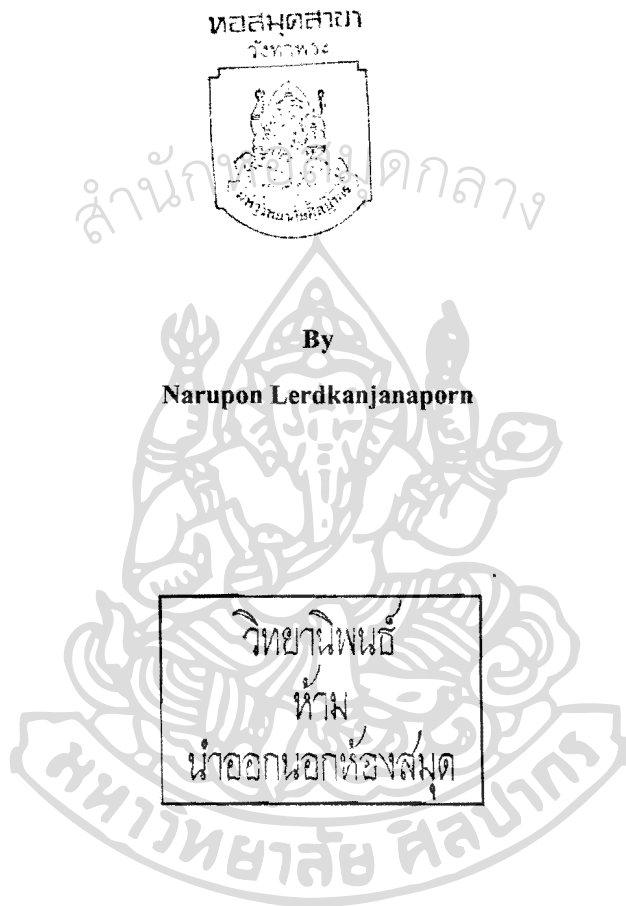


**CHIANGMAI CITY WALL : CONSERVATION AND INTERPREATION PLAN**



**A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree**

**DOCTOR OF PHILOSOPHY**

**Program of Architectural Heritage Management and Tourism**

**(International Program)**

**Graduate School**

**SILPAKORN UNIVERSITY**

**2012**

The Graduate School, Silpakorn University has approved and accredited the Thesis title of "Chiangmai City Wall : Conservation and Interpretation Plan" submitted by Mr.Narupon Lerdkanjanaporn as a partial fulfillment of the requirements for the degree of Doctor of Philosophy in Architectural Heritage Management and Tourism.

*Pojan. Tantawan*  
.....  
(Assistant Professor Panjai Tantatsanawong, Ph.D.)

Dean of Graduate School

11 / October / 2012

สำนักหอสมุดกลาง

The Thesis Advisor

Professor Ross King, Ph.D.

The Thesis Examination Committee

*Trungjai Buranasomphob*

..... Chairman

(Professor Trungjai Buranasomphob, Ph.D.)

21 / 09 / 2012

*Kreangkrai Kirdsiri*

..... Member

(Kreangkrai Kirdsiri, Ph.D.)

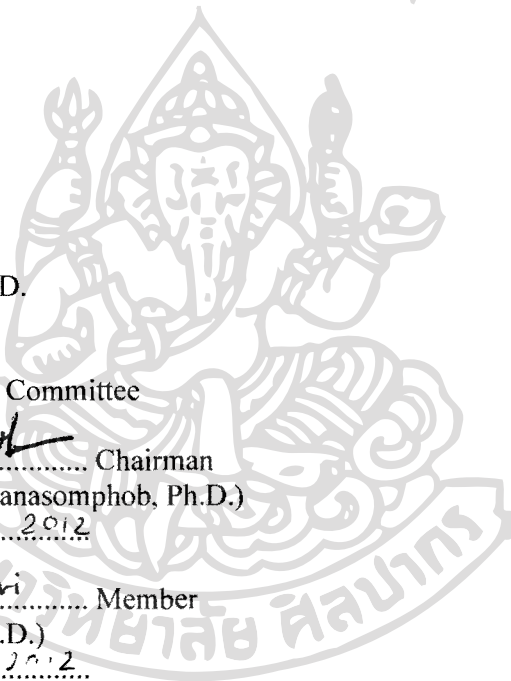
21 / 09 / 2012

*Ross King*

..... Member

(Professor Ross King, Ph.D.)

21 / 09 / 2012



This thesis reports a survey of the inner Chiang Mai Wall's condition in order to analyze current problems and provide resolutions towards conservation and promotion of its interpretation. According to the information gathered, there are indications that the Chiang Mai Wall is very meaningful to local people. Ancient remains seem, however, to have deteriorated due to weathering, old bricks, weeds and stands of trees. The subsidence of the walls and humidity from rain and water in the moats also affect what has become a dangerous condition. Besides, there are some factors stimulating the wall's ruin, for instance, crowded traffic, vehicles running near the walls, street expansion, growth of Chiang Mai City itself, waste and activities promoting mass tourism. Neighboring development around the walls is destroying the beautiful scenery of this significant archaeological site. Large advertising boards, contrasting and overly-colorful buildings and decorating of constructions surrounding the moats become obstacles overshadowing the landscape and any uninhibited view of the ancient remains. Meanwhile, the interpretation of this area to the observer is quite poor and it is necessary to improve both the quality and the efficiency of communication as well.

The results are obtained from direct fieldwork by the author with several government agencies related to the management of the Chiang Mai walls and to participation in issues relating to the walls. There are two primary suggestions which will briefly be explained here in regards to the conservation of the Chiang Mai city wall: reconstruction and retention. By reconstruction, it is meant that a section (and not more than a single section) of the city walls should be reconstructed to their original specifications, accretions to the inside of the walls removed, and the walls made to look exactly as they did during some specific time period. Retention refers to making an effort to retain the walls in their present condition for as long as is practically possible before taking steps to either modify the composition of the walls themselves or the surrounding environment (for example, sheltering the walls from wind and rain or injecting glue into the interior portions of the wall and surrounding soil, so that soil erosion does not affect the structural integrity of the walls. For the better interpretation of the Chiang Mai walls. First, that an effort at actual interpretation be made, because no such effort worth acknowledging has yet been made. Second, that an effort be made to help outsiders understand at least some of the context of the historical Thai culture that shaped the walls and colored the events surrounding them. Third, and finally, that an effort be made to leverage the increasing variety of communication technology in order to not only transmit information about the walls themselves, but to also make the walls more well known.

From literature reviews, comparisons of archeological sites and their management in foreign countries, it is crucial to provide effective management and suitable plans for the Chiang Mai Wall whose outcomes can be monitored and measured. The local people must attend to the management at all levels to build the people's awareness. The interpretation needs to be developed for better effective communication and an information center should be established. Furthermore, modern technologies are also very important for both the interpretation and development of the site. Therefore, the progress of both conservation and interpretation of the Chiang Mai Wall requires the participation of advanced technology to address the ancient remains.

Student's signature .....

Thesis Advisor's signature *Ross King* .....

## Acknowledgments

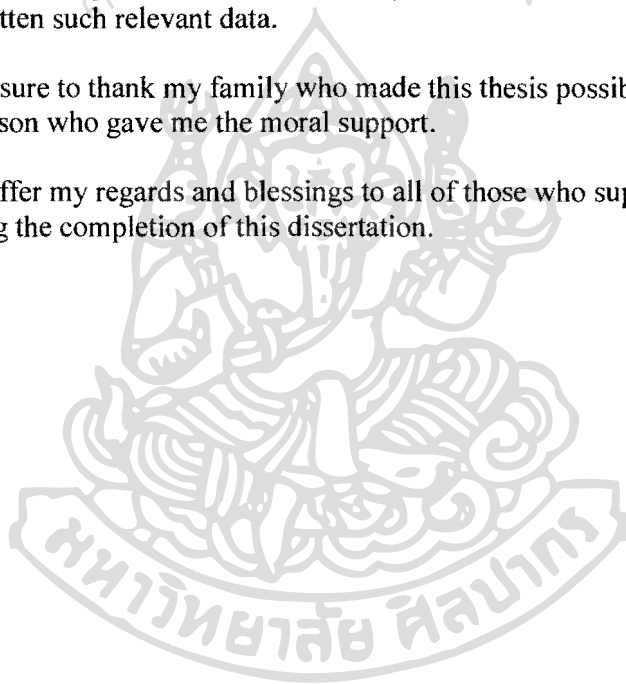
I received very strong support from the office of Commission on Higher Education, Thailand who provided the opportunity to fulfill my dream with their financial support.

I am heartily thankful to my supervisor, Professor Dr. Ross King, whose encouragement, supervision and support from the preliminary to the concluding level enabled me to develop an understanding of the subject. I special thanks to Professor Emeritus Dr. Trungjai Buranasomphob who gave me some suggestions on my dissertation and a chance to study on this program.

I also would like to make a special reference to Mr. Kraisin Aunjaijin the officer of the Fine Art Department office at Chiangmai. Without his corporation I could not have gotten such relevant data.

It is a pleasure to thank my family who made this thesis possible such as my mother, wife and son who gave me the moral support.

Lastly, I offer my regards and blessings to all of those who supported me in any respect during the completion of this dissertation.



## Table of Contents

	Page
Abstract .....	c
Acknowledgement.....	e
List of Figures .....	i
Chapter	
1 Introduction .....	1
The issue .....	7
The scope of study .....	9
Research question .....	9
Research objectives .....	10
Methodology .....	10
Structure of the dissertation.....	11
2 Literature Review .....	13
Conservation.....	14
Interpretation .....	14
Authenticity .....	16
Heritage.....	17
Culture.....	18
Reconstruction .....	20
Participation .....	23
Impact .....	25
Conclusion .....	26
3 The History of the Chiangmai City Walls .....	28
About Tourism in Thailand .....	31
Special case of tourism in Chiangmai .....	32
The value of the walls as tourist attractions .....	33
The significance of the Chiangmai city walls .....	33
The History of Chiangmai and the City Walls .....	36
The city walls and the tourism industry in Chiangmai .....	37
The walls as a tourist attraction .....	39
Present State of Chiangmai city walls .....	41
Related Historical Sites .....	51
Suggested conservation theories and framework for the city wall .....	51
Explaining the Thai World-View to Outsiders .....	53
Religion and Royalty .....	54
Social Customs and Holidays .....	55
Lessons from History .....	55

Chapter	Page
4. Lessons in Conservation .....	57
International city wall conservation .....	57
Byzantine City walls of Constantinople (modern day Istanbul, Turkey) .....	58
Carcassonne .....	62
Roman Wall of London .....	67
Kyoto Palace Wall .....	71
Conservation of Historic Sites in Thailand .....	75
Chiang Saen .....	76
Sukhothai .....	79
Si Satchanalai Historical Park .....	82
Kamphaeng Phet Historical Park .....	84
Ayutthaya .....	90
Lopburi .....	95
Comparison of Conservation Efforts and Methodologies .....	100
Theodosian Walls vis-a-vis Chiangmai .....	101
Carcassonne vis-à-vis Chiangmai .....	103
London Wall vis-a-vis Chiangmai .....	105
Kyoto vis-a-vis Chiangmai .....	107
The Chiang Mai City Walls in Comparison with other sites in Thailand ....	108
Cultural Shifts .....	108
Issues, threats, polices that affect the conservation of the walls .....	109
Conflict between Urban Development and the Preservation of Local Heritage Sites .....	110
5 The Condition of the Walls .....	114
Physical Survey .....	114
Chang Phuak Gate .....	115
Sri Phum Corner .....	119
Tha Phae Gate .....	124
Ka Tam Corner .....	128
Chiang Mai Gate .....	131
Suan Prung Gate .....	135
Ku Reung Corner .....	139
Suan Dok Gate .....	143
Hua Rin Corner .....	146
Inspection .....	150
Apparent state and Current Problems .....	150
Interpretation Efforts .....	152
Social Surveys .....	152
Broad Survey Results .....	153
Conclusion .....	154

Chapter	Page
6 Discussion and Conclusion .....	156
Discussion .....	156
Recommended Conservation Plan for Chiangmai .....	157
Responsibilities .....	157
Conservation .....	160
Reconstruction .....	161
A Historical Park .....	162
A Protected Zone .....	164
Recommendations for future study .....	166
Successful monetization of heritage and cultural sites .....	167
Conclusion .....	168
Useful Comparisons .....	171
 Bibliography .....	 173
Autobiography.....	179



## List of Figures

Figure	Page
1 Chiang Mai central city and suburbs .....	3
2 Chiangmai City Wall in the past .....	5
3 Chiangmai City Wall in the past.....	6
4 Chiangmai City Wall in the past.....	6
5 Chiangmai Old City, Scope of Study.....	8
6 Chang Phuak Gate .....	42
7 Chang Phuak Gate .....	42
8 Thaphae Gate .....	43
9 Thaphae Gate .....	43
10 Chiang Mai Gate .....	44
11 Chiang Mai Gate .....	44
12 Suan Prung Gate .....	44
13 Suan Prung Gate .....	44
14 Suan Dok Gate .....	46
15 Suan Dok Gate .....	46
16 Jaeng Sri Phum .....	47
17 Jaeng Sri Phum .....	47
18 Jaeng Ka Tam .....	48
19 Jaeng Ka Tam .....	48
20 Jaeng Khu Huang .....	48
21 Jaeng Khu Huang .....	48
22 Jaeng Hua Lin .....	49
23 Jaeng Hua Lin .....	49
24 A digital model of the Theodosian walls, superimposed on a satellite photo of the modern surrounding landscape.....	58
25 A basic diagram showing the layout of the Theodosian walls, with the city on the left and the defensive area to the right of the wall, with the moat in front to the far right.....	59
26 Carcassonne Photo.....	62
27 Roman Wall of London .....	67
28 Kyoto nijo jo honmaru - palace wall .....	71
29 Wat Pa Sak, Chiangsean Old City .....	76
30 Chiang Sean City Wall .....	78
31 Sukhothai Historical Park .....	79
32 Sukhothai City Wall .....	81
33 Wat Chang Lom, Si Satchanalai Historical Park .....	82
34 Kamphaeng Phet Historical Park .....	84
35 Thung Sethi Force, Kamphaeng Phet .....	86
36 Ayutthaya Historical Park .....	90
37 Narai Ratchaniwet Palace, Lopburi .....	95
38 Chaichanasongkram Force, Lopburi .....	96
39 Chaichanasongkram Force, Lopburi .....	96
40 Phra Prang Sam Yot, Lopburi .....	98



41	Theodosian Walls of Constantinople, Ayvansaray, Istanbul, Turkey .....	101
42	Tha Phae Gate, Chiangmai City Wall .....	101
43	Theodosian walls .....	102
44	The Old picture of Chiangmai City .....	102
45	Carcassonne City .....	103
46	Roman Wall of London.....	105
47	Jeang Ku Hueng, Chiangmai City Wall .....	106
48	Kyoto Nijo Castle Wall, Japan .....	107
49	Jeang Sri Phum, Chiangmai City Wall .....	107
50	Chang Phuak Gate, Chiangmai City Wall .....	115
51	Chang Phuak Gate, Chiangmai City Wall .....	116
52	Chang Phuak Gate, Chiangmai City Wall .....	117
53	Chang Phuak Gate, Chiangmai City Wall .....	117
54	Chang Phuak Gate, Chiangmai City Wall .....	118
55	Chang Phuak Gate, Chiangmai City Wall .....	118
56	Chang Phuak Gate, Chiangmai City Wall .....	119
57	Sri Phum Coner, Chiangmai City Wall .....	120
58	Sri Phum Coner, Chiangmai City Wall .....	121
59	Sri Phum Coner, Chiangmai City Wall .....	121
60	Sri Phum Coner, Chiangmai City Wall .....	122
61	Sri Phum Coner, Chiangmai City Wall .....	123
62	Sri Phum Coner, Chiangmai City Wall .....	123
63	Tha Phae Gate, Chiangmai City Wall .....	124
64	Tha Phae Gate, Chiangmai City Wall .....	125
65	Tha Phae Gate, Chiangmai City Wall .....	126
66	Tha Phae Gate, Chiangmai City Wall .....	127
67	Tha Phae Gate, Chiangmai City Wall .....	127
68	Ka Tam Corner, Chiangmai City Wall .....	128
69	Ka Tam Corner, Chiangmai City Wall .....	129
70	Ka Tam Corner, Chiangmai City Wall .....	129
71	Ka Tam Corner, Chiangmai City Wall .....	130
72	Ka Tam Corner, Chiangmai City Wall .....	130
73	Chiangmai Gate, Chiangmai City Wall .....	131
74	Chiangmai Gate, Chiangmai City Wall .....	132
75	Chiangmai Gate, Chiangmai City Wall .....	132
76	Chiangmai Gate, Chiangmai City Wall .....	133
77	Chiangmai Gate, Chiangmai City Wall .....	134
78	Chiangmai Gate, Chiangmai City Wall .....	135
79	Suan Prung Gate, Chiangmai City Wall .....	135
80	Suan Prung Gate, Chiangmai City Wall .....	136
81	Suan Prung Gate, Chiangmai City Wall .....	137
82	Suan Prung Gate, Chiangmai City Wall .....	137
83	Suan Prung Gate, Chiangmai City Wall .....	138
84	Suan Prung Gate, Chiangmai City Wall .....	139
85	Ku Rueung Coner, Chiangmai City Wall .....	139

86	Ku Rueung Coner, Chiangmai City Wall .....	140
87	Ku Rueung Coner, Chiangmai City Wall .....	141
88	Ku Rueung Coner, Chiangmai City Wall .....	141
89	Ku Rueung Coner, Chiangmai City Wall .....	142
90	Ku Rueung Coner, Chiangmai City Wall .....	142
91	Suan Dok Gate, Chiangmai City Wall .....	143
92	Suan Dok Gate, Chiangmai City Wall .....	144
93	Suan Dok Gate, Chiangmai City Wall .....	144
94	Suan Dok Gate, Chiangmai City Wall .....	145
95	Suan Dok Gate, Chiangmai City Wall .....	146
96	Hua Lin Corner, Chiangmai City Wall .....	146
97	Hua Lin Corner, Chiangmai City Wall .....	147
98	Hua Lin Corner, Chiangmai City Wall .....	148
99	Hua Lin Corner, Chiangmai City Wall .....	148
100	Hua Lin Corner, Chiangmai City Wall .....	149



# Chapter 1

## Introduction

In 2007, Thailand was the 18th most visited country in the World Tourism Ranking with 14.5 million visitors. In 2008, Bangkok ranked 3rd behind London and New York in Euromonitor International's list of "Top City Destinations" with 10,209,900 visitors, Pattaya 23rd with 4,406,300 visitors, Phuket 31st with 3,344,700 visitors, and Chiang Mai ranked in 78th place with 1,604,600 visitors. (Euromonitor International's Top City Destination Ranking, 2010)

Chiang Mai is one of the most interesting ancient living cities in Thailand that is of interest to archeologists, city planners, and architects alike. Chiang Mai is unique, in that although it has existed for more than 700 years, the city still has a moat and the obvious remains of a fortified city wall. Moreover, there are many uniquely valuable ancient historical sites and monuments, as well as a great many artifacts. Such archaeological potential, although hidden in abandoned or ruined locations or modified to fit modern needs, tastes, or desires, have recently begun to be restored on a massive scale by historical conservation efforts and by the efforts of professional archaeologists and concerned citizens alike.

Chiang Mai, which means "new city", has retained the same name for over seven centuries, with official celebrations of its 700th anniversary in 1996. Founded by King Mengrai of the Lanna Thai kingdom in 1296 (Wyatt, 1988), Chiang Mai was the capital and cultural core of the ancient Lanna Empire, and was also the center of Buddhism in northern Thailand (Wyatt). The city features more than 300 old temples within the moat encircled old city where there remains much of the fortified wall that once protected the city center as well as the four main gates that provided access to the former Lanna capital city.

Chiang Mai city was built according to an old Indian belief, in which the shape of the walls and the moat are considered to be an upward link to heaven at the center of the universe. Therefore, Chiang Mai's walls and moats have been oriented to the cardinal points and have symbolized the mountains and seas of the outer universe. The astrological plan for

Chiang Mai called for rectangular moats measuring 18 meters across, describing a rectangular plan with a width of 1800 meters and a length of 2000 meters. The ultimate fate of Chiang Mai was believed to depend on the relationship between the center and the outer guardians at the corner and the gates.

Today, Chiang Mai has begun transforming its image from that of a mountain capital to be that of a modern city of artists, performers and people of creative professions, and is currently seeking UNESCO recognition as a creative city where cultural activities are an integral part of the city's economic and social function with an emphasis on creativity, knowledge, and innovation. Chiang Mai as a creative city is fostering collaboration between local universities, private companies and groups, local government, key government agencies, and community activism groups. The objective of this collaboration is to capitalize on already-existing assets, such as education infrastructure, historical sites and artifacts, the local historic Lanna culture, the high quality of life, and the skills of the people. These efforts are focused in order to make Chiang Mai a more attractive location for investors and businesses – in order to generate opportunities and jobs.

Cultural heritage is a valuable resource for the tourism industry, and based on the fact that people are seeking to see, learn and experience the unusual, we can see and understand the reasons for this. Cultural tourism has been used as a major instrument in the creation and maintenance of many nation-states. Many nations have successfully promoted their uniqueness and identity as a very lucrative way of increasing the revenue entering their countries from overseas visitors.

The benefits of cultural tourism are that it gives tourists the opportunity to experience the remnants of ancient civilizations, to see examples of past accomplishments, to develop cross cultural relationships, and to exchange knowledge and ideas among people with different perspectives. At the same time, it must be remembered that the negative impacts of cultural tourism can destroy both the tangible and the intangible aspects of culture. From this standpoint, we can see that there must be an effort to find a balance between tourism, conservation, authenticity and economic development, and raise the concept of sustainable tourism.

Thailand is a land of great beauty, rich in cultural resources, a land occupied by friendly people living a colorful way of life. Thailand has exotic destinations for travelers and uniquely fascinating attractions – the necessary ingredients for a growing and productive cultural tourism program.

While tourism does bring benefits, the local communities living in the vicinity of popular tourist destinations must evaluate its outcomes in terms of both costs and benefits. Therefore, it is important that all stakeholders understand both the positive and the negative impacts made by tourism on heritage locations, the local environment, and the social fabric of traditional societies. It is important that the communities affected be aware that, while tourism may offer short-term financial rewards, it is only the perpetuation of vulnerable historic and cultural resources that will ensure a sustainable future for the people of the community.



Figure 1 : Chiang Mai central city and suburbs, Romanos & Auffrey (2002)

In order to ensure that future generations are able to access their authentic heritage and, at the same time, to provide a reason and motivation for visitors to continue to visit, stakeholders should work in concert in order to safeguard the wide range of heritage resources that exist in the region. Tourism has the potential to become both a driving force for and an economic enabler of the conservation of the tangible and intangible cultural and natural heritage resources. If tourism cannot contribute to the preservation of a region's environments, cultures and traditions, then there is no place for the development of tourism in that region.

Chiang Mai is located in a broad fertile basin of the Ping River, about 700 km north of Bangkok. Regarded as the principal city of the northern region, Chiang Mai is one of the oldest continually inhabited settlements in Thailand. It was once the capital of Lanna, an independent Thai Kingdom and has preserved its unique cultural heritage to a marked degree, consisting of a distinctive culture and various ethnic groups along with beautiful scenery of the natural environment.

Chiang Mai is an old city with a proud history. It was founded by King Mengrai who united several tribes and named the new land as the Lanna Kingdom. In 1259, he ascended the throne and built Chiang Rai as his capital in 1262. In 1291, he decided to build a new city as the capital of the Lanna Kingdom. He invited King Ramkhamhaeng the Great of the Sukhothai Kingdom, and King Ngam Nuang of the Phayao Kingdom, both kings his close friends, to help select a site for the new city.

Together, they decided to build the new city on a fertile plain between Doi Suthep Mountain and the bank of the Ping River. The city of Chiang Mai became the capital of the Lanna Kingdom in 1296, during the same period of time as the establishment of the Sukhothai Kingdom. The new city was completed, surrounded by a moat and wall, to be named "Nopphaburi Si Nakhonping Chiangmai". From then, Chiang Mai not only became the capital but also the cultural core of the Lanna Kingdom.

Chiang Mai was the capital of the Lanna Kingdom for a long time. It was attacked frequently and in time lost its independence and came under the control of the Ayuthaya Kingdom. Finally, Chiang Mai was captured by the Burmese in 1558, thereby ending the dynasty founded by King Mengrai, which had lasted for 300 years.



Figure 2 : Chiangmai City Wall in the past

*Unknown Photographer, cited by Sattraphai, 1978*

The Burmese occupiers had a powerful influence on the architectural and artistic styles of Chiang Mai which can still be seen today. It was only in the late 18th century that Burma was finally defeated under the leadership of King Taksin in 1774. King Taksin the Great of Thailand is often credited as having recovered Chiang Mai from the Burmese, and many sources – and it is worth noting that these are almost exclusively Thai sources - cite this as the time when Chiang Mai officially became part of Siam. The reality is not far from this, but is a bit more complicated, and it must be understood that in many contexts, ‘part of Siam’ is in this case meant to express the idea that the city had come back under control of a politically and ethnically Thai leader, namely the king of the Lanna city-state of Lamphun, Chao Kawila, who was allied - at least nominally - with Taksin. This concept might seem strange to many westerners, used to thinking of politics as something rigidly defined by the borders that each political group or ideology can be said to be in control of, and there is certainly some use in thinking this way. However, it is more prudent, especially for Asia before the necessary advances in cartography made it possible to really map out kingdoms, to think of political groups in the terms of modern corporations jockeying for a position in the marketplace, and in such an environment, it was considered prudent to ‘outsource’ tasks, or

to invest in potentially lucrative startups - such as the small war which drove the Burmese from Chiang Mai. Thinking in these terms allows a more complete understanding of both the political and social dimensions. Sources are vague regarding a subsequent incident, perhaps due to the politics of authority in the region: the story is that Chao Kawila was lashed and his ears sliced as punishment for his impudence, as well as the death in prison by fever of his ally Prince Chaban. This, however, should simply serve as a graphic reminder of the nature of the time.



Figure 3 and 4 : Chiangmai City Wall in the past

*Unknown Photographer, cited by Sattraphai, 1978*

The official induction of Chiang Mai into the growing Kingdom of Siam is recorded as happening in 1796, but it should be noted that between the end of the conflict that drove the Burmese from Chiang Mai and March of that year, the city was unoccupied and in complete disrepair, and for all intents and purposes of interest to no one. It was only at this time that Chao Kawila returned and forcibly re-settled residents from surrounding regions in and around the city in order to re-populate it, and even today many people who are from families in the area can trace their lineages back to this event. Since then, Chiang Mai province has been a part of Thailand. From 1932 until the present, Chiang Mai has had the status of being a province of Thailand when the administration of Monthon Phayap, the remains of the Lanna kingdom, was dissolved.

With an interesting and regionally important history, nowadays Chiang Mai is the commercial, educational, and travel center of the northern part of Thailand. Among the



manifestations of modern civilization, there are still numerous remnants of its long and glorious ancient culture. Moreover the hospitality of people, old local traditions and beliefs and hundreds of its monuments are unique.

The culture of Chiang Mai's architecture reflects Lanna Thai, Burmese, Sri Lankan and Mon influences. There are some 300 temples in the city and on its outskirts. The Golden Age of Lanna-Chiang Mai lies some 500 years back in the time of King Tilokarat, but the city has recently been undergoing a process of regeneration, and while full of the bustle of modern life, it has not lost touch with its glorious and distinctive past.

## **The Issues**

Chiang Mai city wall is the one of the famous and significant buildings of Chiang Mai. It is an outstanding example of a historical site which is representative of the culture, architecture and the history of the city; it has become especially significant as it has become vulnerable under the impact of social change. This wall lies within a two kilometer square moat surrounding the old city. Sections of the wall remain at the gates and the corners. The site can be characterized in terms of the values that it represents, as follows:

### **1. Historical Values**

The city walls were constructed at the same time as the foundation of Chiang Mai City by the order of Phaya Mangrai in 1296. Each of the four city walls has gates measuring four wah in width. These city gates were restored in 1801, during the reign of Phra Chao Kawila, and were rebuilt once again between 1966 and 1969.

### **2. Aesthetic Values**

The city walls have been conserved and renovated several times since they were first built. However, the combination of the architectural styles of the walls is significant in terms of finding a measure of harmony between the ancient and the modern styles. The walls have their own character and should have been better managed to provide a resource for exhibition to the public.

### 3. Interpretative Values

The walls surround the old city of Chiang Mai, which is now the center of the modern city. Hence it is easy to be viewed and reached by the wider public and the local community. This means that stakeholders can also use it as a learning resource beyond the normal education system.

Today, the remaining ruins of the ancient city wall which are clustered around the centre of Chiang Mai city, are potent reminders of the city's and the Lanna kingdom's past glory. Therefore, Chiang Mai city walls are a significant site that should be subject to protection and conservation from the effects of social and economic globalization with its threats of commodification and exploitation by a suitable conservation and interpretation plan that will encourage the stakeholders to value and appreciate local heritage in the right way and lead to a successful regime of sustainable tourism.



Figure 5 : Chiangmai Old City, Scope of Study

*by the author on november 2009*

## **The scope of study**

The study of Chiang Mai's city walls presents the concerns to be held of a significant historic site. The area of study will especially include the city's five gates (Chiang Mai Gate, Chang Phuak Gate, Suan Dok Gate, Tha Phae Gate and Suan Prung Gate) and the four corners (Sri Phum Corner, Hua Lin Corner, Ku Ruang Corner and Ka Tam Corner), which are the most significant standing portions of the walls.

The population to be observed in the study was classified into four categories of people with a stake in the condition and preservation of the Chiang Mai city walls: local people who live around the city walls (including local businesses and developers, which according to Thai law must be Thai citizens), tourists or visitors who visit the site, the officers of the city's local government, and concerned people from outside agencies and academics. The research will examine and analyze the history, physical structure, changes and heritage management of the Chiang Mai city walls.

## **Research question**

The overall interest of the study is in the present state of the city walls and how they can be presented to a sophisticated, educated public. Hence there are several (sub)questions that have to be investigated:

1. What still survives of the ancient walls, and what is the history that can still be read from both the overall form of the walls and each of its significant remnants?
2. How have modern changes compromised the integrity of the overall form and significant remnants of the walls? What does the present state of the walls tell the educated, sophisticated observer about the processes and values that underlie these changes? The issue here is the causes and impacts of demolition, alteration and encroachment – both directly physical and visual – on the walls. Both this and the preceding question imply the need for a detailed and sensitive survey of the surviving walls and a detailed account of the history of their demolitions, changes and encroachments.
3. In the light of what the walls can tell us of the ancient past of Chiang Mai and the Lanna civilization, what can they also tell us of the modern transformations of the city at both

a macroscopic and a microscopic scale? What might be a proper conservation and interpretation plan for Chiang Mai's city walls in the opinions of various stakeholders?

### **Research objectives**

In view of the overall interest and guiding question(s) set out above, there are three objectives to be addressed:

1. It is necessary to undertake a detailed physical survey of the present situation of the walls, backed by a survey of the literature on Chiang Mai generally and on the city walls in particular.

2. A further survey is needed to ascertain the views of stakeholders on (a) the current condition of the walls, (b) actions that could/should be taken to improve the integrity, physical condition and visual aspect of the walls and (c) what should constitute a plan for conservation and interpretation of the walls and their present context. Disagreement among stakeholders regarding these three points is expected.

3. These two forms of data must then be brought together as a basis for some concluding observations on the objectives and form of a conservation and interpretation plan for the Chiang Mai city walls.

### **Methodology**

The data needed to meet these objectives will be collected using three main methods:

#### **1. Documentary Research**

A wide range of both primary and secondary sources of information will be consulted. These will relate to the history of Chiang Mai and more specifically of its city walls, archaeological surveys, local government and other public agency records, accounts of controversies concerning the walls and/or building developments impacting on them (for example from newspaper files, academic papers, accounts of protagonists, etc).

## **2. Physical survey**

Direct observation will be made of the buildings, sites and landscape around Chiang Mai City Wall to ascertain their history and the story of their occupants, in order to establish an understanding of the place and of the processes that have underlain their present condition. At the same time it will be necessary to observe tourist behavior at the historic sites in order to collect another form of information about the tourists, such as the way the tourists make sense of and derive meaning from a visit to Chiang Mai city wall, their behavior concerning the search for information on the site, and the time they spend to read the signs and how they came to the site.

## **3. Interviews**

Interview methods will be used to get some understanding of opinions and impressions from targeted respondents, specifically the officers of the local government and other public agencies who have a responsibility for Chiang Mai city walls and from the tourists who visit the site. The aim is to identify their expectations, and to find any correlation between expectations and acquired experiences or new knowledge

There are two forms of methodological problem to be confronted in the present project. First, there are clearly difficulties in drawing lessons from direct observation (method 2 above) where confirming documentary data are likely to be in short supply. Simply stated, an opinion can be expressed (by the author) about the appropriateness or visual damage inflicted by a newer building that impacts on an old gate or remnant of the wall, but the 'story' behind such an intrusion is likely to be elusive. The account is thereby likely to be overly based on surmise. The second methodological dilemma relates to the 'leap of faith' involved in any suggestions of 'solutions' – plans for conservation or interpretation.

Finally, this project is to be seen as a study from which no conclusions or inferences should be drawn beyond this single 'case' of the Chiang Mai walls at one moment in time.

## **Structure of the dissertation**

The following chapter (chapter 2) reviews the theories of the critical ideas underpinning this research. It is based on a critical review of the literature in the following

areas: the tourism industry, especially in regards to how it functions in Chiang Mai, cultural tourism in general, conservation of historical monuments and successful interpretation.

Chapter 3 recounts the history of Chiang Mai, of the Lanna kingdom more broadly, and the construction of the Chiang Mai city wall, focusing specifically on the details of the gates and corners around the wall. It covers archeology, history, architecture, art and aesthetics. In addition, the chapter is a detailed 'description' of the present state of the Chiang Mai walls based on direct observation. It draws on a systematic photographic survey of the present remnants and of their urban context and on the author's mapping, sketches and descriptions. The chapter leads to a suggested conservation framework, as it has the effect of outlining the main vulnerabilities, threats and policies affecting the whole of Chiang Mai city walls.

Chapter 4 aims to understand what the potential future of the wall can be, comparing it with similar architectural remains, both within Thailand and abroad. To facilitate a better understanding of these issues, we will provide a brief overview of the history, technical details and historic interpretation of these other sites and monuments and will be looking at the issues facing these sites and what has been done to prevent damage to them. In each case, will begin by introducing the site, briefly describing the history and noteworthy conditions under which it was constructed, the materials and methods used to construct the site, and then will be looking at the modern issues faced by these sites as the result of conflict between historians and urban developers.

Chapter 5 explores stakeholder perspectives and expectations. This chapter seeks to examine two aspects of the wall. First, it uses available methods to examine the physical construction, quality, and condition of the walls, and to try to identify any key problems with the walls. Second, a study is reported (including sociological surveying) to determine the effectiveness of the methods used to interpret information about the wall for the benefit of the public, and especially for tourists.

Chapter 6 is a summation of this effort that covers the lessons learned in this research, and presents the conclusions drawn from those lessons, along with some practical insights into how these lessons can be usefully applied in the case of the Chiang Mai walls.

## Chapter 2

### Literature Review

#### Introduction

This chapter introduces and reviews the literature and fundamental concepts important for the study of the Chiang Mai city walls. The material covered comes from a few key sources; first, a great deal of literature from the relevant historical and heritage agencies in Thailand has been referenced below. Second, a number of foreign and international agencies, such as the Chinese State Administration of Cultural Heritage, have been used both as formal references and as informal points of comparison- where they are relevant, they will be mentioned.

#### A note on lexicon

The chapter has been arranged as a sequence of topics relevant to the modern consideration of the Chiang Mai walls, their conservation, interpretation and issues of tourism impact and community equity. It has been written so that a particular topic and its associated language is introduced and explained at the beginning of a section, followed with examples from the literature explaining the details of how and why the concept is being discussed. It is recommended that any reader unfamiliar with the terminology browse through the following sections first, observing the sequence of topics, then subsequently reading the review of the literature and ideas relevant to each of those topics,

## **Conservation**

### **The Concept of Conservation**

“Conservation” means to maintain the state of something in a stable and un-changing manner (not an exact translation) according to the Royal Institute dictionary (1982). The Thai Fine Arts Department defines conservation as the preservation of value, as well as protection, reservation, restoration, and repair. Catanese & Snyder (1979) provide different meanings of conservation as follows: First, restoration is to repair the building by rebuilding or demolishing the damaged or lost parts or adding new parts. Second, rehabilitation and renovation is to repair the old building to be able to be used again. The interior architecture may be modified in order to meet the current demands. Conservation is to conserve the resources for use in the future and the present. (Sitthiporn Phiromruen, 2005 : 47 as cited in Arlongkorn Iamsakulwiwat, 2007 : 34 - 35)

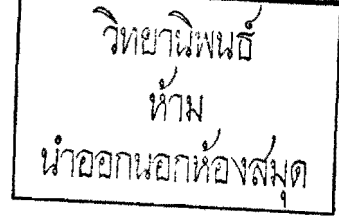
The Fine Arts Department of Thailand is responsible for the conservation of historic sites, so the department issued regulations for conserving historic sites in 1985. The objective is to rectify the conservation methods of the historic places according to the international methods and Thai economy, society, tradition, and culture. The referred international method is the Venice Charter 1964, which has been the principle used to draft the Fine Arts Department’s regulations for conserving the historic places. Conservation is classified into three categories: first, there is conservation to maintain the site. Second, rehabilitation is to restore a site to a working condition. Third, restoration is to repair a site in an aesthetic manner (which may or may not include restoring to a usable condition, depending on the site), but also to clearly show the differences between the original and repaired parts.

### **Interpretation**

‘Interpretation’ is used as a term to refer to the act of promoting understanding of the cultural and historical significance of historical events, whether or not they actually happened. Without interpretation, great accomplishments can be dismissed as the sum of their parts, a tragedy in every case - but especially so when we are discussing the lives, deeds, dreams, and aspirations of the denizens of a past age. If we are to truly understand what has



3/01  
2555  
009



happened in the past, we must be able to interpret that past in a meaningful way that is more than simply a collection of facts. As a point of illustration for this idea, without the relevant interpretation, you might make the mistake of thinking that your house is nothing more than a box in which you hide from inclement weather.

Interpretation is a crucial element of this thesis because it allows us to explore not only the raw data - which is generally accessible only to professionals - but also to explore the potential to translate this data into language that most people can understand. This is a critical idea, because one of the assumptions which is not directly addressed in this text is that *historic sites can be 'economically' self-sustaining with proper setup and maintenance*. This issue is briefly touched on in the discussion in chapter 4, most poignantly in the section about the London wall, which is maintained by and interpreted to the public by the Museum of London.

### **Tilden's principles of interpretation**

Freeman Tilden, a member of the US Parks Service, and considered the founding father of interpretation, established six fundamental principles for the discipline in his 1957 book, "Interpreting Our Heritage". These tell us that interpretation must be relevant to what is displayed or else run the risk of being meaningless for the visitor, that information is not the same as interpretation because it does not, by itself, promote understanding, and that interpretation must address the whole of what is being interpreted to a person. Further, Tilden describes the creative principles of interpretation as an art combining many disciplines, but which can be taught to some degree, and states that the chief aim of interpretation is to provoke thought rather than instruct action. He concludes by mentioning that interpretation intended for children should be fundamentally different from interpretation for adults, but that this difference should not simply dilute the interpretation presented to adults, and he last suggests that separate interpretation programs should be created for children and adults.

For the past 50 years, Tilden's principles have remained highly relevant to interpreters across the world. In 2002 Larry Beck and Ted Cable published "Interpretation for the 21st

Century - Fifteen Guiding Principles for Interpreting Nature and Culture", which elaborated upon Tilden's original principles. The 4th Heritage Interpretation International Global Congress, held in Barcelona in March 1995, served to consolidate the new trends in interpretation.

Especially emphasized was the need to open up heritage to all the senses of human perception. The importance of satisfying the visitor was stressed, by providing new experiences, sensations and suggestions based on cultural and natural resources. There was also a focus on seeking the active participation of the visitor, rather than seeing them as mere receivers of information, with the importance of basing efforts to increase appreciation and understanding of heritage on the immediate surroundings of the visitors' daily life.

### **Authenticity**

The phrase 'genuine history' or 'genuine historic value' is used in several places in this writing to address the issue of authenticity, and should be understood to mean 'according to the original, most recent, or longest lasting historical intention'. For example, when we say that we are restoring a site to its last genuine condition, we are talking about restoring a site in such a way that the restored site is as close as possible to the state it was in when it last served a significant historical function - in many cases, this refers to the original historical function. For example, the Theodosian wall in the case study below has been partially restored to the genuine condition in which the wall was used as a military defense. In this context, 'genuine' refers to the original historical intention, but this is not always the case: for example, the London Wall, also discussed below, was used in many historically significant ways throughout history: sections of it were used as the foundations for later architectural works and other sections were used as the back wall of new buildings of historical significance, each with genuine historical value.

The interpretation and presentation of cultural heritage sites must respect the basic tenets of authenticity in the spirit of the Nara Document (1994). Authenticity is a concern relevant to human communities as well as material remains. Any interpretation and presentation should contribute to the conservation of the authenticity of a cultural heritage

site by communicating its significance without adversely impacting its cultural values or irreversibly altering its fabric - even interpretive infrastructures (such as kiosks, walking paths, and information panels) must be sensitive to the character, setting and the cultural and natural significance of a site, while remaining easily identifiable.

## Heritage

Heritage interpretation is an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information. In nearly all cases in this writing, history and heritage are considered separate and distinct; history is used to refer primarily to a base technical knowledge of what happened, how and when it happened, who it happened to, and whether, in some instances, it might have been avoided.

Heritage, on the other hand, is used to refer exclusively to those parts of history that are deliberately remembered, celebrated, and handed on to future generations. As it has most elegantly been put,

*“History is about knowing the past, while heritage is about celebrating the past.”*(Lowenthal, 1998)

A major challenge for heritage tourism is the “...existence of the inherent contradiction between conservation and change associated with the process of tourism development” (Li, 2003). While they are being developed, in other words, the authenticity of heritage sites often is debated. Seeking a balance between the authenticity and popularity of a heritage site has often been an issue. With regards to the idea of ‘experiencing authenticity’, it is important to realize that it is not an issue of whether or not the individual actually has an “authentic” experience, but rather that their experience is characterized by authenticity in their own view (Cohen, 1988).

Frequently, tourists are prevented from experiencing cultural events and traditions because of a lack of amenities or by the unforgiving surroundings of the heritage destinations (Li, 2003). Li has suggested a balanced approach that takes into account the management of

tourist experiences and conservation of heritage sites. The suggested approach is centered on the following main ideas: First, that authenticity should be evaluated in terms of whose narrative heritage tourism is presented and what has been left out; Second, that tourists' interests should be considered and satisfied based upon their willingness to consume; and finally, that government and local communities should collaborate to develop laws that promote heritage tourism in order to protect and foster heritage sites for the future. The economic effects brought by tourists eventually benefit the development of heritage sites and the local residents financially.

Taiwan, as an example, has experienced various cultures and been ruled by a variety of countries in the past, including Portugal (1590), Spain (1626-1641), the Netherlands (1642-1661), Koxinga (1661-1683), the Chinese Qing Dynasty (1683-1895), Japan (1895-1945), and finally the Republic of China (1945 to now). With its diverse history, Taiwan is rich with heritage and has many historical sites. These heritage sites vary greatly and can be categorized by their functions such as: old city walls, fort battlements, administrative offices, study halls, mansions with massive gardens, family shrines and temples, tablets and stele, memorial arches, gravesites, and other architectural sites. Taiwan's pioneers developed and cultivated the country; they worked hard with a spirit of fortitude that is portrayed in these historical sites (Historical sites of the first rank in Taiwan and Kinmen, 2003). By 2003, five hundred and nine historical sites in Taiwan were identified. Twenty-four of them were recognized as the first rank historical sites that receive the most attention and careful maintenance. Recently, local organizations and governmental units have invested numerous resources to sustain the valuable historical assets in Taiwan.

## **Culture**

Culture is defined as comprising any man-made thing, but is divided into two categories: tangible culture or a category of artifacts, architectural artistic styles, and other such physical artifacts, and intangible culture or traditions including music, schools of thought such as philosophy or religions, and cultural practices such as festival days and ceremonies.

Cultural heritage is perhaps best defined by the 1972 United Nations Educational, Scientific, and Cultural Organization (UNESCO) in the World Heritage Convention. The Convention defines heritage as cultural heritage covering monuments, group of buildings or sites of historical, aesthetic, archeological, scientific, ethnological or anthropological value; and natural heritage, designating outstanding physical, biological and geological features, habitats of threatened plants or animal species and areas of value on scientific or aesthetic grounds or from the point of view of conservation (cited in Richards, 2000).

Many tourists specifically seek to understand and experience different cultures by engaging in activities that are a part of those cultures, which is considered “heritage tourism” (Li, 2003). Heritage tourism is classified as a subclass of cultural tourism (Richards, 1996), and is the tourism industry’s fastest growing sector in recent years (Ashworth, 2000; Ryan & Dewar, 1995). It offers new opportunities for economic growth in historical cities (Jansen-Verbeke, 1997). Cultural and heritage tourism comprises important sectors of global tourism (Silberberg, 1995; Richards, 2000). According to the World Tourism Organization (WTO), 37 percent of international tourism is culturally motivated, and the demand is estimated to be growing at 15 percent annually (Richards, 2000).

Cultural tourism has increased due to large numbers of attractions that promote distinct customs, beliefs, and artifacts of different areas and cultures (Richards, 2000). As international travel has increased, local communities have used their unique cultures and heritages to maintain and promote their unified identities (Richards, 2000). However, the relationship between heritage and tourism is very complicated, in part because heritage is often considered to be the traditional assets of a society, whereas tourism is a dynamic modern mode of consumption (Li, 2003). Many studies question whether tourism focusing on culture and heritage is worthwhile in promoting cultural understanding and whether it can foster the growth and development of communities (Chang, Milne, Fallon & Pohlmann, 1996; Moscardo, 1996; Swain, 1993).

The National Assembly of State Arts Agencies (NASAA) states:

“... Cultural Tourism has been defined as the movement of persons to cultural attractions away from their national place of residence with the intention to gather new information and experience to satisfy their cultural needs.”

People visit places for new cultural experiences and in order to experience new cultures in terms of aesthetics, intelligence, emotion and spirituality. (Reisinger, 1994) Further, tourism brings about an exchange of knowledge, opinions and communication, which is crucial for the mutual understanding between people of diverse cultural backgrounds, and is a prerequisite condition for the ultimate goal of achieving world peace, either at the present time or in the future. (McIntosh and Goeldne, 1984; Pigam, 1993)

## **Reconstruction**

Replication, or reconstruction, is to rebuild (new) structures to be the same as the destroyed ones. While it has already been covered briefly in the section on conservation (above), it is important to be covered again, in the light of the section on authenticity (also above), because there are different philosophies of reconstruction that must be enumerated. In the broadest terms, these can be divided into two categories, which for the sake of brevity we can call 'faithful' reconstructions and 'idealistic' reconstructions, and any site, whether faithfully or idealistically reconstructed, can also be described in terms of its functionality, or as being in one of two categories; a functional reconstruction or a purely aesthetic reconstruction, although the distinction between these two extremes is much less stark than the distinction between faithful and idealistic reconstruction.

Pisit Jaroenwong (1999) has explained that cultural resources are something from the past or inherited from the ancestors or they can be something new that has just been invented. Tanik Lerdchanrit (2007) has described cultural resources as the products of culture or the characteristics of the culture system (both in the past and present) which have their own values or can be the representatives of or related to other cultures. Therefore cultural resources include all the remains of humans' creations such as archaeological sites, monuments, clothes, historical documents, inscriptions, languages, religions, traditions, rituals, beliefs, wisdoms etc. and can be something that humans have not created but has meaning in one way or another to them such as fossils, pollens, water, soil and rocks which humans can benefit from.

Cultural resource management (CRM) refers to the conservation, preservation and protection of sites and materials that contribute to our understanding of past cultures, and to “what things will be retained from the past and how they will be used in the present and future” (Lipe 1984: 1).

Most industrialized nations have developed comprehensive policies and strategies towards cultural heritage protection and management (McManamon and Hatton, 2000). For example, sophisticated resource protection strategies have developed in Europe as “archaeological resource management” and in Australia where the field is known as “cultural heritage management” (Carman, 2000). Strategies for the protection of cultural heritage are often undertaken at the national or regional level through federal and state-level policies, yet the loss of information about the past is a threat of global significance. While CRM is most often understood as a function of archaeology, it can also involve investigation and preservation of ethnological and historical knowledge through the collection of oral histories and archival research. Cultural resource management may also include the identification and protection of built heritage such as historic buildings, cultural landscapes, and traditional use areas for conservation and preservation (King, 2002).

Schiffer and Gummerman describe cultural resource management as “a new social philosophy for the treatment of the all too ephemeral materials that contribute to our understanding of the cultural past” (1977). This ‘philosophy’ has materialized in policies and practices that through planning and management attempt to ensure the “least loss of information” concerning past peoples and cultures (Schiffer and Gummerman, 1977). However, cultural resource management can also be characterized as an ideology rooted in colonialism and nationalism. Gero writes that: “Archaeology is fundamentally and uniquely an institution of state-level society. It is only the state that can support, and that requires the services of elite specialists to produce and control the past” (1985). This suggests that archaeology is indebted to the state and so must legitimize the ideology of that state by using methods, assumptions, categories, explanatory theories and interpretations that legitimize the position of the supporting state (Gero, 1985). There have been challenges raised that advocate recognizing and reducing the influence of the state on archaeological interpretation (Leone et al., 1987). Cultural resource management is even more deeply entrenched and regulated by state bureaucratic mechanisms than regular archaeological practice. However, the subject of

CRM as a function of the colonial state is not the immediate concern of this project although the implications of these sorts of theoretical and political discussions on the subject of this study are important to recognize.

In light of the brief outline of Lanna history in Chapter 1 and in the context of this political-ideological nature of cultural resource management, however, it is worth commenting on the dilemma of explanatory theories and interpretations that might apply to Chiang Mai. Lanna can variously be seen as a dynastic rival and as a colony of Siam (Ayutthaya, Rattanakosin, Bangkok). Interpretation of Lanna from the perspective of a Bangkok hegemony and orthodoxy may accordingly be problematic and contested.

The archeological pattern of cultural resource management in the past was in the form of historical parks and museums which were devoted to historical sites, antiques, artifacts and archeological sites. Historical parks management was the beginning of cultural resource management and changed the guidelines of historical sites and antiques preservation and also contributed to economy development at the same time (Sayun Praichanjit, 2005). Most concepts of cultural resource management that have appeared in Thailand are influenced by Western ideas and practices. After people had been alarmed at the threat to important historical sites and memorials, they cooperated to write the standards and theories of preservation methods such as The United Nations Educational, Scientific and Cultural Organization (UNESCO), International Council on Monuments and Sites (ICOMOS) and the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) and conventions such as the International Charter for the Conservation and Restoration of Monuments and Sites 1964, Convention Concerning the Protection of the World Cultural and Natural Heritage 1972. These variously provided the outlines of all architectural preservation and related rules in Thailand for adaptation to the international standards. It also shows how our preservation procedures have been changed in different periods, principally in response to changes in Western conventions (Kunnikar Lutirattanapirom, 2005).



## **Participation**

Participation refers to actions taken specifically by the public which affect the continuity and welfare (or lack thereof) of a historic site. It is the opportunity for the public to be involved in brainstorming, making decisions, official proceedings and to take responsibility for things which also influence the public (Yuwarat Wutimethi, 2529, referred to in Wiwattanachai Boonyanupong, 2544).

Public participation basically provides the public with an opportunity to know and express their opinions on decision making. The principle is based on the acceptance of opinions and coordination from all parties with obligations under the framework of authority and responsibility (Office of the National Social and Economic Development Board, 1996). There are three important conditions for public-initiated participation: freedom, ability, and willingness to participate. Successful public participation depends on varying factors, for example time, expense, mutual interaction, communication, and social implications to their positions or status (Niran Jongwuthiset, 1984).

Participation by the public is a recurring theme in this text, and is referenced most explicitly in Chapter 5 in reference to the section on Carcassonne, although the section in reference to the side industries which have arisen from the conservation of Kyoto also falls under this category, despite being less explicitly so. It should be noted that participation can be broken down further to describe participation by specific groups, such as political activists, experts in a relevant field who are not part of any official project or who work under their own direction to a concurrent end as an official (state sponsored) conservation effort, and of course, concerned citizens. For the purposes of this thesis, however, 'participation' will refer to all of these categories as a single category, but with the following specific instances of participation touched upon in later chapters.

## **Participation in Evaluation**

Community members participate in controlling, monitoring and evaluating project implementation. This step is pivotal but has rarely been implemented (Cohen and Uphoff, 1980). This participation type considers past performance to learn of the benefits arising from

mutual implementation, so that previous or current activities can be assessed. The participation raises community awareness on how suitable the activities are or have been, whether they should continue or have yielded any benefits, and what impacts they will have on tourism development.

### **Participation in decision making**

It is a very important step for community members to understand their problems so that planning or activities can be created to benefit them. The present problem is that the public does not actually understand tourism and cannot see all of the impacts brought about by tourism. The problem can be solved by guiding the public to learn of the problems involved in the process and encouraging the people to develop problem solving guidelines. This step creates a sense of ownership: implementation creates a learning process, which may require some assistance from specialists in planning and implementation. Participation in planning or policy formation is crucial, so that people are able to use their limited resources for maximum public benefits. The process includes studying the target group, coordinating with concerned agencies, organizing public forums to analyze problems and finding solutions, and setting up a community-based organisation to monitor the operations.

### **Participation in Implementation**

Communities may be supported according to their capability levels in the form of joint administration, administrative resources, or other assistance to support their planned activities. Participation in implementation will in this text be meant to express the idea that actual significant actions are being taken by a body of the public (under official direction) to the end of conserving a historical or heritage asset.

## **Impact**

Impact, within the context of this thesis, refers to the effect on a community, via any relevant means, be they social, economic, cultural, or of any other variety. Where impact is discussed, its relevant method will also need to be mentioned, and any exceptions to this convention will be explicitly labeled as such in the text.

A public participation perspective for tourism is crucial to an investigation of current tourism problems, because tourism activities are created by outsiders and tourists are brought into a community. Therefore, community members who know their problems and needs should be encouraged to participate in managing their tourism resources because tourism activities send direct positive and negative impacts on to the community (Boonlert Jitangwathana, 2005). There are four major types of tourism impacts on the area, described below.

### **Economic Impact**

Economic impacts can be both negative and positive. The positive impacts include changes to the community's economic structure, job creation, increased incomes, production stimulus, and better foreign surplus. The negative impacts may include discontinuous earnings due to seasonal tourism, labor quality becoming unsuitable for a new production system, costs and services, and conflicts of interests in the community, leading to other cost-related problems, e.g. in labor, land, finance or foreign raw material use

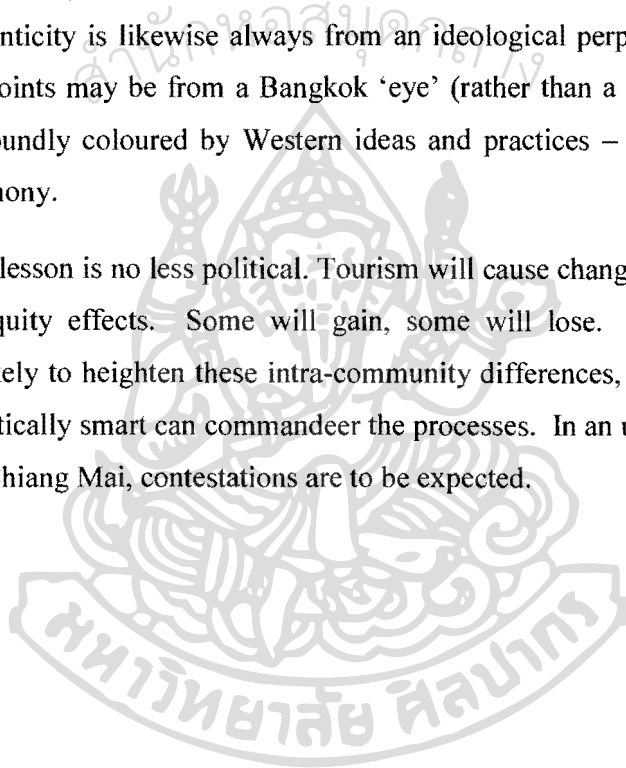
### **Community Impact**

Positive social impacts can include a better standard of living, social harmony, migration prevention, better education, and better understanding between tourists and community members. Negative social impacts may include adverse changes of lifestyles and local values, tourist exploitation, emigration from the communities, crimes, and the creation of conflicts between tourists and communities

to preserve the character of entire cities, rather than simply preserve the remains of one of the important buildings in (or previously in) a given city.

Two principal lessons emerge from this chapter. The first relates to the essentially political-ideological nature of all conservation. Simply, interpretation is always from a viewpoint and will inevitably raise the question: *whose* viewpoint? Hegemony is always and inevitably embedded in such interpretation; accordingly, there can always be contrary interpretations of the significance of a monument such as the Chiang Mai walls. The judgement of authenticity is likewise always from an ideological perspective. Further, while such official viewpoints may be from a Bangkok 'eye' (rather than a Chiang Mai eye), this may itself be profoundly coloured by Western ideas and practices – yet another source of ideology and hegemony.

The second lesson is no less political. Tourism will cause changes and these will have distributional or equity effects. Some will gain, some will lose. Goals of community participation are likely to heighten these intra-community differences, as there is always the danger that the politically smart can commandeer the processes. In an urban community with the complexity of Chiang Mai, contestations are to be expected.



## Chapter 3

### The History of the Chiangmai City Walls

Tourism has become a vast enterprise, whether it is measured in terms of the movements of people or in expenditures. International tourism is the world's largest export industry, and is a major factor in the economies of nearly every nation. In addition to this, tourism has become one of the world's most important sources of employment in developing nations, stimulating enormous investment in infrastructure, and providing governments with substantial tax revenues. This in turn helps to equalize economic opportunities and prevent residents in rural areas from moving to the already overcrowded cities (Roe, Ashley, Page, & Meyer, 2004). As a result of these benefits, many nations and business sectors alike must try to compete with one another to lure in-bound tourists into their own territories.

In Thailand, a particular interest has been shown in promoting tourism since 1924, when the first guidebook to Bangkok was created by a Danish author under the authority of the Royal State Railways (Aphivan Saipradist, 2005, p.12). In 1959, the Tourism Organization of Thailand was established during the dictatorship of Field Marshal Sarit. The objective of this organization was to encourage foreign investment in the tourism sector. However, the tourism in Thailand only started booming during the Vietnam War, as Thailand was the safest country to visit in Southeast Asia (Ouyyanont, 2001). In 1964, Thailand hosted about 212,000 visitors from overseas (Thannarat, n.d.). In the second half of the 1970s, there was an economic recession and tourism became a main source of foreign exchange earnings. The *Tourism Organization of Thailand* changed its name to the *Tourism Authority of Thailand* (henceforth referred to as the "TAT") in 1979. The TAT set about trying to raise Thailand's image to be that of a quality destination, and has defined its purpose around the following points:

- Promotion of tourism and of the tourism industry, including the professions of Thais within the tourism industry.
- Publicize Thailand for its natural beauty, historic locations and artifacts, its historic traditions, arts & culture, sports, and other activities to persuade potential travellers.

- Facilitate and provide safe touring destinations and accommodations for tourists and visitors from foreign lands.
- To promote the understanding and good relations between and among both the people from the Kingdom of Thailand and the visitors from foreign nations.
- To initiate development of tourism infrastructure and of facilities for tourists.

In 1982, the TAT promoted the Rattanakosin Bicentennial, or the 200th anniversary of Bangkok city. Several years later, this was followed by the *Visit Thailand Year*, and King's 60th birthday in 1987. 1988, the *Year of the Longest Reign* was celebrated, and then 1989 was declared the year of *Thailand Arts & Crafts*. In September 1997, there was a financial crisis in the region, and as a consequence a drop in tourist arrivals. As a response to this, and in order to mitigate the downturn of the tourism-based economy, the TAT started the *Amazing Thailand* campaign. The TAT also began to promote domestic tourism and organized the *Thailand Tourism Fair* from October 26, 2001 to November 4, 2001, during which 862,216 people - most of them Thais - attended. In 2003, TAT set to raise Thailand's image as a quality destination by organizing two advertising campaigns for international and domestic tourists, catering to two separate themes. The first of these was the *Unseen Treasures* campaign, which was further divided into the four categories of *culture, food, nature, and heritage*, and the second was *Unseen Thailand*, which instead focused on all of the same material of the *Unseen Treasures* campaign as a complete package for foreign visitors (Tourism Authority of Thailand, 2003).

Cultural tourism forms an important component of international commerce in general in our world today. It represents movements of people motivated by cultural interests - interests such as study tours, the performing arts, festivals and cultural events, the viewing and study of historic artifacts, and visits to sites and monuments. Cultural tourists seek to identify, understand, and bear witness to cultures which are alien to their own. Cultural tourism is also about immersion in and enjoyment of the lifestyles of the local people, the local area and the constituents of its identity and character.

Asia is richly endowed with some of the world's grandest and most outstanding monuments, such as Angkor Wat on the border between Thailand and Cambodia, The Great

Wall of China, and the TajMahal in India. In addition to these well-known sites, the Asian continent boasts an impressive number of less well-known historic sites, valuable and enlightening artifacts, and other cultural assets, both tangible and intangible. It is these assets that have the potential to progressively be converted into a vibrant attraction for cultural tourists from all nations. As it stands today, many of the Asian and Pacific nations have successfully turned their cultural resources into main attractions for this form of tourism. In an effort to encourage the development of this form of tourism, a special international conference on cultural tourism was organized by the World Tourism Organization (WTO) in 2000 which sought to address the issues of the delicate balance in the relationship between cultural heritage and cultural tourism, and to discuss the impacts of tourism on the preservation and conservation of cultural and historic heritage, and to discuss new policies and guidelines for the development of cultural tourism, and last to establish guidelines for its marketing and promotion.

Using culture as a vehicle for sustainable tourism development has recently become an important facet of the priorities of public policy planners. Apart from the socio-economic benefits that cultural tourism can contribute to the well-being of countries, the WTO seeks to explore the possibilities of using cultural tourism as a potential tool in the endeavor of fighting poverty (Roe, Ashley, Page, & Meyer, 2004). An unfortunate but well-known fact about many historical sites in the world is that many poor and remote communities are rich in tangible and intangible cultural resources, such as customs, folklore and artifacts, and are often located near famous heritage sites (Roe, Ashley, Page, & Meyer, 2004). If well organized and integrated into tourist attractions, these cultural resources, both the tangible and intangible, could become a powerful tool for reducing poverty levels of such communities - even if it were initially the only such tool that could be leveraged. With its new promotional campaigns successfully putting emphasis on its heritage sites and cultural attractions, Thailand's image began to improve from that of being a land of cheap sex for soldiers overseas (Ouyyanont, 2001). New publicity for Thailand's natural beauty and ancient historical sites, arts, cultures, and sports, together with the new developments of infrastructure allowing greater convenience for tourists, have enabled Thailand successfully to become a major vacationing destination in Southeast Asia. In 2003, the Tourism Authority of Thailand reported a total of 10,082,109 international tourist arrivals, spending a total of

approximately 360 billion baht within the Kingdom of Thailand. As may be evident from these numbers, tourism is considered to be one of the most resilient and lucrative sectors of the Thai economy in gross earnings.

### **About Tourism in Thailand**

In terms of a variety of factors - such as quality of living, tourist attractions, and development potential - Chiang Mai is Thailand's second city. In a recent survey by the *AsiaWeek Magazine*, Chiang Mai was ranked as the 9th most livable city in Asia East of Kabul, and was also rated as the *second best city in the world* by *Travel and Leisure Magazine* after Bangkok. Chiang Mai is the largest and most culturally significant city in northern Thailand.

Chiang Mai means “new city” or “new kingdom” and has retained the name despite celebrating the 700th anniversary in 1996 of its foundation by King Mengrai . Chiang Mai was the capital and cultural core of Lanna Kingdom and also the center of Buddhism in northern Thailand. The city features old temples within the moat-encircled old city which retains much of the fortified wall that once protected the city center as well as the four main gates that provided access to the former Lanna capital city.

According to the old Indian belief, the wall and the moat are considered to be the upward link to heaven at the center of the universe. Therefore, Chiang Mai walls and moats were oriented to the cardinal points and symbolized the mountains and seas of the outer universe. The astrological plan for Chiang Mai called for rectangular moats measuring 18 meters across, with a width of 1800 meters and a length of 2000 meters. The fate of Chiang Mai was believed to depend on the relationship between the center and the outer guardians at the corner of the gates. In fact, four gates were built. A further gate, Suan Prung gate, was built later in the 15th century to allow King Sam Fang Kaen's mother to travel from her place of residence to supervise the building of the Chedi Luang.

Barring minor restoration, the overall shape of the bastions on the corners is much as Kawila had built them. At some stage early in the 20th century, the walls and gates between the corners were dismantled to open up the city, and the bricks were used to pave the roads.



In 1996-1997 archaeological excavations were made before the walls near the gates were extensively renovated. The north-east corner of the excavation site has been covered with a roof and left open. Bricks placed in the new brickwork were stamped with the characters identifying them as reconstructions undertaken in 1996 AD. The present gateways were reconstructed in the late 1960s. Reflecting the importance of commerce; the most commonly used gate for city events today is Thapphae Gate. The open concourse in front of the gate is used for anything from beauty contests to political rallies.

### **Special case of tourism in Chiangmai**

Center for Promotion and Development of SME's in Chiangmai (2005) claimed that Chiang Mai is a major economic center, and is the largest city in northern Thailand. As the unofficial 'Capital of the North', Chiang Mai is in an excellent position to attract a wide variety of different kinds of tourists, from backpackers seeking new experiences on a budget, to adventure seekers trying to find that latest thrill, to environmental tourists seeking to experience the sacred beauty of unpolluted nature, to historical enthusiasts seeking a taste of ancient history. For all of these tourists, the ancient Lanna and Thai culture is fascinating and attracting, and the ancient temples, monuments, and city ruins are consistently in the top five recommended things for a visitor to the city to see.

In Chiang Mai, there are over 300 Buddhist temples, and a large number of these are hundreds of years old, with a handful approaching the age of a thousand years old. In many sections of the city, ancient un-restored pagodas stand side-by-side with modern apartment blocks and town homes. Chiang Mai is a unique experience for many tourists in this way because, despite the complete lack of any restoration of ancient buildings in most cases, they have continued to be used for their original purposes by many people in the area; for example, pagodas in residential areas are commonly draped with the saffron robes of the local monastic orders, with offerings of incense, while food and drink are left on the base.

## **The value of the walls as tourist attractions**

The walls of Chiang Mai represent over 700 years of history. They represent the city of Chiang Mai in a way that no other monument possibly could, because they exist on a scale that simply cannot be ignored or passed over, even by the most cynical casual observer: if you have been anywhere in Chiang Mai, you have almost certainly seen the walls.

This broad exposure among the millions of people who visit Chiang Mai every year is unfortunately very often limited to a superficial familiarity with perhaps one or two of the remaining or reconstructed sections of wall, and absolutely no understanding of what the walls represent. This is very inadequate, especially when compared with the experience most tourists have with the other monuments in Chiang Mai, such as the many temples, or areas such as the royal Ratchapreuk gardens, or even the Chiang Mai Zoo. (One might even go so far as to suggest that the walls are even more endangered than the panda in that zoo.)

## **The significance of the Chiangmai city walls**

In the following pages we will be discussing some of the fundamental ideas that were at work in the original design and construction of the walls and moat of Chiang Mai, as well as a great many other details, such as the palace in the center of the old city and the specific purposes some of the gates could and could not be used for. When we are explaining these ideas, it is important for modern people to remember that these ideas were the result of their times, and that they were literally the state-of-the-art for their time. In order to help people have a better understanding and appreciation for these facts, it is useful to remember that, as the late Christopher Hitchens so eloquently said about the religious ideologies that were contemporary to the views of the builders of the city of Chiang Mai,

*" ... it is better for us not to fall into relativism, or what E. P. Thompson called "the enormous condescension of posterity." The scholastic obsessives of the Middle Ages were doing the best they could on the basis of hopelessly limited information, ever-present fear of death and judgment, very low life expectancy, and an audience of illiterates. Living in often genuine fear of the consequences of error, they exerted their minds to the fullest extent then possible, and evolved quite impressive systems of logic and the dialectic.... We have nothing*

*much to learn from what they thought, but a great deal to learn from how they thought.”*  
 (Hitchens, “God is Not Great”, ch 5 p 44, 2007)

The fundamental ideas around which the city was designed and built are a quite interesting subject of study. In the past, people believed that the world was flat, and in particular there was the Buddhist belief that the world is flat as a rectangle floating on the water and water floating above the wind. Located at the center of the city was the Chiang Mai Pillar, representing Mount Sumeru which in Brahman cosmology is the upward link to heaven at the center of the universe. These ideas, combined with the belief that king is the representative of Lord Shiva who rules the world, logically gave rise to the idea that the Chiang Mai Pillar, in the middle of the city, would act as a bridge between the world and heaven. In order to facilitate this, the city needed to look like a rectangle floating on the water- a reflection of the ideal shape of the world, as it was imagined. These ideas served as a source of inspiration for the creation of the moat surrounding the city - a spiritual detail that is often overlooked in favor of the more practical details, such as that the moat was used as a source of water for consumption and as an obstacle to keep enemies away from the city gates and walls.

Another fact of this spiritual worldview was the belief that a city, or *muang*, was a living entity that had body and soul, and that significant events in its life could be determined by the circumstances of its birth. Whether or not it would be prosperous could be determined by studying the circumstances of its birth. There was a concept that Chiang Mai was a living body, a literal organism, with different body parts. The head, the holiest and most important part in Thai Buddhism, was located in the northern area of the city. According to the chart of cardinal points, the northern section of Chiang Mai city was very important- an idea which is still very visible today by the many shrines and tokens of good fortune in that area, such as the statues of lions and elephants. Also, according to this tradition, it was forbidden to bring things through the north gate, or *Pratu Chang Phuak* (in English: “Gate of the White Elephant”), that might bring misfortune on the city. At the city center was the ‘navel’, where many of the objects and shrines associated with myths and cosmology were located, such as the Inthakhin Post, the Yang Tree, and the two Giants. The southwestern gate was regarded as the inauspicious part of the city, where the dead and all other things inauspicious would leave the city. The eastern and southeastern sections were regarded as locations of

industriousness where commercial activities took place from the old days till the present. The western part of the city was left as a forest and for hundreds of years has been an area of leaning - even today, the area is the natural woodland home of Chiang Mai University (CMU).

This concept of the city as a living body gave rise to the belief that the city would sometimes be prosperous and bountiful, with good morale among the people, but at other times it would suffer from various misfortunes, such as armed invasions and evil practices that went against traditions, and would have low morale. In order to preserve and restore the city to its former good fortune, a “Longevity Ceremony” was concocted, to be held in an effort to boost the morale of its citizens and lengthen the life of the city, similar in nature to other ceremonies of the time that were held to lengthen the life of a village or of a person.

In an era before modern measuring equipment and techniques, how was it possible to accomplish the construction of an accurate building foundation, much less a sophisticated fortified defensive wall? Sunlight was the answer to this problem. The sun’s orbit was compared with the astronomical data available to people in those days, according to the belief that the world is flat. Working with the assumption that the earth is the center of the orbit, the sun can be predicted to rise exactly east. From the perspective of the northern hemisphere, the orbit of the sun is tilted to the south and it falls to the west. After March 22, the spring solstice, the sun begins to rise further north in the morning, and similarly falls further north in the evening. On 15 May, the solar noon aligns perfectly with the walls running north to south in the old city of Chiang Mai, and the sun continues to rise further and further to the north until June 21, when it reaches the solar apex and begins to gradually descend further and further south. On July 30, the sun again aligns perfectly with the city walls, and as a result, you cannot see the Chiang Mai Pillar’s shadow at noon. From here, the sun gradually continues to the south, rising further to the southeast and falling further to the southwest again on 22 September. From 23 September onwards, the sun starts to rise more sharply to the southeast and falls in the southwest, reaching its southernmost nadir on December 22, where it stays for three days before - as Christian mythology so eloquently (although, perhaps, inadvertently) describes it - the sun is born from the virgin (the constellation Virgo) after being dead for three days. The sun gradually returns, rising to the east and falling to the west again on March 21 for a total of one year. The idea behind mentioning these dates is that

the sun was always at a specific angle at a specific time on the dates mentioned here, and these dates define the beginning, middle, and end of the four seasons (where there are four seasons) or else they can be used simply as a reference point for determining the time of year - so the angle of the sunlight on these specific dates was used in order to determine the correct direction to build the city. Once the layout and directions had been calculated, it took only about 4 months to complete the construction of the original wall. (Surapol Dumrikul, 1996) When the walls were first built they were 900 *wah* wide and 1000 *wah* long, with the moat dug to a span of 9 *wah*. The city walls have changed in size with each new reconstruction, however, and at present form a square 1600 meters to a side.

### **The History of Chiangmai and the City Walls**

The history of Chiang Mai can be traced to the reign of King Mengrai (AD 1259-1317), who established the Kingdom of Lanna in the northern region. In 1296 King Mengrai cooperated with his good friends and political allies, King Ramkamhaeng of Sukhothai and King Ngam Muang of Phayao, in order to choose an appropriate site for founding the capital of Lanna and helped with the city planning and then named the city “Nopburi Sri Nakhon Ping Chiang Mai”. The city was meant to be a center of politics, economy, society, culture, trade, and religion. The simple brilliance of this as a political move is usually lost on the casual observer, but it can be easily understood when it is considered that by presenting a plan for a city and asking for assistance both in design and construction from the neighboring kingdoms, King Mengrai was in effect offering these kingdoms the chance to make demands about the details of the new city, while at the same time offering them a chance to veto the construction if that was their sincere wish. It is worth mentioning, in the interest of promoting a better understanding of Thai politics, that this kind of thinking is a de-facto standard even today.

Chiang Mai was influenced by Sukhothai architecture, and by the styles and building methods from the older civilizations in Chiang Saen and Angkor, but perhaps the most relevant influence on the construction of the new city was the instruction and assistance in construction by the Mon people, an Indian sub-group who occupied much of southeast Asia and practised Buddhism and Hinduism. It was with the guidance of the Mon that the first

attempt at a capital city was made, resulting in the ruins known today as “Wiang Kum Kam”. The building expertise of the Mon was so remarkable that many of the foundations of Wiang Kum Kam, despite being older than any section of the city wall in Chiang Mai (and despite spending many years underwater, buried, or with vegetation growing unchecked on them), still survive in very pristine condition. (Boonserm Satrapai , 1979)

Chiang Mai was founded in 1296 AD by Phaya (King) Mengrai, in cooperation with politically allied kings from two neighboring kingdoms- Phaya Ngam Muang, from Muang Phayao, and Phaya Ruang from Sukhothai. Both of these allied kings visited and reviewed the proposed plan of the city - a political move which, by allowing the two visiting kings to study the plan, was the same as receiving their approval to establish the city.

The Lanna Thai Period lasted from approximately the city’s founding in 1296 until 1558, with the defeat of the Lanna at the hands of the Burmese. In this time, Chiang Mai went through several major reconstructions, beginning with the first replacement of the city wall in 1345. (Supapol Dumrikul, 1996)

With the fall of the Lanna Thai kingdom, Chiang Mai lost political and economic importance, and as a consequence seems to have been occupied by whatever power was in the region, including the Burmese for over 200 years until their subsequent defeat at the hands of Ayutthaya in the 18<sup>th</sup> century.

As a result of the many factors in its decline, by 1776 Chiang Mai was completely abandoned, despite formally becoming a part of Siam only two years previously. Within 20 years, however, the city had been repopulated with groups from the surrounding areas as well as immigrants from further away, at the direction of the Kingdom of Siam. Modern people from Chiang Mai can still trace their ancestors back to these immigrant groups.

### **The city walls and the tourism industry in Chiangmai**

The location of Chiang Mai was selected specifically for its strategic value, and the city was specifically designed to be a defensive city, as demonstrated by the city walls and moat which ring the city. The city wall was built to prevent enemy armies - such as those of

Ayutthaya and the Burmese - from being able to enter the city. The troops of these kingdoms were often a threat to the city after the end of the Mengrai dynasty. When the city wall was first built, it was 900 wah wide and 1000 wah long and was also created to define the boundaries of the city and to prevent the invasion of the enemy. (Boonserm Satrapai , 1979)

In preparation for the process of city construction, the Tai–Yuan people relied on their knowledge of how to select the most suitable site by considering three main physical characteristics: proximity of a water source, the available land and its characteristics (with a preference for plains areas suitable for growing crops and building on), and the location’s proximity to mountains. This knowledge was practiced as part of the local intellectual wisdom in connection with the selection of a “Victory site” to construct a city. The local chronicles stated that the ideal area for building Chiang Mai city contained seven auspicious signs, meaning that the site must contain seven physical features that would bring good fortune to the city.

The organization of the city in the past seems to have been divided into six residential sectors:

1. The area in the center of the city was the most important as it was the residential area reserved for the king and the royal family. It was also the political and cultural center. In the exact center, the Inthakhin Post and the Chedi Luang Stupa were located. Originally there was a large plaza known as *Khuang Luang* or *HkuangKlang Wiang* – the central city plaza.
2. The area between the inner and outer city walls was a residential area for locals and migrant ethnic groups, and specialized in handicraft making. Old temples named after their former cities, such as Wat Muang Yong and Wat Muang Sat, indicate the existence of groups from the cities of northeastern Myanmar (Burma).
3. The area to the north was apparently considered auspicious, as evidenced by the existence of many lion and white elephant statues in the area. There is evidence of a great concentration of the population, as shown by the remains of many temples.

4. The western part was a peaceful forested area, reserved for Buddhist observance, which also provided the city with shade. It was also a center of learning. In this area, there are also the remains of an old settlement known today as *Wiang Suan Dok*.
5. The eastern part of the city covered both banks of the Ping River, a center of commerce and transportation where merchants from afar had settlements. For example, the Chang Khlan area was the home for Yunnanese merchants from China, and the Wat Chai Mongkhon area was inhabited by the Mon and Myanmar traders. Wat Katas was an area for the *Han* Chinese merchants. There was even a section reserved for Christian missionaries, and merchants and diplomats lived on both side of the river. The first modern post office was also located in the eastern part of the city.
6. On the outskirts of the city stood villages built by communities of the different groups of people brought in to populate Chiang Mai by King Kawila in the late 18<sup>th</sup> century - such as *Ban Luang Nua* and *Luang Tai* in the modern Doi Saket District, the *Ban Muang Horning* the modern Sansai District, and the *Ban Muang Kung* in modern Hang Dong District. These were farming communities that engaged in handicraft production in their spare time, a practice that continues today. (Boonserm Satrapai, 1977)

### **The walls as a tourist attraction**

Chiang Mai possesses a large number of tourist sites including ancient buildings, natural areas and man-made attractions. Its interesting culture, tradition, and festivals also attract many tourists. One of Chiang Mai's biggest tourist attractions is its old city. Chiang Mai is one of the few Thai cities where the old walls are still, to any degree, intact. Chiang Mai has been hailed as Thailand's cultural capital. One of the lasting legacies of Chiang Mai is the city walls and moat, which encircle the old city at the heart of Chiang Mai. In recent years, Chiang Mai has started to become an increasingly modern city, but there are still frequent tantalizing glimpses of its exotic cultural history. It holds a special old world charm that brings millions of visitors, both international and from Thailand, to the city each year.



The vast number of temples in Chiang Mai is unrivalled elsewhere in Thailand, with more than 300 temples within the city. The historic 'old city' of Chiang Mai is a city within a city. The old city is defined by the city walls and moat that surround it, and was traditionally accessible by five gateways, each serving specific practical and ceremonial purposes.

In the center of each wall on all four sides of the city are the original gates. The main gate, Thaphae, is on the eastern side and facing the river Ping and has been rebuilt, complete with a stretch of wall, to give people an idea of what the walls were once like. The entrance to Thaphae Gate is many people's starting point for an Old City tour. The other gates are Chiang Mai Gate to the south, Suan Dok Gate to the west and Chang Phuak Gate to the north. The moat today, rather than repelling invaders, is an attraction, with burbling spraying fountains, large schools of fish which can be fed, and flood-lighting at night.

Chiang Mai's historical heart is the old walled city. There is a variety of interesting temples inside of the old city walls - temples such as *Wat Phra Singh*, Chiang Mai's best-known temple; *Wat Chiang Man*, the oldest Royal temple in the city; *Wat Chedi Luang*, the home of the city pillar; and *Wat Phra Jao Mengrai*, which commemorates King Mengrai, who founded the city of Chiang Mai.

Center for Promotion and Development of SME's in Chiangmai (2005) reported that the tourism industry in Chiang Mai initially grew at an average of 9.9% per year, beginning in 1993. During 1997-2003, the increase in tourist arrivals declined to an average annual rate of 2.5% due to the outbreak of Severe Acute Respiratory Syndrome (SARS) in the region. The number of international tourists slightly increased again by 4.2% in 2007 (cdn.gotoknow.org). The total number of tourists to the province of Chiang Mai in 2004 was 3,898,543 (2,101,099 Thai and 1,794,444 foreigners), spending 45,067 million baht in tourism income. The expenditures were mostly on souvenirs and other products, followed by accommodation, entertainment, food and beverages, transportation, and sightseeing fees and expenses. The average tourist stays in Chiang Mai for 3.9 days and spends 3,119 baht per day.

Since 2009, the Thai tourism industry has been impacted by three serious problems: domestic political turmoil, the global economic slowdown, and high competition from other

tourist markets. These are major factors and have an effect on the tourism industry in Chiang Mai.

### **Present State of Chiangmai city walls**

Chiang Mai remains the only province in Thailand with both fully modernized infrastructure and also a partially-intact cultural and historical heritage that can still be preserved. The historical evidence provided by the wall and the gates still remains untouched, in some cases. Although there have been restorations in the recent past, the wall and the gates that exist today still have the layout of the ancient walls, and still share the same foundations - especially the bricks which are larger than normal size today. It is presumed to have been during the reign of King Kawila that the walls were restored, after being abandoned by the Lanna civilization for more than 200 years. The city walls and gates are important historical sites. In the past, kings that came into the town would arrive at the gateway to the north of the city, which was considered as the head of the city. According to what a *Yonok* derivation states, when Phaya Mengrai established the city, the moats were dug on all four sides, and it was the soil that was excavated that was used to build the walls. This started at the northeast corner, called *Jang Sri Phoom*, an auspicious starting point, and used brick on both sides of the wall to prevent soil erosion. The bricks were paved in the same way on top of the walls on all four sides and also on the tops of the four gates which were constructed at about the same time: the Hua Wiang Gate (or Chang Phuak Gate), Tai Wiang Gate (or Chiang Mai Gate), Thaphae Gate, and Suan Dok Gate.

The city wall had two layers. The inner layer was a rectangular brick wall, and the outer layer an earth wall. These layers were not constructed simultaneously, nor were they of equal importance. Presumably, the inner wall was built during the reign of Phaya Mengrai when he first established Chiang Mai. The outer layer wall is assumed to have been built around 1893 AD. The wall of the old city is more important than the outer wall of the city. Judging from how the space was used, within the wall of the inner city seemed to be the center of administrative activity where kings and lords lived as well as housing the locations of several important temples such as Wat Phra Singh, Wat Chedi Luang, Wat Chiang Man. Streets within the city wall were also more geometrically arranged, especially in comparison

with the area of the outer city wall where craftsmen and merchants lived. The wall of the inner city includes five gates and four corners, Dumrikul (2002) discussed in some detail below:



Figures 6 and 7 : Chang Phuak Gate

*by the author on 20th November 2010*

Hua Wiang Gate (or in English, the “Head of the City”), also known as “Chang Phuak Gate”, is located in the north of the city which is a sacred door used for the ceremony of the ancient royal traditions. The king who reigned in the city would only enter or exit the city through this gate. The name *Hua Wiang* was changed to *Chang Phuak* when Phaya Saen Muang Ma built two Chang Phuak Monuments in memory of two loyal subjects who helped him escape from war. The elephant situated in the rear is known as *Prab Chakrawan*, while the elephant standing at the fore was known as *Prab Muang Marn Muang Yaksha*. The people believed that if respects were paid to Prab Chakrawan when the city was at risk of an enemy invasion, the enemy would flee. On the other hand, if respect was offered to Prab Muang MarnYaksha, neither demon nor human could bring harm to the city. These two elephants were regarded as a supreme blessing, and so the gate came to be known as *Pratu Chang Phuak*, or the ‘White Elephant Gate’. The elephant monuments - which remain to this day - were built by Phaya Saen Muang Ma, in order to honor his loyal servants Ai Ob and Ai Yira, who carried him to safety away from the armies of Sukhothai, after a disastrous defeat.

Beyond the elephants, the gate also has a spirit guardian called *Khandharakkhito*. (Tew Wichaikattaka, 1986)



Figures 8 and 9 : Thaphae Gate

*by the author on 20th November 2010*

Chiang Ruak Gate, known today as Thaphae Gate, is located on the east side of the inner city wall. There was a village called Chiang Ruak outside the city wall. In the past, *Baan Chiang Ruak* was a community market, and one of the oldest markets in Chiang Mai. Evidence shows that during the reign of Phaya Kaew there was a flood and, as a result, a lot of people died in the area. The name *Chiang Ruak* was changed to Thaphae Nai (the Inner Thaphae), in order to be coupled to Thaphae Nork (the outer Thaphae Gate) which is on the same street. The name Thaphae means “outer door”, and Thaphae was located in front of Wat Saen Fang, which led to the Ping River. The gate also had a guardian spirit, named *Surakkhito*. Because of the residential growth, the outer Thaphae door was demolished, leaving only the inner Thaphae gate and, as a result, villagers called it Thaphae Gate for short. The newly reconstructed Tha Phae Gate was built between the years BE 2528 and 2529, using old photographic evidence of the gate from during the reign of King Rama V. As a result of the successful reconstruction of the Thaphae gate, other gates began to be reconstructed as well.



Figures 10 and 11 : Chiang Mai Gate

*by the author on 20th November 2010*

The Tai Wiang Gate, or Chiang Mai Gate, is located in the south wall of the city. In the past, the route between Chiang Mai, Wiang Koom Kam and Lamphun was important during the Mengrai Dynasty. Chiang Mai, Wiang Koom Kam and Lamphun were all located on the west side of the Ping River; therefore people did not need to cross the Ping River when travelling. Corpses were not allowed to be taken out of this gate for fear of placing a curse on the city, as it bears the name of the city. The guardian spirit of this gate is known as *Cheyaphummo*. (Tew Wichaikattaka, 1986)



Figures 12 and 13 : Suan Prung Gate

*by the author on 20th November 2010*

Saen Prung Gate is located in the western portion of the south wall, near Chiang Mai gate, and is the only 'secondary' gate in the city - that is, the south wall where it is located is the only wall to have two gates. It is presumed that this gate was built later than Chiang Mai Gate, and was not built during the initial construction of the city in 1296 AD. There has been no evidence found regarding the penetration of this door. It is therefore assumed that this gate was built during the reign of Phaya Sam Fang Kaen sometime between 1411 and 1442, so that his mother could enter and exit the city more conveniently. The royal mother, who had a palace outside the city at Tambon Suan Rae, visited the city each day to supervise the construction of the Phra Chedi Luang. However, local legend states that Saen Poong gate was first mentioned during MahaTheviJiraprapa in 2088. It can be assumed that the name *Saen Poong* was the central area where kiln-firing and forging was done. The outer gate area was the place where the area's metal smelting and casting furnaces operated by the hundreds. Currently, the area is the home of a cast Buddha image. There is a belief that, because of the direction and ground, the area was the key to misery and that therefore Saen Poong gate was a stop along the official route to the cemetery. It was prohibited to bring dead bodies out through any gate but Saen Poong. However, during the reign of Phra Chao Inthravichayanon it was known by the name Suan Pung Gate. Due to extensive damage during and after the occupation by the Burmese, the gate was restored in the year 1801 AD during the reign of Phra Chao Kawila. (Tew Wichaikattaka, 1986)



Figures 14 and 15 : Suan Dok Gate

*by the author on 20th November 2010*

Suan Dok Gate is located in the western wall. This gate served as the entrance to the park of the king Phaya Kue Na Tham Mikkaraj in 1914 (1371 AD). The park was in an area called Wat Suan Dok. During his reign, he ordered the construction of a royal monastery within the grounds of the garden to enshrine relics of the Lord Buddha which had been brought to Chiang Mai from Sukhothai by Phra SumanaThera. The monastery was given the name Wat Suan Dok, after the area it had been built in. The guardian spirit of this gate was called Surachato.

Chang Moi Gate was originally known by the name Sri Phum Gate, and was built some time between 1442 and 1487, during the reign of Phaya Tilokraj. The gate was commissioned to be constructed because of the palace the king had built near Jaeng Sri Phum, at the urging of a Buddhist monk from Pagan. This monk had volunteered on behalf of Phra Boromaratchatiraj of Ayutthaya to destroy the banyan tree, which was sacred to the people of Chiang Mai, and which was growing near Sri Phum. The monk declared that there was a sacred spot to the northeast of Chiang Mai, and that a palace for the ruler of the city should be built on that spot. He said that if there were a large tree growing there, it should be cut down. After the banyan tree was felled, the city faced unhappiness and suffering. In an attempt to appease the spirits for this, and in an attempt at seeking justice, the monk was captured and dragged into the river. After the palace had been built, the king felt that it was too far to travel through Thaphae Gate to the Ping River, so he commissioned the construction of this new gate, named Sri Phum Gate for reasons still unknown. Later, the name was changed to Chang Moi, which remains the name that it is known by today.

However, the gate itself has been lost to history and nobody knows where it was. (Niwat Hiranburana,1985)

Originally, none of these six gates was connected with the town outside the wall, because the city was surrounded by an unbroken moat which people crossed with the help of bamboo bridges. The gates were opened at dawn and closed at dusk, allowing people to pass in and out of the city. It was only much later that the moat began to be filled in, giving people small-scale land bridges to pass across the water.

The first full restoration to the city wall was carried out in 1519 during the reign of Phra Muang Kaew. It was at that time that the wall was extended another two wah in length, and was built from bricks surfaced with mortar. Further restorations were carried out during the reign of Phra Chao Kawila, who not only repaired the walls, but also ordered bastions to be constructed at each of the four corners to enhance the existing fortifications.

The four corners of the wall are represented by a god who protects the city. Each corner has its own spirit house, and ceremonies are still performed for the gods of the corners. The gods themselves are enumerated and described here:



Figures 16 and 17 : Jaeng Sri Phum

*by the author on 20th November 2010*

*Jaeng Sri Phum* on the northeast corner was originally known as Sahli Phum, which means honor or glory of the city. When the city was first built, King Mengrai required that the city wall be constructed on this side of the gate, then to the west, then to the south, across back to the east, and back to this corner again. Jaeng Sri Phoom is, spiritually, the most



important corner, where a sacrifice ceremony is performed to appease the most powerful spirit, Jao Kham Daeng. (Niwat Hiranburana,1985)



Figures 18 and 19 : Jaeng Ka Tam

*by the author on 20th November 2010*

*Jaeng Ka Tam* is on the southeast of the city. In the past, the area around this corner of the city was a low lying basin, which caught the water flowing through the moat from Hua Lin, forming a small pond where fish were gathered. People used ka tam to catch fish, which is how it got its name.



Figures 20 and 21 : Jaeng Khu Huang

*by the author on 20th November 2010*

*Jaeng Khu Huang* corner is located in the southwest, opposite Suan Poong Hospital. The name Khu Huang refers to the function of the area, as a place where the relics of Muen Huang are enshrined. Muen Huang guarded Khun Krua, Phaya Mengrai's grandson, while he was held captive between the years of 1321 and 1325 due to his rebellion.



Figures 22 and 23 : Jaeng Hua Lin

*by the author on 20th November 2010*

*Jaeng Hua Lin* is located in the northwest, where Huay Kaew road passes. The word “Lin” refers to the gutter, where a watercourse flowed into the city, providing a constant supply of fresh water to the residents of the inner city, at the time a very substantial accomplishment for the welfare of the city.

Dumrikul (2002) said that the walls of Chiang Mai have been restored seven times in the past. Since their original construction, the walls have been rebuilt, partially demolished, extended, added to, and redesigned, as detailed following. The final three reconstructions have been combined together into one entry for the sake of simplicity, since they were all undertaken by a single group as reconstructions of a historical wall in the hope of resembling its previous genuine state, rather than as a reconstruction of the wall for a practical purpose.

1. Phaya Pha-Yu. Some records show that the walls originally built by King Mengrai were collapsing due to poor construction technology employed, and so the walls were torn down and built a second time, this time completely from brick.

2. During the reign of Phaya Tilokraj (1465 AD), a section of the city wall was torn down, a gate built, and a bridge was built across the moat to enable easier transport from the outer to the inner city. The gate was called Sri Phoom Gate, and the bridge was called Sri Phoom Bridge.
3. The reign of Phaya Muang Kaew (King Tilokraj's grandson). In 1517 AD, civilians helped to make bricks to rebuild the city walls and, a year after (1518 AD), the brick wall construction was repaired. After the reign of King Muang Kaew, there is no evidence mentioning the restoration of the city walls and the moat again. This is probably because the city at that time was experiencing a period of profound political unrest.
4. The reign of Phaya Kawila. During this reign, all the city walls and moat, both the inner and outer layers but starting from the inner, had been restored. In 1796 AD, the city walls were restored on all four sides, including the fortification of the gates, and the dredging of the moat. In 1818 AD., the moat was dredged from the outer wall started from Jaeng Khoo Huang corner to the Hai Ya gate with the total distant of 616 wah. Two years later, in 1820 AD, the outer city wall was restored from Sri Phoom corner in a clockwise order. This means that during the reign of King Kawila, Chiang Mai had a full double-layered city wall and moat.
- 5, 6, and 7. Reconstructions by the Department of Fine Arts. The Fine Arts Department announced the registration of the city wall as an ancient remains area in the government gazette, volume 52, chapter 75, on 8th March 1935. Previously, the Fine Arts Department of Chiang Mai municipality, public organizations, and government and private institutes made many suggestions to conserve and improve the surroundings of the outer city wall in many ways. However, there was no tangible effort beside the construction of *Kanjanaphisek* Park at the northern corner opposite to Jang Ku Hueng, while the other parts were ignored.

However, previous restorations of the wall surrounding the city were just proposals for improvements to the city in general. Operations to conserve the ancient remains were not obvious. Regarding this, problems of budget, personnel, the relocation of the communities, and cooperation from related institutes had arisen. Currently, the provisions of the Thai

constitution of 1997 supported local administration organizations in their participation in arts and cultural management. In 1999, an act was legislated to encourage the determination of a plan and procedure to empower local administrative organizations. This act clearly specifies the transfer of responsibilities, including the maintenance of ancient remains. Due to such assignments of responsibility, and because of the research required to become a member of Chiang Mai municipality restoration endeavor, there is interest in taking care of art, culture, tradition, and important ancient remains in the city. Researchers who so wish can study and suggest guidelines to improve and restore the environment around the outer city wall in Chiang Mai municipality. These studies might examine the limitations, policies, plans, and measures conducted by relevant institutions, the physical surroundings, and activities of the community along the city wall.

### **Related Historical Sites**

Wiang Kum Kam is perhaps the most relevant related historical site when considering the city of Chiang Mai. Wiang Kum Kam was founded only a few years before Chiang Mai and was designed and built with the expertise of the *Mon* people in the area, whom king Mengrai had recently conquered. Wiang Kum Kam was abandoned as the Ping River changed course, flooding the city and making it largely uninhabitable - an event that affected King Mengrai's decision to build his new capital, Chiang Mai, closer to the mountains (Wiang Kum Kam Tour, Chiang Mai - Lanna Boutique Travel, Chiang Mai, 2010).

### **Suggested conservation theories and framework for the city wall**

Dumrikul (2002) claimed that the Chiang Mai city walls have been built, destroyed, demolished, rebuilt, and reconstructed on seven separate occasions, yet despite this they are a surprisingly well-preserved historical site - a stark reminder of a time long ago when Chiang Mai was the capital city of the Lanna Empire, a time when the wall was not simply for decoration, but to keep invading armies out. As a result of this original purpose, the wall has been very well constructed at many points in its history. The bricks used were of extremely high quality, broader and thinner than modern bricks, and baked at a high temperature

ensuring good strength and resistance to the elements. Even compared to modern bricks and examined with a critical understanding of modern architectural techniques, the walls represent a great accomplishment for the engineers and master craftsmen of the Thai Lanna civilization.

Given this excellence in construction and the great quality of the building material, for the time being, a very large portion of the walls will need no renovation and would be in no danger of collapse. These sections of wall can be proudly displayed as the wonderful accomplishment that they are: ancient city walls, hundreds of years old, which have withstood the test of time and even the test of battle. This solidness of construction was a major technological achievement in its day, and one that has continued to be an inspiration to architects, designers, and builders everywhere.

The walls of the city were built using flat Asiatic-style fired bricks with a high sand content. Some claims have been made that the ancient methods of Thai construction, including those of Lanna, Ayutthaya, and Sukhothai, were influenced by the brick-making methods that were brought by migrating craftsmen from the Khmer empire to the east and southeast (Other Types of Ancient Thai Ceramics, 2010). There is also substantial evidence that King Mengrai utilized the expertise of the *Mon* group in order to build many of the important features, first of Wiang Kum Kam and subsequently of Chiang Mai. Whatever their origins or the origins of the techniques in their creation, Thailand is still renowned around the world for the quality of the pottery discovered in its archeological digs, which have unearthed an impressive variety of earthenware and stoneware potteries, and Chiang Mai and the Lanna Kingdoms are regular sources of some very impressive ancient pottery (Other Types of Ancient Thai Ceramics, 2010).

The current state of the wall varies according to the area in question, and many sections of the wall simply no longer exist, having been used as a source of paving stones for the road along the path of the wall. The remains of the wall are fortuitously historically very valuable in understanding the remnants of the Lanna kingdom and the subsequent Ayutthaya and Siam kingdoms which presided over it, although the remaining segments are somewhat recent. Particularly, as the corners are the least modified by recent city development, they may shed the most light on the heritage and historical value of the wall, and have the most

potential for development as historical tour sites, but it should not be understood that these are the only valuable historical sites; they are simply the most apparent, and the evidence of subterranean structures can be seen, for example, along the interior of the western side of the moat, it was observed during an initial inspection that a double row of trees were growing along a slightly elevated section of ground approximately the same width as the apparent remaining foundations of the walls; although it is not possible that the trees are of a sufficient age to have been planted at the time the wall was dismantled, it is possible that they were planted along the remains of its foundation in an attempt to disguise it (for the purpose of 'beautifying' the area).

### **Explaining the Thai World-View to Outsiders**

The Thai worldview derives much of its understanding of the world from Buddhism or from the more traditional Thai forms of Animism, which form an integral part of contemporary and historical Buddhist practices in the region. In Buddhism, for example, the body is viewed symbolically, with the head being the highest or most holy part of the body, and the feet seen as the lowest or least holy part. Similarly, right is holier than left, older is better than younger, and front is better than back. With this basic understanding of the implied relations between things as they are traditionally perceived by Thai people, we can start to understand some of the more unfamiliar issues about Thai culture.

One of the most important things that these basic relational ideas can be used to illustrate is the relationships between people. For visitors from western countries, it will perhaps be a strange experience to see any social inequality at all, much less one that is openly referred to by both parties, and it must be expressed that while the Thai worldview does not consider all people equal, it does acknowledge the accomplishments of all people, and where a goal is achieved despite greater odds - such as a poor economic background - this elevates the status of the accomplishment. In order to appropriately convey this balance between inherent inequality and the equality of accomplishment, it should be demonstrated to visitors that the standard levels of interaction are based on mutual respect, and that in virtually all cases in day-to-day life, the inequality of two people is a recognition of the accomplishments of the person considered to be in a superior position, and mention of a

person being in a very inferior position is either a sign of familiarity - banter among friends - or else a genuine acknowledgement of a failed life, usually reserved for cases such as where somebody is guilty of a horrible crime and has been convicted to life in prison.

Illustrating these ideas to outsiders does pose the possibility of misunderstanding, but perhaps this can be mitigated in a few ways. First, pictures and illustrations should be used when possible to show, rather than tell, guests in the Kingdom of Thailand what is happening and, in these, it is recommended that the most critical aspects be denoted in some way, perhaps by circling or highlighting. Since there is such a large gap between the Thai language and many other world languages, a brief overview of some of the language features of Thai might also be useful, such as the different variations of the word “you” in English that change in Thai according to the status of both parties in a conversation. There are few parallels so distinct in many European languages that it is worth mentioning, for the sake of readers not familiar with the Thai language, that there are at least nine (9) distinct versions of the English word ‘you’ in Thai, none of which explicitly specify gender, though every single one of which is used by the native speakers of the language on a day-to-day basis.

### **Religion and Royalty**

The first and most pressing thing to demonstrate to outsiders of Thai culture is the status and traditions of all varieties of royalty, and the political influence of Buddhism in Thailand. These two facets form the basis for understanding nearly all of Thai politics throughout history, including in the modern era. Many foreigners will have no concept of a ‘God-king’, and yet this is even what the word for “King” in the Thai language refers to: Phra-Jao is the word that Thais use to refer to the king, to the different gods from Buddhism and various other religions, and the word that Christian missionaries have adopted as the Thai name for the Christian god. The prefix of “Phra”, by the way, is used to denote all holy positions and names, including royalty, monks, and holy figures in other religions (an illustrative example from Christianity: Jesus is known to Thai people as “Phra- Yesu”), and can be used as a noun to refer to monks or used in place of the standard word for ‘you’ when speaking to monks.

Similarly, the role of the monastic orders should be demonstrated, as well as their behavior and the proper behavior of people around them explained. It should be demonstrated that Buddhism, although still a religion and in many ways very dogmatic, does not rigidly enforce the kind of conformism that other major world religions such as Christianity and Islam are known for, and basic guidelines for conduct should be demonstrated and explained. An illustrative example of this is the concept that the head is the ‘holiest’ and the feet are the ‘least holy’ parts of the body, a designation based on the height of the respective parts when people stand.

### **Social Customs and Festivals**

The customs of the Thai people, both in modern times and historically, should be introduced, and the origins of the customs explained in as concise a manner as possible, as a part of any interpretation effort. Some of the most useful customs and traditions to be introduced should be about how children were and still are named, the traditions about marriage, the expectation of being a monk for all men, and the traditions regarding funerals. By introducing festivals, customs, and the artifacts associated with these, it will help give visitors a better picture of everyday life in Thailand in the past, an essential goal for any attempt at meaningful interpretation.

### **Lessons from History**

When we examine the walls of Chiang Mai, we can learn a lot about the societies that created the walls. We can see the direct results of their reasoning and logic, and see quite graphically how they sought to protect themselves against the outside world. We can see specific examples of the improvements in their construction methods and their building technologies. The lessons from the wall, in short, are many, diverse, and must each be interpreted in the context of the original situations of the people to be meaningful.

Perhaps the easiest lesson to draw from this history is of the march of progress. The wall, when first constructed, was made from mud with a brick face, and was continually upgraded and often expanded in order both to match the growth of the city and to match the growth of technology outside of the city in order to protect the residents, until it reached its last useful configuration - the remnants of which we seek to conserve today - with a brick



core several meters high with geometric crenellations and associated peep holes, bastions on the four corners as places to mount cannons or stand guard against invasion, and impressively wide city gates allowing kings, commoners and corpses alike to go about their business or reach their final destinations.



## CHAPTER 4

### LESSONS IN CONSERVATION

This chapter is intended to look at the methods of conservation and interpretation that have (variously successfully and unsuccessfully) been applied to historical sites, both around the world and also specifically in Thailand. The reason for this is that the conservation efforts of other locations which have been successful can serve as illustrative examples of what can be done to preserve the Chiang Mai city walls, while the unsuccessful examples can serve both as objective lessons of what not to do and as warnings of the danger of taking the incorrect (or no) action.

#### **International city wall conservation**

In the previous section, we looked specifically at the Chiang Mai city wall, at what had been done to it, what it had been used for in the past, and how it could be meaningfully understood. In this section, in order to better understand what the potential future of the wall can be, we will be looking at similar architectural remains, both within Thailand and abroad. To facilitate a better understanding of these issues, we will provide a brief overview of the history, technical details and historic interpretation of these other sites and monuments.

Some differences in interpretation and conservation among these places will inevitably be apparent; every historic site is unique, and every area of the world faces different issues - whether they are political, social, or climatic issues. However, we will be drawing comparisons as accurately and revealingly as possible and pointing out the differences where they may not be apparent.

In this section we will be examining a selection of other historic structures in other cities and countries around the world, and will be looking in-depth at the issues facing these sites and what has been done to prevent damage to them. In each case, we will begin by introducing the site, briefly describing the history and noteworthy conditions under which it was constructed, the materials and methods used to construct the site, and then we will be

looking at the modern issues faced by these sites, in part as the result of conflict between historians and urban developers.

### **Byzantine City walls of Constantinople (modern day Istanbul, Turkey)**



Figure 24 : A digital model of the Theodosian walls, superimposed on a satellite photo of the modern surrounding landscape.

[http://picasaveb.google.com/lh/photo/u0gmo6RdbaWIn57w66\\_r8w](http://picasaveb.google.com/lh/photo/u0gmo6RdbaWIn57w66_r8w)

### **History**

The ancient city of Istanbul has changed hands many times over the centuries, and has changed names nearly as often. Originally founded around 658 BC (Janin, 1964), the city was relatively unimportant in the late Greek and early Roman empires in which it existed. Oddly, the city seems to have been captured on many occasions by invaders who were unaware of the strategic value of its location, and who would subsequently punish the population for resisting the invaders before realizing the valuable position of the city at the meeting point between two continents - and begin endowing the city with new monuments

and even greater walls than the ones they had torn down in order to take the city in the first place. This evidently happened first with the Spartans of Greece in 479 BC, whereupon Pausanias rebuilt the wall using stones from local tombs, and it continued happening regularly, with the walls being expanded and added to until the city out-grew them.

This ad-hoc tradition ended with the building of the Theodosian walls in the 5<sup>th</sup> century AD. The new Theodosian wall encircled the city, protecting it from invasion on all sides. Today, the only part of these walls that remains standing to any substantial degree is the western land wall, stretching from the Golden horn to the Sea of Marmara in the south. The portion of the city wall which remains standing is the western section that divides the peninsular area between the river to the north and the sea to the south from the rest of the European continent. It is a double layered wall, with a smaller front wall located approximately 10 meters in front of the larger main wall, along with a moat in front of both walls and a terraced area between the two walls. Along the majority of the front wall were small guard towers, separated by a distance of between 50 and 60 meters with an average of approximately 55 meters. Between each of these and located on the larger rear wall were larger guard towers, resulting in a staggered pattern. The smaller front wall was 2 meters at the base, had a battlemented walkway and reached a height of approximately 5 meters, while the larger wall was over 5 meters at the base, and reached a height of approximately 12 meters. The remaining sections of the walls span approximately 6954 meters from shore to shore.

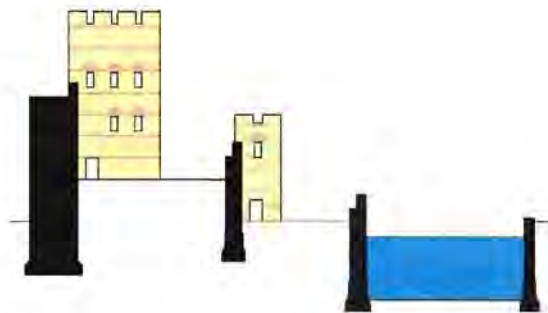


Figure 25 : A basic diagram showing the layout of the Theodosian walls, with the city on the left and the defensive area to the right of the wall, with the moat in front to the far right.

## Construction

The bulk of the construction of the walls was from an exterior of cut limestone blocks, each carefully faced and squared. The inside of the wall was filled with rubble and, to seal this in place, a liquid mortar was poured in and allowed to set. Alternating between different levels of this were tiles that went all the way through the wall, creating a binding effect that allowed greater stability and rigidity, as well as creating an interesting visual pattern on the surface of the wall. This combination of mortar and rubble was also an economic decision that allowed for much faster construction than an all-stone wall would, while at the same time saving on the cost of the expensive mortar. The larger of the two existing walls was built first, but following a severe earthquake in the year 447 AD, it was very badly damaged (Angeliki, 2008). At the time, there was a very real danger of invasion by Attila the Hun, and so the city undertook emergency efforts to keep the city safe. As a result, the smaller wall in front was built at the same time as the larger wall was being repaired - both of which were completed in 2 months.

The wall has been built, rebuilt, and modified many times and for many reasons. Since its initial construction, it has been severely damaged by many earthquakes, and consequently bears the inscriptions of many emperors or their servants who undertook the repairs to the wall (Kazhdan, 1991). Because the wall was only ever breached twice in the time that it was used as a fortified defense, it has remained largely intact, other than the inevitable damage from the passing of time and the occasional earthquake - which can only be expected in such a highly geologically active region.

## Conservation

Preliminary efforts to preserve the wall as a historically valuable site began as early as 1939; however, intensive efforts to preserve the wall only really began in earnest in 1985 (Ahunbay, 2000). The efforts began by removing accretions from the wall and clearing the surrounding area - nearby businesses were relocated and contemporary buildings on and near the walls were demolished and, after several legal issues, local industrial plants were successfully moved away from the walls. By 1991, the area near the shore of the Sea of Marmara had been cleared, revealing 200 meters of wall that had been hidden for nearly a

century. Since that time, some portions of the wall have been completely restored to their original condition, while other sections have been cleared of debris and otherwise left as they were. Since the walls cover such a large area, there are problems that confront the conservation task.

### **Problems**

The main objective of the restoration work was to strengthen the existing fabric of the walls, so the towers would suffer less from climatic factors and future earthquakes. The selection and use of materials compatible with the originals was an important aspect of the project, requiring research into the original mortars, brick sizes, and types of stones used, as well as repair phases. Towers could not resist earthquakes; tremors caused serious vertical or diagonal cracks or led to total failure. After earthquakes some towers were totally renewed, others restored, preserving remaining wall sections. Different phases of construction and repair can be distinguished by the building materials and techniques used, and they provide a means for deriving a relative chronology. Inscriptions on some of the towers help in dating the repairs. Conservation of old repairs along with the original fifth-century fabric posed problems that had to be handled with care.

### **Solutions**

Some of the greatest challenges currently facing the conservation efforts of the Theodosian wall in Istanbul include a gap in the knowledge about how the original wall was constructed as it relates to some of the materials, such as the exact formula of the original mortar, and difficulties in obtaining materials that closely match the original construction - for example, the original cream colored stone used for facing the wall was taken from quarries that were exhausted in Byzantine times, necessitating that stone from other sites had to be chemically matched to the stones in the walls before it could be considered appropriate to be used for repairs, with sandstone from the nearby quarries in Kandira (Bithynia) eventually selected as a suitable source (Ahunbay, 2000). In addition to these concerns, the local seismic activity has placed an enormous strain on the efforts to conserve the walls; modern building methods used in reconstructing or repairing some sections of the walls have

not withstood earthquakes with the same rigor that the original Theodosian foundations or later Byzantine and Ottoman repairs have; for example the earthquake that rocked Istanbul in 1999 damaged the recently-repaired portions of the walls, while leaving the unrepaired portions largely unaffected.

### **Present Condition**

Going forward, the policy for the preservation of the Theodosian walls is essentially a standard implementation of the UNESCO World Heritage Foundation's guidelines, which value preserving the authentic condition of the walls. Other than the possibility of some reconstruction work and possibly some hidden retrofitting of the structures vulnerable to damage by earthquake, the site will remain largely as-is for the time being.

### **Carcassonne**



Figure 26 : Carcassonne Photo

[http://www.northukbikers-videos.co.uk/cavturbo/blog/La\\_20Cite\\_20Carcassonne.jpg](http://www.northukbikers-videos.co.uk/cavturbo/blog/La_20Cite_20Carcassonne.jpg)

## History

The French city of Carcassonne is a fortified city of largely Gothic construction in the south of France. Although the first signs of settlement in the region have been dated to around 3,500 BC, it was not until approximately the 6<sup>th</sup> century BC that Carcaso - the original Celtic name for the hill upon which the city is built - became an important trading location. In approximately 100 BC, the Romans fortified the top of the hill and renamed it *Julia Carsac*, leading to it becoming an important strategic outpost and trading site at what was, at that time, the far northern edge of the Roman Empire. The fortified Roman outpost was occupied and became a Visigoth city in approximately 453 AD, and was officially ceded by the Roman Empire to the Visigoth King, Theodoric II, in 462 AD. After a long period as an independent city-state, Carcassonne was again annexed into the kingdom of France in 1247 AD, where it again served as an outpost, this time to guard against the rival Kingdom of Aragon to the south of France.

## Significance

Carcassonne is a significant case study for this research for several reasons. First, the breadth of its historical scale is unusual, even among the more ancient monuments that have been discussed here; Carcassonne has literally been the seat of power for many different factions, each with different ambitions. It has been an outpost of Rome, France, an independent city state, controlled by the Visigoths, Cathars (or Albigensians), Arabs, Italians, and Franks - among others. The ancient fortress now houses an excellent museum, where visitors can see things such the Torture Museum, displaying the 'tools of the trade' used by the Catholic Inquisition to hunt down, torture, kill, and extract confessions from nearly 500,000 Cathar men, women and children during the Albigensian Crusades in the 12<sup>th</sup> century (Cathars and Cathar Beliefs in the Languedoc, 2011).

In addition to this historical value, Carcassonne has great architectural value. The genius of Gothic architecture can be seen in its construction, not by the more typical flying-buttress style, but by a system of interior vaulting. The stained glass in the windows of the church of Saint-Nazaire also displays this mastery of craftsmanship, while three periods - the 13<sup>th</sup>, 14<sup>th</sup>, and 16<sup>th</sup> centuries - can be distinctly separated from each other. (Advisory Body Evaluation, WHC, 1997)



Finally, in 1659, the city completely lost its military significance as the Treaty of Pyrenees was signed, and the Roussillon province officially became a part of the Kingdom of France - spelling the end of the need for a fortified outpost in the area, and the fortifications were immediately abandoned. The city lived on as a major center of commerce and was the center of the region's wool textile industry, although the city served no strategic military purpose. It was removed from the roster of fortifications under Napoleon, and eventually fell into such complete disrepair that in 1849 the French government decided that the fortress should be demolished.

สำนักหอสมุดกลาง

### Conservation

A public uproar was caused when the site was scheduled to be demolished in the early 19<sup>th</sup> century - an uproar which became the turning point in the site's history, and is probably the sole reason Carcassonne still exists. The mayor and antiquary of Carcassonne, Jean-Pierre Cros-Mayrevieille, working closely with the first official *Inspecteur des monuments historiques*, Prosper Mérimée, launched a public campaign to renovate and fully restore the fortifications of Carcassonne. This public campaign culminated with the beginning of an effort to restore the fortress, beginning in 1855, and being celebrated in 1862 when the walls of the site officially received protection as a *monument historique*. (Culture, 1862)

This is not the end of the story of the conservation of the walls of Carcassonne. Nearly from the beginning of the restoration of the castle, there was a much smaller outcry voicing a complaint best expressed by the English art critic John Ruskin. He encapsulated the notion of authenticity more eloquently than most could in his 1849 book, *THE SEVEN LAMPS OF ARCHITECTURE*, when he said:

*"It is the glistening and softly spoken lie; the amiable fallacy; the patriotic lie of the historian, the provident lie of the politician, the zealous lie of the partisan, the merciful lie of the friend, and the careless lie of each man to himself, that cast that black mystery over humanity, through which we thank any man who pierces, as we would thank one who dug a well in a desert"*. (Ruskin, 1849)

The lie we are in this case discussing is the lie of the reconstruction of Carcassonne. Despite being formally restored and 'perfected' by Viollet Le Duc, the reconstruction of Carcassonne raises the difficult issue of authenticity. Why is authenticity a difficult issue? Because, for much of the world, for much of history, authenticity has been a notion which has not existed, for practical purposes. Hence, in large part before the 19<sup>th</sup> century, declaring a restoration or reconstruction to be 'authentic' had no meaning; buildings were rebuilt using the materials available and to the specifications it was possible to rebuild them to, often with an eye on improving the original design to forestall some now-known difficulty that had hindered the original design.

This logic - or excuse - may be used to arrive at the same conclusions as the persons in charge of overseeing the reconstruction of Carcassonne, but although this explains the issue, it does little to justify it. The simple fact is that the reconstruction of Carcassonne, as well-intentioned as it was, was not genuine and included 'embellishments' to such an extent that the original character of the fort being restored was lost, and as John Ruskin eloquently phrased it, it was replaced with a misrepresentation of what had ever been there.

### **Construction**

The existing fortified structures of the city were built over a surprisingly long period of time; entire sections of the original Roman construction still exist and are in good repair and easily distinguished by their tell-tale red bricks and terracotta-tiled roofs. Later construction by Visigoths expanded the walls, using architectural innovations such as vaulted ceilings to both decrease the weight of the fortifications and at the same time increase their strength. These innovations - new at the time - were a more subdued alternative to the well-known 'flying buttress' style on buildings such as the *Notre Dame de Paris*, also built by Gothic architects. After this period, construction was intermittent and relatively minor; in 1096 a cathedral was built, in 1150 a chapel was constructed, with other minor construction happening, such as the addition of a second storey to some of the buildings, and additions to enable the fortress to store more food to ward off a siege. The one additional construction of historical note took place in 1226 - the addition of the inquisitor's quarters. (Fabre, 1984)

### **Inauthentic Details of the Reconstruction**

There were a variety of details which were 'creatively re-interpreted' by Viollet Le Duc when he undertook the reconstruction and restoration of the fortress of Carcassonne. There were deviations such as the lack of a comprehensive recovery effort on details such as the doors and windows in some of the Visigoth towers, as well as no recovery of the gatehouse door of the Aude. More well-known, however, are the conical slated roofs added to the tops of some of the towers, an architectural feature more common in northern France - southern France (or Aragon, the nation which existed there at that time) more closely followed the Roman architectural style of covering their towers with flat tile-covered roofs. Even worse than this, however, were the parts which were added - parts that had never been part of the original specifications at any point, nor had they ever been constructed. An example of this kind of addition is the drawbridge at the Narbonne gate, which never existed and was simply added.

### **Present Condition**

The Fortress today is one of the world's largest and most authentic museums. Within the walls of the fortified city are attractions that tell the story of the city, from its first foundations to its modern denizens. There are even special sub-museums, such as the Carcassonne museum of torture, which displays the relics used by the first papal inquisition by Pope Innocent III to torture, murder and rob the Cathars, who held sway over the politics of Carcassonne before the first papal inquisition annihilated them. Other attractions include the castle museum and an art gallery which feature both contemporary and period pieces by a mixture of local and well-known artists. The present condition of the city as a whole is remarkable, and is owed to the fact that the local people, led by expert conservationists on the cutting edge of their field, would not stand for the destruction of a monument that would give their city such character.

## Roman Wall of London



Figure 27 : Roman Wall of London

*<http://golondon.about.com/od/londonpictures/ig/City-of-London-walking-tour/romanwall1.htm>*

## History

Londinium was a city of the Roman Empire in what is now the United Kingdom. The foundations of the original city were an exact copy of the standard Roman legion city design of the time, and the city was built next to the mighty Thames River, the better to serve as a landing point for the Roman triremes, delivering cargo, troops, and travelers from other parts of the empire. Founded in AD 43, the city served as a major center of commerce and industry in the area until it was abandoned in the 5<sup>th</sup> century.

## Construction

The construction of the city wall followed the standard Roman pattern: a brick exterior was constructed, the inside was filled with rubble, and then concrete was poured into the inside, filling all of the spaces and providing a very solid wall, very quickly. This fast,

flexible method of construction was very durable and, as a result, the original walls of London are nearly 2000 years old, despite fires, floods, sieges, sackings, plagues, and revolutions. In fact, with only relatively minor repairs, the original construction of the wall surrounding the colony of Londinium has remained standing, and in some cases been in near constant use, since it was first constructed.

The original height of the walls is not known, but some sources suggest that they were built to about 6 meters, faced with brick and cut ragstone, and filled with ragstone from nearby quarries, with a mortar cement. The foundations of the wall were from well-cut blocks of brown sandstone. Red tile bonding layers were laid through the wall at regular intervals, providing critical reinforcement to increase the strength of the wall. (Ross & Clark 2008, p. 47)

In the 4<sup>th</sup> century, towers were added to the wall and, to increase their strategic value, the short ditch next to the walls was filled in and a wider ditch was dug further away from the wall, this time flat-bottomed.

### **Significance**

The London wall has been a feature of London for nearly as long as London has existed. In spite of this, or perhaps because of it, the wall has been pilfered for bricks to use as building material, bolstered and upgraded as a defense of the city or served as a solid foundation for new buildings to be built on top of. In St. Botolph's district, shop-houses were built against and partially supported by the wall; the All-Hallows Church excavations in 1905 revealed that the London wall had been used as a foundation for the church, which was originally constructed against the wall at ground level.

The best example of a Roman wall in London is the remains of the London Wall, which was built as an expansion of the original Roman fortifications sometime between 190 and 225 AD. The wall was built as an expansion of the fortifications of Roman London, and for centuries afterwards was a significant landmark within the city of London. Up until the Middle Ages the London Wall even served to define the border of the city - a concept completely alien to the denizens of modern-day London.

## **Conservation**

The remains of the wall of London are largely unexcavated and for the most part are preserved - or presumed to be preserved - beneath the ground. The sections which still remain above ground are typically only the battlements - that is, the sections of wall at the very top, with the rampart walkways which soldiers walked along and crenellations along one side which provided protection for the soldiers during attack. Since so much of the wall is essentially impervious to many types of environmental damage and not at risk of damage inflicted by people, the work of conservationists is made that much easier.

## **Relevant Policies**

The most useful and relevant policy in terms of the preservation of the London Wall is that there has been a buffer area specified around the remains of the wall, inside of which nobody can construct any buildings or install any utilities. This buffer, while an obstacle to the growth of the city, is instrumental in preserving the wall in its genuine state.

## **Problems**

There are several problems with conservation due to the nature of the city. The first problem - which has now been solved - was that many areas of the wall of London were demolished, along with all of the surrounding buildings, as a result of the Blitz bombing offensive by Nazi Germany during World War 2. Some areas, such as the Barbican, were so badly destroyed that it was nearly impossible to tell sections of the wall apart from less-valuable modern foundations and, as a result, as late as 1958 sections of the wall were bulldozed inadvertently by city workers who were unable to discern the value of the great historical monuments they were destroying. (London's Roman And Medieval Wall, 1958).

The second problem is much more systemic, and although not immediately a threat, will inevitably need to be addressed. The walls are constructed from a relatively small variety of materials, most notably mortar (of an unknown formula), ragstone, brick, and tile. All of these materials are susceptible to water damage in the full course of time, although depending on their quality and any preparations applied to them (either during building or afterwards), they may withstand this damage for a greater or lesser period of time. However,

since the 19<sup>th</sup> century in particular, the industrial revolution has increased the frequency and intensity of phenomena such as acid rain, which can only exacerbate the problem of water damage of the wall. Although in this instance acid rain is cited, it should be remembered that this is only an example of an environmental change brought on by pollution or otherwise occurring as a side effect of the activities of man.

## **Solutions**

For the two problems mentioned above, one has a solution which has been successfully implemented and can be said to be successful - the problem of creating a system to preserve the walls in the first place has been implemented for over 50 years now, and is a very successful endeavor that has preserved the walls in excellent condition in such a way as to ensure that many generations to come will be able to appreciate the history and heritage of the walls.

The second problem is somewhat trickier, and can potentially have more sinister consequences. There has been a variety of methods implemented in an attempt to stop this sort of phenomenon, but none of these have focused specifically on the remains of the wall itself. One possibility for the protection of the London wall is the erection of a canopy of some kind over the most significant historical sections, or the wall may be chemically treated with some of the available chemical solutions in order to prevent damage by acid rain. However, these options may be unfeasible, first because of cost and second because of the possibility of damaging the wall.

## **Interpretation and present condition**

The modern existence of the London wall is largely as a tourist attraction. Because of the large area it covers in a place so densely populated, the role of the London wall as a tourist attraction is a bit difficult to specify, however an attempt will be made at doing so in the following text.

For the most historically valuable sections of the wall, their role as a tourist attraction is a relatively minor one; the oldest sections of the wall currently sit in a small chamber off

the parking lot in the Museum of London. However, much larger sections of the wall, particularly around what was once Moorgate, have been developed into centers of business and commerce and, as a result, some very clearly defined and strictly enforced policies have had their effect in the continuing existence of the wall. In spite of this new industrial backdrop, however, there have been some interesting efforts by way of helping the modern public and tourists understand the London Wall more accurately, and perhaps the best example of this was a walking tour which was organized by the Museum of London starting in 1984. Guests to the museum would have access to a small booklet which would detail the different areas of the London Wall, which they could then stroll along on a path built some distance from the wall, snapping photographs and reading about the history of particular lengths of the wall both from their booklets and from a series of signs which were installed to give information to visitors.

### **Kyoto Palace Wall**



Figure 28 : Kyoto nijo jo honmaru - palace wall, <http://photopassjapan.com>



## History

Kyoto was founded in the 6<sup>th</sup> century AD as a replacement to *Tang*, the then-capital of the Japanese empire. The city was deliberately built as a miniature version of the former capital, arranged along a grid and surrounded by an earth wall to protect it from invaders. Many of the political, noble, and religious powers of the day were granted estates, upon which they accordingly built their prefectures, mansions, and temples. However, as political intrigue and continual tension between the groups mounted, these estates were gradually transformed into fortresses, surrounded by walls and moats and manned by armed guards. By the 1100s, the city had been crisscrossed by many moats, not so much as a defense against any faction as they were a defense against the many fires that were set by the various factions to their rival's estates - fires which, in the largely wooden city, spread wildly and without recourse.

## Significance

Kyoto, in the context of this research, is a very special case, for two primary reasons. First, Kyoto has perhaps the most rigorous policy in regards to preserving the character of its own historic sites, expressed by a series of policies that clearly define what is and is not acceptable practice for the buildings around its most valuable historic sites. Second, the heritage sites in Kyoto are very diverse in age, and some differ in age from others by hundreds of years; this creates a different series of problems for creating harmony between the city's historic sites and its own modern environment. These two issues combined provide an excellent body of knowledge to draw from when discussing how to conserve any historic site, and this is particularly valuable specifically to the topic of this research - the Chiang Mai city walls - because there is a surprisingly diverse range of architectural styles, all prominently featured, and all within a very small area directly surrounding the city walls.

To be clear, we are not examining Kyoto because of any specific site, much less any walls, but because Kyoto, the city itself, has been the subject of a comprehensive set of regulations in regards to preserving the character of its historic sites, and there are some very critical lessons that stand to be learned from these regulations, their effects, and the consideration which is an integral part of their enforcement.

## Construction

Construction of nearly all historical buildings in Kyoto was limited to only a handful of materials; stone, clay, wood, bamboo, and paper. (Coutts, 2011). The *kyomachiya* would have a single large stone as a foundation, then be built from wooden beams with sheets of paper filling in the empty spaces. Buildings such as these comprised the majority of structures in ancient Kyoto, and were designed and built by or under the supervision of a master-carpenter profession, which is somewhat unique to Japan. What this means for conservation is that not only is there a constant requirement for the upkeep of such historic sites as these, a requirement which has given rise to an entire industry of professional carpenters and repairmen, but also another economic benefit, although in this case less common than most to historic sites.

## Conservation policy

Since Kyoto covers such a large area - much larger than most other historical sites - it has a variety of different policies at work at any given time in order to preserve its historical landmarks while at the same time allowing for new growth of the city to flourish and for its citizens to prosper. To this end, it has some of the most effective historical zoning policies in the world.

Kyoto has a specific set of standards that apply to all buildings in every section of the city. These standards govern the appearance of a building, the types of modifications that can be done to existing buildings, enumerate the criteria to determine if a building can be demolished or not, and specify the limits of environmental features such as utility lines and signs.

The city's different regions are arranged into seven discrete zones. These zones include *Mountainous and Piedmont Areas*, *Residential Areas Bordering on Mountainous Areas*, *Historical Urban Areas*, and the *Western, Southern and Eastern* regions. The policies of preservation vary between these different zones, with each zone having very specific guidelines as to what is appropriate with much of the modern city centered to the south, southwest, and southeast, away from the traditional and historical locations of the city, and thus 'safe', in that they will be unlikely to damage anything of historical value in the city

proper. The preserved historic zones are maintained by an army of traditionally-trained professional carpenters, and so - despite the many obvious problems with building anything out of wood and paper in a tropical region filled with ravenous termites - the majority of the traditional houses have lasted since the Meiji period in the 19<sup>th</sup> century; buildings and particularly houses from before that time were destroyed by several separate fires and earthquakes, most notably fires in 1788 and 1864, and a noteworthy earthquake in 1830. (Coutts, 2011)

### Problems

With this understanding of the ancient city, we can begin to look at the physical features of the city, as well as the landscape within and surrounding it, and the environment of the city in general. These additional details will help us to better understand what exactly is being preserved by the historical and heritage site protocol in Kyoto, and in addition these details will help to illustrate specific examples of how the heritage of the city is preserved today. In the following paragraphs, we will look at how the city preserves its original character and how it makes the important yet difficult decisions about what to preserve and what to replace.

We will first look briefly at the history of the policies for preserving the historic environment of Kyoto. In the 1930s, some areas of the city were designated as “Scenic Landscape Districts”, which for the first time legally established some areas of Kyoto as historically valuable or of heritage value. This was the official standard designation of the historic areas of the city but, beginning in the mid 1950s and continuing until the late 60s, there arose some conflicts between the city’s development and the historic locations, most notably in the Narabigaoka development issue, in which the hills surrounding the city of Kyoto were targeted by residential developers. This became a national issue in Japan, and the resulting national consensus was that ‘landscapes’ (translated from Japanese, the context in this case would include both natural and man-made environments) should be preserved around historic cities such as Kyoto.

The governors and mayors of the time took this idea even further, enacting the “Special Law for the Preservation of Historical Features in Ancient Capitals” in 1966. Since then, the protected areas in and around Kyoto have been expanded and contracted several

times, most notably from over 8000 hectares in 1966 to under 3000 hectares in 1967, and in 1996 five of the surrounding mountains were included in the newly defined protected area.

An example of the way these areas are made to fulfill the goal of creating a harmonious city environment can be seen in the building codes. For example, there are height restrictions on buildings in many parts of the city, which vary according to the area.

### **Conservation of Historic Sites in Thailand**

In addition to examining historic sites in other societies and polities, a selection of relevant sites in present Thailand have been examined and compared to the Chiang Mai city wall. Since all of the following examples are drawn from a single language group, and from distinct but similar cultures which have, largely, coalesced into a larger single culture, it has been useful to compare details which were not useful in the international examples above - in some cases this means examining the differences in defensive strategy, or the presence of unusual technologies that were largely unknown (or at the very least, almost wholly unimplemented) by the culture. In other cases, this means examining the difference in priority given to the preservation of some sites at the expense of others, because of a perceived 'superiority' of such sites, either because of an actual greater historical value, as is indicated in the case of the sites in the Sukhothai kingdom, or because of a similarity with the modern views, standards, or aesthetics of the present culture, as is most easily visible in the case of Lop Buri and most particularly Ayutthaya.

While it is not, by any means, the intention of any of these following sections to glorify the largely mediocre efforts at conservation and interpretation of many of the sites, or to cast blame, the point will be made several times that it is easier to identify with that which is familiar. This means that the more distant relatives of the ancient Thai cultures, including the Lanna, Lamphun and Lampang kingdoms, are sometimes marginalized. Historically, this has happened for largely political reasons, but more recently, it has been the case that this marginalization has been unintentional. Instead of seeking to actively subdue threats by one group towards another, marginalization has become an accident of the economic circumstances in an area and the unfamiliarity of a majority with the distinct character of a site, or artifact, or other cultural relic (tangible or not), while the very lack of familiarity that is the source of the apathy to the situation is made worse by the apathy it has created. The

whole reason for this rather melodramatic tirade is simply thus: that unless a *pathos*, a sense of responsibility, of awe, or of respect can be developed by people in a position to do something, or by people in a position to refrain from doing something harmful, any heritage can simply vanish into the past and be lost.

### Chiang Saen



*Figure 29 : Wat Pa Sak, Chiangsean Old City*

<http://www.chiangsaenlife.com/forum/thread-168-1-1.html>

Chiang Saen, according to legend, was founded in the region known as “Yonok” about the year 1450 by Tai settlers moving south from the modern-day Yunan province in southern China. However, no reliable records which could be used to verify these claims exist that date before the time of the reign of King Mengrai in the 13<sup>th</sup> century. What is known, however, is that the resulting small kingdom of Chiang Saen briefly became the center of a minor empire before being absorbed into the larger kingdom of Lanna. The

wealth of archeological evidence from the site all points to the fact that Chiang Saen was a very advanced and cosmopolitan city in the 14<sup>th</sup> century (Chiang Saen History).

During its long and varied history, Chiang Saen has been used as the capital of an empire, as a military nerve-center for the Lanna Kingdom, as a Burmese stronghold (Asia's World Publishing Limited, 2011). It is even the place where Phaya Mengrai was born.

Chiang Saen is a significant historic site because it is one of the earliest - or perhaps *the* earliest - significant locations of the Lanna Kingdom in Thailand. The wealth of architectural heritage and the vast number of artifacts that have been discovered in that area have been instrumental in understanding the nature of life in the Lanna Kingdoms, as it was hundreds of years ago. It is worth examining Chiang Saen in the context of this thesis because it represents the first time that a distinctly *Tai* civilization was present and thriving in the Indo-China region, and is the turning point that helped launch the subsequent kingdoms that eventually coalesced into the modern Thai kingdom. Because of this, it is important to examine what makes the Thai people distinct from the other peoples of the region that have similar cultures, languages, traditions, technologies, and artistic styles; it is the spark of originality in Chiang Saen which is most important in the subsequent blaze of culture. This is more important than may be apparent, since an outsider to the region may be unaware, for example, of the massive overlap between the Thai and Khmer family of languages, which share a great deal of vocabulary and have near-identical writing systems, but which differ in grammar (in speaking) and in the existence of some other characters (in writing). The differences in cultures should also be noted because of their long history of competition and rivalry, and any difference in technology was an edge over the other groups, and this is important to keep in mind.



Figure 30 : Chiang Saen City Wall

[http://www.tourismchiangrai.com/?p=viewphoto&id\\_photo=454](http://www.tourismchiangrai.com/?p=viewphoto&id_photo=454)

The walls surrounding Chiang Saen are quite an interesting case to study. Although there has, for practical purposes, been no effort at restoration, a great deal of the walls survive, and their configuration is particularly interesting. It was common, during the renaissance and perhaps as late as the latter portion of the industrial revolution, for fortresses in Europe to have raised earthen platforms inside of fortified walls that doubled as retaining walls, but this was an expensive effort and not really appropriate to a city, despite the obvious benefits (such as the ease of moving men and equipment up to the front of the wall from any other position). The walls surrounding Chiang Saen came up with a surprising innovation in these regards that allowed them to have the best of both world (that is, both flexibility in positioning troops along the walls and at the same time allowing them to have a city inside the walls); the walls of Chiang Saen were ramped along the inner portion, thus allowing men and materials to be moved to the top of them with relative ease. The other noteworthy detail is the curve of the gates, which may at first seem incredibly odd to anyone observing them, until it is realized that very few times in history have the Thais been able to construct arched gateways, and so as a compensatory measure, the curve of the road as it passes through the gates and between two walls served as a rather primitive version of the more well-known European portcullis, forcing enemies attacking the city through a narrow choke-point where they would be surrounded by defenders of the city who had the benefit of cover from the walls.

## Sukhothai



Figure 31 : Sukhothai Historical Park

*<http://travel.kapook.com/view27348.html>*

This Historical Park contains archaeological evidence and ancient monuments that can be dated to around the 13<sup>th</sup> – 15<sup>th</sup> centuries AD covering a period of approximately two hundred years. The grandeur of Sukhothai, especially in its architecture and arts, provides evidence of the significance of Sukhothai as the first capital of Thailand and the city of origin of the Thai language. Sukhothai architecture was initially influenced by Khmer and Sri Lankan culture, but later evolved into its own distinctive style as seen through the Lotus-Bud Chedi known as “PoomKhao Bin”. The casting of Buddha images in the Sukhothai period is also an example of the perfect merging of art and faith.

The technology showing the prosperity and civilization of Sukhothai is the irrigation system with the construction of reservoirs and glazed terra cotta water pipes to deliver water into the city. Dikes, moats, and ponds from the Sukhothai period can still be seen nowadays. Additionally, the production of the famous “Celadon” wares, which were exported to many countries, shows the high craftsmanship of the Sukhothai people (Asian pottery, old time pottery from shipwrecks in South China Sea, 2011).



The walls surrounding the city of Sukhothai were in an extremely interesting configuration. They consisted of three primary walls arranged concentrically with two moats, also concentric, one between each wall. All that survives today, unfortunately, is a lower depression of wet ground lined with trees encircling the city, and so comparatively little is known about the construction of the walls themselves - indeed, in the course of this research, very few useful resources were discovered in any language about the construction or function of the Sukhothai city walls. What was learned was that the walls were built according to the same divinely-inspired principles as the Chiang Mai city walls. Interpretation of the differences between them is open to speculation - notably, there is a difference in orientation, and a difference in shape (where Chiang Mai is roughly square, Sukhothai is a rectangle with a longer east-to-west length than north-to-south length). (Boonyanant, 2011)

In 1975, the Fine Arts Department, as a government agency responsible for the preservation of cultural heritage, decided to develop the Sukhothai ancient city into a historical park. The cabinet approved the project on 20 December 1976 and inscribed the area of 2.5 sq. km. as a project area. Besides, the Fine Arts Department registered the area of 70 sq. km. surrounding the project area as an archaeological site following the Act on Ancient Monuments, Antiques, Objects of Art and National Museums B.E. 2504 (1961). The growth of community living inside the registered area has caused a problem of land ownership for people living there, as they wanted to legally own the land they were living on. This problem did not affect the World Heritage listing, which had previously been registered. The issue of land ownership licenses in the World Heritage area after the registration is deemed illegal and the license can be withdrawn.



Figure 32 : Sukhothai City Wall

<http://travel.kapook.com/view27348.html>

Another matter is the renovation of buildings within the registered area, which has to abide by the ICOMOS conservation guidelines. The Fine Arts Department has set up a committee called “the Committee for the Consideration of the Permit for Housing Construction within the Sukhothai Historical Park”. The Committee’s duty is to consider the styles, height and the suitability of buildings which the locals and private sector propose to build in the area, which could affect the World Heritage.

After becoming a World Heritage site, there has been on-going research on specific topics such as the ancient dam, also examination of the authenticity of the 1<sup>st</sup> inscription. Also, there have been academic services such as an education service to students and agencies in the area, training on Local Youth Leadership, an exhibition on the Sukhothai Historical Park, and the production of printed matters such as leaflets and guidebooks.

## Si Satchanalai Historical Park



Figure 33 : Wat Chang Lom, Si Satchanalai Historical Park

[http://th.wikipedia.org/wiki/%E0%B9%84%E0%B8%9F%E0%B8%A5%E0%B9%8C:Wat\\_Chang\\_Lom\\_Si\\_Satchanalai.jpg](http://th.wikipedia.org/wiki/%E0%B9%84%E0%B8%9F%E0%B8%A5%E0%B9%8C:Wat_Chang_Lom_Si_Satchanalai.jpg)

Si Satchanalai was a center of the communities in the Yom River basin in the early period of the Thai kingdom before Sukhothai. Later it became a major vassal town of Sukhothai. When Ayutthaya expanded its power to Sukhothai, Si Satchanalai was the 2<sup>nd</sup> grade vassal town of Ayutthaya and its name was changed to “Sawankhalok”. Archaeological evidence shows traces of Hinduism and Mahayana Buddhism which influenced Si Satchanalai resulting in beautiful religious monuments whose architectural and sculptural styles became the model for Thai art and architecture of the later period. Si Satchanalai was, for a brief period, also an important celadon production site, which brought fame to Sukhothai.

After receiving the World Heritage status in 1991, more excavations and restoration of monuments have been conducted in the area as more than a hundred archaeological sites outside the city wall of Si Satchanalai had not been properly studied. In 1992-2002,

excavations and restorations had occurred in more than 25 sites. The demarcation of the historical park area covering the area of 45 sq. km. was also conducted. The problem Si Satchanalai is facing concerns the communities around the historical park. The original community which does not negatively affect the World Heritage area will be maintained and developed. There will be a control of construction in the near future. The community negatively affected by the World Heritage area will be relocated to a more suitable location.

Since becoming a World Heritage site, the Si Satchanalai Historical Park has followed the UNESCO master plan on the preservation and development of historical parks. In 2003, more studies were conducted to devise and improve implementation plans to match the present situation of the historical park. Plans already conducted are as follows:

- I. Research on arts, history, and archaeology
- II. Excavation, restoration, and conservation of ancient monuments
- III. Development and conservation of landscapes
- IV. Land use and control
- V. Community development and income-generation
- VI. Infrastructure development and building construction
- VII. Development of tourism and services.

Concerning tourism development, the Si Satchanalai Historical Park has one tourist information center, three site museums, four rest pavilions, public telephone, restrooms for normal visitors and disabled visitors, parking space, restaurants, souvenir shops, one forty-seat monorail, and 24-hour security service. The Historical Park also provides three guides as well as printed matters, leaflets, maps, and guidebooks.

## Kamphaeng Phet Historical Park



Figure 34 : Kamphaeng Phet Historical Park

*<http://www.oceansmile.com/N/Kampangphet/kampang.htm>*

Kamphaeng Phet was another vassal town of Sukhothai. In the reign of King Luethai of Sukhothai, it was moved to the East of the Ping River and its name was changed to “Cha Kang Rao”. Because it was situated in a strategically important position, Kamphaeng Phet had many strong fortresses, city gates, camps, city walls, and watchtowers built in laterite. This, combined with the history of the local people who strongly fought against their enemies, constituted the name of the city “Kamphaeng Phet”, meaning “Diamond Walls”. The Kamphaeng Phet art style was influenced by the Sukhothai art and architecture. Sukhothai art, as shown through its architecture and arts, is unique as well as beautiful and became the model for all other schools of Thai arts of the later period. The distinctiveness of the Lotus-Bud Chedi and the Walking Buddha image has well identified the success of early Thai arts resulting in the granting of the World Heritage status to Sukhothai and associated historic towns in December 1991.

The historic park of Sukhothai represents a masterpiece of the first Siamese architectural style and of the first period of Siamese art and the creation of the first Thai state. The historic town of Sukhothai and associated historic towns is under the responsibility of the 5<sup>th</sup> Regional Office of Archaeology and National Museums, Sukhothai province, under the supervision of the Fine Arts Department.

Prior to being a World Heritage site, the area about 300 meters to the north of the city wall was developed for irrigation purpose to benefit the farming communities nearby and beyond. The development did not affect the World Heritage listing, and there have been no other changes which will negatively affect the World Heritage.

There are four important projects in the management of the Kamphaeng Phet Historical Park, which are:

1. Excavation, archaeological research, and restoration of ancient monuments
2. Information and education services
3. Control of land use and landscapes
4. Promotion of local communities and tourism.

Some of the plans are being implemented. For instance, the excavation is proceeding to study the characteristics of building remains, which is controlled, documented, and reported by archaeologists. The experts on architecture, archaeology, conservation, and scientists from the Fine Arts Department and other sectors will conduct the analysis and design restoration plans.

There are communities living in some parts of the Historical Park area. As a result, the Fine Arts Department in collaboration with the Kamphaeng Phet Municipality and the Provincial Office of Urban Planning is using the Act on Ancient Monuments, Antiques, Objects of Art and National Museums B.E. 2504 (1961) (amended in B.E. 2535 (1992)) to control construction, especially in terms of the styles and functions of the building so that they will not affect the monuments and environment. There is a plan to relocate the local communities to an area which will not affect the landscape. At present, the successful

relocation of the community at the west corner of the city wall helps expose a full view of the city wall.

The site management and administration system should be revised as the Master Plan for the conservation of World Heritage Sites has just ended, and the communities around the World Heritage sites have grown bigger. In addition, the Government also would like local communities to participate more in site management following the Constitution B.E. 2540 (1997).

The Historical Park still needs architects or landscape architects as site managers. The budget of the Historical Park is allocated by the government, but there are increasing demands as the areas to be managed have expanded and there are more visitors to the site.

The Kamphaeng Phet Historical Park also receives funding from the National Committee of the World Heritage Convention and is promoted by UNESCO following the UNESCO International Campaign. The Park still lacks a temporary exhibition hall, local guides, youth guides, building for selling and developing souvenirs, vehicles for visitors such as bicycles and cars, communication tools for the disabled and electronic devices for exhibition and marketing.



Figure 35 : Thung Sethi Force, Kamphaeng Phet

The Park is included in the Tourism Calendar of the Province and of the Tourism Authority of Thailand and is used to hold different festivals such as the Banana Festival and the Light and Sound Festival. It is also an education resource for students, researchers, and academics.

The historic town of Sukhothai and associated historic towns are protected by various national laws as follows:

- The Act on Ancient Monuments, Antiques, Objects of Art and National Museums B.E. 2504 (1961) and the Amended Act on Ancient Monuments, Antiques, Objects of Art and National Museums B.E. 2535 (1992)
- The Racha Phatsadu Land Act B.E. 2518
- The Urban Planning Act B.E. 2518
- The Building Control Act B.E. 2522
- Land Code B.E. 2497
- Regulations of the Fine Arts Department Concerning the Conservation of Monuments B.E. 2528.

After being World Heritage sites, Sukhothai and associated historic towns have directly been affected by an increase of tourism causing the expansion of communities nearby the sites.

The impacts are as follows:

1. The construction of building and infrastructure in the nearby area
2. An influx of tourists due to tourism promotion activities
3. The deterioration of monuments, especially those outside the city wall because of natural factors such as tropical climate, underground water level, and earthquake (about 4.0 Richter magnitude)
4. The limited budget allocated by the Government to protect, conserve and revive the site. The budget is partly used for tourism management and the remaining amount is insufficient for site maintenance. Even though the site also receives



some funding from local private agencies, the funding is still low and could not be used to obtain successful results.

However, there has been a plan for the Conservation and Development of World Heritage Sites in answer to an increasing tourism demand. The old Master Plan will be improved while a new Master Plan will be devised through the brainstorming of different agencies. Special attention will be given to facilities for visitors and the community. There is also an emergency plan and preparations to act against any damages which might occur.

The Fine Arts Department has set up measures for the monitoring of all historical parks including the historic town of Sukhothai and associated historic towns as follows:

1. To have a security system to prevent looting, illegal land use, and any other actions which will violate the regulations of the site
2. To assign archaeologists and technicians to inspect and take actions when there are threats to the site
3. To conserve the monuments including their decorative elements. Conservators will monitor the situation once or twice every year.

The Fine Arts Department is in the process of improving the standard of the monitoring system in the historical parks.

### **Recommended actions**

As the historic town of Sukhothai and associated historic towns are the finest example of early Thai art and architecture as well as a testimony to the nation building of the Thai Kingdom, Sukhothai, Si Satchanalai, and Kamphaeng Phet have been granted World Heritage status. Prior to that, the sites were part of the National Historical Park project. In 1964, the Government approved the project on the Conservation of Sukhothai, Si Satchanalai, and Kamphaeng Phet resulting in the excavation and restoration of the three sites in 1965-1967. The three sites were declared National Historical Parks later (Sukhothai: 1976, Si Satchanalai: 1983, Kamphaeng Phet: 1980). The three sites were also restored in the 1980s.

The Fine Arts Department under the Ministry of Education is the agency directly responsible for the National Historical Park project and for the budget allocation on conservation as well as for the collaboration with other organizations on scientific research. The timeframe for the management of the Sukhothai and Kamphaeng Phet Historical Parks is ten years whereas the management plans of the Si Satchanalai Historical Park is being adapted.

However, it must be recommended as a result of this research that an effort to preserve and record information on the system of moats and walls surrounding the city of Sukhothai be undertaken. The moat system appears to have been unique, or at least extremely uncommon, as it consisted of a series of concentric walls and canals. In the course of this research very little of academic value has been discovered in relation to these moats, in any language.

## **Conclusion**

After UNESCO's World Heritage Committee declared Sukhothai, Si Satchanalai and Kamphaeng Phet historical parks, the World Cultural Heritage No.574, the parks witnessed major changes, particularly an influx of Thai and foreign visitors.

However, World Heritage status is meant as a wake-up call to mankind of the “value” of civilization created by our ancestors. It is UNESCO's belief that “World Heritages are the properties of the world community. The UNESCO certification is simply to encourage protection and maintenance of valuable natural and cultural heritages around the world.”

With such values as the idea of ‘mankind heritage’, it is crucial to make the values of the past in social and cultural aspects the root of our present time and urge communities to guard and maintain World Heritage sites, which are more than just tourist spots.

At present, Sukhothai, Si Satchanalai and Kamphaeng Phet historical parks are under the care of the Fine Arts Department. To raise a sense of protection among the general public requires participation of locals and private agencies. This way, present World Heritage Sites can be kept in good condition for future generations.

## Ayutthaya



Figure 36 : Ayutthaya Historical Park

[http://www.creativeculturethailand.com/detail\\_page.php?sub\\_id=4177](http://www.creativeculturethailand.com/detail_page.php?sub_id=4177)

### History

The kingdom of Ayutthaya in Central Thailand began as a small kingdom in the Chao Phraya river valley in central Thailand. Ayutthaya rose to power in the mid-14<sup>th</sup> century with the decline of the Lavo kingdom which, at that time, was still under Khmer control. According to some sources, Ayutthaya was moved by king U Thong to the former seaport city of Ajodhya, an island in the center of the Chao Phraya River, as the result of a threat of epidemic. Other sources say that King U Thong was a rich merchant of Chinese ancestry from Petchaburi, a coastal city to the south of Ayutthaya, who came to Ajodhya to seek his fortune.

Whatever the case, Ayutthaya had become perhaps the greatest mainland power in Southeast Asia by the end of the century. It very quickly began consolidating its territory by conquering neighboring territories and city states to the north such as Kamphaeng Phet, Sukhothai, and Pitsanulok before it began directly attacking the territories held by Angkor in

the 15<sup>th</sup> century - a move that caused a shift in the balance of power that eventually contributed to the downfall of the Angkor civilization while at the same time increasing the power and influence of the Ayutthaya kingdom.

One of the most interesting things about these accomplishments is not simply the fact that they happened, but that they were achieved in the name of a single unified kingdom by the collaboration of separate and independent city-states and principalities, each answering willingly to a central governing body in Ayutthaya. Revolts were relatively frequent and had to be put down by the central government of Ayutthaya; however, these revolts and uprisings did not - as one might have expected - lead to the outright conquering of the rebellious territories.

Ayutthaya as a kingdom or empire is a very good example of what is known as the *Mandala* political system, which was an alternative organization of political power to the modern concept of countries governed by central bodies. In the *Mandala* system, a city state would have an alliance with every major political power in the area to which they would pay some form of a tax, in addition to contributing coalition military bodies to support one kingdom or another. Since these kinds of city states were normally located between existing empires, direct conflict where one political party for a given city fought against another was actually rare. This political system was so efficient and successful that it lasted until European colonialists began systematically conquering Asia.

The Kingdom could be said to have officially ended in 1767, when the Burmese sacked the city and burned it to the ground - the dynasty of the kings was extinguished just ten days later, when King Ekkathat died of starvation while in hiding. However, as a result of the Burmese sacking, General Taksin attacked and defeated the Burmese, moving the capitol of Ayutthaya to Thonburi and declaring himself king two years later in 1769: However, he was later declared mad after allegedly declaring himself to be the next Buddha and believing that his blood would turn from red to white (Wyatt), and was subsequently executed, with the capital city again moved, this time to the modern-day capital city of Khrungthep (colloquially Bangkok).

Due to the somewhat more centralized organization of the Ayutthaya kingdom, it was able to both resist and cooperate with European colonizers and, despite the necessity of

giving up significant portions of its territories to the British and French in the early 19<sup>th</sup> and 20<sup>th</sup> centuries, Ayutthaya - or Siam, as it had become known at that time - was never conquered or colonized by any European power.

### **Significance**

Ayutthaya is very historically significant for a variety of reasons. Ayutthaya was perhaps the largest city in the world in 1700 AD, with approximately one million people living in it (Modelski, 2003). Trade flourished in the city, with the Dutch and French being the most active European traders, along with many other nations such as the Chinese, Japanese, and various groups from the modern-day Philippines, Malaysia, Vietnam, and India.

As such a rich trading city, and as the capital of an empire that still retained control of its territories, the city of Ayutthaya could be said to be of the most immediate interest to the modern day Thai people, as it most centrally records the origins of their kingdom and demonstrates the many situations that made them so successful in the region. It is also historically significant for both Thai people and international visitors and residents because it helps people to understand how powerful the Kingdom of Ayutthaya was in the past. During the reign of King Taksin, for example, the countries of Laos and Cambodia were completely controlled by Ayutthaya, as was much of Vietnam and even of Burma. The northern edge of the Kingdom bordered directly with China, and as a result a brisk trading relationship existed between the two countries, with many people migrating from one area to the other. Even King Taksin himself was supposedly originally from China, and a shrine still exists in Chinghai with his clothes interred within (Pisalbutr, 2001).

### **Conservation**

There has been a variety of conflicting conservation efforts within the old city of Ayutthaya over the years. Much of the conflict arises as the result of incompatible ideas about the preservation of monuments between traditional Buddhist views and more Westernized views. An example of this kind of conflict is Wat Yai Chainmonkol. In the

interest of restoring the Wat, several figures from leading Thai universities advocated completely ignoring the historical value of the site and instead complying with traditional Buddhist beliefs. In light of these views, it was suggested that the temple be restored as if it were a modern renovation project, so that it could be brought back into normal use as a temple.

While this is not necessarily a bad thing in itself, it does serve to illustrate one of the many problems faced by any conservation effort in Thailand, namely that, according to old Buddhist beliefs, old sacred buildings such as Wat Yai, and many of the ancient temples and *chedi* throughout Thailand, should be restored by building larger and taller monuments on top of them. This view is based on the belief that Buddhism must last for another 5000 years in order to fulfill an ancient Buddhist prophecy.

### **Policy**

In terms of policy, Ayutthaya is divided into several key regions, each with specific functions in regards to the preservation of the historic city. The area to the north and much of the area on the main island of the city is covered by the official Ayutthaya Historic Park, which is governed and maintained by the Fine Arts Department. These areas are very carefully maintained and adhere to the UNESCO World Heritage standards for the maintenance of the site. The other regions serve as largely commercial or residential areas and then, beyond those areas, much of the land is designated as farmland although there are smaller historic sites in many parts of the province which have been properly designated as such.

### **Problems**

Ayutthaya faces several problems which could threaten its longevity. First, it faces the problems of its environment: flooding, while not seasonal, is still common enough to have a detrimental effect on a somewhat regular basis (witness the massive floods of 2011). Further, earthquakes, a harsh climate and the overgrowth of vegetation also pose hazards, as do acid rains resulting from industrial activities in this region of the world.

Last, and this inclusion as a problem may be debated, the attitudes specifically arising from religious views do pose a hazard here. As was mentioned above, some aspects of a Buddhist worldview do pose a threat to the preservation of the genuine condition of some of the historic sites, seeking instead to replace them with more modern equivalents so that the original purpose can be continued and ancient temples and *chedi* can be brought back into everyday modern use.

### **Solutions**

Some of the solutions, including those that have been proposed and implemented, include either partially or fully reconstructing some of the individual monuments of Ayutthaya. Perhaps the most efficient method that has been proposed is actually based on a conservation project, in which the remains of a cathedral are sought to be preserved indefinitely.

The foundations of the building were beginning to crumble because of shifts in the soil over time and, as a solution, it was decided that the most efficient way to prevent damage to the stones in the cathedral itself was to drill a hole to the inside of the large segments of rock, to the point where they contact the ground beneath, and fill these gaps with glue. This glue helped to keep the stones together and also worked to prevent further soil erosion, which could cause shifts in the foundation that might damage the structure further.

## Lopburi



Figure 37 : Narai Ratchaniwet Palace, Lopburi

<http://www.gotoknow.org/blogs/posts/133034>

### History

Lopburi is one of Thailand's oldest cities, with a long history of more than 1000 years. During the Dvaravati period it was called Lavo (meaning "City of Lava") and was under the Angkor regime, which is evidenced in much of the remaining architecture. It was used as a hub for the Khmer empire and became very important center in the Chao Phraya Basin. In 1644, King Narai made this town his second capital city of the Ayutthaya kingdom.

Hindu or Buddhist art in Thailand that shows strong Khmer influence has even been labeled as being in the "Lopburi Style" due to the possibility that the Lopburi area was ruled by indigenous princes or governors under the overall suzerainty of the Khmers. Remains of Khmer-Hindu architecture and motifs are found in the city, notably the Shiva Shrine (Prang Khaek), San Phra Karn, Phra Prang Sam Yot, and Wat Phra Sri Mahatat.

It was in the late 13th century when the Thais, who migrated from the north, fought against the Khmers and declared their independence. Since then, Lopburi has been ruled by Thai Kings. Lopburi first became known when King Passat Tong, who established the Ayutthaya Kingdom, sent his son, King Narai the Crown Prince, to govern the city. The Prince commanded the building of moats, city walls and battlement towers.



Lopburi reached its height in 1664 when King Narai the Great of Ayutthaya named Lopburi the Kingdom's second capital, which came after a threat of invasion from the Dutch. King Narai rebuilt Lopburi with the help of French architects and ruled the kingdom from there, instead of Ayutthaya. Thus the city's architecture mostly reflected a mixture of Thai and Western styles, which can be seen today in the remains of the Royal Palace, the Royal Reception House etc.

Lopburi gradually faded from the political scene with the death of King Narai. However, it made a comeback approximately 200 years later when King Rama IV of the Rattanakosin era decided to restore the city. He also commanded the restoration of the old palace and named it "Phra Narai Ratchaniwet" (Narai Ratchaniwet Palace) in honor of King Narai the Great.

In 1938, after Thailand's democratic revolution, Field Marshal Poh Pibul Songkram rebuilt the biggest military base of Thailand near the city's railroad, therefore dividing the city into old (ancient) and new zones.



Figure 38 and 39 : Chaichanasongkram Force, Lopburi

<http://www.pakpon.com/Lopburi/pomchai.asp>

The Action Plan for the Urban Conservation of Lopburi comprises guidelines for the development in the old part of Lopburi Town and connecting area, and especially for the new urban center which develops apart from the old urban center. Lopburi is famous for its history, its archaeology, and its culture from the Prehistoric Age to the present time. The settlement has continuously developed since the Metal Age to the Dvaravati Period, to the

Lopburi Period, to the Sukhothai Period, to the Ayutthaya Period and to the Rattanakosin Period. The town was also built as the second capital in the reign of King Narai, as mentioned above. Because of its advantage in location, the then desolate town was again repaired and used as the stronghold of King Rama IV of Rattanakosin while the whole country was in danger from the colonial storm.

After 1937 the government developed the town to be a military town, as they enlarged it eastwards. For the thousand years of its settlement, Lopburi is plentiful in ruins and remains which are dispersed both in the old part of the town and in the connecting area. These ruins and remains should be preserved and taken into care before they are deteriorated by climate and by incognizant people. This Action Plan guides the directions of Lopburi's development in the ways of development with conservation. The project consists of four areas:

- The area behind the old town walls, the town moats and the Lopburi River.
- The area of the town moat, the forts, the gates and all the ruins outside the old city wall.
- The area along the Narai Maharaj Road, Srisuriyothai Circle and Thepkasathi Circle.
- The transitional area around the old town where there is no ruin.

In these four areas the government sector will provide utilities and renovate the elements of the old town such as the moats, the walls, the forts and the gates etc., while at the same time the developments of the private sector will be directed and controlled by government measures such as land use controls and building controls.

The development with conservation in this Action Plan consists of long term and short term projects which are based on the Lopburi Land Use Plan No. 19(1992) that brings about the new land use, the circulation network, and the development of the townscape and the conservation of local architecture. Thus, for the development of the physical fabric and all the surroundings of the old town to go well together with the developments of the new urban area, the Action Plan also indicates the fiscal plan, the time schedules, the management arrangements and the collaborations.



Figure 40 : Phra Prang Sam Yot, Lopburi

<http://www.gotoknow.org/blogs/posts/133034>

### Issues and Threats

There is an evident threat to the historical fabric of the city. In the following paragraphs an assessment of pertinent threats will help to identify the conditions that impair an appreciation of the significance value of these cultural heritage sites. A brief summation of the problems facing some of the most important historical sites in Lopburi shows us that:

1. The buildings have decayed as a result of effects of climate and the natural environment, and these remains have been damaged over time by heat, humidity, rain, wind, ground subsidence, and air pollution.
2. The increase of tourism activities could be stimulating the decay of cultural heritage places. Since King Narai's Palace is the most attractive place in Lopburi City, there are a lot of tourists who come to this place. A lack of assistance in interpretation and a lack of conservation management by the concerned authorities, in conjunction with greater awareness by tourists may be partially to blame for the dilapidation of some of the sites. Tourists are allowed to walk, climb on the ruins, and sit or rest upon them.
3. Increasing use of motor vehicles around the palace can generate atmospheric pollution and there is destructive vibration, especially from tour buses and large trucks. For the purposes of illustration, it is worth mentioning that the city of Budapest, Hungary, has prohibited tour buses and large trucks from driving in many areas of downtown because

of the risk of collapse both of the historic buildings and of the subterranean caves beneath the city. (Geller, May 21, 2007) VDO?

4. New construction of things such as high-rise buildings and signs, as well as the installation of facilities such as electrical wiring and telephone lines, have occurred irresponsibly around the palace. These constructions and installations obstruct the view of some of the more valuable historical locations.

### **Solutions**

A variety of solutions have been adopted to preserve the various historic sites in Lopburi. Over the years different structures have been created, recreated, deconstructed for building materials, rebuilt, renovated and demolished as the city has had to grow and reshape itself to accommodate new generations. The current economic situation of the city, however, does not well lend itself to the preservation of its rich historic and cultural value, as perhaps the oldest near-continuously occupied settlement in Thailand. Given these difficulties, there is much that should be done and many more problems than there are currently solutions.

One of the most effective solutions to solve the base problem of insufficient economic support for the monuments has been to advertise to the tourists - clearly demonstrating that such strategies can be made to be effective, even if the infrastructure is to accommodate the more common variety of 'fair weather' tourist. The city of Lopburi has managed to turn its many historic sites into tour locations, with some detrimental effects but overall to the net benefit of both the locations and the citizens of the city.

Recent efforts at directing new urban development have been facilitated by the advent of the internet and specifically of social networking. There has been a recent trend among networking sites such as Twitter and Facebook to organize groups of people who share a common interest in the development or preservation of archaeological or historic sites, and Lopburi is no exception. Currently (November 2011) there is a group composed of over 50 people who have specifically banded together to prevent the destruction of Lopburi's rich heritage and to ensure that any future developments are in harmony with the city's rich heritage.

Last, it bears mentioning that Lopburi's current economic state as only a minor outlying town has, in some ways, been a blessing in disguise for the preservation of some of the most advanced historical monuments in the Kingdom of Thailand. The lack of rapid development has enabled the city to remain largely as it was. In many cases, any artifacts that were excavated in the efforts to add new buildings or infrastructure to the city have been simply placed to the side of where they were excavated such as the water pipes which supplied the city with fresh drinking water during the dry season when the river dried up (Efforts toward Lopburi Old Town Planning, 2011).

### **Comparison of Conservation Efforts and Methods**

Much can be said about the policies affecting the conservation of the city walls of Chiang Mai, and not all of it is good. There has been extensive, irreversible damage to the historical and heritage value of the walls, all seemingly in the name of improving aesthetics. The gates of the old city have been torn down and rebuilt, the corner fortresses have been reconstructed, in some cases necessarily but in all cases without proper care taken to ensure that original materials or building methods were used any more than was needed for the reconstruction to look somewhat authentic.

At the same time, there is also much that can be said about the conservation efforts that is good. The city of Chiang Mai has grown considerably in the last 50 years, and is now an even more important metropolis than it ever was in the time of the Lanna Kingdom. Today, at any time, there are over 2 million people living in and around the city of Chiang Mai, an unimaginable number at the time that the city was built. The city today has been shaped and reshaped by the march of history and the inevitable pressure of progress, and has still managed to retain its cultural heritage. The monuments that give the city its character, most notably the walls, the old temples, and specific historical monuments such as the Three Kings Monument inside the old city, are all still standing, while none are in any immediate danger of being destroyed or further degraded.

## Theodosian Walls vis-a-vis Chiangmai



Figure 41 : Theodosian Walls of Constantinople, Ayvansaray, Istanbul, Turkey

<http://www.art.com/products/p14430415-sa-i2962677/ali-kabas-theodosian-walls-of-constantinople-ayvansaray-istanbul-turkey.htm>



Figure 42 : Tha Phae Gate, Chiangmai City Wall

*by the author on 20th november 2010*

The Theodosian walls bear comparison with the Chiang Mai city walls in many respects. First, both sets of walls were designed with the aim of being impenetrable barriers to keep out hordes of invaders. Both walls succeeded at this before receiving substantial damage and then being upgraded by the newest group of locals - and both have suffered needless neglect for longer than can be considered prudent. Where we cannot compare the two walls, however, is in terms of their presence in their respective cities. The Theodosian walls are still tall and imposing, and have dominated the skyline of many sections of the city for centuries: the Chiang Mai city walls, on the other hand, have slid into the background in the eyes and mind of nearly every single person to have visited or lived in the city.



Figure 43 : Theodosian walls

<http://www.agiasofia.com/walls.jpg>



Figure 44 : The Old picture of Chiangmai City

Walls<http://www.chiangmaithailand.thi.in/aticle221.html>

Another important difference is that the Theodosian walls are still standing, at least mostly, and have not been torn down; the Chiang Mai walls do not have this advantage, as the last genuine construction was used as the first generation of pavement for the road built where the wall once stood. Last, there is a great difference in the priority given to them; the Theodosian walls have already been designated as a World Heritage site, and so are afforded both protection and an increase in priority in the eyes of city planners as a result. The Chiang Mai walls, however, are barely recognized as the historical monuments that they are by the local Thai authorities and are given very little consideration.

The most useful lesson we can learn in comparing the Chiang Mai walls with the Theodosian wall is that we can see how well the Theodosian wall has benefited from the partial restoration it has enjoyed, and also we can see an example of how to make a wall interesting again, in the example of the reconstruction of an albeit short section of the Theodosian wall.

### **Carcassonne vis-a-vis Chiangmai**



Figure 45 : Carcassonne City

*<http://www.letabet.com/carcassonne.htm>*

When comparing Carcassonne and Chiang Mai, we can easily see the similarities: both are small-to-medium sized fortified cities that acted as a defensive area both for the residents inside the walls and as a safe haven for residents of the city outside the walls when



enemy armies made war on them. Both cities were surprisingly cosmopolitan, supporting advanced multi-cultural societies and fostering great cooperation - at roughly the same time, no less. Both societies built on what had been there before, although in the case of Chiang Mai and King Mengrai, this could more accurately be described as using the expertise of the locals who were there before to build something new. Finally, both began as cities of great military significance, and ended as centers of commerce between the capitals of other states.

Where there are differences, however, they are great. For example, the quality of construction in Carcassonne was much more sophisticated than the construction in Chiang Mai, and instead of rebuilding sections of wall as needed, the defenses were consistently added to. Also, despite both cities being the center of their respected religions in their golden ages (Carcassonne being the center - or at least a major hub - of a sect of Christianity called 'Catharism'), only Carcassonne was ever plunged into war expressly as a result of the predominant religion there, which is not something that happened with Chiang Mai. Last, Chiang Mai has not even truly recognized itself as the historic location that it is. Various people have identified it as historically valuable, and perhaps the majority of residents can think of a wat or two that has some history and should be saved, but to truly say that Chiang Mai is a historic city, it would have to be something that its citizens are aware of and agree with, and there is a lack of public awareness in Chiang Mai.

Carcassonne is an excellent example of what is possible when the surrounding community is involved in every aspect of a conservation project. From the very beginning of conservation efforts in the city, it has been the people, led by a few clear-sighted leaders, who were responsible for nearly everything that could be done. Although the methods of creating a public awareness of the walls in Chiang Mai will certainly be different from what they were in Carcassonne, it is not too much to hope that the reaction will be the same towards the Chiang Mai walls.

## London Wall vis-a-vis Chiangmai



Figure 46 : Roman Wall of London

<http://www.timetravel-britain.com/articles/london/roman.shtml>

The similarities between the London Wall and the Chiang Mai wall are well worth noting. For example, both walls represent the fortifications of an ancient city against any possible enemy; both walls were extended and added to multiple times, and both still serve as boundaries - to a greater or lesser extent - in the modern cities where they reside.

The dissimilarities are also worth noting. Differences in construction mean that the London wall is in less need of repair, despite being significantly older. Differences in the preservation efforts have also yielded some different results, and this may be due to different circumstances. During the Second World War, for example, much of London was damaged by German bombing and so, after the war, an attitude of preserving what could be preserved grew quite literally out of the rubble and ashes of what remained.



Figure 47 : Jeang Ku Hueng, Chiangmai City Wall

*by the author on 20th november 2010*

Chiang Mai, fortunately or unfortunately, has not had such a catalyzing event that would make the preservation of the past a priority in the eyes of the people of the city.

London provides perhaps the most practical example of how a wall can be both preserved and contribute to the identity of a city without inhibiting the city. Where above it was suggested that the Chiang Mai wall could be used as a source of identity and as perhaps even the basis for publicity, the London wall shows what can be accomplished in spite of a lack of major publicity. The London wall is and will almost certainly remain one of the most defining physical features of the ancient history of England, and it will do this in spite of the march of progress - not because of it.

## Kyoto vis-a-vis Chiang Mai



Figure 48 : Kyoto Nijo Castle Wall, Japan

[http://www.travelskyline.net/view-kyoto\\_nijo\\_castle\\_wall-1400x1050.html](http://www.travelskyline.net/view-kyoto_nijo_castle_wall-1400x1050.html)



Figure 49 : Jeang Sri Phum, Chiangmai City Wall

*by the author on 20th november 2010*

Comparing Kyoto and the Chiang Mai city walls is a comparison of apples and oranges - the two sites simply do not match - and so instead of comparing specific sites, a comparison will be made between environmental and historical policies affecting the specific sites in both cities because, by making this comparison, we can learn a great deal about what to do and what not to do when preserving not just a wall but an entire city.

Kyoto has one of the most comprehensive sets of zoning regulations in the world, and for good reason. In the heart of the historic districts of Kyoto, the entire city has essentially been frozen in time. Shop houses and workshops exist in the same state they did 200 years ago, virtually frozen in time. Even in the districts of the city without such historic sites - and there are not many - the modern buildings have been styled to conform to the ancient styles, or to at least not stand out more than the ancient buildings do.

Chiang Mai has a similar set of zoning plans, which unfortunately have not been enforced, are not clearly defined, and have done very little to protect the character of the city from the expansion of tasteless real-estate developers.

### **The Chiang Mai City Walls in Comparison with other sites in Thailand**

The Chiang Mai city walls are, as has already been indicated, an amazing cultural artifact representing the penultimate geomantic (celestial) practices and technology of their day. How do they compare with the other sites in Thailand?

First, we must compare what has been done in the respective areas we have examined. Sukhothai and Ayutthaya, for instance, are world heritage locations and are given due accord as a result of this; Chiang Mai, however, has not been granted this status. In comparison with the walls of Chiang Saen and the other kingdoms mentioned, however, it compares quite favorably - with the possible exception of Lop Buri, which has the advantage of being close to a major world heritage site, and of being technologically far superior to the existing settlements of its day, making it a curiosity, and a highly accessible one.

### **Cultural Shifts**

The induction of Chiang Mai into the provincial territories of Siam (or of Ayutthaya, since they are culturally identical and distinguished only by a break in the dynasty and by a change in location) represented, at once, a great victory - for it meant the Burmese occupiers had been driven out - and a great loss, since among the first acts of the new administrators of the city was the demand that the palaces and provincial headquarters be torn down, leaving only the walls and the temples. A political move much in line with its day, this is nonetheless a great loss because compared to most of the other cities, Chiang Mai was an important trade location. Yet it was most likely this importance that was responsible for the decision to do

this; the potential for Chiang Mai to be a threat was substantially greater than the possibility of an uprising in Lop Buri, or Lamphun, for example. This importance has continued to be ascribed today in everything except the recognition of the heritage of the city itself, apart from any religious site.

This means that while Chiang Mai has better-preserved sites than many places, they are less genuine (having been repaired to cosmetic standards) than cities which were important but which were ultimately abandoned and only much later repopulated (such as Chiang Saen, Ayutthaya, and Sukhothai), and also that there are far fewer actual genuine sites remaining, as the result of this political purging.

### **Issues, threats, polices that affect the conservation of the walls**

The single greatest threat to the Chiang Mai city walls at the time of this writing is the lack of a consistent and concise zoning policy. There is danger to the continued state of the walls from other things as well, but it is the zoning policy which determines where new roads will be built, how large they will be, how tall buildings can be, and what the punishment is when the policies are not followed.

The lack of a zoning policy is compounded by the lack of centralized urban planning. There may be a grand unified theory of Chiang Mai's city plan: but if there is, it is so poorly implemented that both the people following it and the people in charge of enforcing it have no idea what it is, or even could be. According to Ramanos and Auffrey (2002) described that:

*“Planning for the areas already urbanized should recognize the tendency of redevelopment to destroy the existing urban fabric and build much more intensely, in a manner that gradually leads to the kind of overcrowding that is the scourge of Bangkok. Whereas rapid change is necessary to the growth and development of the city, those changes must be placed in a sustainable framework that preserves the scale and livability, if not the actual old buildings, of Chiang Mai and Lanna traditions.”*

## **Conflict between Urban Development and the Preservation of Local Heritage Sites**

The development of Chiang Mai as a center of commerce has depended in large part upon the development of its transportation facilities, including the train and bus terminals, the new CNX Chiang Mai International Airport terminal and the new Super Highway systems; but even more fundamental than these have been the modern systems of paved concrete and asphalt roads, and the introduction of concrete as a standard building material. These changes have resulted in old ancient roads becoming much more permanent, requiring much more effort in construction and maintenance, and in many places have been the direct cause of old buildings being wholly or partially demolished.

Further, entire sections of valuable historical architecture have been torn down, both inside the old city and in the areas directly surrounding it, in order to make way for tawdry shop-houses and superstores, while the governing bodies responsible for preserving the character of the old city turn a blind eye, or worse, make excuses for such destruction.

### **Property development**

Currently, the most well-known market for real estate developers in Chiang Mai is condominiums, particularly near the city's many universities.

### **Roads**

As the city has continued to grow, so the roads have had to change and grow as well, in order to accommodate more travellers on the roads and enable traffic to flow to new locations within the city. This growth of the transportation infrastructure in general, and of the roads specifically, has placed a great deal of strain on many areas of the city that have traditionally been traversed by small alleys on foot, or more recently, via bicycle and motorbike. This demand for accessibility by modern cars has been ubiquitous, and the roads in Chiang Mai are seen by many to be completely inadequate for even moderate use by automobiles.

This fact, however, must be balanced with the knowledge that the roads are always constructed with many compromises in their layouts, accommodating shops in the area that require parking space between the roads and the store fronts in order to allow customers

places to park, and snaking around an important building or monument (and even occasionally entire trees that are seen as too important to cut down). Therefore in these contexts we must be aware that the roads have been constructed within the very finite limits of what is truly possible and permissible in nearly all cases.

On the outside of the old city, very little need be said, as an excellent job has been done in many cases of upgrading existing roads, replacing the old main streets with newer modern concrete or asphalt roads and in some cases with highways. However, inside the old city, this is a different matter completely. Already, a great deal of the walls and the surrounding moat have been partially or completely demolished, in many cases unnecessarily, in order to accommodate the modern roads or the foot paths running beside them, which line the outside and inside of the city walls and moat. In all but a few places, there is absolutely no evidence of the walls and, in all places, there is absolutely no evidence of the original external shape of the moat. The inside of the moat directly touches concrete foot-paths everywhere that it does not touch what remains of the walls, and already new sections of moat have been filled in to allow traffic to pass from the inside to the outside of the moat more conveniently. The thresholds of all of the historic gates have been paved, and all of them except for Thaphae gate have been connected to the roads ringing the moat and the inside of the city wall. Thus we can see very clearly that modern infrastructure, while it has in some cases been instrumental in the preservation of the walls, has at nearly every other point contributed to their neglect or destruction.

In defense of this infrastructure, it must be mentioned that a variety of factors - soil erosion, destruction by plants, intentional or unintentional damage by people, and even natural events such as earthquakes have played an equally damaging role on the walls. The construction of roads have both brought people into everyday contact with the walls and at the same time, in many cases, separated them physically from the walls, thereby helping to prevent some of the normal decay of these monuments. However, this can only be a secondary consideration when we consider that the present growth of the city poses a far greater danger to the walls, in terms of sections that will be seen as obstructions to be demolished to make way for progress.



Some of the ways that the roads could continue to be developed for the city of Chiang Mai in the proximity of the wall is that, in sections where the wall is of particular historical interest, the road could be re-directed away from the wall, and the existing paved area could be allowed to remain as a parking area for tourists and other visitors to the site. An inspection of the sites of the wall conducted for this research found that the northeast corner would benefit the most from this re-direction of the public roads along the inner stretch of the old city, for reasons enumerated here:

- The North-West corner of the wall is among the best preserved, with a section of wall spanning approximately 250 meters from East to West and a further section spanning approximately 70 meters from North to South
- The area immediately to the left of the road, spanning 50 meters East to West and 60 meters North to South, is largely abandoned, undeveloped, or else in very poor repair and unoccupied, and in the interest of developing its potential for historical tourism, would be the most prudent purchase that the city could make in the development of its own tourism industry, and would represent an investment which would have paid for itself after only a few years and would subsequently bring a substantial increase in revenues.
- The North-West section of wall is historically very significant, and is mentioned by historians as having a fortress at that location; a redirection of the road here would allow for the ground beneath the current location of the street to be surveyed and, at the same time, the construction of the new course of the street would allow an unparalleled chance to excavate the old location of the fortress.
- This section of the wall is conveniently located near the prestigious Chiang Mai University (CMU), and any excavations in this section would be very accessible to students from disciplines such as paleontology, history and architecture who would be able to help oversee excavations of the area or take part in the digs themselves, hopefully unearthing new details about life in the Lanna Kingdom.

## Facilities

There is one other conflict between the city walls and the march of progress, and this is in the restrictions that the walls can be seen as placing on the development of infrastructure, such as underground power, water, and communication lines. Currently, there are only 18 points at which an underground cable or pipe can be run from outside of the old city to the inside without transecting the moat, a constraint which does create some problems for designers and engineers responsible for installing the necessary facilities to modernize or upgrade existing buildings inside the old city proper. In addition to this, much of the economic heart of the city has been scattered around in different areas; for example, much of the production in the city takes place to the south, with some specialized shops to the east of the city. This makes it much easier to plan how facilities can be brought into the old city, because the facilities to be brought in will be required to service far fewer people and much smaller buildings than they would in other places, and the smaller potential for growth also means that future installations of facilities will be limited, as compared to other areas of the city.

As an addendum, it should be mentioned that the introduction of wireless technologies, both for replacing conventional phone lines and the more recent trend for replacing traditional methods of bringing the internet to a location, will allow much greater flexibility in regards to the requirements both for the installation of new infrastructure and for upgrades to existing infrastructure. However, one needs to recommend that such installations and upgrades be disguised and styled to match the historic character of the areas where they are located.

## Chapter 5

### The Condition of the Walls

#### Physical Survey

The data presented in this study are obtained from direct fieldwork by the author and from interviews with several government agencies related to the management of the Chiang Mai walls and to participation in issues relating to the walls. The compiled information is, in part, derived from the following agencies:

Chiang Mai Provincial Office of Tourism and Sports  
Tourism Authority of Thailand, Chiang Mai Office  
The 8<sup>th</sup> Regional Office of Fine Arts, Chiang Mai  
Chiang Mai Provincial Administrative Organization  
Chiang Mai Municipality  
Chiang Mai Tourism Business Association  
Chiang Mai Cultural Office  
Office of Public Works and Country Planning, Chiang Mai

Additional data are gathered from opinions and suggestions given by tourists travelling to Chiang Mai, the local residents living near the walls and respondents on the Internet expressing their opinion via e-mails and on topics on local websites. The above information is assembled and illustrated by the author as below.

#### Physical Survey

The following section was mostly written on the basis of the author's field survey of physical conditions at nine locations. The circumstances and their analysis were provided by the author aiming at presenting the current situation and conditions of the Chiang Mai Wall. Additionally, what the author had seen during the main field survey at the end of 2011 to the early period of 2012, additional available data have also been inserted, to yield an account starting from the survey report and the analysis of Chang Phuak Gate, followed by Sri Phum Corner, Tha Phae Gate, Ka Tam Corner, Chiang Mai Gate, Suan Prung Gate, Gu Ruang Corner, Suan Dok Gate and Hua Lin Corner, with a clockwise rotation

### Chang Phuak Gate

This gate is situated in the northern part of Chiang Mai City. It is considered as the power of the city regarding Thai geomancy and astrology associated with city building. It is connected to Chang Phuak Road, Chotana and other northern districts such as Mae Rim, Mae Tang, Chiang Dao and Fang. This way led to Chiang Rai Province. Formerly, it was a very significant gate used for going into a battle and greeting official foreign visitors as mentioned in the historical discussion in Chapter 3.

In relation to the general environment around the wall in the past, some 40-50 years ago, there was a fountain on a space between the two sides of the gate but it was removed later. Anyway, there was a subsequent plan to relocate this fountain at the same place but this intention disappeared without any reason.

On the contrary, as far as I have noticed, the current environment of the outer northern gate is that it is crowded due to traffic in the morning and evening because Chang Phuak Market is also located here. Fresh products are available here in the morning with a busy atmosphere while it becomes a center of food shops on wheelbarrows at night. The inner wall is the location of commercial buildings and various types of businesses, for example clinics, Chinese restaurants, souvenir shops, eyeglasses stores, a fashion design school and travel agents. The commercial buildings are constructed along the line of the wall. When looking through this gate, there is a street connecting to Chang Phuak Road and thence to an old city. It is called “Phra Pok Klao Road”. This route leads me to the heart of the city near the Three Kings Monument and Chedi Luang Temple which can pass on to the southern way through the Chiang Mai Gate.



Figure 50 : Chang Phuak Gate, Chiangmai City Wall, by the author on 19th March 2011

The condition of gate and wall contains clues of weathering as time goes by. Some cracks between the bricks are found, especially the western fortress (see figure 55). Moreover, there are numerous hanging electric wires along the street and some suggestions of renovation for 100 meters on each side as seen on the wall connected to the eastern and western fortresses. The restoration can be observed from the years as shown on the used bricks. There are some humidity stains and lichens. The author also found small weeds like seasonal plants at the top of fortress (see figure 56).



Figure 51 : Chang Phuak Gate, Chiangmai City Wall, by the author on 19th March 2011

In terms of overall visibility, if looking from the outside of the walled city, there is a large and orange billboard of an alcohol brand above the fashion design school. It is like a foreground to the significant and ancient walls (figure 57). The background buildings are painted in white which seems to be an unpleasant intrusion into the scenery. In contrast, it is admirable that the municipality has tried to assimilate the western surroundings to the ancient remains by laying bricks and building brown lathes. Nonetheless, to the visibility from the inside view, there are a large number of electric wires suspended disorderly over the historic sites as seen in the figure while some rubbish is left there.



Figure 52 : Chang Phuak Gate, Chiangmai City Wall, by the author on 19th March 2011

The interpretation at Chang Phuak Gate comprises three plates and two inscriptions as described below.



Figure 53 : Chang Phuak Gate, Chiangmai City Wall, by the author on 19th March 2011

1. A brass plate giving the name of the gate with dimensions 80cm x 120cm. Its screen is black and installed at head height. The condition of both plate and text is quite complete. The plate is attached to the front part of western gate with the name “Chang Phuak” in Thai, ancient Lanna and English.



Figure 54 : Chang Phuak Gate, Chiangmai City Wall, by the author on 19th March 2011

2. A white marble plate contains important information and history of Chang Phuak Gate, both in Thai and English. These texts are carved in gold and its size is about 1m x 1.5m. This plate is designed like an ancient documentary text and is installed on the floor in front of the fortress near the brass plate. Also, there are some cracks on the white marble plate while the golden characters are blurred which makes it difficult to read.



Figure 55 : Chang Phuak Gate, Chiangmai City Wall, by the author on 19th March 2011

3. A small cement place identifies the name of Chang Phuak Gate in Thai. It is located on a cement pole inside the western fortress.



Figure 56 : Chang Phuak Gate, Chiangmai City Wall, by the author on 19th March 2011

Inscriptions indicate auspicious times of the city's building. The texts are written in an ancient language which the author cannot read. Nevertheless, several aged people sitting nearby the gate gave further information that one needs to look into a mirror to read these texts. The two inscriptions are situated in both sides of the arched entrance (Soom Joranam) and there are the clues of offerings. Thus, it is believed that some people still bring flowers and sacrifice to offer at these still inscriptions in the present time.

### **Sri Phum Corner**

Sri Phum Corner is located in the northeastern part of Chiang Mai City and it is regarded as an auspicious focus of the "luck/fortune" of the city, following the astrology of Chiang Mai city building. An important temple of this corner is the Chai Sri Phum Temple. From this place to the north, one meets Autsadathorn Road and there are numerous used car tents along the way leading to a superhighway. In the east, it reaches Witchayanont Road to the Ping River where Meung Mai Market, the biggest fresh-food wholesale market in Chiang Mai, is located.



In the past, there was a big banyan tree at this corner outside the city and there was a large marsh called “Nong Luang” in the north. Later, this land was reclaimed as Autsadathorn Road and for the used car tents.

The current Sri Phum Corner is surrounded by commercial buildings. Most of them are second-hand stores selling many products from pawnshops. In the north, there is a pork buffet which is open in the evening till the late night every day while Chai Sri Phum Temple is situated in the east. The traffic around this corner is quite heavy all day and it is necessary to install traffic lights at this position. Besides, there are more commercial buildings along the corner of the wall providing different businesses and services such as car rent, restaurants, travel agencies as well as the Mechanic and Public Cleansing Department of Chiang Mai Municipality.



Figure 57 : Sri Phum Coner, Chiangmai City Wall, by the author on 19th March 2011

From observations of the author’s bicycle ride to survey the condition of Sri Phum Corner from the west to the east, or from Hua Rin Corner and Chang Puek Gate to Sri Phum Corner, the land of Chiang Mai City can be observed to slope from the west to the east. For this reason, the water in the city moats floods to the base of the eastern corner which is similar to the Sri Phum Corner. Some parts subside as seen from the cracks of the bricks. The humidity stemming from the flooded base also stimulates the growing lichens on the wall (see figure).



Figure 58 : Sri Phum Coner, Chiangmai City Wall, *by the author on 19th March 2011*

However, this place was renovated by using new bricks in 1996. A temporary building made of wood and galvanized iron roof has been constructed inside the fortress of Sri Phum Corner over the archaeological area. As far as can be noticed, this area is not well sustained. Moreover, there is the Sri Poom Corner God Shrine, the inside of which is a holy place for the local villagers. It is located among plentiful standing timbers such as banyan trees, both inside and outside the shrine.



Figure 59 : Sri Phum Corner, Chiangmai City Wall, *by the author on 19th March 2011*

The overall visibility of Sri Phum Corner, from the west to the east through the corner, many systems of fountain in the moats obviously emerge from the water meanwhile several advertising boards of electric appliances and housing development are installed near the corner. Besides, there are two small house of pumps used for the fountain at the corner with the plate of a sponsor – a brand of beer producer. There is also a stand of trees above the wall which can completely hide all of the internal wall. Nonetheless, the roots of the trees are destroying the walls as seen in the figure (roots of a banyan tree). When climbing up to the higher position and looking from the inside view of Sri Poom Corner (this figure was taken while climbing up the wall), the author sees a lot of commercial buildings, traffic lights, advertising boards and Chai Sri Phum Temple.

The interpretation of Sri Poom Corner includes 4 plates as below.



Figure 60 : Sri Phum Corner, Chiangmai City Wall, by the author on 19th March 2011

1. A metal plate giving the name of the corner screened in black. It is fixed at the fortress about 3-4 meters above the ground surface. The plate and texts are quite old and difficult to read because the plate is installed at a distant and high position and the texts are blurred. The colors of both plate and texts are also similar (see figure). This place is set up at the front fortress of the corner and its name is written in Thai, ancient Lanna and English.



Figure 61 : Sri Phum Coner, Chiangmai City Wall, by the author on 19th March 2011

2, and 3 are two metal plates installed at the inner face of the fortress. It is expected that the former color of these metal plates might have been silver because now they are black. The two plates are made from 40cm x 80cm boards and are set up at the internal face of the fortress about 60cm above the ground surface. There is information and a map indicating the boundary of the walls. The first plate provides information on the northern Sri Phum Corner to the effect that, in the past, there was a large pond called “Nong Bua”. The second plate represents the historical interpretation and the archeological excavation. The above information is translated into Thai and English. The bases of plates are still complete even though there are some scratches on the plates and the texts are indistinct which make them difficult to read.



Figure 62 : Sri Phum Coner, Chiangmai City Wall, by the author on 19th March 2011

4. White marble plates on brick bases around Sri Phum Corner demonstrate the meaning of important trees. These plates give the information on the 700<sup>th</sup> anniversary of the founding of the Chiang Mai City in 1996. The local people have planted this banyan tree (see figure). The condition of the plates is perfect and the texts are easily readable. Nevertheless, there is only Thai information on the plates.

### Tha Phae Gate



Figure 63 : Tha Phae Gate, Chiangmai City Wall, by the author on 19th March 2011

This gate is located in the east of Chiang Mai City. It is considered a significant point as it marks the “economic zone” (Moon La Meung) or property of the city. Previously, it was a commercial route where many merchants and markets were assembled together. The gate is connected to Tha Phae Road and thence to the Ping River where different waterside piers were situated for selling products as stated in Chapter 3.



Figure 64 : Tha Phae Gate, Chiangmai City Wall, by the author on 19th March 2011

The current environment of Tha Phae Gate is still mainly that of a busy transportation way. If going straight from this point, it will meet important commercial areas such as the night bazaar and Warorot Market. This street leads to San Sai District, Doi Saket District and Chiang Rai Province. On the other hand, if entering the town from the gate, it will reach Ratchadamnoen Road and one of the more considerable temples which is Wat Phra Singha. Today, there is a pedestrian street here on Saturday and Sunday to promote local tourism on what is a frontal and wide area. Most of the important events are always held here such as the Songkran Festival and so on. For these reasons, it is indeed crowded at Tha Phae Gate and there are large commercial buildings, hotels, restaurants, souvenir shops, travel agencies and convenient stores.



Figure 65 : Tha Phae Gate, Chiangmai City Wall, by the author on 19th March 2011

As far as the author can observe, the condition of Tha Phae Gate is still as-new due to continuous renovation. Referring to the interpretation plates found at Tha Phae Gate, the latest restoration was completed in 1986. It was renovated from photo evidence taken in 1899. The new bricks are laid and arranged in an orderly manner with stairs up to the fortress and ramparts. However, there is a closed iron fence barring access. The author assumes that certain teenagers may gather for unlawful purposes at somewhere above the fortress which is why the wide field in front of the gate used for many activities needs to be closed.

The visibility of Tha Phae Gate from the outside view is disrupted by several buildings and the sign board of a hotel's name as background whereas the wide field and a stand of trees are in front of the gate. From the back of the gate, there are numerous advertising boards on the commercial buildings and a tall hotel building in the northeast.

The interpretation at Tha Phae Gate contains two plates as below.



Figure 66 : Tha Phae Gate, Chiangmai City Wall, by the author on 19th March 2011

1. Similar to the plate at Chang Phuek Gate, there is the brass plate screened with black text and attached to the northern part of the gate slightly above head level. The text indicate the name “Chang Puek” in Thai, ancient Lanna and English. The condition of the brass plate is still complete but the screened texts have dropped off which make it difficult to read.



Figure 67 : Tha Phae Gate, Chiangmai City Wall, by the author on 19th March 2011

2. The white marble plate consists of information on the significance and history of Tha Pae Gate, in both Thai and English. Such data are incised and highlighted in gold. The plate size is 1m x 1.5m and designed like an ancient document. It is fixed on the floor in



front of the fortress near the brass plate and about 2 meters north. Nevertheless, the text size is quite small, especially English text.

### **Ka Tam Corner**



Figure 68 : Ka Tam Corner, Chiangmai City Wall, by the author on 19th March 2011

Ka Tam Corner is located in the southeastern part of ancient Chiang Mai City. It is regarded as marking “persistence” (Aut Sa Ha Meung), following the astrology of the city’s founding. If one proceeds southeast along Sri Don Chai Road, one will meet the Night Bazaar and also the Ping River.

In the past, Ka Tam Corner was a center of local fisheries. The villagers used a tool called “Ka Tam” to catch fishes here and it became the name of this corner.

In contrast, the present circumstance of Ka Tam Corner is poor because it is not situated near any big market, but only some commercial buildings along the corner. Certain businesses around here are tire shops, clinics, restaurants, car accessory shops, small hotels and a care center for the elderly near the ancient remains.



Figure 69 : Ka Tam Corner, Chiangmai City Wall, by the author on 19th March 2011

Regarding the current condition of Ka Tam Corner (and referring to observation and data collection at the end of 2011), there is evidence of subsidence, decayed bricks especially the inner fortress – and seasonal weeds covering some parts of the gate. The base of the corner is flooded due to lower land following the slope from the west to the east.



Figure 70 : Ka Tam Corner, Chiangmai City Wall, by the author on 19th March 2011

Regarding the external view of the Ka Tam Corner – Sri Don Chai Road to the historic site, there are the pump for fountains and pipe columns of the fountains across the way while the white fence of the care center for the elderly is the background. Nevertheless, there is colorful spray nearby which apparently contrasts with the ancient remains. From the

inside view, there are many advertising boards of housing developments, cable TV, weight loss products and commercial buildings which are higher than the gate.



Figure 71 : Ka Tam Corner, Chiangmai City Wall, by the author on 19th March 2011

The interpretation found at Ka Tam Corner comprises two plates as follows.

1. The metal plate identifying the name of this corner is screened in black. The plate is affixed to the fortress about 3-4 meters above the ground surface. Both the plate and the texts are antiquated. It is also difficult to read because the plate is attached at a high level and far away while the colors of plate and texts are very similar (see figure). This plate is shown at the front of the fortress and the corner's name is again written in Thai, ancient Lanna and English.



Figure 72 : Ka Tam Corner, Chiangmai City Wall, by the author on 19th March 2011

2. The white marble plate consists of important data, both in Thai and English, such as origin of its name and the history of Ka Tam Corner. The information is incised and then highlighted in gold; the size of the plate is 1m x 1.5m. Moreover, it is designed in the form of an ancient documentary and fixed on the ground in front of the corner, opposite the external moat to the east (see figure). As far as the author has observed, this plate's condition is incomplete as seen from the faded color of the corner's name and the unfinished painting. Besides, the English texts are quite small.

### Chiang Mai Gate



Figure 73 : Chiangmai Gate, Chiangmai City Wall, by the author on 19th March 2011

This gate is placed in the south of Chiang Mai City but near the east end of that side. There are two gates around this part, namely the Chiang Mai Gate and the Suan Prung Gate. Chiang Mai Gate is understood as representing “patronage” (Mon Tri) following the astrology of the city's founding. It connects southern routes such as Phra Pok Klao Road, on the same way to the Chang Puck Gate. Thus, it is convenient to go from the south through the Chiang Mai Gate and then continue to the north through the Chang Puck Gate by using this road. When heading from the city through Chiang Mai Gate, it will lead to Wua Lai Road, a famous handicraft source of silver products, and other southern districts like Hang Dong, San Pa Tong, Hod in Lamphun Province, and Lampang Province.

Regarding the previous environment of the Chiang Mai Gate, it was a congested market and way for commoners travelling from the south. Most of them bought many goods and local handicrafts here for trading at the Chiang Mai Gate Market.



Figure 74 : Chiangmai Gate, Chiangmai City Wall, by the author on 19th March 2011

However, the present circumstance of Chiang Mai Gate is that it is very crammed due to traffic jams. From the author's direct experience, having a house in the south, there are more department stores here than in other parts of the city, for instance Central Airport, Rimping Supermarket, Nim Shopping Center, Tesco Lotus, Big C, Macro, Gad Farang, etc.



Figure 75 : Chiangmai Gate, Chiangmai City Wall, by the author on 19th March 2011

It is worth noting that the condition of Chiang Mai Gate is effectively that of a ruin. From the figure, there are some cracks on the bricks of both columns of the gate, especially the eastern column which can be noticed from the lines of wood supporting and preventing the further collapse of bricks. In the eastern walls of this gate, there are some banyan trees growing on the wall (see figure), a termite invasion building its nest nearby the wall and electric wires along the wall. In terms of the overall visibility of the Chiang Mai Gate looking from the outer side, the first thing that is obvious above the old, cracked, and nearly tumbled-down wall supported by some pieces of wood is an orange advertising board of an alcohol brand which seems to be really opposed in every sense to this significant historic site. In addition, the gate is located near the important local market and public bus terminal; therefore, there are certain problems from bustling stores, noisy vehicles and crowded traffic. On the other hand, if looking from the inner side of the gate, the wall is being invaded by the street line used for commuting. This road is quite narrow and it may be a reason for the heavy traffic that seems to continue all day.



Figure 76 : Chiangmai Gate, Chiangmai City Wall, by the author on 19th March 2011

The interpretation of Chiang Mai Gate consists of two plates as described below.

1. The metal plate indicating the name “Chiang Mai Gate” is screened in black on orange background. This plate is affixed to the eastern fortress above head level. Both the plate and texts are antiquated and blurred. The color of the plate also looks like the color of

texts. Thus, it is hard to read the information (see figure). The plate is attached on the front side of the right-hand fortress, seen from the outer view. The texts show the name “Chiang Mai Gate” written in Thai, ancient Lanna (which only a few people can now read and understand) and English.



Figure 77 : Chiangmai Gate, Chiangmai City Wall, by the author on 19th March 2011

2. The white marble plate contains important data, both in Thai and English, such as the origin of the name and the history of the Chiang Mai Gate. The information is as elsewhere shallowly inscribed and highlighted in gold on a 1m x 1.5m board. The plate is designed, as elsewhere, like an ancient document and fixed at the western ground level in front of the gate, on the left if looking from the outer side (see figure). According to the fieldwork observation, the effect is incomplete because there are some cracks in the marble plate and the golden texts are obscured and have dropped off. Hence, it is hard to read and understand if observed from any distance.



Figure 78 : Chiangmai Gate, Chiangmai City Wall, by the author on 19th March 2011

3. Inscriptions indicate the auspicious time of the city's building. The texts are written in an ancient language which the author cannot read. Nevertheless, several aged people sitting nearby the gate gave further information that it needs to be looked at into a mirror to read these texts. The two inscriptions are situated in both sides of the arched entrance (Soom Joranam) and there are clues regarding what is being presented.

### Suan Prung Gate



Figure 79 : Suan Prung Gate, Chiangmai City Wall, by the author on 19th March 2011



Suan Prung Gate or San Pung is situated in the south (and near the western end of the southern wall) of Chiang Mai City. There are two gates around this part consisting of the Chiang Mai Gate, described above, and Suan Prung Gate. Suan Prung Gate is used to bring dead people to Hai Ya Cemetery which is not far away. It is the gate leading to the southern districts as well. In contrast, if heading from this gate to the town, it meets Sam Lan Road and the Phra Singha Temple, one of the most well-known temples in Chiang Mai. Then, it reaches Singharat Road and the northwestern suburb area. Moreover, when leaving this gate to Tippanet Road, it links to Wua Lai Road from Chiang Mai Gate to Chiang Mai-Hod Road. This way also leads to several southern towns such as Hang Dong District, San Pa Tong District, Hod District in Lamphun and Lampang Province. Additionally, there is a hospital near the west corner of this gate providing psychiatric services called Suan Prung Hospital.

Previously, the Suan Prung Gate was used when there were necessary events, particularly taking dead persons to the cemetery. Most of local people usually commuted through the next eastern gate or Chiang Mai Gate.



Figure 80 : Suan Prung Gate, Chiangmai City Wall, by the author on 19th March 2011

Today, Suan Prung Gate sometimes experiences traffic jams during festivals, for instance, the Flower Festival at Suan Buak Had Park – located near this gate. Besides, there is a turnaround leading to suburban zones, the airport, Central Airport Department Store (the present biggest shopping mall in Chiang Mai) and southern towns.



Figure 81 : Suan Prung Gate, Chiangmai City Wall, by the author on 19th March 2011

The condition of Suan Prung Gate is obviously less ruined than Chiang Mai Gate as shown in the figure below. Only a few cracks are found at the western bases of the gate's pillars. However, there are some termite nests and the growth of fungus and lichens stemming from the humidity.

The interpretation at Suan Prung Gate includes two plates as follows.



Figure 82 : Suan Prung Gate, Chiangmai City Wall, by the author on 19th March 2011

1. The metal plate indicating the gate's name is screened in black on an orange background. It is attached to the eastern fortress above head level. The plate and texts are quite old and the texts are also indistinct. Furthermore, the colors of both plate and texts are

similar and difficult to read (see figure). This plate is affixed to the front of right fortress, if viewing from the outside. The texts show the name “San Pung Gate” in Thai, ancient Lanna and English, as elsewhere. Nonetheless, most people often call it simply the “Suan Prung Gate” .



Figure 83 : Suan Prung Gate, Chiangmai City Wall, by the author on 19th March 2011

2. The white marble plate conveys significant information such as the origin of the name and the history of Suan Prung Gate, in both Thai and English. The data are inscribed and highlighted in gold on a 1m x 1.5m board. The plate looks like an ancient document and is fixed on the front ground in the east, around 10 meters from the wall (near the road) or on the right if looking from the outside (see figure). This plate’s condition is much better than that of other gates, despite a little cracking and unclear golden texts.



Figure 84 : Suan Prung Gate, Chiangmai City Wall, by the author on 19th March 2011

3. Inscriptions indicate the auspicious time of city's building. The texts are written in an ancient language and up site down. The two inscriptions are situated in both sides of arched entrance (Soom Joranam) and there are clues of offerings.

### **Ku Reung Corner**



Figure 85 : Ku Rueung Coner, Chiangmai City Wall, by the author on 19th March 2011

This place, which can be called Ku Heung or Ku Reung, is located in the southwest of Chiang Mai City. It is considered to represent the idea of “misfortune” (Kan La Ki Nee) following the astrology of the city's founding. The important temple at this corner is Ram

Peung Temple. From this corner, there are Mahidol Road and Boon Rueng Rit Road leading to Chiang Mai International Airport and Central Airport Department Store.

In the past, this area was used to detain political prisoners in the age of Phraya Mangrai, the founder of Chiang Mai City. Later, Suan Buak Had Park was established, opposite the hospital and Boon Rueng Rit Road.

Regarding the current environment of Ku Reung Corner, Suan Buak Had Park is still a public park for general people to relax. Additionally, a Flower Festival is held here in February every year. At the western, outside area of this corner, there are Star Dome Golf Club, a building of insurance company and a big restaurant. The traffic flow at this corner is rather variable.



Figure 86 : Ku Rueung Coner, Chiangmai City Wall, by the author on 19th March 2011

The condition of Goo Heung Corner is still good because it was renovated in 1996 as seen from the year inscribed on the new bricks. The fortress is built in a shape of a curve. Even though this site is higher than other corners, there are some problems with brick decay and waste left on the fortress.



Figure 87 : Ku Rueung Coner, Chiangmai City Wall, by the author on 19th March 2011

In terms of the overall visibility of the corner, when looking from Boon Rueng Rit Road, there is a large elephant sculpture which right in the middle on traffic island in front of the ancient remains. It is necessary to get closer to really see the corner. Similarly, there are still the pumps and pipe columns used for the fountain as well. When viewed from the inner side, there are advertising boards, the building of an insurance company, a line of nets of a golfing drive and buildings of Suan Prung Hospital.

The interpretation at Ku Reung Corner comprises three pates as below.



Figure 88 : Ku Rueung Coner, Chiangmai City Wall, by the author on 19th March 2011

1. The metal plate identifying the corner's name is screened in black. It is affixed to the fortress about 3-4 meters above ground level. The plate and texts are mostly ineffectual

due to their faded color. Due to the distance of the plate and faded color, it is very difficult to read (see figure). This plate is affixed in front of the fortress and the corner's name is written in Thai, ancient Lanna and English.



Figure 89 : Ku Rueung Coner, Chiangmai City Wall, by the author on 19th March 2011

2. The white marble plate contains important information such as the name's origin and history of Goo Heung Corner, both in Thai and English. These texts are, as elsewhere, inscribed in low relief and then highlighted in gold; its size is about 1m x 1.5m. This plate is, also as elsewhere on the walls, designed like an ancient document and installed on the ground in front of the western fortress or on the left if looking from the outside. Also, there are some cracks on the white marble plate while the golden characters are still readable.



Figure 90 : Ku Rueung Coner, Chiangmai City Wall, by the author on 19th March 2011

3. There is a concrete plate to communicate the meaning of the wall. It is attached in front of the fortress near the outer road. Moreover, this plate is affixed lower than waist level but there is no text due to incomplete building work.

### Suan Dok Gate



Figure 91 : Suan Dok Gate, Chiangmai City Wall, by the author on 19th March 2011

This gate is situated in the west of Chiang Mai City. It is regarded as signifying “retainer” (Borriwan Meung) following the astrology of the city’s founding. It also connects with the western route or Suthep Road. In the past, it was the way to Doi Suthep and Suan Dok Temple (Suan Dok Mai / Flower Garden), Maharaj Nakorn Chiang Mai Hospital (Suan Dok Hospital) and Chiang Mai University, the largest university in the upper northern region of Thailand). Additionally, Tha Pae Gate is opposite this gate which can lead to Intara Warorot Road behind the Phra Singha Temple.

Formerly, Suan Dok Gate was the way to the Royal Garden or governor’s flower garden. It was also an entrance for people coming from the west.

The present condition of Suan Dok Gate is that it is surrounded by traffic jams because it is located near the large hospital and key university.





Figure 92 : Suan Dok Gate, Chiangmai City Wall, by the author on 19th March 2011

The condition of this gate is one of decline. As seen in the figure, there are certain cracked bricks, particularly at the eastern pillar. Besides, the southwestern wall is being invaded by a growing banyan tree on the wall (see figure) and there are branches, waste and electric wires on the wall, too.



Figure 93 : Suan Dok Gate, Chiangmai City Wall, by the author on 19th March 2012

Affecting the overall visibility of Suan Dok Gate from outside the wall, there are conflicting advertising boards against the ancient remains, while commercial buildings and telephone signal poles hover above the historic site. Moreover, there are many vehicles and traffic jams because this gate is located near the important hospital and university.

The interpretation of Suan Dok Gate consists of two plates as follows.



Figure 94 : Suan Dok Gate, Chiangmai City Wall, by the author on 19th March 2011

1. The metal plate indicating the name “Suan Dok Gate” is screened in black on an orange background. This plate is affixed to the eastern fortress above the head level. Both the plate and texts are antiquated and blurred. The color of plate also looks like the color of the texts. Hence, it is hard to read the information (see figure). The plate is attached on the front side of the right fortress, looking from outside. The texts give the name “Suan Dok Gate” written in Thai, ancient Lanna (though only few people can read and understand it) and English.

2. The white marble plate contains essential data, both in Thai and English, such as the origin of the name and the history of the Suan Dok Gate. The information is, as elsewhere, gilded on a 1m x 1.5m board. The plate is designed like an ancient document and fixed on the ground in front of the gate or on the right if viewing from the outside (see figure). Regarding to the present observations, the condition is incomplete because there are some cracks in the marble plate and the golden texts are obscured and have dropped off. Thus, it is hard to read and understand the text if viewing from an unsuitable distance.



Figure 95 : Suan Dok Gate, Chiangmai City Wall, by the author on 19th March 2011

3. Inscriptions indicate the auspicious time of the city's building. The texts are written in an ancient language which the author cannot read. Nevertheless, several aged people sitting nearby the gate give further information that it needs to look into a mirror to read these texts. The two inscriptions are situated on both sides of the arched entrance (Soom Joranam) and there are clues of offerings.

### **Hua Rin Corner**



Figure 96 : Hua Lin Corner, Chiangmai City Wall, by the author on 19th March 201

This corner is called Hua Lin or Hua Rin Corner. It is situated in the northwest of Chiang Mai City. It is considered as indicating “age” following the astrology of the city’s founding. From this area, it connects to the south on Huay Kaew Road leading to Central Kad Suan Kaew, Chiang Mai-Lampang Road, Chiang Mai University and Phrathat Doi Suthep Temple.

Previously, this corner was used to store the water flowing from different brooks to the old city through wooden water channels (Rang Rin). The water flowed to this corner as the first point, so it was the origin of the name Hua Rin Corner.



Figure 97 : Hua Lin Corner, Chiangmai City Wall, by the author on 19th March 2011

This corner is presently surrounded by shady toddy palm and crowded traffic because it is situated near Chiang Mai-Ram Hospital, a large private hospital in the west, and Central Kad Suan Kaew. Besides, to the north of this corner, there are several IT Malls distributing computer products which cause traffic jams.



Figure 98 : Hua Lin Corner, Chiangmai City Wall, by the author on 19th March 2011

The condition of Hua Rin Corner is quite good because it was renovated in 1996 as is seen from the year inscribed on the used bricks. The fortress is built in the shape of a curve. Although this area is higher than other corners and accordingly the wall is not flooded as at the Ka Tam Corner and Sri Poom Corner, there are some problems related to the brick collapse and waste as found on the fortress.



Figure 99 : Hua Lin Corner, Chiangmai City Wall, by the author on 19th March 2011

When viewed from Hauy Kaew Road, the overall visibility of Hua Rin Corner contains a big pot or welcome water container statue in front of the ancient remains. It is necessary to get closer to obviously see the corner. Nonetheless, there are contrasting roman buildings of the private accommodation nearby the walls against the beautiful scene of the

historic site. These buildings are situated behind the fortress. Also, there are pump and stems used for the fountain in front of the corner like other places. On the other hand, when viewed from inside, there are advertising boards, buildings of a private hospital and brown buildings of Central Kad Suan Kaew which are similar to the historic site. Therefore, the author would like to truly praise the concept of these buildings.

The interpretation of Hua Rin Corner includes two plates as below.



Figure 100 : Hua Lin Corner, Chiangmai City Wall, by the author on 19th March 2011

1. The metal plate identifying the corner's name is screened in black. It is affixed to the fortress about 3-4 meters above the ground surface. The plate and texts are old. Due to the distance of the plate from the viewer and the similar colors, it is very hard to read (see figure). This plate is attached in front of the fortress and the corner's name is written in Thai, ancient Lanna and English.

2. The white marble plate contains important information such as the name's origin and the history of Goo Heung Corner, both in Thai and English. These texts are lightly carved and highlighted in gold and its size is about 1m x 1.5m. This plate is designed like an ancient document and installed on the floor in front of the western fortress or on the left if looking from the outside (see figure). According to the author's observation, the plate's condition is incomplete as seen from the unfinished painting (see figure) while the gilded characters are still readable.

## **Inspection**

For the purpose of this thesis, a rudimentary physical inspection was undertaken that examined the current apparent state of the city walls in all of their significant remaining segments. This survey, accompanied by an examination of satellite photographs that sought to make large-scale measurements of the features examined more closely on the ground, was conducted very briefly in order to obtain a starting point from which to accurately describe the current state of the walls. The satellite photo analysis, done using Google Earth, yielded particularly useful results. The way that the survey using Google Earth was accomplished was that the ruler tool within the program itself was used to measure several elements of known size (such as shop fronts, which generally are built to conform either with enforced or de-facto standard sizes) in various parts of the overlapping photographs, and these measurements were then compared with the stated measurement by the ruler tool in order to obtain a rudimentary mathematical understanding of the actual size of the structures in the full composited image. While not as accurate or robust as traditional surveying methods, this survey was suitable for the purpose of measuring and examining the physical features and structure of the remaining extant surface features of the Chiang Mai city walls, and taking into account that all survey efforts for this thesis have been undertaken as a precursor to a full survey using both traditional methods and the geophysical methods discussed elsewhere.

The mathematical method used in this analysis was derived from a computer vision technique called a Hough transform where a computer program analyzing a photographic image seeks to match 'control' patterns with features of the image which are at oblique angles to the camera. An example of an application of this technique is to identify and account for the 'pinch' effect of perspective, and it was this specific detail that was used to quantify the somewhat inaccurate measurements given by the default 'ruler' tool in Google Earth; two places with identical features would be measured, and the differences in the size of those features were noted and used to calculate a more accurate size of a given feature.

## **Apparent state and Current Problems**

The apparent state of the walls in all cases was one of abandonment, the impression being one of decrepitude but of still-solid building built at a slightly smaller scale than most modern buildings. The steps on the stairs, for example, while for the most part very regular,

were between 20 and 25 centimeters high and deep. A closer examination of the walls revealed a number of details hinting at modern reconstruction, such as modern concrete used to patch holes and hold platform areas together, and a guttering system which appeared to have been installed using the same technology as that the storm drains on the streets below the walls, which can be briefly described as a square hole cut down for the water to flow into, with a square metal frame filled in with concrete as a plug with a small number of regularly spaced large-diameter holes, usually in a gully across the top surface to attract most of the water. The whole assemblage was in this case approximately 40 by 60 centimeters and could be lifted out of the section of wall by means of two pieces of thick wire protruding from the concrete to form handles. This is one example of a category of 'creative reinterpretation' which has been applied to all of the sites in some form or other, although the inevitability of flooding if some drainage system were not in place should be acknowledged. Another example of this kind of 'reconstruction' technique is the layering of modern concrete atop some sections of the wall with structural problems, such as above a section of wall with shifted and sunken foundations along the northern edge of the northeastern corner of the wall (Jaeng Sri Phum).

The issue of damage to the foundations and the physical structure of the walls by traffic (both by vibration and by the compression of and movement of soil surrounding the foundations caused by the passage of vehicles, particularly heavy vehicles) is perhaps the most serious short or mid-term problem, because these problems are already beginning to have a noticeable effect on some sections of the wall and, if left unchecked, these will have the greatest damaging effect on the walls.

Finally, the issue of water damage to the walls is a particularly serious issue, for the simple reason that Thailand is a humid country with a profoundly distinct rainy season which spans at least half of the year - typically from April until the end of October or November although, perhaps as a result of global warming, these dates are no longer as distinct as they once were. This constant humidity and intermittent wetness is easily recognized by many people as detrimental to the walls.



## **Interpretation Efforts**

The interpretation efforts discovered in the process of researching for this thesis showed that the efforts at interpreting information for visitors and tourists, in regards to many historical sites but especially the Chiang Mai city walls, is sorely lacking. During the inspections conducted to examine the sites, there were only two informative signs discovered. Signs proclaiming the history of the sites, however, were usually prominently featured and mounted in ways which damaged the walls whose values they proclaimed. Information from other avenues is similarly lacking; in the English language, virtually the only information that can be found on the walls is either from sites promoting tourism in Chiang Mai in general, from Wikipedia, or else from blurbs in the thesis of international university students studying in Thailand - although the English language selection of these discovered did not include any that made any substantial or useful references to the walls.

## **Social Surveys**

For the purposes of this thesis, three surveys have been conducted, as well as a series of formal and informal interviews. While the evidence that can be gained from these interviews and surveys is purely anecdotal, a statistical analysis of the outcomes, their frequency, and their relation to the truth of the issue to which they pertain, can provide some interesting clues. A number of foreigners interviewed, for example, had no idea that Tha-Phae by far the most-visited of the city gates was a reconstruction, much less that it was built using modern methods and materials. A large number of people were also uninterested completely in the walls, despite either being in their vicinity (in person) or being in a position to find out about them (online), and these responses were also duly counted and noted, as they provide a useful counterweight to the encouraging results of more interested interviewees, and help ground the whole issue firmly in the reality that there is much work that has to be done, both to preserve or restore the walls, to promote the preserved and restored walls and to encourage the spread of information about them.

A brief online survey was conducted, with the assistance of international members of the public living in the city of Chiang Mai, to determine what was possible for potential visitors to the city to find out about the walls (specifically) before they arrived. Participants were an online community of professional programmers and web developers - people well

versed in finding small pieces of strange information, as a critical part of their professional lives. Users were asked to find information about the walls in Chiang Mai, specifically information about their history and historical significance, any conservation efforts related to them, any problems afflicting them and, last, to find any official (state-sponsored) information on the walls in English or any other relevant language that they might use (all participants who responded searched exclusively in English). As a secondary part of the survey, participants were asked what they thought could or should be done to further protect the walls or preserve them, There were no responses to this section of the survey.

### **Broad Survey Results**

During the random sampling conducted for this research, a number of people were asked what could be done to improve the interpretation of the history of the city walls. While the responses were not varied and most people did not seem to have any meaningful ideas on the subject, some did raise the possibility of tours of the walls around the city, and possibly the construction of a visitor center.

A visitor center which specifically focuses on the walls would be a welcome addition in the eyes of many tourists and local residents. The construction of a visitor center would benefit local businesses, for example local tour operators could offer tours of the wall using information obtained from such a visitor center, while other possibilities - such as having historical displays of period artifacts in a visitor center could help to enlighten visitors as to the history of the walls and of the cultural and social implications of the walls.

One of the most damning findings of this admittedly brief survey has been that there is virtually no readily accessible information about the walls available on the internet. As one participant in the study put it,

*"...one of the things you're going to need to take into account is that none of us is particularly interested in Chiang Mai or its walls. The reason I mention that is that the user's level of interest will determine how many of the links a Google search returns will be clicked on... Our level of interest relates directly to... asking "what can you find" which means it's entirely artificial."*

(Craig328, 2011, [www.DreamInCode.net](http://www.DreamInCode.net), in response to a rudimentary survey to determine what information was readily available to residents of western nations in regards to the walls)

This statement shows just one of the barriers between normal people and finding information about the Chiang Mai city walls. The users, it should be noted, were asked to look specifically for information on the walls using any methods they might normally use to look for information. As far as tourism is concerned the results are not encouraging, for two reasons. First, in every case - including the background research conducted for the writing of this thesis - when information was specifically sought about the walls in Chiang Mai, there was a distinct lack of information and, of the information that was found, much of it was cursory, incomplete, and even factually wrong. Second, this finding indicates the unlikelihood of a potential visitor finding anything about the walls by accident, which should be considered the primary mechanism by which a visitor would learn about the existence of the city walls for the first time. This lack of reference means that not only are the walls an untapped resource for tourism, it also means they will stay that way until people advertising other features of Chiang Mai begin to mention the walls.

## **Conclusion**

There are a number of lessons that can be derived from the input of the various surveys conducted for this thesis. We can see clearly that the walls are in need of protection and that there needs to be a better system for distributing information about the walls to people who are or who might be interested in them. This is a critical point in the protection of the walls, because it is more likely that concerned citizens and possibly small businesses will find themselves on the front lines defending the future integrity of the wall against other vested interests in the future, and some rallying point for these people should be arranged, even if this is simply a Facebook fan page or something similar. Another lesson is that the city, for the best outcome in regards to the walls, should re-examine the development of new businesses and infrastructure in order to create a more harmonious city environment.

Perhaps the most encouraging detail we can learn from the interviews is that the people of the city do genuinely care about the condition of the walls, and this is important because we have no chance of succeeding if we attempt to inflict a cultural heritage upon a

disinterested public against their will and without their support. This lesson has been demonstrated time and again in various parts of the world, and the fact that the support exists among the public for the preservation of the walls, and the fact that there is interest in the walls by the public, means that any effort to preserve or reconstruct any section of walls is that much more likely to be a successful effort.



## Chapter 6

### Discussion and Conclusion

#### Discussion

There are two possibilities for the walls of Chiang Mai. The first is that the walls will eventually become nothing more than a historic nuisance, demolished to make way for new development. The second is that the remaining sites will be preserved and protected by the concerted efforts of concerned citizens, government officials, and experts in the field of historical conservation. In the following paragraphs, we will look briefly at these two possibilities of renewal or decay.

The first possibility – and the inevitable one, if no action is taken – is that the walls of the city will continue to decay, in some cases collapsing into the moat or inwards onto the roads, and in others simply becoming ever shrinking mounds of dirt covered with vegetation. This has already happened to the oldest remaining sections of the walls, leaving behind fragments of brick held together more by tree roots than anything else. Some sections, particularly those that have been faithfully recreated, will continue to serve as landmarks for many years to come, even if their surroundings continue to change. However, the danger here is that the interpretation what these landmarks mean will become more and more difficult, and their purpose will become more and more vague as time progresses and, at some point, they will be demolished by people who no longer understand what it is that they will have lost.

The other possibility is that the walls will be conserved and restored, and greater effort will be given to their preservation and their presentation as historical sites. Despite several careless reconstructions and an unacceptable amount of destruction in the name of ‘beautifying’ the city of Chiang Mai, a valid case could be made for the adoption of the city walls by the UNESCO World Heritage Foundation as a World Heritage site; if the walls are reconstructed upon the authentic remains, it is possible to interpret the walls in a meaningful way.

## **Recommended Conservation Plan for Chiangmai**

In order to recommend anything, we first must examine what our greatest responsibility is and how we can best accomplish the goals that come from these responsibilities. Second, we must determine a way that this can be made economically possible with as little external help as possible, beyond any initial investment. Finally, we must formulate a plan to carry out the tasks that we have determined are necessary, while measuring our progress against the benchmark of our responsibilities.

### **Responsibilities**

The criterion that we must take into account, in regards to the responsibility for preserving the wall, is that the most ancient sections of the wall be preserved in as much of their original state as possible. The most ancient unrestored sections are by definition the most authentic sections, and thus are of the greatest historic value. Second, we must preserve the sections of the wall which will continue to be symbolically, spiritually, or culturally significant, first for the people of Chiang Mai, and second for the rest of the world.

The task we must take upon ourselves is asking how the walls may physically be preserved for future generations. This requires an understanding of the current physical state of the walls, and the first step towards accomplishing this is that the walls must be surveyed, the debris and vegetation surrounding them cleared (including the trees, despite their own cultural value, since they are destroying a much more scarce cultural heritage).

As it is beyond the scope of this project to discuss archaeological methods used in excavating architectural sites, they will be dealt with only superficially, as a way to introduce the relevant technologies and show what is possible by their use. There have been technological advances in recent years which would allow for much more efficient data-gathering on the physical structure of the walls, both above and below the surface, than the excavation of the city walls would allow. Furthermore, implementation is usually inexpensive, easily taught, allows for faster and more accurate cataloguing of items on more data points than would normally be used, and as a result of these attributes these technologies allow for more accurate reconstructions, more comprehensive planning, and more complete recording of the state of any site.

The first of the technologies that has become very useful for these purposes, and which has been used extensively throughout the world on various types of archaeological sites, is in the field of geophysics. Geophysical surveys utilize methods such as ground-penetrating radar (GPR), Electric Resistance Measurement (ERM), magnetic surveying, and metal detection. They have become very widespread in recent years because they are able to detect and determine the position of artifacts and archaeological debris under the surface which could not otherwise be detected without investments of time, resources, and effort to excavate the soil to find the artifacts underneath without the danger to those artifacts that is inherent in any blind excavation.

Geophysical surveying methods would be especially useful for surveying the walls before clearing the debris around them, because they would allow an accurate record of the original foundations of the walls, help historians and excavators locate the most historically interesting places to excavate, and using the data would be allow historians to record the state of the walls as they are before they are excavated and potentially damaged. This could also reveal historically interesting artifacts, which would shed further light on the history of the walls.

The second technology that would be advocated for use is QR barcoding, mentioned previously. QR barcoding is a relatively recent innovation which was originally intended for the retail world to be able to advertise products; the concept is that an advertisement incorporates a barcode somewhere in the image, which anybody can photograph (for example, with a cell phone camera or tablet computer), and then use computer software to look up additional information about the advertisement that the barcode refers to. The reason that QR barcoding is a useful technological innovation worth mentioning in the context of this paper is that by tagging the walls with QR barcodes, interested people could take a picture with their phone and be linked to relevant information on the walls, or be linked to it later. Also, debris, or artifacts with QR barcodes would allow rapid photographic recording of (for example, during an excavation and reconstruction effort) the exact position of each brick in relation to every other brick, while at the same time labeling the pieces being removed, which would allow the entire wall to be excavated and then later reconstructed exactly as it was before it had been excavated. This type of excavation has already been accomplished in the past without the benefit of this technology, but by using a combination of

photographic surveying and this method of labeling, it is very possible to completely de-construct the portion of the wall built with loose or poorly mortared bricks, thus allowing an extensive and highly detailed survey of every brick and stone and very possibly the recovery of valuable historical artifacts.

The third and final technology that will be advocated here is a relatively new technology which still has not been fully developed, called stereoscopic imaging. Stereoscopic imaging traditionally refers to a parlor trick whereby a camera takes a picture from two points of view and the two resulting images are then looked at by the viewer with their eyes crossed, so that the impression is of a three-dimensional image. While this is useful for illustrating what the wall may have been like, this is *not* what is referred to here. The newest generations of stereoscopic imaging are allowing computer programs to take multiple points of view of a structure - for example, snapshots by different tourists - and accurately create three-dimensional models of those buildings very quickly. There are increasing numbers of these programs becoming available, both for the professional marketplace and also for free via the open-source software development community, and in every case the level of what can be accomplished is increasing rapidly. As of November, 2011, there is already a universal system for interpreting the 3-Dimensional data from photographs and transferring that data into useful design programs, such as the CAD software available from the Autodesk company- the industry standard for engineering and architectural design.

This kind of software means that not only can a site's apparent state at any time be recorded with an amazing degree of accuracy, by anybody, using photos that can be taken with minimal time investment. it also means that any archaeological excavation at the site can also be recorded in 3-d. It is this ability, in conjunction with the above suggestion of QR barcoding, which would allow a fully comprehensive, three dimensional model of every stone in the site to be recorded digitally, so that, no matter what disaster may befall the site, it can be comprehensively and faithfully rebuilt to its original condition.



## Conservation

The current state of the city walls in Chiang Mai is very unfortunate and serves to demonstrate what will happen to other monuments if care is not taken in their conservation by the public officials charged with such tasks and if the public is not made aware of the historic and heritage value of such monuments. Despite this, there is a considerable amount that can be done.

Many sections of the wall which remain, and the corners of the wall in general, are in a condition very closely approximating the last genuine construction of the wall as a fortification, and thus have some value in this respect. The Fine Arts Department has in some ways done an excellent job in faithfully restoring the walls. What is unfortunate about this is that the foundations of the walls have been allowed to continue to decay, with fully grown trees in many cases growing up through the cracks in the remaining original brickwork, or otherwise growing in locations which cause considerable difficulty for the potential of any future excavation. In many cases, the trees have even been ordained and have spirit houses in front, further discombobulating this issue with a religious sense that, perhaps, could best be used elsewhere. With an eye to the future, we must realize that there is a growing trend of secularism in all countries, and while it might be preferable to preserve a cultural religious practice or belief, it also seems preferable to not preserve those practices or beliefs which will cause or in some way justify the resentment of future generations by depriving them of the opportunity to experience their historical heritage.

Along the northwest corner of the old city walls is the largest continuous stretch of wall. It is the suggestion of this project that the road be re-directed over a short stretch to allow for a buffer area between traffic and the wall. This would allow for many benefits, such as visitor parking near the wall with the possibility of actually crossing the street to reach the historic site itself, as well as preserving the wall and even enabling the possibility of allowing new archaeological digs to occur in the area, perhaps revealing more about the history of the city of Chiang Mai than is currently known.

## Reconstruction

It is the recommendation here that a full analysis of the city walls of Chiang Mai be undertaken in order to examine the most suitable locations to undertake a reconstruction of some critical section of the wall, not necessarily a section of a corner or gate. Using some of the methods described above as a technological basis for all such efforts, the extent and a suggested methodology for accomplishing the reconstruction will be detailed in the following paragraphs. There are two possibilities for the reconstruction which will be detailed, both following the international models described above, with the hope of achieving the same kind of effect.

The first is the possibility of creating a historical park at and surrounding the location of some segments of the wall which are historically valuable and which would benefit from this type of attention. This possibility will broadly be based around the model of the Theodosian walls in modern-day Istanbul, will represent a significant investment by the city and the Thai government, and will have a substantial pay-off as it will represent a modern tourist attraction of the kind that Thailand stands to benefit the most from.

The second possibility that will be discussed is that of creating a 'buffer zone' to surround the most historically valuable sections of the wall in such a way as to preserve them and allow the local people to finally gain knowledge of and appreciate their own history while allowing the same opportunity for foreigners and visitors to be educated in the history of the city. This effort will be broadly based on the model of the wall of Londinium, and will feature many of the same methods in order to accomplish this, although some of these will necessarily have to be adapted in order for it to be possible to make a comprehensive preservation of the valuable segments of wall.

Both of these suggestions hinge on the idea that the wall can be recognized as the historically valuable monument that it is by the people in charge of protecting such monuments. From history, we can see that this type of protection is best accomplished with the broad support of the local people when spearheaded with a team of experts who know what must be done and how to accomplish it, and have the passion and fortitude to withstand hardships for the sake of their cause.

## A Historical Park

The first, and more worthwhile of the two big options for preserving at least some segments of the wall - to an international standard, in such a way that they are preserved for future generations - is to create a historical park in the available space surrounding the most valuable sections of the wall. This would have both some advantages and some adverse effects, which we will examine here more deeply.

### The Advantages

First, a historical park will define the boundaries of the wall which are off-limits to developers who seek to expand the city at the expense of the historical value of a site or the cultural value of the city. These people will be deterred from ‘developing’ the land in ways which are destructive to the valuable archaeology beneath the surface. In addition to this, people in the city will be made aware of the history of the city, even by the mere presence of a historical park. Without ever having to put up a sign, the existence of a well-marked historical park will make people remember that the city is very old— and is very historically valuable. This type of awareness has been called ‘Consciousness-raising’ by Richard Dawkins (*The God Delusion*, Chapter 4 *et al*, 2006), and such new consciousness of familiar things can inspire new ideas about those things. As we have mentioned, public support is fundamental to the successful conservation of historic sites, and such support can be raised only when it can be directed to some end. In this we can see that even the designation of an area as a historical park will bring those places to the minds of the people, making any detrimental actions towards those places less acceptable.

By creating a historical park, the city of Chiang Mai will be creating the possibility of ongoing archaeological digs which can be put on display in a permanent way as a demonstration of the valuable history of the Thai nations and, more importantly, the site can provide real hands-on experience to the students from nearby universities who are studying the relevant disciplines, which could in turn lower the cost of the work while increasing the effectiveness of the workforce working at this site.

Last, we must not forget to mention the aspect of tourism. With a protected archaeological site in a historical park - especially one in the heart of a major city with a large well-established tourism industry - it will be easy for tourists and visitors to bear witness to the history of the site and see first-hand the relics and locations of some of the most integral events to the history and shaping of the modern city of Chiang Mai.

### **Disadvantages**

There are several disadvantages to the creation of a historical park. Lots will have to be re-sized and some buildings demolished in order to make room for the new land arrangement. The road along the inside or outside of the city wall will have to be re-routed, and existing facilities will have to be removed and installed along the new location of the road, all at great expense.

Also, it should be mentioned that the state-enforced demolition of buildings, even if they are decrepit and abandoned, may cause some public outcry against the historical park, and that such an outcry could have a detrimental effect on the local interpretation of the park by the public. Such state-enforced demolition would also inevitably lead to legally-enforceable claims for compensation from affected owners.

### **The Park Itself**

To create a historical park, perhaps the most critical aspect of preparation will be the location of the most important archaeological dig sites. For the purposes of illustration, Hua Lin Corner (on the North-West side of the moat) will be used to demonstrate the processes necessary to create a historical park and as a basis for discussion of the benefits and points of difficulty in creating that historical park.

The first step in creating a successful historical park is to decide the exact size and shape of the area in which to create the park and then purchase the land of that area. Once this has been accomplished, it is important to begin surveying the area of the park using as many non-invasive methods as possible. The geophysical techniques covered above (such as electrical resistance mapping, subsurface radar, and subsurface sonar) are especially useful in

this phase as well, both in the clearing of facilities and modern construction and in the beginnings of the survey. The road must be re-directed on a path circumnavigating the site, and parking and basic facilities must be made available in such a way as to reasonably accommodate visitors and not damage any area of historical or cultural value.

### **A Protected Zone**

The second recommendation that can be made is that a protected area be established around a historically significant gate or corner to preserve it in its present state. A possible model for this idea is the London wall described above; despite being in a very dense urban center, the wall has been retained and preserved in good repair by the city of London. During the research for this paper no mention was discovered of chemical treatments to preserve the wall in London, but the higher temperatures and relative humidity make it an imperative for any historical site along the city walls in Chiang Mai; this potential difference is the only one which will be suggested. In all other respects the suggestion is identical, at least in regards to function.

### **Recommended interpretation plan for the Chiangmai City Walls**

There is an abysmal lack of information available on the origins, history and modern state of the walls, and this lack of information needs to be addressed in an organized fashion by people with the historical knowledge and the standing to do so. In many, if not all of the international cities mentioned above, there is a variety of literature available in a wide variety of languages which can serve to illustrate, educate, inform, and correct fallacious notions. The London wall, for example, has a path running along major sections of it with signs that describe particular points in the history of the wall and of the city as a whole. There are entire segments which have had books, articles, and booklets written about them - not for academics, but for the layman - which are both widely available and usefully informative.

The Theodosian wall also has a great deal of literature describing its history, the major events that shaped the wall and that led to the wall shaping the city, and has some very well-thought-out tourist areas specifically for the remains of the wall on the eastern edge of

the city. Since Istanbul has had such a long history and changed hands so many times, it is a topic covered in a variety of historical inquiries, such as the history of classical Greece, Rome, the history of Christianity, the history of Islam, the history of the Enlightenment and as a valuable center on the trade route to Asia. Chiang Mai, similarly, was an important religious and trading center though never on the same scale. While this does mean that there is some record of Chiang Mai in the records of the surrounding countries, it also means that these records are scarcer and less complete than the records of Istanbul.

The city of Carcassonne is an interesting case study because so much of the interpretive information available is only available in a language which is unfamiliar to the majority of visitors or which is not spoken fluently by them. However, the city again manages to out-do Chiang Mai by having museums specifically devoted to various aspects of the history of the city, while Chiang Mai - despite having museums - does not have anything like an acceptable amount of information on its walls in an accepted trade language, such as English or Chinese.

Because of the difficulty of translating directly between Thai and many other languages, it is worth investigating new methods of translation which utilize existing resources within the Kingdom of Thailand to accomplish, with greater eloquence, the fullest possible expression of concise ideas in both languages. In many cases, it may be advisable to have teams of translators who are fluent both in the original language and target languages, rather than sole linguists who are natively fluent only in one language or the other, as the primary means of accomplishing translations. This method was utilized in the preparation of this thesis, as many of the details of both Thai and English are vague to the point of being almost untranslatable into the other language, and must necessarily be referenced from the context of the original source of any material when a translation is made.

Among the sites in Thailand, there are also good examples from which to learn. The city of Ayutthaya, while not relevant in the context of examining how complete or partially complete city walls can or should be preserved, still provides an excellent example of how to regulate, value, and protect an important historical city. It is also an example of what can be done to assist tourism to a location, as there are, for example, bike paths between the many UNESCO World Heritage sites which have been mapped out in the popular software program

Google Earth. This is also true of Lopburi and to a lesser extent of the other major historical sites within Thailand, but is an example of something which has not been fully utilized in Chiang Mai - at least not to the benefit of tourists and visitors to the country examining the walls. In all of the examples cited above, the Fine Arts Department has at least made cursory inspections of the sites to be preserved and, where it has been feasible, it has taken the necessary steps to preserve sites in a way which seems peculiar to Thailand. In all or nearly all cases, the Fine Arts Department makes an effort to preserve a site in such a way that it still has the meaning that the site was originally created to have - for example, restoring an ancient temple so that it can be used by modern people in the area for its original purpose.

To summarize, much of the relevant information is available and some of it is relatively well-known to many people; however, there is no ready mechanism for transmitting that information in a meaningful way at present in regards to the majority of the city wall (with a lone exception on the northeast corner, where an archaeological dig has apparently been abandoned and filled with debris and litter, next to a single sign which describes the history of the corner). There needs to be an effort to distribute the available information and engage the public. The internet is a potent vehicle for the transmission of this information, but so are more conventional means, including the most basic things such as signs describing the history of a location for all who care to read them. whichever is decided as being the most desirable method of making this information known, it must be done immediately or the city walls are in danger of fading from the city map only a short while after fading from its citizens' memories.

### **Recommendations for future study**

There are several recommendations for future study - the first is to make a survey of structures and material preservative techniques which can be used to preserve the constitution of the materials which make up the city walls, using the available archaeological methods to fully document the full physical state of the various important historical sites that relate to the wall - both as parts of the wall itself, the sites in the immediate vicinity - such as some of the temples and waterways which have historically fed the moat or provided reservoirs, as well as external sections of the system of city walls that still stand - so that the wall can be

preserved as knowledge even if the physical wall itself cannot be protected from the passage of time or the encroachments of the city's development.

Another lesson best remembered is that any culture which is beyond the experience of, or which is too completely alien to, a person's experiences will not be considered first or most favorably. It is the familiar that we think of first, and it is the expected that we seek to experience first. To this end, it can again be suggested that the relevant authorities of Thailand and the capable persons within the kingdom make an effort to expose the rest of the world to Thai culture and history through the many diverse means which are available and that, beyond this, an effort is made to decrease the difficulty in discovering and publicizing knowledge about Thai history and culture, perhaps by taking such measures as creating 'junior' press credentials for young and aspiring film-makers to obtain journalism visas with a reduced difficulty.

### **Successful monetization of heritage and cultural sites**

If there is one lesson which is consistently learned about historical sites in regards to their monetization, it should be that *history is not enough*. While there are many people, especially among the intended audience of this thesis, who may feel obliged to disagree, it should be remembered by all before the instinct to correct this notion becomes too pressing that there are people in the world who simply do not know or care to discover the nature of the history of any particular place, but who will, once informed, become fascinated and seek to discover more.

Given the nature of human society at present, it is very probable that if, for example, a documentary about the city walls were displayed on a popular television or cable channel, many people would both enjoy the exposure to something new from the world of the past, and more importantly, they would remember that exposure in the future, for example, when they were in a position to decide where to go on holiday. The city of Carcassonne is an excellent example in this way; it combines an interest in history and with previous (sometimes deceased) cultures with a thriving art culture, and easy access for wine lovers to the many well-known local vineyards, thus greatly increasing its appeal.



## Conclusion

Throughout the course of this research, many historic sites and especially significant defensive walls have been examined and lessons have been gleaned from both the history surrounding them and the efforts that have been made to preserve them. In the following paragraphs in this chapter, the discussion will be of what has been learned, especially (but not only) about the Chiang Mai walls. We will make some comparisons and explain the basis for those comparisons in order to illustrate this, as well as extrapolate from those comparisons and the current and predicted future state of some sites to determine the future potential states of the Chiang Mai walls. Each of the lessons learned can be enumerated into the following categories: examples of an ultimate ideal, examples of how to make the best of a difficult situation, and explicit examples of what not to do.

The irony here should not be lost upon readers most familiar with conservation or restoration efforts in the most affluent of countries, which stand to benefit economically from restorations even more than a possibly more historically valuable restoration or conservation in a less affluent nation might, even though the relative increase in value in a poorer nation by the development of conservation effort to protect a historic site might well be many times greater than the increase in value in a more affluent nation. This means, of course, that especially in some of the cases in Thailand (although these types of cases are by no means restricted to any nation), there are explicit examples of what not to do, and of how not to conserve or restore a site or monument. Similarly, the interpretation of the information for guests and historians alike in these cases is normally hindered by substantial language barriers which must be worked through in order to even begin to piece together a basic understanding of a site's true significance and cultural relevance. As a result, in many of the cases examined within the Kingdom of Thailand in this research there is only a negligible attempt at interpreting the data for visitors.

In the research for this thesis, a variety of historic sites have been examined in the context of a variety of disciplines. The walls of Chiang Mai, in comparison, have slowly but surely yielded some of their secrets. First, the walls have been revealed for their surprising level of sophistication; it may be the attitude, especially among those from the engineering or architectural disciplines, to sneer at the somewhat low walls, with no arches (meaning that

battlements could not continue over gates - a serious strategic disadvantage), but an initial survey of the techniques soon gave rise to an understanding of a series of building techniques which not only allowed for very fast construction, but allowed for the city to take advantage of its environment in some critical ways, such as by leveraging the nearby river to create a small area inside and outside the city walls where fish could be caught and fresh water obtained. These two advances by themselves would have been impressive enough if they had been accomplished on a small scale, but they were accomplished first on a relatively large scale and then successively at larger and larger scales, as the city walls were extended and rebuilt several times.

Another surprise learned by studying the walls was of the multicultural nature of the society within the city of Chiang Mai at nearly every period in its history. The city has housed people of every nation within and directly around its walls, and this is something which would not be at all apparent to any person familiar with the Thai people, because - while they are anything but xenophobic - they are very steadfast in their identification as ethnically Thai and, despite an inclusive and welcoming culture, many Thai people make a clear distinction between “Khon Thai” (Thai people) and “Khon nawk” (outsiders), even between different groups of the Tai ethnicity, such as the Shan group in eastern Burma. It goes against any predictions that a person might be able to make, based on a modern experience of the Thai peoples, to think that the Shan (as only one example among many) might have been welcomed as insiders, even within the walls of the city - the space reserved for the social elite.

### **Conservation**

The cause of damage to the walls being examined was in every case either human or environmental, with the worst cases a combination of these. The Chinese wall, as an external example, is a victim of soil erosion - a natural process - which has been accelerated by illegal mining activity. The Theodosian wall was badly pitted and its stones stained in one section by the large tannery built adjacent to it; nearly all of the monuments have become at least partially buried as a result of the passage of time.

What was surprising to learn, however, was the ways these factors have been dealt with. In the case of both reconstructionist conservation (an ideal embodied by Viollet Le Duc) and preservationist conservation (as embodied by John Ruskin), there have been areas of overlap both sides have had to cede to the other so that a compromise could be met. This can be seen clearly in the Chiang Mai city walls, where individual bricks that wear down along the genuine sections are occasionally replaced by materials more modern than the surrounding bricks, but there is never any effort beyond this to rebuild, in whole or in part, the portions of the wall where this happens.

### **Interpretation**

The lesson in regards to interpreting the information about the sites examined has been a record of different ways of communicating unfamiliar concepts to visitors about things that they don't understand so that they can begin to understand and appreciate both the history and the perspective the residents would have had on the world during it. To this end we have seen examples of booklets, sign nodes, and even discussed new methods of interpreting data for visitors - such as virtual tourism and web-guided tours - but in each case, the question is how to transmit the data.

There is a saying which goes to the effect that, "All stories appeal to us not because they are familiar, but because they are unfamiliar and show us different sets of rules by which the world presented must be interpreted, and it is the learning of those rules which is so subconsciously satisfying". This is true for interpretation for the benefit of the visitor. When transmission methods are left aside, it is enabling a visitor to understand the nature of the world as it was when a particular site was erected that is the critical point. To a certain extent, this can never be truly accomplished, but it is sites that merge what is understandable and believable with what is comfortable and what is easy to grasp which have the greatest success. Carcassonne, the London wall, and even the Theodosian wall are all very easy to grasp for the majority of visitors, because the cultures that shaped the walls are likely ancestral to the culture of the visitors – Carcassonne, because of the feudal nature of life experienced by most world cultures, and the Theodosian wall for its central role in the byzantine empire and its close relation to the center of surviving Christianity, the world's

largest religion. This is in contrast with the difficulty of truly interpreting the information of an unfamiliar culture's historic site: very few people can comprehend creating an imperial city, like Kyoto, only to wall off the interior of that city in a desperate attempt to keep the different factions from burning down the entire city when they squabbled with each other. Similarly, very few people can understand the context of a culture with an unofficial caste system and a language that has nine words for the English word 'you'; and so, rather than simply transmitting facts (such as names and dates), most effort in interpretation must instead focus on creating an understanding of the original or most significant context of a monument.

### **Useful Comparisons**

The most valuable lesson in respect to tourism is that tourists are attracted to sites with a variety of different kinds of attractions. Carcassonne, for example, attracts people because of its picturesque (although unoriginal) fortress, the museums inside of the fortress itself which deal with some exceedingly interesting parts of history, especially as it applies to all of Europe (such as the first precedent of Papal inquisition). But these historical and cultural values are far from the only ones in the city of Carcassonne or, rather, the enjoyment of history is not confined as it is in more traditional historic sites to walking around the remains of old buildings and reading signs about their history. Rather, in Carcassonne, enjoyment of the history is given a great deal of thought and covers a wide variety of disciplines; the local art museums, for example, display period artwork done by contemporary artists, and the many museums of the area offer a great deal of information on specialized topics. The lesson from Carcassonne, therefore, is that authenticity does not matter to most tourists as much as a meaningful experience does.

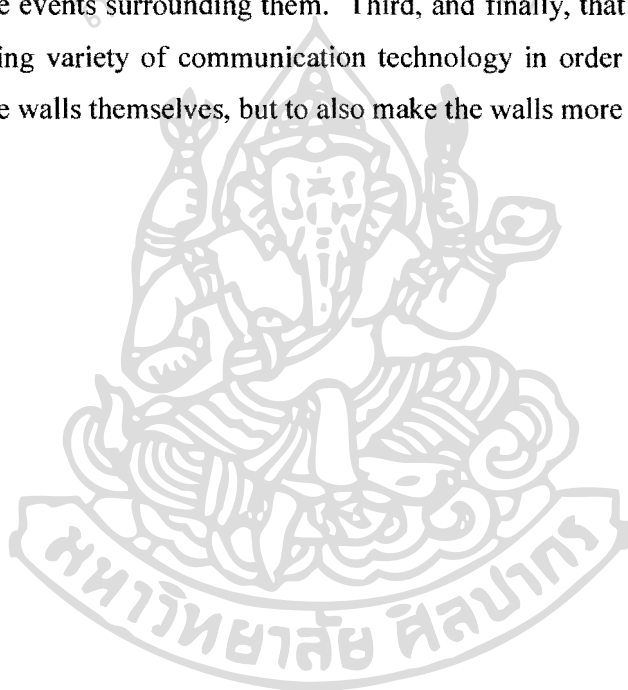
### **Conservation**

There are two primary suggestions which will briefly be explained here in regards to the conservation of the Chiang Mai city wall: reconstruction and retention. By reconstruction, it is meant that a section (and not more than a single section) of the city walls should be reconstructed to their original specifications, accretions to the inside of the walls removed, and the walls made to look exactly as they did during some specific time period. Retention refers to making an effort to retain the walls in their present condition for as long as is practically possible before taking steps to either modify the composition of the walls

themselves or the surrounding environment (for example, sheltering the walls from wind and rain or injecting glue into the interior portions of the wall and surrounding soil, so that soil erosion does not affect the structural integrity of the walls.

### **Interpretation**

There are only three suggestions that can be made for the better interpretation of the Chiang Mai walls. First, that an effort at actual interpretation be made, because no such effort worth acknowledging has yet been made. Second, that an effort be made to help outsiders understand at least some of the context of the historical Thai culture that shaped the walls and colored the events surrounding them. Third, and finally, that an effort be made to leverage the increasing variety of communication technology in order to not only transmit information about the walls themselves, but to also make the walls more well known.



## Bibliography

- Advisory Body Evaluation, WHC. (1997, December 7). Historic Fortified City of Carcassonne. [Online]. Accessed 12 November 2011. Available from <http://whc.unesco.org/en/list/345>
- Agnew, N., & Demas, M (eds.). Principles for the Conservation of Heritage Sites in China. Los Angeles : Getty Conservation Institute, 2004.
- Ahunbay, Metin., and Ahunbay Zeynep. "Recent Work on the Land Walls of Istanbul: Tower 2 to Tower 5." Dumbarton Oaks Paper, no.54 (2000) : 227 – 239.
- Angeliki, P. (2008). Theodosian Walls. [Online]. Accessed 3 November 2011. Available from <http://constantinople.ehw.gr/Forms/fLemmaBodyExtended.aspx?lemmaID=11743#>
- Anyon, Roger, T. J. Ferguson, and John R. Welch. "Heritage Management by American Indian Tribes in the Southwestern United States." In Cultural Resource Management in Contemporary Society: Perspectives on Managing and Presenting the Past, 120 – 141. edited by Francis P. McManamon and Alf Hatton, London and New York ,One World Archaeology 33, P. J. Ucko, series editor, Routledge, 2000.
- Aphivan Saipradist. "A Critical Analysis of Heritage Interpretation and the Development of a Guidebook for Non-Thai Tourists at Ayutthaya World Heritage Site." Ph.D dissertation, Silpakorn University, 2005.
- Arlongkorn Iamsakulwiwat. "The impact on Conservative Development in old Nanglerng Market by Stakeholders' Physical Factors" Urban and Environmental Planning Thesis, Silpakorn University, 2007.
- Arnstein, Sherry. "A Ladder Of Citizen Participation." Journal of America Planning Association. 35,4 (1969) : 216 – 224.
- Ashworth, G. J. and Tunbridge, J.E. The Tourist-Historic City : Retrospect and Prospect of the Management of Heritage Cities. London : Elsevier, 2000.
- Asia Backpack co.,ltd. Sukhothai.[Online]. Access 15 November 2011. Available from <http://www.asiabackpack.com/abc/north/sukhothai>
- Asia Web Direct. Top Ten Things to Do in Chiang Mai.[Online]. Accessed 28 October 2011. Available from <http://www.chiangmai.bangkok.com/attractions/top-ten.htm>
- Asia's World Publishing Limited. North Thailand History Timeline. [Online]. Accessed 17 November 2011. Available from <http://www.thailandsworld.com/index.cfm?p=79>
- Australia ICOMOS, The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter 1999). [Online]. Accessed 20 September 2011. Available from [http://australia.icomos.org/wp-content/uploads/BURRA\\_CHARTER.pdf](http://australia.icomos.org/wp-content/uploads/BURRA_CHARTER.pdf)
- Boonlert Jittangwathana. Sustainable Tourism Development. Bangkok: Academic Center, The Tourism Authority of Thailand, 2005.
- Brochu, L., & Merriman, T. Personal interpretation: connecting your audience to heritage resources. Fort Collins, CO: National Association for Interpretation, 2002.
- Carman, John. "Theorising the practice of archaeological heritage management" Archaeologia Polona special theme : Archaeological heritage management, 38, (2000) : 5 – 21.
- Catanese, Anthony J. and Snyder, James C., Urban Planning, USA, Mc-GrawHil,1979.

Center for Promotion and Development of SME's in Chiangmai. Established Business

Guide: Natural Tourism. Chiangmai, 2005

- Chang, T. C., Milne, S., Fallon, D., & Pohlmann, C. "Urban heritage tourism: The global-local nexus" Annals of Tourism Research. 23,2 (1996) : 284 – 305.
- Charaspim Boonyanant. "The Comparative study of the planning and physical characteristics between Sukhothai and Chiangmai ancient city." IFLA APR Congress - Hospitality: The Interaction with Land. Thai Academic Reference Database. 2011.
- Charles R. Goeldner and J.R. Brent Ritchie, Tourism: Principles, Practices, Philosophies, 11th ed. New Jersey: Wiley, 2009.
- Cheng, M. N. "The construction of indexes to the professional competence of public museum guides." Unpublished master's thesis, Graduate Institute of Adult Education, National Kaohsiung Normal University, Taiwan, R.O.C.(in Chinese), 2002.
- ChiangMai-Travels.com. Interested in Chiangmai.[Online]. Accessed 28 October 2011. Available from <http://chiangmai-travels.com/tourphuket.php?tour=37>
- Cohen, Erik. "Authenticity and commoditization in tourism." Annals of Tourism Research, 15,3 (1988) : 371 – 386.
- Cohen, John M., and Norman T. Uphoff. Rural Development Participation: Concepts and Measures for Project Design, Implementation and Evaluation. Rural Development Monograph no. 2. Ithaca: Rural Development Committee Center for International Studies, Cornell University, 1977.
- Cohen, John M. and Uphoff, Norman T. "Participation's place in rural development: seeking clarity through specificity." World Development 8,3 (1980) : 223.
- Coutts, N. Construction Kyoto Machiya Resource. [Online]. Accessed 17 July 2011. Available from <http://www.kyotomachiya.com/construction/>
- Euromonitor. Euromonitor International's Top City Destination Ranking. [Online]. Accessed 27 November 2011. Available from <http://blog.euromonitor.com/2011/01/euromonitor-internationals-top-city-destinations-ranking.html>
- Fabre, Daniel and Guilaine, Jean. Histoire de Carcassonne / sous la direction de Jean Guilaine et Daniel Fabre. Toulouse : Privat, 1984.
- Gunn, C. A. Tourism Planning: Basics, concepts and Cases, Washington ,Taylor and Francis, 1994.
- Hall, C. M., & McArthur, S. "Heritage management: An introductory Framework" Heritage management in New Zealand and Australia,(1993) : 1 – 17.
- Hitchens, Christopher, God Is Not Great: How Religion Poisons Everything, New York: Twelve Books, 2007.
- HI Deb. London's roman and mediaeval wall . [Online]. Access 16 November 2011. Available from <http://hansard.millbanksystems.com/lords/1958/jun/18/londons-roman-and-mediaeval-wall>
- Hlaing, T. Chiang Mai 2005, De Vestiwerken.[Online]. Access 8 June 2011. Available from <http://www.thaistart.com/cnx/vestingwerken.html>
- Hutanuwat Nunthiya and Hutanuwat Norong , "SWOT: Strategist planning in Community Business": M.S thesis, Faculty of Agriculture, Kasetsart Universtity , 2002.

- Inskip, E. National and Regional Tourism Planning, Routledge, London. NAO (2001)  
DCMS: The Re-negotiation of the PFI type deal for the Royal Armouries Museum  
in Leeds NAO Press Notice 18/1/2001
- James Mcdonal. Cathars and Cathar Beliefs in the Languedoc. ) [Online]. Accessed 29 2011.  
Available from <http://www.cathar.info/>
- Janin, Raymond. (in French). Constantinople Byzantine (2 ed.). Paris: Institut Français  
d'Etudes Byzantines, 1964.
- Jansen-Verbeke, M. Tourismification of historical cities. Annals of Tourism Research, 25,3  
(1998) : 739 – 742.
- John Ruskin. The seven lamps of architecture. J. Wiley, Oxford University, 1849.
- Kazhdan, Alexander, Oxford Dictionary of Byzantium, Oxford University Press, 1991.
- Kei'ichi, Yanakawa and Yoshiya, Abe. "Some observations on the sociology of religion in  
japan." Japanese Journal Of Religious Studies, 5/1 (March 1978) : 5 – 26.
- Kriangkrai Kerdsiri. Community and Cultural Lanscape. Bangkok : South Ease Asia, 2008.
- Kyoto city. Kyoto City Landscape Policy. (2007) [Online]. Accessed 13 October 2011.  
Available from  
<http://www.city.kyoto.lg.jp/tokei/cmsfiles/contents/0000061/61889/HP-English.pdf>
- Li, Y. (2003). The contradictions between conservation and change. Journal  
of Tourism and Hospitality Research. 4,3. (2003.) : 247-261.
- Mayuree Spongkhanat . "The study of Temple Conservation in KlongOrmCummunity,  
Nonthaburi": Master of Arts Thesis, Faculty of Architecture, Silpakorn University  
,2002
- McIntosh, Robert W. and Goeldner, Charles R. Tourism Principles, Practices, Philosophies.  
5th ed., New York : John Wiley and Sons Inc, 1984.
- Moscardo, Gianna. "Mindful visitors: Heritage and tourism." Annals of Tourism Research.  
23,2 (1996) : 376 – 393.
- Michael Romanos and Chris Auffrey. "Towards a Sustainable Form in Chiang Mai".  
Managing the Development of Intermediate Size Cities, Kluwer Academic  
Publishing, 2002.
- Modelski, George. World Cities : -3000 to 2000, Washington, DC: FAROS 2000. 245 pages,  
2003.
- Murphy, Peter E. Tourism: a Community Approach, Methuen, New York. 1985.
- Niran Jongwuthiwet "Public Participation Strategies, Guidelines, and Methods for  
Community Development", in Public Participation in Development, Tweetong  
Hongwiwat editor, Bangkok, Mahidol University. (1984) :177-194.
- Nuntapiwan Thaowan. The Principle of Management. Bangkok, Faculty of Commerce and  
Accountancy, Chulalongkorn University. 1977.
- Ohashi, Yukitaka and Kida, Hideji. "Effects of Mountains and Urban Areas on Daytime  
Local-Circulations in the Osaka and Kyoto Regions." Journal of the Meteorological  
Society of Japan, 80(4), (2002) : 539-560.
- Panayu Chairatananonda,. "Review of conservation guidelines in relation to land use  
planning aspects of buffer zone affective urban heritage place, case study : the  
setting of king Narai's Place Lop Buri province." Ph.D dissertation, Silpakorn  
University, 2009.
- Pelaggi, Maurizio. "The Politics of Ruins and the Business of Nostalgia." Studies in  
Comtemporary Thailand, No.10. Bangkok: White Lotus Press, 2002.



- Pimpraphai Pisalbutr. Siam Chinese boat Chinese in Bangkok regend. Nanmee Books. (2001).
- Pisit Jaroenwong “The Journal about Cultural Resources Management” Arthit Weekly, Bangkok, Pathumthani University (1999)
- Porphant Ouyyanont. “The Vietnam War and Tourism in Bangkok’s Development, 1960 – 1970”. Southeast Asian Studies. Volume 30, No.2, September 2001.
- Posas, Paula, J. “Roles of religion and ethics in addressing climate change.” Ethics in Science and Environmental Politics, (2007) : 31 – 49.
- Prakobsiri Pakdeepinit . “Sustainable Tourism Development: A Case study of Waterway Tourism at Talingchan Rivering Community” : Master of Arts Thesis, Graduate Faculty, Mahidol University, 2007.
- Prasong Jam-Arnant. “Conservative Development” Ancient City , 20,3(July – September) , (1994) : 63 – 66.
- Resinger, Y.Tour. “Host contact as part of cultural tourism” World Leisure and Recreation (Summer), 36, (1996) : 24 – 28.
- Richards, G. “Production and consumption of European cultural tourism.” Annals of Tourism Research. 23,2 (1996.) 261 – 283.
- Richards, G. “Tourism and the world of culture and heritage” Tourism Recreation Research, 25,1 (2000) : 9 – 17.
- Roe, D., Ashley, C., Page, S., & Meyer, D. Tourism and the poor ; Analysing and interpreting tourism statistics from a poverty perspective. Department of International Development. Pro-poor Tourism Partnership Working Paper No. 16, London.(2004).
- Romanos & C. Auffrey, Managing Intermediate size cities: Sustainable development in a growth region of Thailand (pp. 155-186). Boston: Kluwer Academic. (2002)
- Ross, Cathy, & Clark, John,. London: The Illustrated History. London: Allen Lane, 2008.
- Ryan, Chris and Dewar, Keith. “Evaluating the Communication Process Between Interpreter and Visitor.” Tourism Management. 16,4 (1995), 295 – 303.
- Sangawongse, S., Sun, C. H., & Tsai, B. W. “Urban growth and land cover change In Chiang Mai and Taipei : results from the SLEUTH Model.” MODSIM 2005 International congress on modeling and simulation. The modeling and simulation society of Australia and New Zealand. Hobart, Australia, (2005). : 2622-2628.
- Sayun Praichanjit. “The Research of Participation Development to strengthen local community in Cultural Resources Management in Nan”, Bangkok, Thai Khadi Research Institute, Thammasat University, 2005.
- Schiffer, M. and Gumerman, .Forecasting impacts. In Conservation Archeology. Schiffer and Gumerman (eds.), Academic Press, New York, 1977.
- Silberberg, Ted. “Culture tourism and business opportunities for museums and heritage sites.” Tourism Management, 16,5 (1995) : 361 – 365.
- Somjit Yothakong. “The Management of Landscape Maintenance”, Bangkok: Journal ,(1998) : 3 – 4, 7 - 8
- Surapol Dumrikul. “Lanna Land”, Bangkok , Muang Boran Press, 1996.
- Surapol Dumrikul. “Khuang mueng (the city piazza) and Wat Hua Khuang in the city planning of Lanna”, Chiangmai, Fine Art Faculty, Chiang Mai University, 2002.
- S.Acun and N.Arioglu, The evaluation of lime mortars and plasters with the purpose of conservation and restoration. [Online]. Accessed 20 November 2011. Available from <http://cipa.icomos.org/text%20files/antalya/149.pdf>

- S.C. Munro-Hay, "A Plan of Nakhon Sri Thammarat (Southern Thailand) of c. 1825 in the Collection of the Royal Asiatic Society." Journal of the Royal Asiatic Society of Great Britain & Ireland (Third Series), 10 , (2000) : 61-70
- Thailand Museum. Chiang Saen History.[Online]. Access 22 October 2011. Available from [http://www.thailandmuseum.com/thaimuseum\\_eng/chiangsaen/history.htm](http://www.thailandmuseum.com/thaimuseum_eng/chiangsaen/history.htm)
- Thanik Lerdcharnrit."The Cultural Resources Management for Sustainable Tourism", Bangkok, Faculty of Archaeology, Silpakorn University,2004.
- Tilden, F. Interpreting our heritage.Chapel Hill, North Carolina, 3 ed. University of North Carolina Press, 1977
- William D. Lipe.Value and Meaning in Cultural Resources. In Approches to the Archaeological Heritage.ed. Henry Cleere. Cambridge: Cambridge University Press.1984.
- World Heritage Center. Operational Guidelines for the Implementation of the World Heritage Convention.Organization. World Heritage Center (2008) [Online]. Accessed 15 October 2011. Available from <http://whc.unesco.org/archive/opguide08-en.pdf>
- Wyatt, D. K. "Thailand: A Short History"Yale University Press, 1988.

### เอกสารอ้างอิงภาษาไทย

- นิวัฒน์ หิรัญบุรณะ. กำแพงเมืองเชียงใหม่สมัยโบราณ. เชียงใหม่, 2528.
- บุญเสริม สาดราษฎร์ และ สังกิต จันทนะโพธิ. อดีตลานนา. กรุงเทพฯ : เรืองศิลป์, 2520.
- บุญเสริม สาดราษฎร์. ลานนาไทยในอดีต. เชียงใหม่ : ช่างเผือกการพิมพ์, 2522.
- ประศักดิ์ ฉาวยุติกการต์. "ถ้าไม่มีการอนุรักษ์ก็ไม่มีการพัฒนา".วารสารเชียงใหม่ปริทัศน์ ปีที่ 10 ฉบับที่ 110 พฤษภาคม 2552.
- ณัฐกานต์ ลิ่มสถาพร และ บุญเสริม สาดราษฎร์. เชียงใหม่(ใหม่) เชียงใหม่(เก่า). กรุงเทพฯ : อุดมปัญญา, 2553.
- ทิว วิชัยทัตตะ. กำแพงเมืองเชียงใหม่. เชียงใหม่ : ทิพย์เนตรการพิมพ์, 2529.
- สุรพล คำริห์กุล. การขุดค้นทางโบราณคดีแนวกำแพงโบราณ แหล่งโบราณคดีกลางเวียง บริเวณพื้นที่ก่อสร้างหอประวัติศาสตร์ เมืองเชียงใหม่ : รายงานวิจัย , บริษัท เจริญไทย แอนด์ แอสโซซิเอท จำกัด เชียงใหม่ : คณะจิตรศิลป์ มหาวิทยาลัยเชียงใหม่, 2549

### Internet

- <http://www.folktravel.com/archive/chiangmai.html>
- <http://www.thailandtravelpro.com/th/city/chiang-mai/>
- [http://picasaweb.google.com/lh/photo/u0gmo6RdbaWIn57w66\\_r8w](http://picasaweb.google.com/lh/photo/u0gmo6RdbaWIn57w66_r8w)
- [http://www.livius.org/cn-cs/constantinople/constantinople\\_land\\_walls.html](http://www.livius.org/cn-cs/constantinople/constantinople_land_walls.html)
- <http://cyberfeeder.com/2011/08/11/great-wall-of-china-wiki-photos/>
- [http://www.northukbikers-videos.co.uk/cavturbo/blog/La\\_20Cite\\_20Carcassonne.jpg](http://www.northukbikers-videos.co.uk/cavturbo/blog/La_20Cite_20Carcassonne.jpg)

<http://golondon.about.com/od/londonpictures/ig/City-of-London-walking-tour/romanwall1.htm>  
<http://photopassjapan.com>  
<http://www.chiangsaenlife.com/forum/thread-168-1-1.html>  
[http://www.tourismchiangrai.com/?p=viewphoto&id\\_photo=454](http://www.tourismchiangrai.com/?p=viewphoto&id_photo=454)  
<http://travel.kapook.com/view27348.html>  
<http://travel.kapook.com/view27348.html>  
[http://th.wikipedia.org/wiki/%E0%B9%84%E0%B8%9F%E0%B8%A5%E0%B9%8C:Wat\\_Chang\\_Lom\\_Si\\_Satchanalai.jpg](http://th.wikipedia.org/wiki/%E0%B9%84%E0%B8%9F%E0%B8%A5%E0%B9%8C:Wat_Chang_Lom_Si_Satchanalai.jpg)  
<http://www.oceansmile.com/N/Kampangphet/kampang.htm>  
<http://kamphaengphet.mots.go.th/index.php?lay=show&ac=article&Id=538741406&Ntype>  
[http://www.creativeculturethailand.com/detail\\_page.php?sub\\_id=4177](http://www.creativeculturethailand.com/detail_page.php?sub_id=4177)  
<http://www.gotoknow.org/blogs/posts/133034>  
<http://www.pakpon.com/Lopburi/pomchai.asp>  
<http://www.gotoknow.org/blogs/posts/133034>  
<http://www.art.com/products/p14430415-sa-i2962677/ali-kabas-theodosian-walls-of-constantinople-ayvansaray-istanbul-turkey.htm>  
<http://www.agiasofia.com/walls.jpg>  
<http://www.chiangmaithailand.tht.in/aticle221.html>  
<http://www.letrabet.com/carcassonne.htm>  
<http://www.crystalinks.com/chinawall.html>  
<http://www.timetravel-britain.com/articles/london/roman.shtml>  
[http://www.travelskyline.net/view-kyoto\\_nijo\\_castle\\_wall-1400x1050.html](http://www.travelskyline.net/view-kyoto_nijo_castle_wall-1400x1050.html)



## Autobiography

Name-Surname	M.R. Narupon Lerdkanjanaporn
Permanent Address	Maejo University Phrae Campus 17 Moo.3, Yantrakitkosol Road, Maesai, Rongkwang Phrae 54140, Thailand
Education Background	<p>Diploma: Tourism Industry, Rachamankala Institute of Technology Wang Klai Kang Won Cumpus, Prachuapkirikan, Thailand.</p> <p>Bachelor of Art in Tourism Development, Maejo University, Chiangmai, Thailand.</p> <p>Graduate Diploma in Recreation Management, Lincoln University, Canterbury, New Zealand.</p> <p>Master of Business Administrative in Entrepreneurship, Far-Eastern College, Chiangmai, Thailand.</p>

