is the most memorable place in CMOC from your experience?

How could you describe the elements in the city that you realize the most memorable?

Place Engagement

What is the main purpose of visiting to those places?

How frequent that you visit to those places?

What is the main attraction of those places?

How would you describe the engagement to the city from your experience?

Meaning

How could you give the meaning to the place that you answered?

Which part of CMOC that you consider as a meaningful place of the city?

Which place will you proudly present to the guests who visit to CMOC?

Where is the place that you perceive the history background and events of CMOC?

Part two : interview (10 Minutes)

The result from the pilot study has shown the seven distinguished places which local people considered in term of identity of the Chiang Mai Old City.

(Public Space) Tha Pare Gate , Three Kings Monument, Chiang Mai City Moat,
(OUV+recalled places) Pra Singha temple, Chedi Luang Temple

Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree	I don't know
5	4	3	2	1	0

Sense Attachment	Tha Pare Gate	Three Kings Monument	Chiang Mai City Moat	Pra Singha temple	Chedi Luang Temple
I feel very attached to the place					
I have positive experiences to the place					
I feel satisfy when I visit to the place					
I feel secure when I visit to the place					
I feel very attached to the places according to the importance of tradition background and cultural activities					
Sense Attachment (Social)	Tha Pare Gate	Three Kings Monument	Chiang Mai City Moat	Pra Singha temple	Chedi Luang Temple
The place is the main attachment of the community					
The place represented the social life of CMOC					
I participate with neighborhood and local community at the place					
I consider that the CMOC community is strong following the importance of the place.					
The place is the relationship between social and culture of CMOC community					
The place represented the diversity of social and Ethnic in CMOC					
Sense Attachment (Activity+ Function)	Tha Pare Gate	Three Kings Monument	Chiang Mai City Moat	Pra Singha temple	Chedi Luang Temple
I had experiences in cultural activity with the place					
I had experiences in political activity with the place					
I had participated in the religion activity with the place					
It is the most lively place in CMOC					
I do exercise at the place					
I join an entertainment event at the place					
I join the market and find good food from the place					
Sense Attachment (Physical)	Tha Pare Gate	Three Kings Monument	Chiang Mai City Moat	Pra Singha temple	Chedi Luang Temple
The location of the place reflect the value of city					
The place has an attractive of building style					
The place represented the historical value according to building style and history					
The Place is the landmark of CMOC					

Part three : semi-interview (20 Minutes) Environment Perception

In this part will ask the participant to answer in Historical Value of the built environment of CMOC.

1. Which elements in this scene do you think that represent the historical value of CMOC? And why?

E001	E002	E003	E004
E005	E006	E007	E008

2. Which elements in this scene do you think that represent the social activities of CMOC? And why?

E001	E002	E003	E004
E005	E006	E007	E008

3. Which elements in this scene do you think that represent the Aesthetic of CMOC? And why?

E001	E002	E003	E004
E005	E006	E007	E008

4. Which elements in this scene do you think that represent the spirit of CMOC? And why?

E001	E002	E003	E004
E005	E006	E007	E008

5. Do you recall any distinctive memories of the study area? And what is your experience relating to?

E001	E002	E003	E004
E005	E006	E007	E008

6. Do you think the façade of the buildings in the scene represent the quality of streetscape?

E001	E002	E003	E004
E005	E006	E007	E008

Perception to Old scene and New Streetscape Simulation

Old scene	Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree	I don't know					
	5	4	3	2	1	0					
				01	02	03	04	05	06	07	08
The street/space is clean and well organized											
I feel satisfy to walk on this street/space											
I feel safe to walk on this street/space											
I like to walk on the pavement/space on this street											
I can easily access to the pavement/ space											
The pavement/space on the street had been designed for universal user											
I think everyone can use the street/space for commercial purpose											
I think everyone can use the pavement/space for commercial purpose											
I can easily access to shops along the street/space											
It has attractive landscape											
The streetscape/space bring the value of history of CMOC											
The streetscape/space is green and shady											
I have a social life integrated with this street/space											
I consider the socio-culture value of this street/space reflect to value of CMOC											
I feel proud of the streetscape/space											
The façade design represents the historical value related to streetscape/space in scene											

New scene	Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree	I don't know					
	5	4	3	2	1	0					
				01	02	03	04	05	06	07	08
The street/space is clean and well organized											
I feel satisfy to walk on this street/space											
I feel safe to walk on this street/space											
I like to walk on the pavement/space on this street											
I can easily access to the pavement/ space											
The pavement/space on the street had been designed for universal user											
I think everyone can use the street/space for commercial purpose											
I think everyone can use the pavement/space for commercial purpose											
I can easily access to shops along the street/space											
It has attractive landscape											
The streetscape/space bring the value of history of CMOC											
The streetscape/space is green and shady											
I have a social life integrated with this street/space											
I consider the socio-culture value of this street/space reflect to value of CMOC											
I feel proud of the streetscape/space											
The façade design represents the historical value related to streetscape/space in scene											

The building design is appropriate to tropical climate								
I think the building was designed following the CM municipal building law								
The facade design would help to increase the value of the city								
The facade design would help to increase the tourist-commercial value of the city								
The building design would help to increase the historical value of the city								
The building design would help to increase the pride of the city								
The building design represented the diversity of social and ethnic of people in CMOC								

The understanding of Chiang Mai Municipal Building Law

1. Do you know about Municipal Building Law in Chiang Mai Conservation Area? YES NO
2. Please ✓ on the box, if you consider the factors are related to the Chiang Mai Municipal Building Law in the conservation area.

1. Height How is it important?
 more than 12 less than 12
2. Form How is it important?
 Rectangular Triangle Sphere
 Free form
3. Roof Style How is it important?
 Gable roof Hipped roof Gable with hipped roof
 Flat Slab Butterfly Owner decision.....
4. Roof Color How is it important?
 Brown Maroon Orange-Brown
 Grey Color of Material itself
 Owner decision.....
5. Exterior Color How is it important?
 Brown Cream Ivory White
 Color of Material itself Owner decision.....
6. Tiles How is it important?
 Brown Cream Ivory White
 Color of Material itself Owner decision.....
7. Fence Height How is it important?
 more than 3 less than 3
8. Fence Color How is it important?
 Brown Cream Ivory White
 Color of Material itself Owner decision.....
9. Fence Transparency How is it important?
 more than 30 percent less than 30 percent
 Owner decision.....
10. Sign How is it important?
 A sign cannot be installed out of a building edge; if the sign is installed on a top of the building, a height of the sign must not higher than 6 meters.
 A sign can be installed from a wall and must not out of an awning edge. A height of the sign must not higher than 060 meters or an area must not over 2 sq. meter.

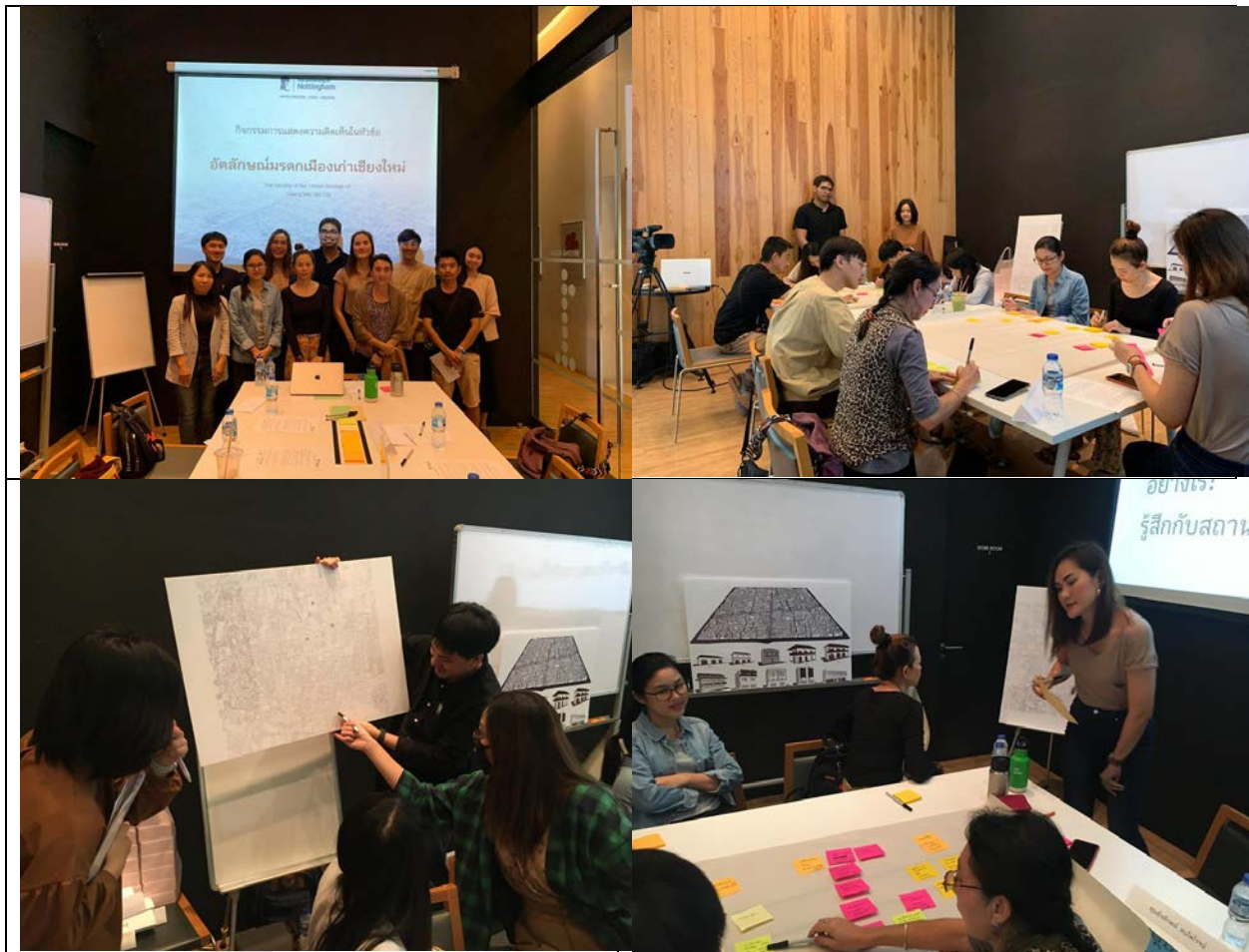
- A sign can be installed above an awning. A height of the sign must not higher than 060 meters or an area must not over 2 sq. meter.
- A sign can be installed under an awning; it must install on a building surface and higher from a pavement about 2.50 meter.
- A theatre/ cinema / commercial sign must install parallel with a building surface, it can install away from a surface not more than 0.50 meter and must not over an awning edge.
- Owner decision.....



End of the interview

Questions in Focus group

1. What is the unique characteristic of Chiang Mai Old City?
2. Where is the sacred space in Chiang Mai Old City in your opinion, why is that space important to you?
3. How is the environment around the city important to value the city?
4. How do urban spaces impact upon your personal life and neighborhood from a physical, social, cultural and economic perspective?
5. How does Lanna tradition impact upon your personal life and neighborhood from a physical, social, cultural and economic perspective?
6. What are the suitable conservation strategies for future of Chiang Mai Old City?





A brief description of the study design

Number and type of participants

This research study will consist of three parts. The first part is a questionnaire for 400 participants. The number of participants was calculated using the Taro Yamane formula to estimate an appropriate sample size for the study. The participants will be all aged 18 or above and they will be selected according to various ages and must also be local people who inhabit or work in the Chiang Mai Old City. The second part is an interview with 10 experiences scholars. As such, they are selected from those who have participated with the Chiang Mai World Heritage team or have undertaken research on Chiang Mai Old City conservation. The third part will be a focus group with 12 participants. The number of participants was determined to result in a manageable process and involve a two-way focus group methodology. All participants will be selected from local people, landlords or stakeholder who relate with Chiang Mai Old City.

Number and duration of activities participants will be involved in

In questionnaire is estimate that there are will be 400 participants and it is anticipated that each one will take around 10 minutes. The questionnaire will be structured into three parts.

The interviews with 10 Scholars will each last for an estimated 30 minutes. In this part, the interviewees will be asked about a specific topic related to their own fields of expertise. The specific topic will cover the Urban Heritage of Chiang Mai Old City, Townscape of Chiang Mai Old City, Chiang Mai Old City's Municipal Building Law and The Future Conservation strategies for Chiang Mai Old City.

The focus group with involve 12 participants. The duration of this process is estimated at around 120 minutes. The participants will involve two discussion topics; the value of Urban Heritage of Chiang Mai Old City which reflects local people in social aspects and the future conservation strategies for Chiang Mai Old City from the local people's perspective. According to the two-way method, the participants will be divided in to two groups and one moderator for control the discussion.

Equipment and procedures to be applied

In the questionnaire part, the researcher will use a paper-based survey and photo book with participants and also use a magnetic board to answer the third part of the questionnaire. Secondly, in the interview, the participants (subject to their consent) will be recorded by video-camera. In the focus group, the participants (subject to their consent) will be recorded by video-camera during the discussions and two white boards and A0 craft paper for writing their presentation will be used.

Information about how participants will be recruited

This research will consist of three parts. The first part is a questionnaire for 400 participants. The participants will be recruited in different locations of Chiang Mai old city. The participants will be recruited by letters or posters and also approached in different locations. Second part is an interview with 10 scholars who will be contacted through emails. The last part is a focus group with 12 participants. These participants

will be recruited through an e-mail, social media or from participants in the questionnaire survey.

Whether participants will be paid (state how this will be done)

The participants of the focus group will be directly paid by a 500 baht voucher by the researcher upon completion of the focus group.

Plans to ensure participant confidentiality and anonymity

The information will not be accessed or used by anyone other than the researcher and supervisor. The participants will be given the options in the consent form if they want their personal information to be identified or not. Furthermore, the researcher will provide a post-interview confidentiality forms to guarantee the confidentiality of the participant's personal information.

Plans for storage and handling of data

During the research, all photos, videos and audios recordings taken by the researcher will be stored in a password protected file and stored in a locked filing cabinet and scanned to be stored digitally on a password-protected external hard drive and online One Drive storage. The researcher and supervisor will be the only person with access to the raw data. All data handling and storage will be in line with the University of Nottingham Research Code and Research Ethics of Conduct.

Information about what will happen to the data after the study

The data will be archived in the University record storage facilities for seven years after the research completion and the degree has been awarded.

Information about how any data and images may be used

The data and images will be used partly in the report and all of data and images will respect the participants and other people's confidentiality (In case there is a picture of other people in the background for example, the researcher will blur their identity in the picture).

State whether it will be possible to identify any individuals.

The researcher will provide a post-interview confidentiality form after the participants have finished the interview. The main purpose of this form is guarantee confidentiality of participant's personal information. The form will ask the participant whether they wish to remain anonymous or not in the publication of the thesis and also ask whether they prefer to change or not change details that might make the participant identifiable to others.

Faculty of Engineering

Process for approval of research study involving human participants

Introduction

This document describes the process to be followed when planning and obtaining approval for studies involving human participants within the Faculty of Engineering. This process is based on one previously run within the School/Dept. M3. The process is administered by the Faculty Research Ethics Committee, and managed by the Chair of the Ethics Committee and the Faculty Research Ethics Officer. All queries regarding the process should be initially sent to ez-eng-ethics@nottingham.ac.uk

What is Ethics Approval?

When conducting any study or observation or collecting data about individuals, it is essential that full consideration is given to ethical issues and that steps are taken to ensure participant well-being throughout the study.

Participants involved in research studies have a right to:

- Know the goals of the study and who is funding the work
- Make an informed decision about whether or not they wish to participate
- Leave the study at any time if they do not wish to continue
- Know what will happen to them during the study and how long it will take
- Know if they may experience any discomfort
- Know what will happen to the findings
- Privacy of personal information
- Be treated courteously

The University of Nottingham and Faculty of Engineering have an ethics procedure that requires all staff and students to submit an application for ethical approval before conducting any research study involving human participants. Members of the Ethics Committee read through study proposals to check that the researcher has demonstrated that they have given full consideration to ethical issues and that they have provided participants with appropriate and sufficient information.

Who needs Ethics Approval?

ANY member of staff or registered student of the University of Nottingham involved in conducting any study or observation or collecting data about individuals **MUST** adhere to the University Code of Research Conduct and Research Ethics. Those affiliated with the Faculty of Engineering **MUST ALSO** comply with the Faculty ethical approval process before commencing their study.

Ethics application procedure

The attached document outlines the ethics approval process within the Faculty of Engineering. For all applications required to undergo formal review, applications must be submitted to the **Ethics Administrator**, ez-eng-ethics@nottingham.ac.uk. The application will then be reviewed by the ethics committee. We aim to return a decision to applicants within two weeks but the procedure may be delayed if the ethics committee require further information. It is the applicant's responsibility to make sure that applications are submitted in good time.

THE STUDY MAY **NOT** START UNTIL ETHICAL APPROVAL HAS BEEN AWARDED

Information you should give to ALL participants

The following list describes the information that should be given to all participants. Normally this should be given in a participant information sheet at the beginning of the study, and participants should be required to confirm that they have understood the nature of the study, and that they are happy to participate.

The following information should be included:

- Details of who will be conducting the study.
- Details about who is sponsoring the study and what the terms of the sponsorship are (i.e. who will 'own' the data and how the data will be used).
- Details about the nature, purpose and duration of the study. (Participants whose first language is NOT English may need further explanation of what is involved as their understanding of some of the terminology may be limited).
- What kinds of procedures will be used and what participant will be asked to do.
- Details about any hazards, inconveniences and risks associated with the study.
- What procedures will be followed if a participant is injured. (only needed if risk of injury has been identified)
- What benefits (payments, expenses etc) are attached to the study.
- What they need to do in order to receive the payments described above.
- What procedures will be employed to maintain confidentiality and anonymity (e.g. removing personal details from data/reports, keeping data in locked files)
- What will happen to the data (how it will be used, how it will be stored, in what form it will be disseminated and if it is likely to be used for further analysis).
- How you will use photographs or video records (data analysis, illustration purposes, displayed to sponsors/ non-public academic audiences, printed in public domain documents etc).
- Details about who to contact if questions or problems arise.
- ALL participants must be told that any involvement in the study is voluntary and they are free to withdraw at any time. You should also explain any consequences for the participant of withdrawing from the study and indicate what will be done with the participant's data if they withdraw.

Faculty of Engineering

Application for approval of research study involving human participants

ALL applicants must provide the following information

The applicant must be the person who will conduct the investigations; each application must be made by one applicant:

- usually the student in the case of taught or research courses,
- usually the researcher (the member of university research or academic staff) who will conduct the study in the case of funded research projects,
- usually the principal investigator in the case of applications for ethics approval in advance of submission of a research proposal

If the applicant is an Undergraduate or Postgraduate taught or research student please complete the information below. The application must be approved by a Supervisor.

Name of student:	Natthakit Phetsuriya	Student No:	14316762
Course of study:	PhD Architecture (Social Sciences)	Email address:	laxnp5@nottingham.ac.uk
Supervisor:	Prof. Timothy Heath	PGR <input checked="" type="checkbox"/>	PGT <input type="checkbox"/>
		MSc <input type="checkbox"/>	UG <input type="checkbox"/>

If the applicant is a member of university research or academic staff, please complete the information below: For research staff, the application must be approved by the Principal Investigator

Name:		Principal Investigator	
Email address:		PI Signature:	

Title of investigation: Asking the local people's opinion about the nomination of Chiang Mai Heritage Site, The identity of the Urban Heritage of Chiang Mai Old City, Thailand.

Planned date for study to begin 5th February 2020 Duration of Study 40 days

Please state whether this application is:

- New
 Revised
 A renewal
 For a continuation study

Selection of review process

Please indicate whether the application is required to go forward to the ethics committee for formal review, or, in the case of projects completed by **taught undergraduate and postgraduate students only**, whether the application can be approved by the supervisor under the expedited review process*.

- Formal review, application will be approved by supervisor* submitted to ethics committee Supervisor is a member of the Faculty Ethics committee
 Expedited review, application is
- * This option can only be selected if the member of the Faculty Ethics committee

Approval by supervisor: expedited review

I approve the application as supervisor of this project, under the expedited review procedure.

Name of supervisor Signature.....
Date.....

Office use only	
Date form received:	Date decision returned to applicant:
Passed to reviewers:	1. Name.....
Date.....	
(formal review only)	2. Name.....
Date.....	

Ethical Issues Checklist

The purpose of this Checklist is to facilitate the review process and to identify any ethical issues that may concern the Committee. It is meant to be an aid to both the researcher and the Committee. Listed below are areas which require some justification and attention on your part in specifying your study protocol. Please answer each question honestly, giving full details where required. Answering “YES” to any of the questions will not necessarily lead to a negative response to your application but it will draw issues to your attention and give the reviewers the opportunity to ensure appropriate steps are being taken. In expedited review, supervisors should ensure that for any questions where the answer “YES” has been given, appropriate measures have been taken to maintain ethical compliance.

Applicant’s full name **Natthakit Phetsuriya**

You must complete ALL of this section before submitting your application

1 Who is the population to be studied?

Local people who inhabit or work in Chiang Mai Old City, Chiang Mai World Heritage Team and also the scholars, they are selected from those who have participated with the Chiang Mai World Heritage team or have undertaken research on Chiang Mai Old City conservation.

2 Please give details of how the participants will be identified, approached and recruited. (Include any relationship between the investigator and participants e.g. instructor-student).

This research will consist of three parts. The first part is a questionnaire for 400 participants. All Participants will be identified and approached on site. The duration of the interviews is estimated around 10 minutes and participants will be recruited in different locations of the Chiang Mai old city. The participants will be all aged 18 or above and will be selected according to various age and must be a local people who inhabit or work in the Chiang Mai Old City. Second part is an interview with 10 Scholars. All Scholars will be selected from those who have participated with the Chiang Mai World Heritage team or have undertaken research on Chiang Mai Old City conservation. The duration of the interviews is estimated around 30 minutes and participants will be recruited by letter or e-mail and approached in different locations. The third part is a focus group with 12 participants. The participants will be all aged 18 or above and will be selected according to various age and all participants will be selected from local people, landlords or stakeholder who relate with Chiang Mai Old City. The researcher will post and ask for participation by poster and social media. The duration of this process is estimated around 120 minutes and participants will be recruited through e-mail, social media or from participants in the questionnaire survey.

Before the interview part, the participants will be given the information sheet including the interview questions, and consent form.

1. The interviews will be conducted once the potential participants have approved and signed the consent form.
2. The interviews will be conducted in person.

3 Will the population studied include any vulnerable members of the public?

Note: for the purpose of ethics approval this includes participants who are under 18, people who are disabled or in poor health, and also those who are non-English speakers and may not be able to understand the consent forms. (If YES, please give further details)

YES **NO**

All participants are Thai. The language which be used in this questionnaire, an interview and a consent form will be translated in Thai. It is reasonable to use native language to ask local people. The researcher will carefully translate the questionnaire, the question for interview and the data after interview to meet the reliable criteria of Research Ethical.

- 4** Will it be possible to associate specific information in your records with specific participants on the basis of name, position or other identifying information contained in your records? **YES** **NO**

- 5** What steps have you taken to ensure confidentiality of personal information and anonymity of data both during the study and in the release of its findings?

The information will not be accessed or used by anyone other than the researcher and supervisor. The participants will be given the options in the consent form if they want their personal information to be identified or not. Furthermore, the researcher will provide a post-interview confidentiality forms to guarantee the confidentiality of the participant's personal information.

- 6** Describe what data will be stored, where, for what period of time, the measures that will be put in place to ensure security of the data, who will have access to the data, and the method and timing of disposal of the data.

Paper records should be stored in a locked filing cabinet. Digital data should be stored only on a password-protected computer and/or on a secure server. In accordance with the Data Protection Act, the data needs to be kept securely for seven years following publication kept securely for seven years following publication of results. After this time, electronic files will be deleted and any hard copies will be destroyed.

At the end of a student project, students are responsible for ensuring that all data from the study is passed on to their academic supervisor/s. The supervisors/s will then have responsibility for the storage of that data.

During the research, all photos, videos and audios recordings taken by the researcher will be stored in a password protected filed and stored in a locked filing cabinet and scanned to be stored digitally on a password-protected external hard drive and online One Drive storage. The researcher and supervisor will be the only person with access to the raw data. All data handling and storage will be in line with the University of Nottingham Research Code and Research Ethics of Conduct. The data will be archived in the university record storage facilities for seven years after the research completion and the degree has been awarded.

- 7** Will persons participating in the study be subjected to physical or psychological discomfort, pain or aversive stimuli which is more than expected from everyday life? (If YES, please give further details) **YES** **NO**
-

.....

8	Will participants engage in strenuous or unaccustomed physical activity? (If YES, please give further details)	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		
9	Will the investigation use procedures designed to induce participants to act contrary to their wishes? (If YES, please give further details)	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		
10	Will the investigation use procedures designed to induce embarrassment, humiliation, lowered self esteem, guilt, conflict, anger, discouragement or other emotional reactions? (If YES, please give further details)	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		
11	Will participants be induced to disclose information of an intimate or otherwise sensitive nature? (If YES, please give further details)	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		
12	Will participants be deceived or actively misled in any manner? (If YES, please give further details)	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		
13	Will information be withheld from participants that they might reasonably expect to receive? (If YES, please give further details)	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		
14	Will the research involve potentially sensitive topics? (If YES, please give further details)	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		
15	Will data be collected which requires potentially invasive procedures (eg attaching electrodes to the skin) and/or other health-related information to be identified (eg heart rate). If yes please give details	YES	NO
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		

If you require space for additional information, please add it here and identify the question to which it refers:

2019-20 academic year only

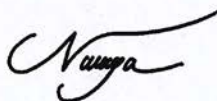
Checklist of information to include with your application:

Please tick the boxes below to confirm that you have included the following information with your submission. Failure to include the required information may result in your ethics application and approval for start of your research to be delayed.

- A brief description of the study design:
 - number and type of participants
 - number and duration of activities participants will be involved in
 - equipment and procedures to be applied
 - information about how participants will be recruited
 - whether participants will be paid (state how this will be done)
 - plans to ensure participant confidentiality and anonymity
 - plans for storage and handling of data
 - information about what will happen to the data after the study
 - information about how any data and images may be used
 - state whether it will be possible to identify any individuals.
- Copies of any information sheets to be given to participants (include recruitment information (e.g. adverts, posters, letters, etc))
- A copy of the participant consent form
- Copies of data collection sheets, questionnaires, etc

I confirm that all of the above is included in the application:

As the applicant I confirm that I have read and understand the Ethical requirements for my study and have read and complied with the University of Nottingham Code of Research Conduct and Research Ethics.



Signature of applicant Date 02/01/2020

As supervisor, I confirm that I have checked the details of this application.

Signature of supervisor Date 08/01/2020

NB The signature of the supervisor on this part of the application DOES NOT indicate supervisor approval for expedited review. If supervisor approval is granted then the front page of the application MUST be signed for approval to be confirmed.

Ethics Committee Reviewer Decision

This form must be completed by each reviewer. Each application will be reviewed by two members of the ethics committee. Reviews may be completed electronically and sent to the Faculty ethics administrator (Jo Deeley) from a University of Nottingham email address, or may be completed in paper form and delivered to the Faculty of Engineering Research Office.

Applicant full name Natthakit Phetsuriya

Reviewed by:

Name G02

Signature (paper based only)

.....

Date 02/02/2020

- Approval awarded - no changes required
- Approval awarded - subject to required changes (see comments below)
- Approval pending - further information & resubmission required (see comments)
- Approval declined – reasons given below

Comments:

Please note:

1. The approval only covers the participants and trials specified on the form and further approval must be requested for any repetition or extension to the investigation.
2. The approval covers the ethical requirements for the techniques and procedures described in the protocol but does not replace a safety or risk assessment.
3. Approval is not intended to convey any judgement on the quality of the research, experimental design or techniques.
4. Normally, all queries raised by reviewers should be addressed. In the case of conflicting or incomplete views, the ethics committee chair will review the comments and relay these to the applicant via email. All email correspondence related to the application must be copied to the Faculty research ethics administrator.

Any problems which arise during the course of the investigation must be reported to the Faculty Research Ethics Committee

Ethics Committee Reviewer Decision

This form must be completed by each reviewer. Each application will be reviewed by two members of the ethics committee. Reviews may be completed electronically and sent to the Faculty ethics administrator (Jo Deeley) from a University of Nottingham email address, or may be completed in paper form and delivered to the Faculty of Engineering Research Office.

Applicant full name Natthakit Phetsuriya

Reviewed by:

Name B18

Signature (paper based only)

.....

Date 24/01/2020

- Approval awarded - no changes required
- Approval awarded - subject to required changes (see comments below)
- Approval pending - further information & resubmission required (see comments)
- Approval declined – reasons given below

Comments:

The consent form states that the questionnaire will take about 10 minutes to complete. The version of the questionnaire containing only a sample of photographs runs over 7 pages with many questions. I would suggest either changing the information to participants giving a realistic time for completion or reduce the length of the question such that this can be completed in 10 minutes.

Please note:

5. The approval only covers the participants and trials specified on the form and further approval must be requested for any repetition or extension to the investigation.
6. The approval covers the ethical requirements for the techniques and procedures described in the protocol but does not replace a safety or risk assessment.
7. Approval is not intended to convey any judgement on the quality of the research, experimental design or techniques.
8. Normally, all queries raised by reviewers should be addressed. In the case of conflicting or incomplete views, the ethics committee chair will review the comments and relay these to the applicant via email. All email correspondence related to the application must be copied to the Faculty research ethics administrator.

Any problems which arise during the course of the investigation must be reported to the Faculty Research Ethics Committee



GENERIC PARTICIPANT CONSENT FORM: Questionnaire

Project title: **The identity of the Urban Heritage of Chiang Mai Old City, Thailand**

Researcher's name: **Mr.Natthakit Phetsuriya**

Supervisor's name: **Professor Timothy Heath**

Thank you for participating in this study. This research aims to identify and understand the identity of the Urban Heritage of Chiang Mai Old City, Thailand following local people's opinion.

The questionnaire will take around 10 minutes. In the questionnaire there will be three parts. Firstly, there will be a preference study including the 33 attributes used to nominate Chiang Mai as a World Heritage site. The second part will ask about the townscape in the Chiang Mai Old City area based on local people's opinions. The last part will ask specifically about the Chiang Mai Municipal Building Law for Conservation area.

Please note

- You are entitled to withdraw from the study at any time. Also, if you decide later, you are entitled to have your data removed.
- You have read the Participant Information Sheet and the purpose of the research has been clearly explained. You understand and agree to take part.
- You have understood that while information gained during the study may be published, you will not be identified and your results will remain confidential.
- You have understood that data will be treated in confidence and anonymously and secured in a password protected file and stored in a locked filing cabinet and scanned to be stored digitally on a password-protected external hard drive and online One drive storage. The researcher and supervisor will be the only person with access to the raw data. All data handling and storage will be in line with the University of Nottingham Research Code and Research Ethics of Conduct. The data will be archived in the university record storage facilities for seven years after the research completed and the degree has been awarded.
- You have understood that you could contact the researcher or supervisor if you require further information about the research and that you could contact the Research Ethics Coordinator of the School of Engineering, University of Nottingham if you wish to make a complaint relating to your involvement in the research.

If you are happy to take part, please sign below:

Name (Optional)

Signature..... Date

Thank you for your participation

Natthakit Phetsuriya

SAMPLE



GENERIC PARTICIPANT CONSENT FORM : Interview

Project title: **The identity of the Urban Heritage of Chiang Mai Old City, Thailand**

Researcher's name: **Mr.Natthakit Phetsuriya**

Supervisor's name: **Professor Timothy Heath**

Thank you for participating in this study. This is a research to identify and understand the identity of the Urban Heritage of Chiang Mai Old City, Thailand following local people's opinions.

The interview will take around 20 minutes. In the interview, we will ask your opinion about the value of the Urban Heritage of Chiang Mai Old City. The main questions are:

"How does the Identity of the Urban Heritage of Chiang Mai Old City reflect the value of social aspects?"

"How do the townscapes of Chiang Mai Old City represent an important role in the nomination of Chiang Mai Old City as a the new world heritage site?; and

"According to your work or research, what further conservation strategies are suitable for Chiang Mai Old City?"

Please note

- You are entitled to withdraw from the study at any time. Also, if you decide later, you are entitled to have your data removed.
- You have read the Participant Information Sheet and the purpose of the research has been clearly explained. You understand and agree to take part.
- You have understood that while information gained during the study may be published, you will not be identified and your results will remain confidential.
- You have understood that you will be recorded by audiotape/videotape during the interview.
- You have understood that data will be treated in confidence and anonymously and secured in a password protected file and stored in a locked filing cabinet and scanned to be stored digitally on a password-protected external hard drive and online One drive storage. The researcher and supervisor will be the only person with access to the raw data. All data handling and storage will be in line with the University of Nottingham Research Code and Research Ethics of Conduct. The data will be archived in the university record storage facilities for seven years after the research completed and the degree has been awarded.
- You have understood that you could contact the researcher or supervisor if you require further information about the research and that you could contact the

Research Ethics Coordinator of the School of Engineering, University of Nottingham if you wish to make a complaint relating to your involvement in the research.

- If you need to leave the focus group temporarily, just let us know.

If you are happy to take part, please sign below:

Name (Optional)

Signature..... Date

Thank you for your participation

Natthakit Phetsuriya

SAMPLE



GENERIC PARTICIPANT CONSENT FORM : Focus Group

Project title: **The identity of the Urban Heritage of Chiang Mai Old City, Thailand**

Researcher's name: **Mr.Natthakit Phetsuriya**

Supervisor's name: **Professor Timothy Heath**

Thank you for participating in this study. This is a research to identify and understand the identity of the Urban Heritage of Chiang Mai Old City, Thailand following local people's opinions.

Today's focus group will take around 120 minutes. In the focus group, we will ask you to discuss your opinion regarding the value of the Urban Heritage of Chiang Mai Old City which reflects local people in the term of the social aspects. The questions are "What is the identity of Urban Heritage of Chiang Mai Old City?" and "How do the participants explain and discuss the value of those identities which reflect local people in term of the social aspects?". The second topic is the further conservation strategies for Chiang Mai Old City from the local people's perspective. The question is "How do the participants propose further conservation strategies for Chiang Mai Old City from the local people's perspective?"

We will offer you a 500 baht voucher for your participation in the focus group.

Please note

- You are entitled to withdraw from the study at any time. Also, if you decide later, you are entitled to have your data removed.
- You have read the Participant Information Sheet and the purpose of the research has been clearly explained. You understand and agree to take part.
- You have understood that while information gained during the study may be published, you will not be identified and your results will remain confidential.
- You have understood that you will be audiotaped/videotaped during the interview.
- You have understood that data will be treated in confidence and anonymously and secured in a password protected filed and stored in a locked filing cabinet and scanned to be stored digitally on a password-protected external hard drive and online One drive storage. The researcher and supervisor will be the only person with access to the raw data. All data handling and storage will be in line with the University of Nottingham Research Code and Research Ethics of Conduct. The data will be archived in the university record storage facilities for seven years after the research completed and the degree has been awarded.
- You have understood that you could contact the researcher or supervisor if you require further information about the research and that you could contact the

Research Ethics Coordinator of the School of Engineering, University of Nottingham if you wish to make a complaint relating to your involvement in the research.

If you are happy to take part, please sign below:

Name (Optional)

Signature..... Date

Thank you for your participation

Natthakit Phetsuriya

SAMPLE



Post-interview confidentiality form

The researcher is responsible for to use of the information that you have shared. Now, you have completed the interview, I would like to give you the opportunity to provide me with additional feedback on how you prefer to have your data used?

Please select one of the following statements:

You permit the researcher to share the information just as you provided it. The researcher shall not change any details and may use your real name when using your data in the thesis publications or presentations.

You permit the researcher to share the information just as you provided it; however, you do not permit the use of your name.

You permit the researcher to share the information you provided; however, you do not want your real name to be used and want to have any details that might make you identifiable to others removed. In particular, it is your wish that any specific pieces of data are not shared without first altering the data so as to make your unidentifiable (describe this data in the space below): _____

You permit the researcher to contact you if he has any questions about sharing the data with others. The best way to contact you is (provide phone number or email)

: _____

Participant's signature _____ Date _____

Researcher's signature _____ Date _____



 **The University of Nottingham**
UNITED KINGDOM · CHINA · MALAYSIA

ขอเชิญผู้ที่สนใจเข้าร่วมเป็นส่วนหนึ่งของงานวิจัยในการ
แลกเปลี่ยนความคิดเห็นหัวข้อเรื่อง
Call for participants for research study

“อัตลักษณ์มรดกเมืองเก่าเชียงใหม่”
The identity of the Urban Heritage of Chiang Mai Old City, Thailand

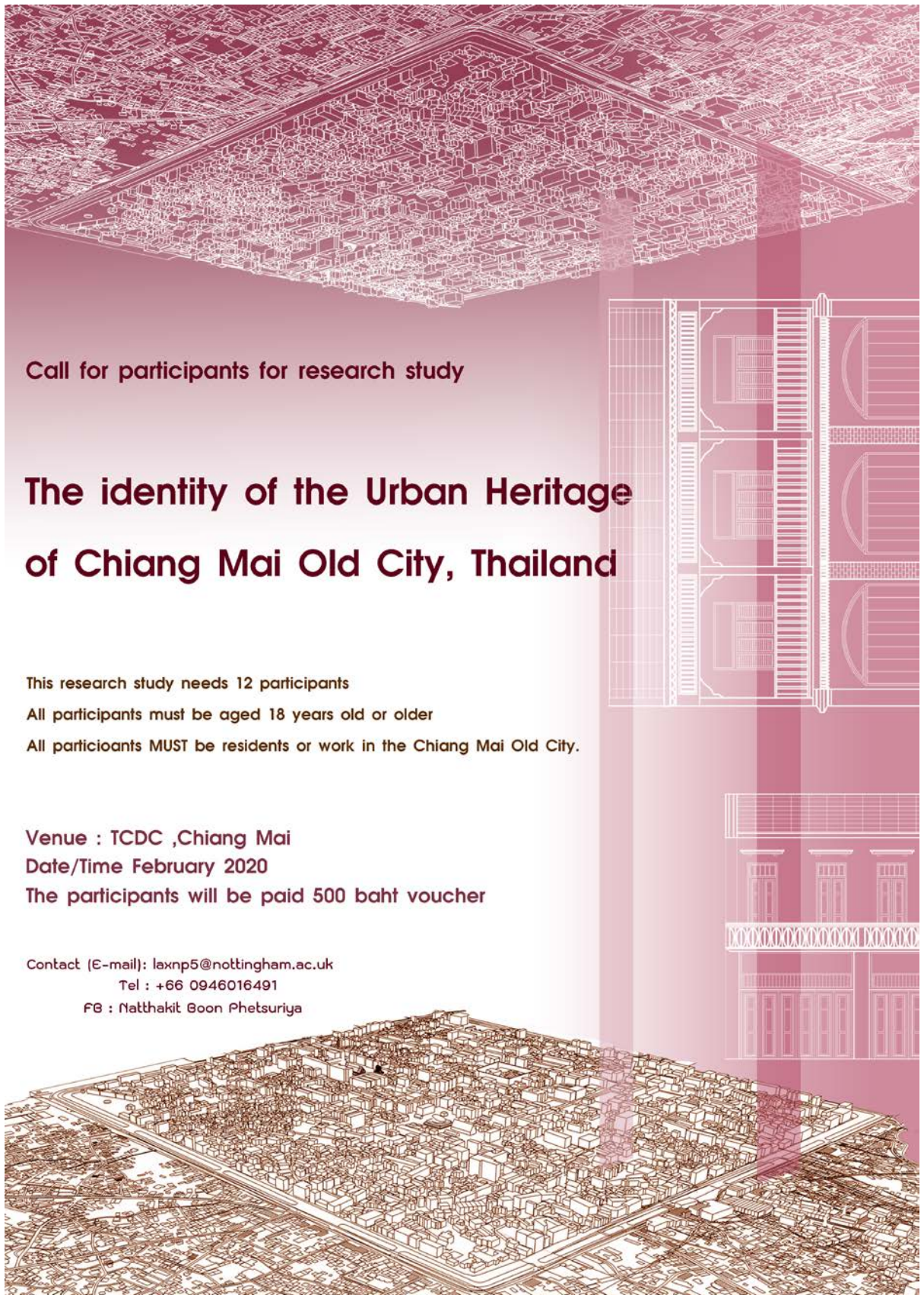
ผู้วิจัยต้องการผู้เข้าร่วมทั้งหมด 12 ท่าน ผู้เข้าร่วมงานวิจัยต้องทำงานหรืออาศัย
อยู่ในเขตพื้นที่เมืองเก่าเชียงใหม่ และมีอายุ 18 ปีบริบูรณ์ หรือมากกว่า

This research study needs 12 participants and take 2 hours
All participants must be aged 18 years old or older
All participants MUST be residents or work in the Chiang Mai Old City.

สถานที่จัดงาน : TCDC Chiang Mai : ห้องประชุมชั้นล่าง
วันและเวลาจัดงาน : วันอาทิตย์ที่ 23 กุมภาพันธ์ พ.ศ.2563 เวลา 13.00-15.00 น.
ผู้เข้าร่วมงานทุกท่านจะได้รับค่าเข้าร่วมงาน 1,000 บาท

Venue : TCDC ,Chiang Mai
Date-Time :Sunday 23rd February 2020 1pm.-3pm.
The participants will be paid 500 baht voucher

Contact (E-mail): laxnp5@nottingham.ac.uk
Tel : +66 0946016491
FB : Natthakit Boon Phetsuriya



Call for participants for research study

The identity of the Urban Heritage of Chiang Mai Old City, Thailand

This research study needs 12 participants

All participants must be aged 18 years old or older

All participants MUST be residents or work in the Chiang Mai Old City.

Venue : TCDC ,Chiang Mai

Date/Time February 2020

The participants will be paid 500 baht voucher

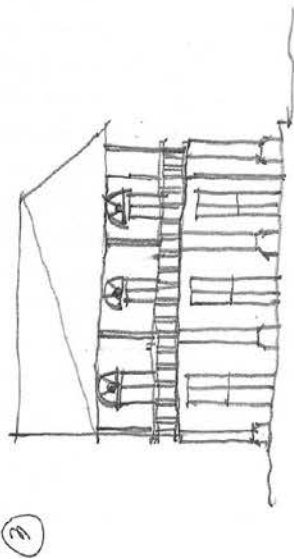
Contact (E-mail): lxnp5@nottingham.ac.uk

Tel : +66 0946016491

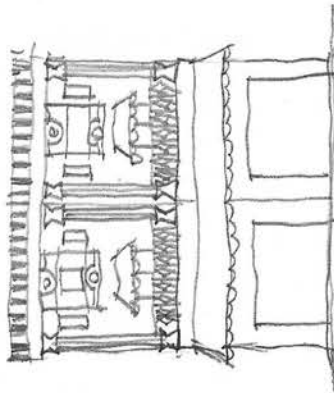
FB : Matthakit Boon Phetsuriya



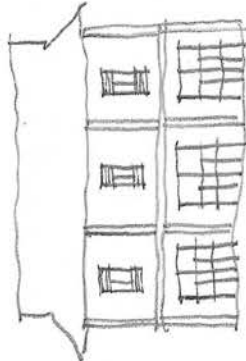
Answer sheet of façades design from Sample participants (Arch001)



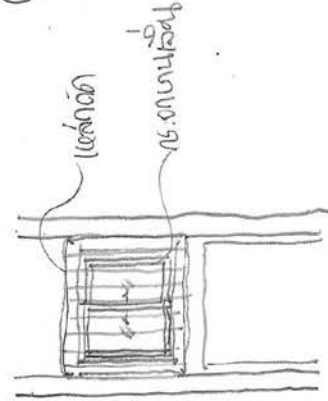
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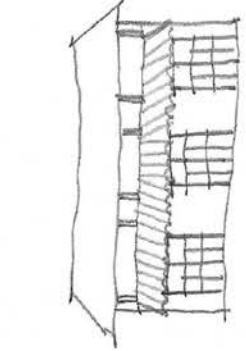
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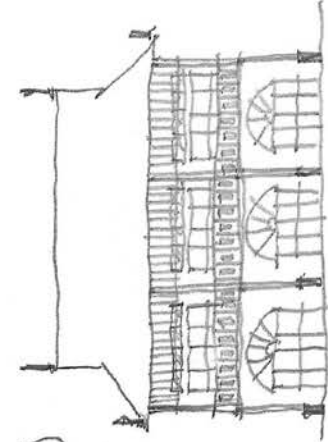
2



5



1



4

Answer sheet of façades design from Sample participants (Arch002)



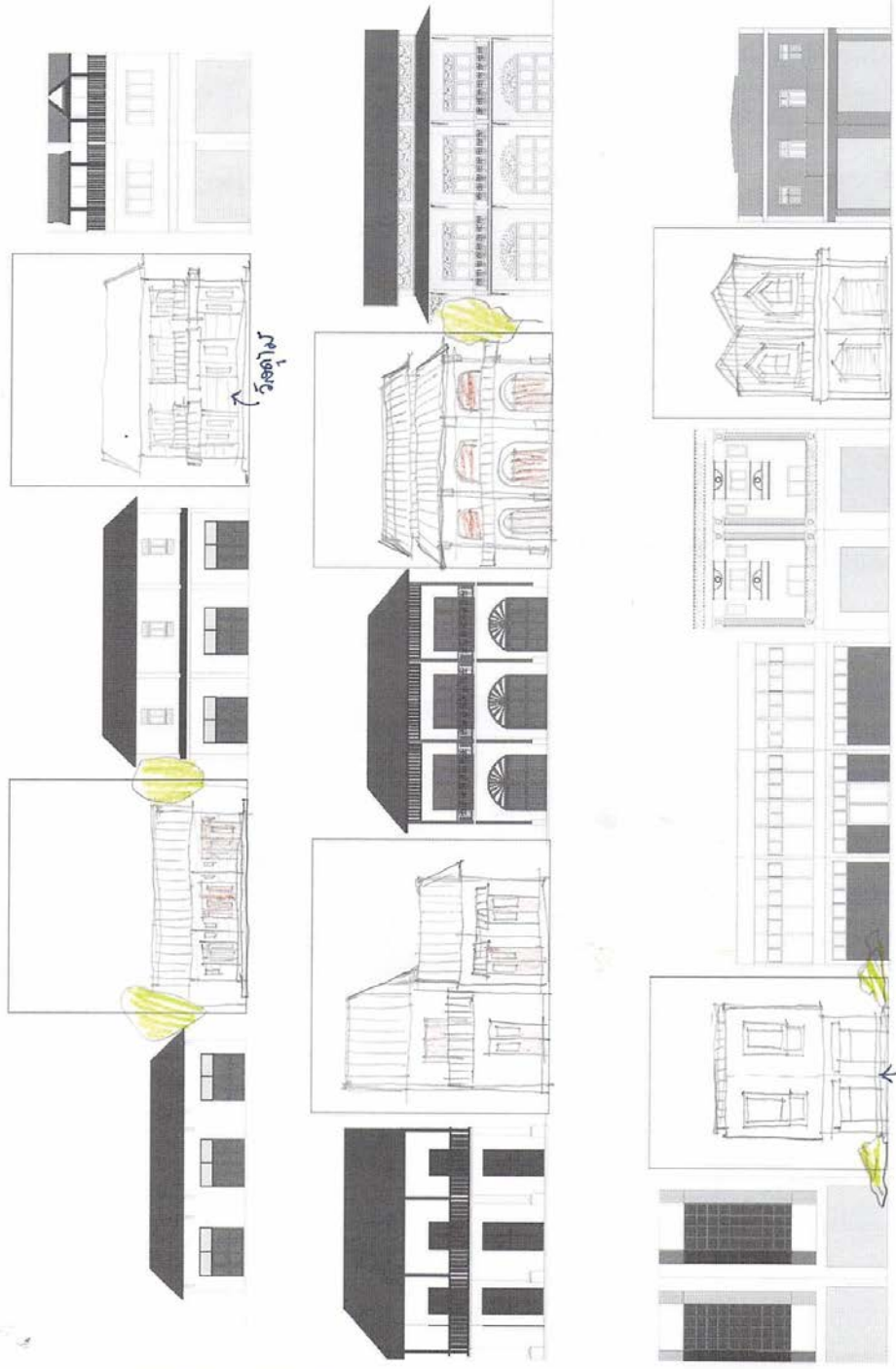
Answer sheet of façades design from Sample participants (Arch004)

1. ให้ผู้ทำแบบสอบถามออกแบบและวาดรูป “รูปด้านหน้าอาคารที่พักแหวง” ในช่องว่าง อย่างน้อยแหวลลล 1 รูป
Code.....

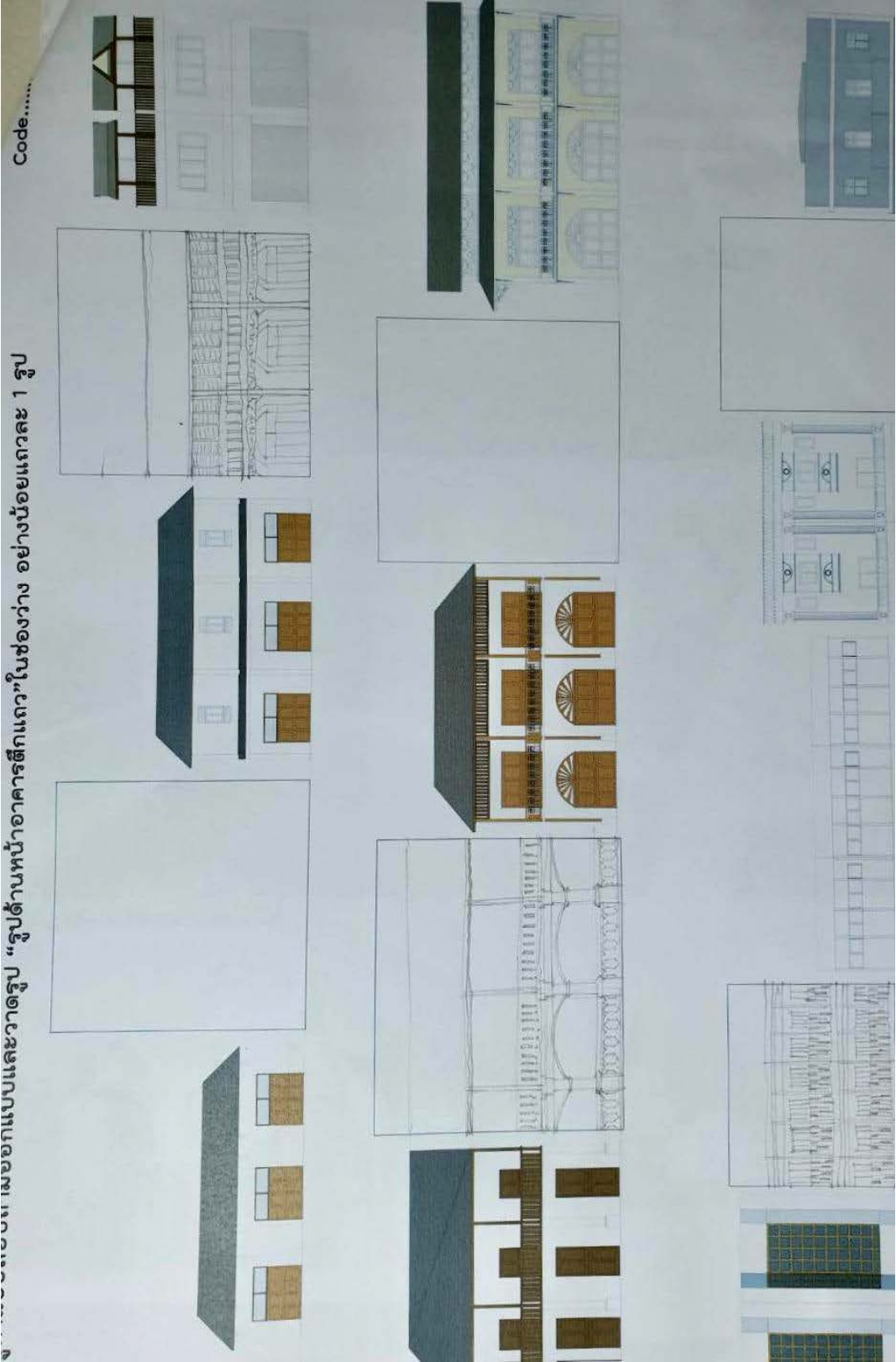


Answer sheet of façades design from Sample participants (Arch005)

1. ให้ผู้ทำแบบสอบถามออกแบบและวาดรูป "รูปด้านหน้าอาคารตึกแถว" ในช่องว่าง อย่างน้อยแฉพาะ 1 รูป
Code.....



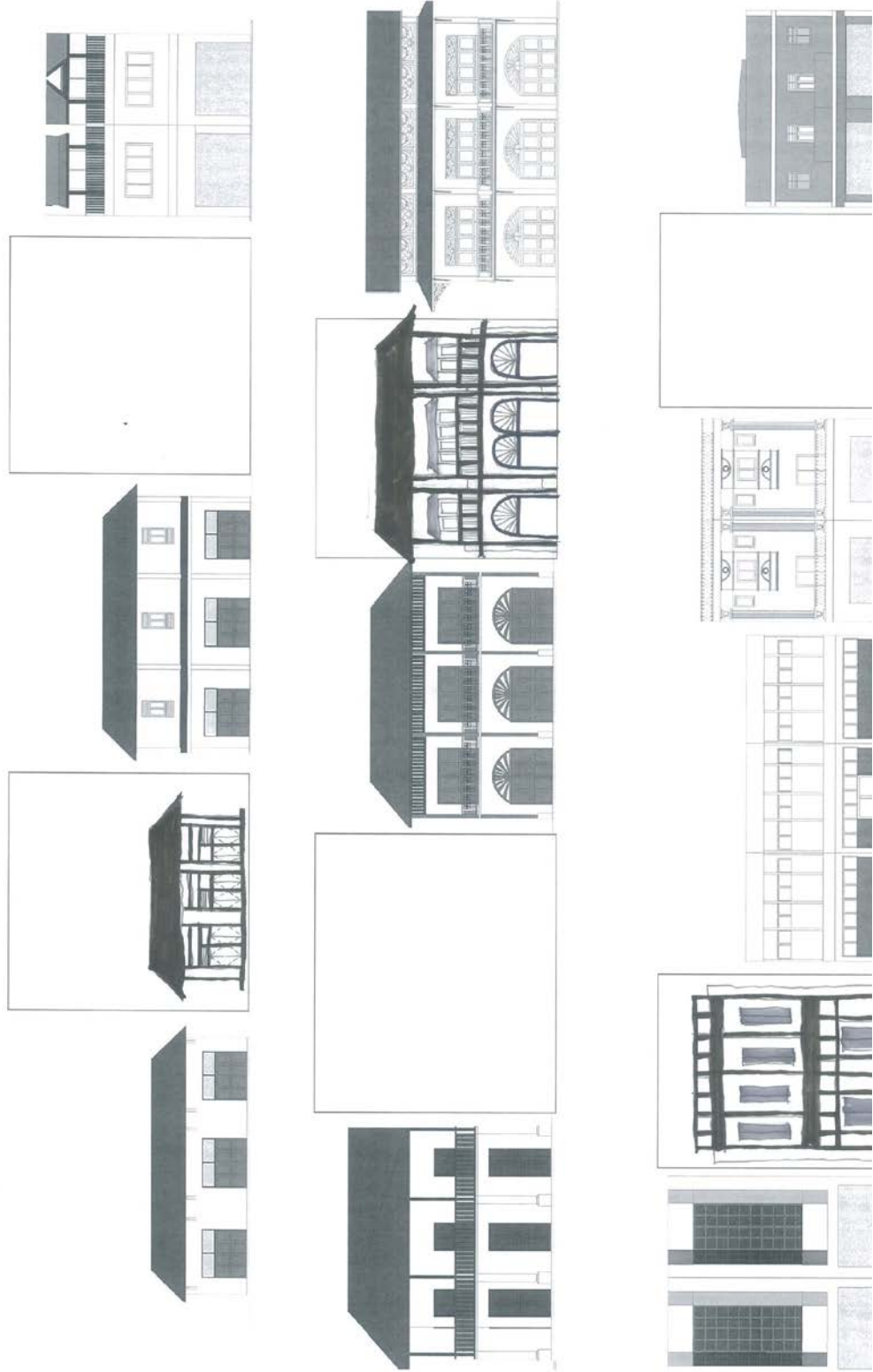
Answer sheet of façades design from Sample participants (Arch006)



Answer sheet of façades design from Sample participants (Arch007)

1. ให้ผู้ทำแบบสอบถามออกแบบและวาดรูป “รูปด้านหน้าอาคารศึกษา” ในช่องว่าง อย่างน้อยแต่ละ 1 รูป

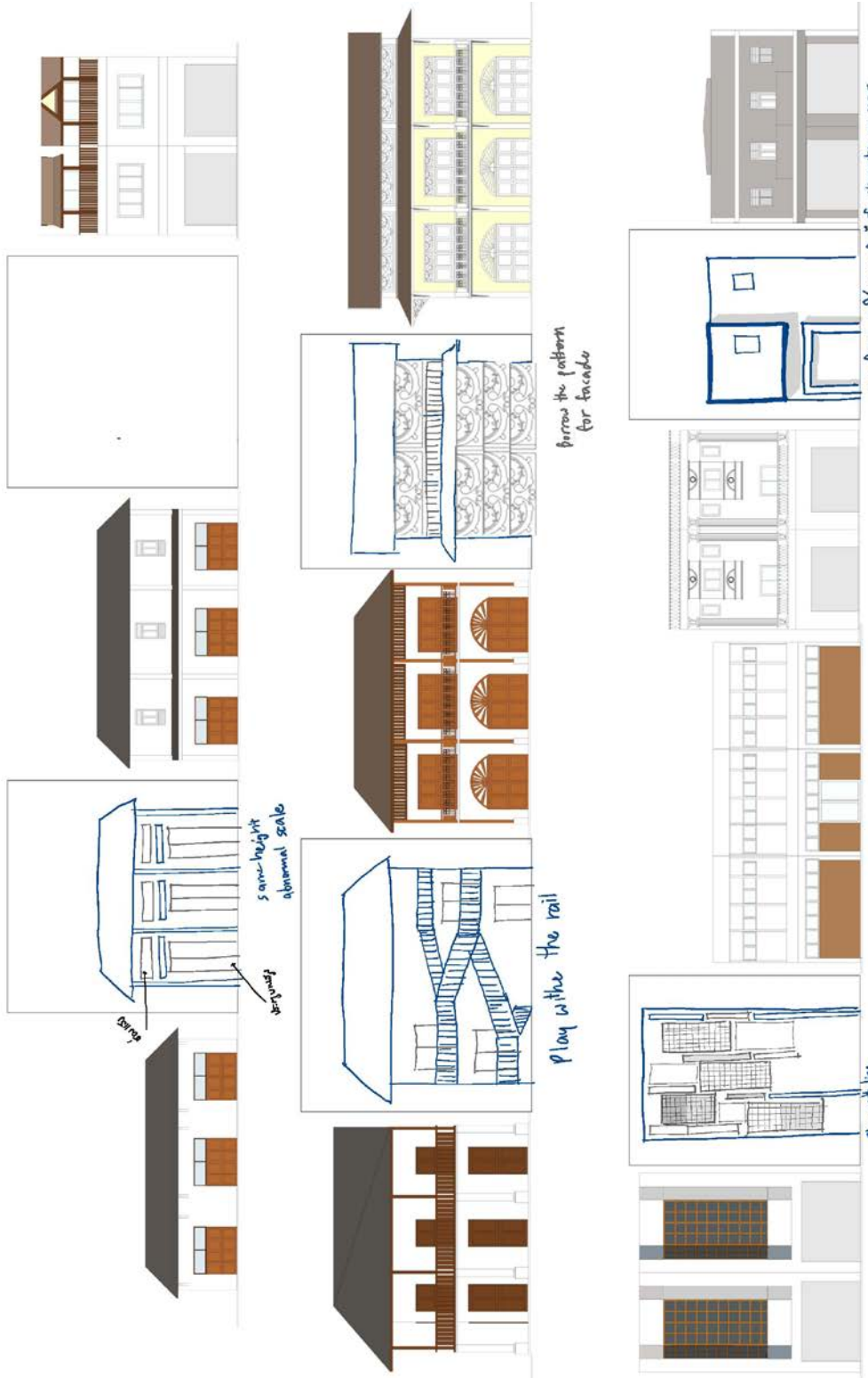
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Answer sheet of façades design from Sample participants (Arch008)

1. ให้ผู้ทำแบบสอบถามออกแบบและวาดรูป “รูปด้านหน้าอาคารตึกแถว” ในช่องว่าง อย่างน้อยแต่ละ 1 รูป

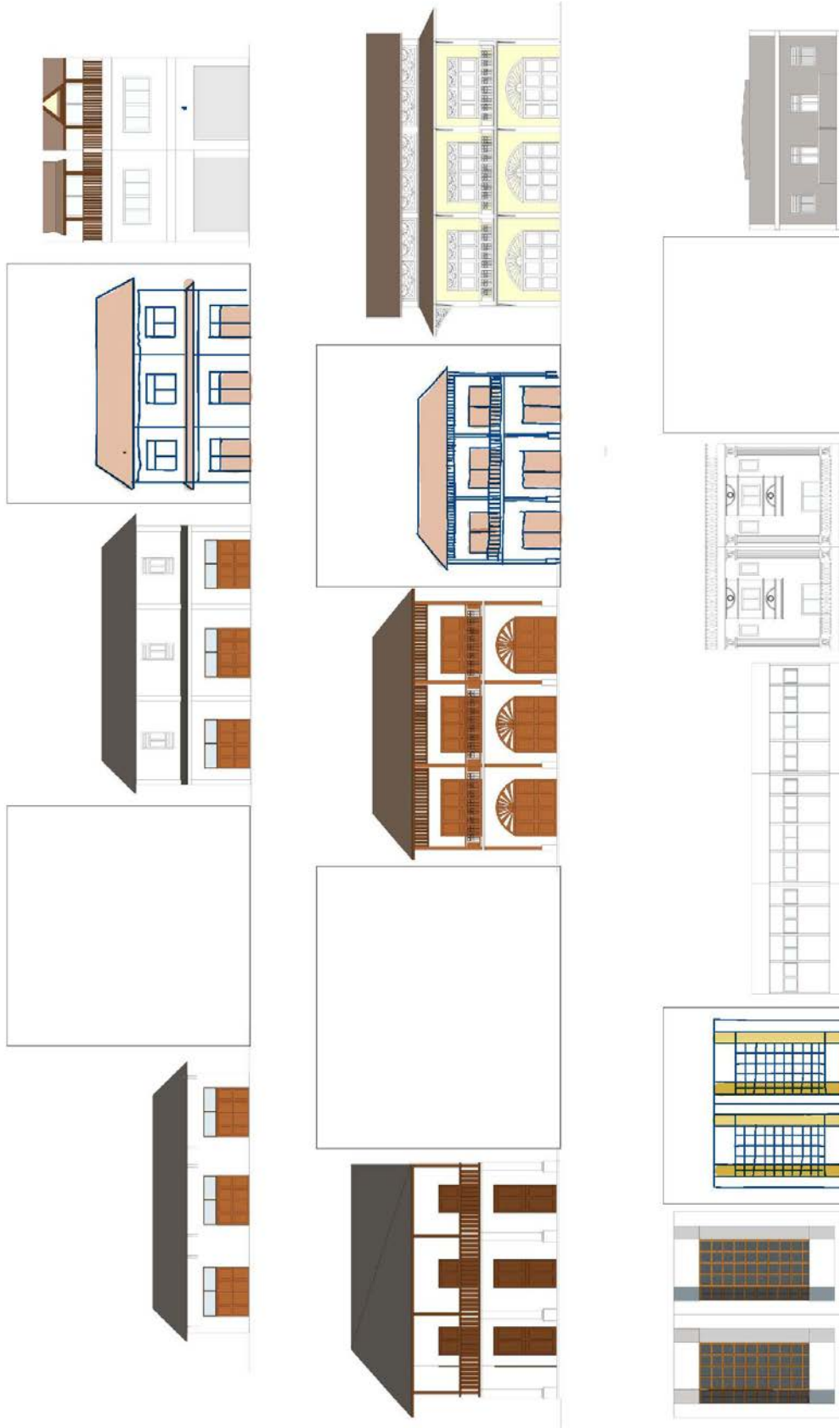
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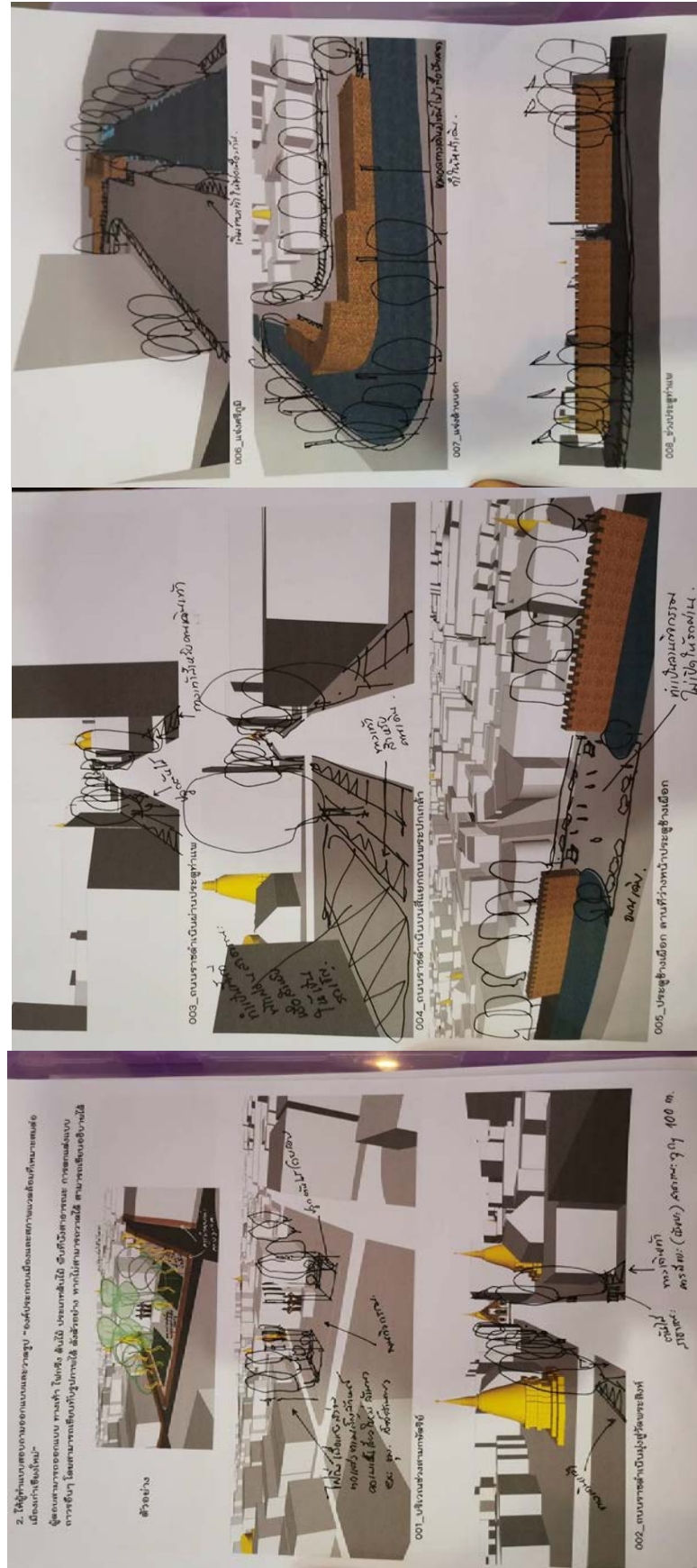
Answer sheet of façades design from Sample participants (Arch009)

1. ให้ผู้ทำแบบสอบถามออกแบบและวาดรูป “รูปด้านหน้าอาคารตึกแถว” ในช่องว่าง อย่างน้อยแต่ละ 1 รูป

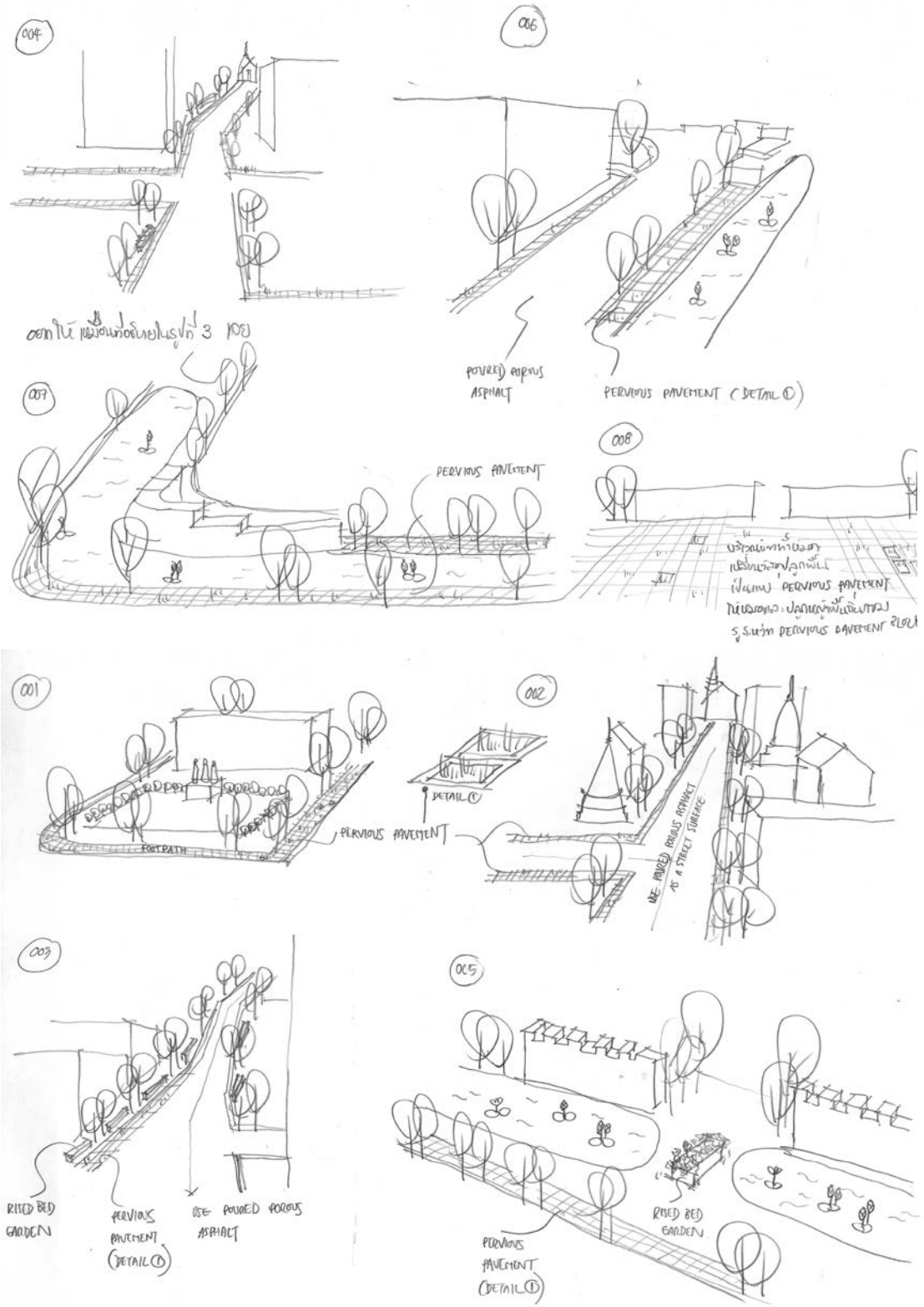
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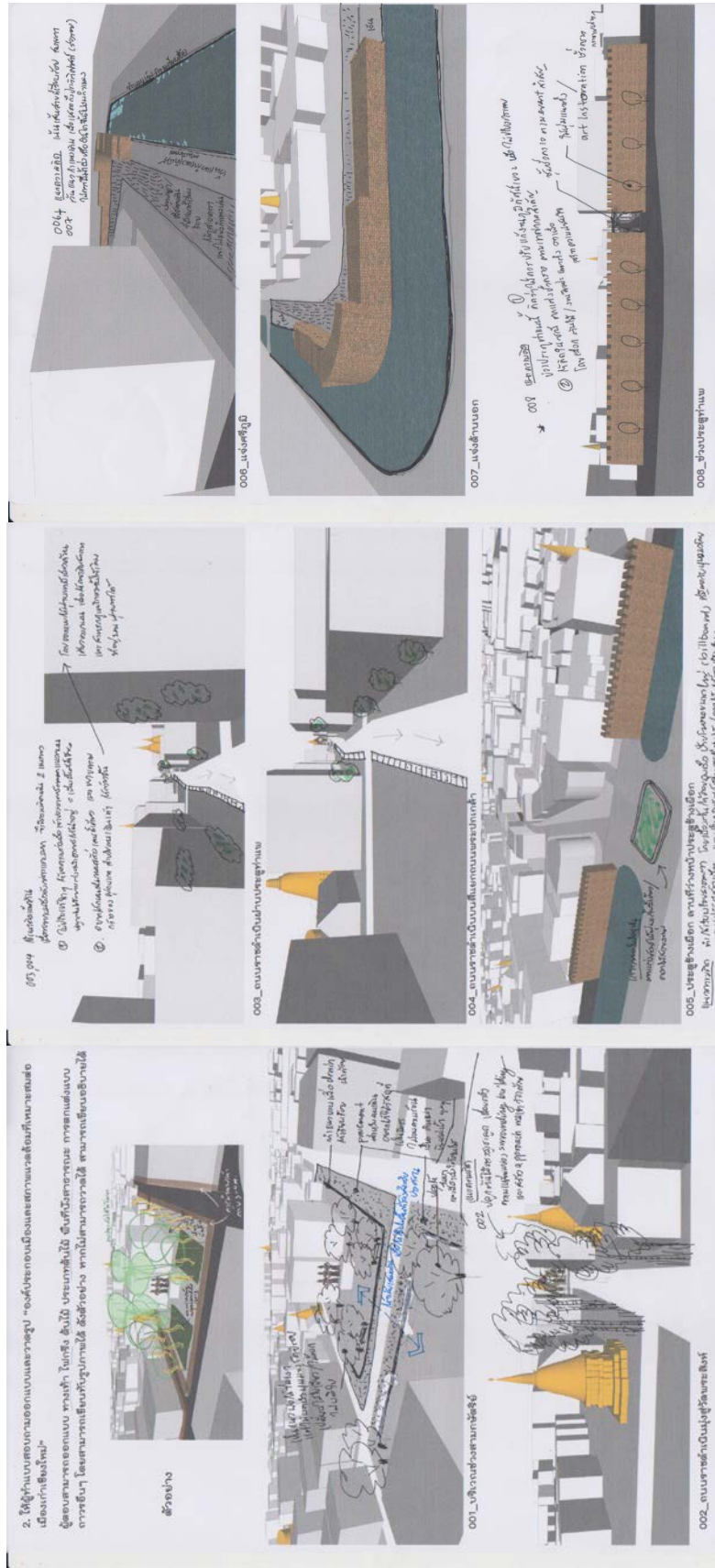
Answer sheet of façades design from Sample participants (Arch010)



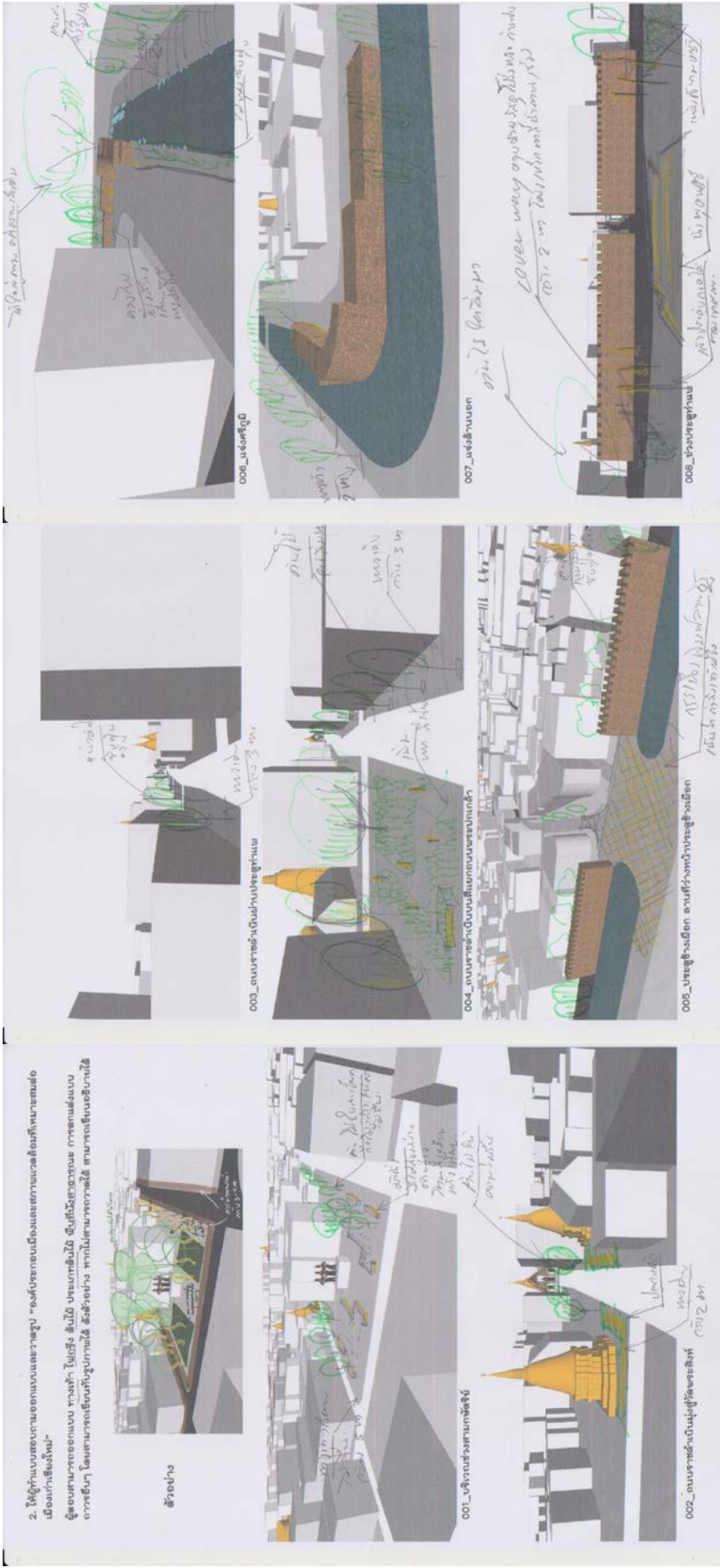
Answer sheet of streetscapes design from Sample participants (Arch001)



Answer sheet of streetscapes design from Sample participants (Arch002)



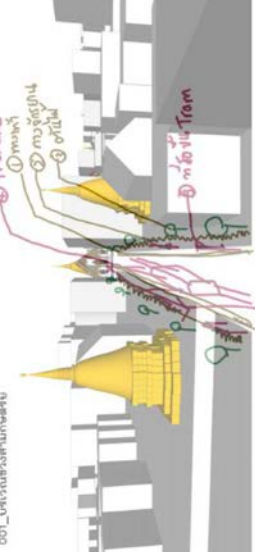
Answer sheet of streetscapes design from Sample participants (Arch003)



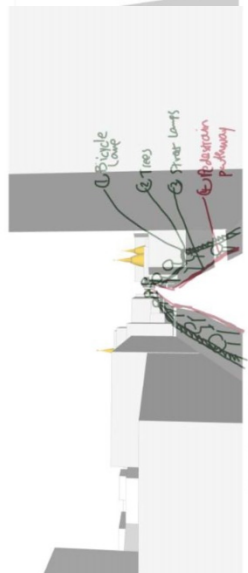
Answer sheet of streetscapes design from Sample participants (Arch004)

2. ផ្ទៃក្រាហ្វិកបង្ហាញពីការសម្រេចចិត្តរបស់អ្នកប្រឆាំងនឹងការសម្រេចចិត្តរបស់អ្នកដទៃ
 ដើម្បីការពារខ្លួន។

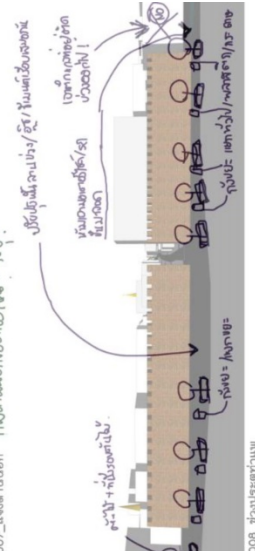
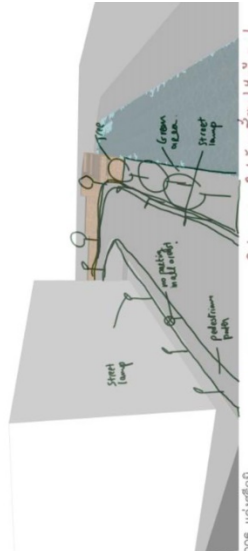
ផ្ទៃក្រាហ្វិកបង្ហាញពីការសម្រេចចិត្តរបស់អ្នកប្រឆាំងនឹងការសម្រេចចិត្តរបស់អ្នកដទៃ
 ដើម្បីការពារខ្លួន។



001_ បង្ហាញពីការសម្រេចចិត្តរបស់អ្នកប្រឆាំងនឹងការសម្រេចចិត្តរបស់អ្នកដទៃ



002_ បង្ហាញពីការសម្រេចចិត្តរបស់អ្នកប្រឆាំងនឹងការសម្រេចចិត្តរបស់អ្នកដទៃ

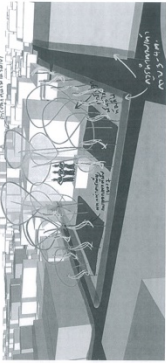


003_ បង្ហាញពីការសម្រេចចិត្តរបស់អ្នកប្រឆាំងនឹងការសម្រេចចិត្តរបស់អ្នកដទៃ

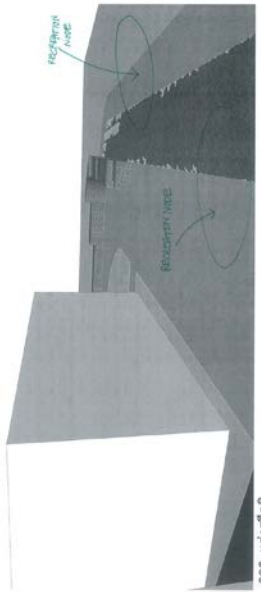
Answer sheet of streetscapes design from Sample participants (Arch005)

2. ให้ผู้ทำแบบสอบถามออกแบบและวาดรูป "องค์ประกอบเมืองและสภาพแวดล้อมที่เหมาะสมต่อเมืองเก่าเชียงใหม่"

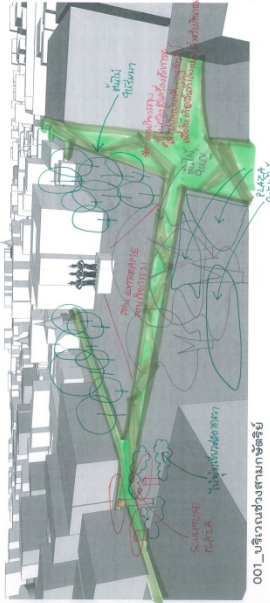
ผู้ตอบแบบสอบถามบางคน หนึ่งทำ ไม้จริง ไม้เทียม ขึ้นไม้สัก รามะ การตกแต่งแบบถาวรอื่นๆ โดยสามารถเขียนกับรูปภาพได้ ดังตัวอย่าง หากไม่สามารถวาดได้ สามารถเขียนอธิบายได้



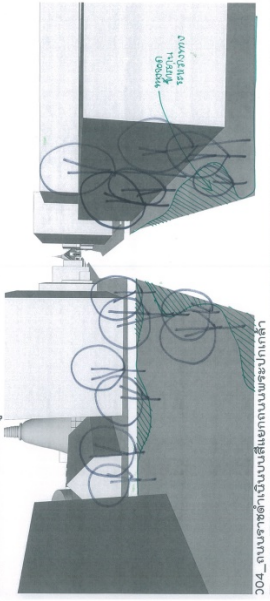
ตัวอย่าง



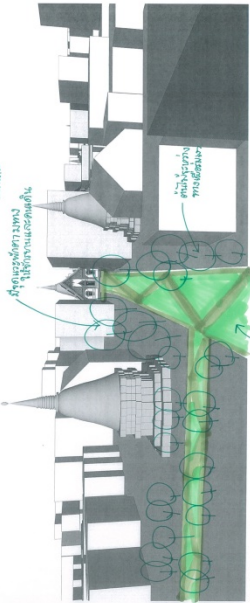
006_แจ้งสถานี



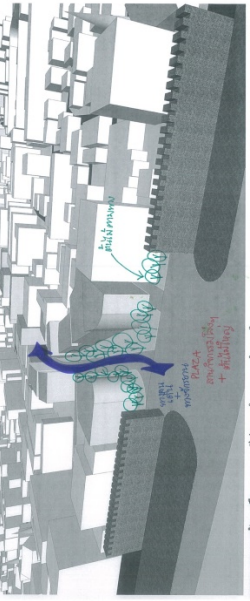
001_บริเวณข้างสถานี



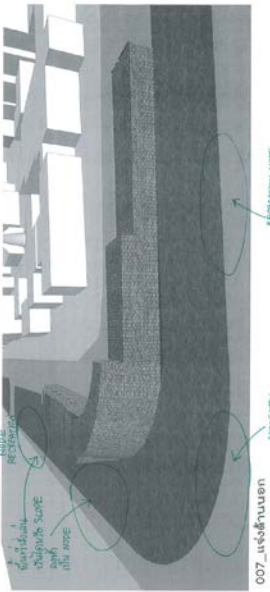
003_ถนนราชดำเนินผ่านประตูท่าแพ



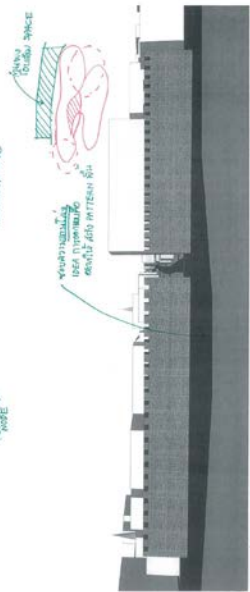
002_ถนนราชดำเนินสู่วัดพระสิงห์



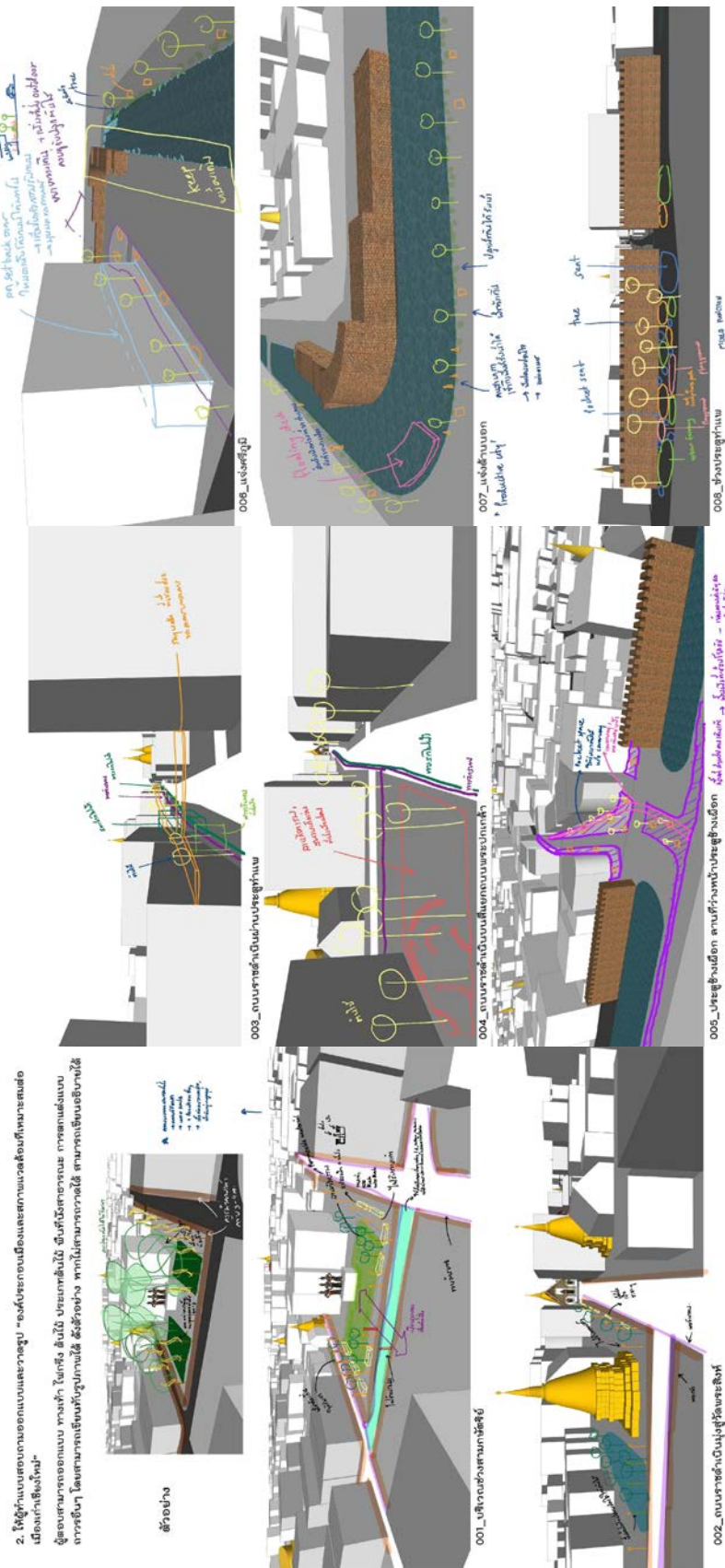
004_ถนนราชดำเนินแยกถนนพระปกเกล้า



007_แจ้งสถานี



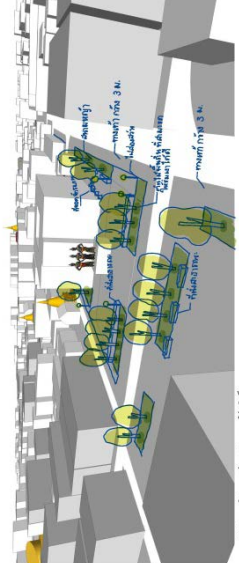
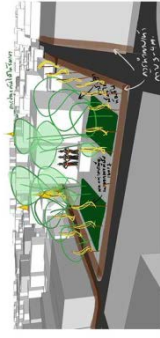
008_วัดพระสุทัศน์



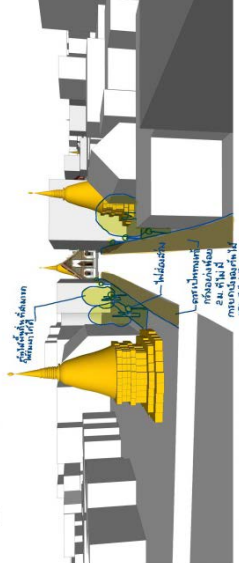
Answer sheet of streetscapes design from Sample participants (Arch009)

2. ให้นักเรียนออกแบบสวนออกนอกแบบและวางรูป "องค์ประกอบเมืองและสถาปัตยกรรมแวดล้อมที่เหมาะสมต่อเมืองท่าเชิงนิคม"
 ผู้ตอบสามารถออกแบบ ทาน้ำทำ ไม้จริง ไม้ไม้ ประเททสีไม้ ขึ้นที่ไม้การารณะ การตกแต่งแบบ การระฮันๆ โดยสามารถเขียนที่รูปภายใต้ สีสีตัวอย่าง หากไม่มีความวางได้ใช้ สามารถเขียนอธิบายได้

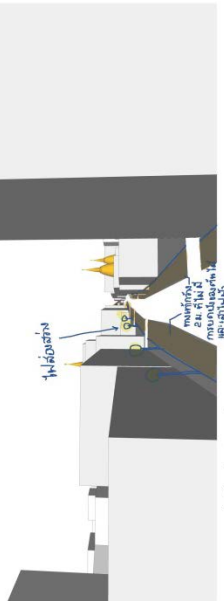
ตัวอย่าง



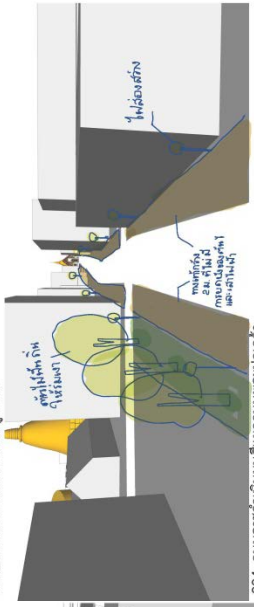
001_บริเวณสวนสาธารณะ



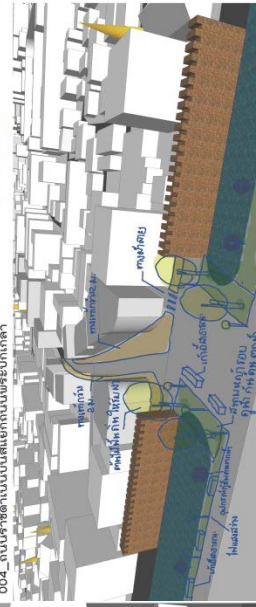
002_ถนนราชดำเนินฝั่งตะวันออก



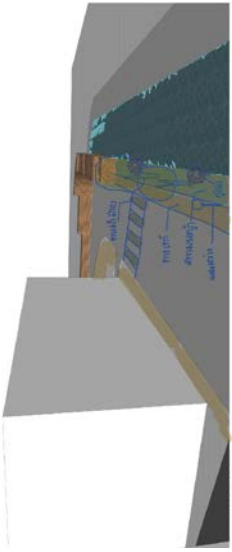
003_ถนนราชดำเนินฝั่งตะวันตก



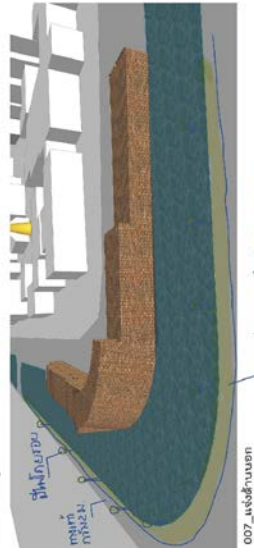
004_ถนนราชดำเนินฝั่งถนนพระปกเกล้า



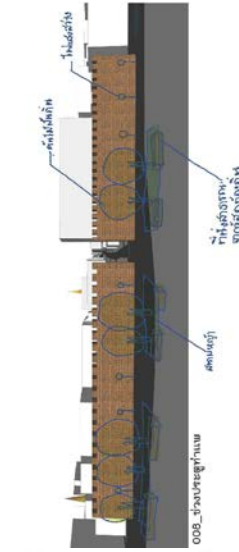
005_ประตูช้างเผือก ถนนที่วางผังประตูช้างเผือก



006_ฝั่งศรีภูมิ



007_ฝั่งบูรพาภิรมย์



008_วังบูรพาภิรมย์

Answer sheet of streetscapes design from Sample participants (Arch010)

All data collection in the research

Result Questionnaire	https://uniofnottm-my.sharepoint.com/:f:/r/personal/natthakit_phetsuriya_nottingham_ac_uk/Documents/Field%20work/Result%20Questionnaire?csf=1&web=1&e=3kph1s
Focus Group Video	https://uniofnottm-my.sharepoint.com/:f:/r/personal/natthakit_phetsuriya_nottingham_ac_uk/Documents/Field%20work/Focus%20group%20Video?csf=1&web=1&e=ggggh4
Interview Record	https://uniofnottm-my.sharepoint.com/:f:/r/personal/natthakit_phetsuriya_nottingham_ac_uk/Documents/Field%20work/Interview%20record?csf=1&web=1&e=gifZJJ
Drawing Map	https://uniofnottm-my.sharepoint.com/:u:/r/personal/natthakit_phetsuriya_nottingham_ac_uk/Documents/Field%20work/Result%20Questionnaire/1_drawing%20map%20scan%20400%20participants.rar?csf=1&web=1&e=dvtVKD