A STUDY ON THE FUNDAMENTAL CHARACTERISTICS OF WAT PHUMIN, NAN PROVINCE
TO BECOME AS A SUSTAINABLE COMMUNITY-BASED CULTURE THROUGH IMAGE
REPRESENTATION

By

MR. Tawipas PICHAICHANARONG

A Thesis Submitted in Partial Fulfillment of the Requirements

for Doctor of Philosophy DESIGN ARTS (INTERNATIONAL PROGRAM)

Graduate School, Silpakorn University

Academic Year 2019

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต
สาขาวิชาศิลปะการออกแบบ แบบ 1.1 ปรัชญาดุษฎีบัณฑิต(หลักสูตรนานาชาติ)
บัณฑิตวิทยาลัย มหาวิทยาลัยศิลปากร
ปีการศึกษา 2562

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Field of Study   DESIGN ARTS (INTERNATIONAL PROGRAM)

Advisor   Assistant Professor VEERAWAT SIRIVESMAS , Ph.D.

Graduate School Silpakorn University in Partial Fulfillment of the Requirements
for the Doctor of Philosophy

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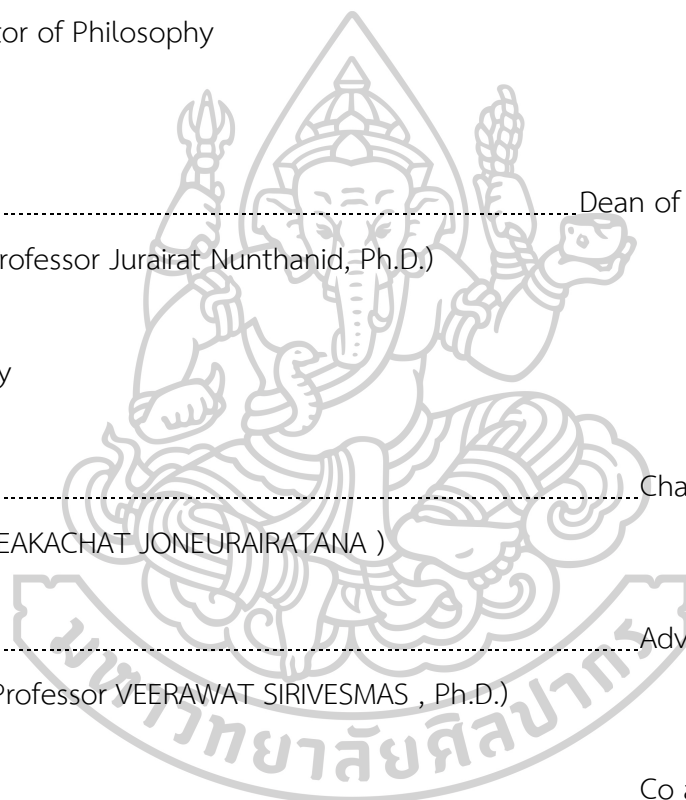(Associate Professor Jurairat Nunthanid, Ph.D.)

Approved by

⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯Chair person
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 (Professor Mustaffa Halabi Bin Azahari , Ph.D.)

MR. TAWIPAS PICHAICHANARONG : A STUDY ON THE FUNDAMENTAL CHARACTERISTICS OF WAT PHUMIN, NAN PROVINCE TO BECOME AS A SUSTAINABLE COMMUNITY-BASED CULTURE THROUGH IMAGE REPRESENTATION THESIS ADVISOR : ASSISTANT PROFESSOR VEERAWAT SIRIVESMAS, Ph.D.

This study was attempted by various methodologies to attain the fundamental characteristics of Wat Phumin, Nan province, as a sustainable community-based culture through image representation. The three main objectives of the study to investigate the current situation of Wat Phumin, Nan province in its local community, to analyze the significance criteria and elements of Wat Phumin, Nan province by using images to be promoted as the sustainable community-based culture and to propose the Wat Phumin, Nan province as the sustainable community-based culture for its local community and its visitors.

The thesis evaluates theories, and methodology of mental imagery, qualitative and quantitative methodology, affinity diagram, eye tracking and art analysis. The thesis examines the perspectives of local people, visitors both Thais, and foreigners, and analyze images representation of Lanna mural painting through photograph. Following fieldwork to obtain various data on different occasions at Wat Phumin, Nan province, and its local community (Phumin-Tali Community). The study took a qualitative case study approach, analyzing the documentation from related literature reviews and practice-based research on taking photographs an entirely Lanna mural painting at Wat Phumin, Nan province.

The contribution of this thesis includes the fundamental characteristics of Wat Phumin, Nan province from suggested methodologies such as mental imagery, qualitative and quantitative methodology, affinity diagram, eye tracking and art analysis. The results of the analysis of image representation on Lanna mural paintings at Wat Phumin, Nan province through the photograph. The thesis argues that image representation provides significant characteristics of Wat Phumin, Nan province, in order to create a sustainable community-based culture model for its community.

Finally, the knowledge gained from the research will help to provide a foundation

for future researchers interested in the development of a sustainable community-based culture model related to temples that contain both tangible and intangible heritages like Wat Phumin, Nan province.

ACKNOWLEDGEMENTS

I would like to convey my gratefulness to all the following individuals who gave me the opportunity to finish this dissertation. I am much obliged to both of supervisors which are Assistant Professor Dr. Veerawat Sirivesmas and Dr. Ruangralada Punyalikhit for encouraging and guiding the research with superb advices and also for their efforts to understand my hindrance during the study. In addition, I would like to thanks to Professor Dr. Mustaffa Halabi Bin Azahari for his valuable suggestion on the adjustment for this thesis.

Besides my advisors, I would like to thank the rest of my thesis committee; Professor Eakachat Joneurairatana, Associate Professor Sone Simatrung, Associate Professor Dr. Piroj Jamuni, Assistant Professor Dr. Jirawat Vongphantuset, and Professor Dr.Mustaffa Halabi Bin Azahari for not only their discerning comments and encouragement, but also for the challenging questions which put me to explore different aspects to approach the findings and conclusions for this study. As a result, the experiences I went through, it has widened my perspectives and strengthen my skills for future studies.

My thanks also go to all the people of Nan province, which consists of government authority, private sectors, local community, private sectors, art and culture organizations, and local authorities.In addition, the people of Phumin-Tali community, who have participated in my visits and given their valuable information for my interviews with warm welcome.
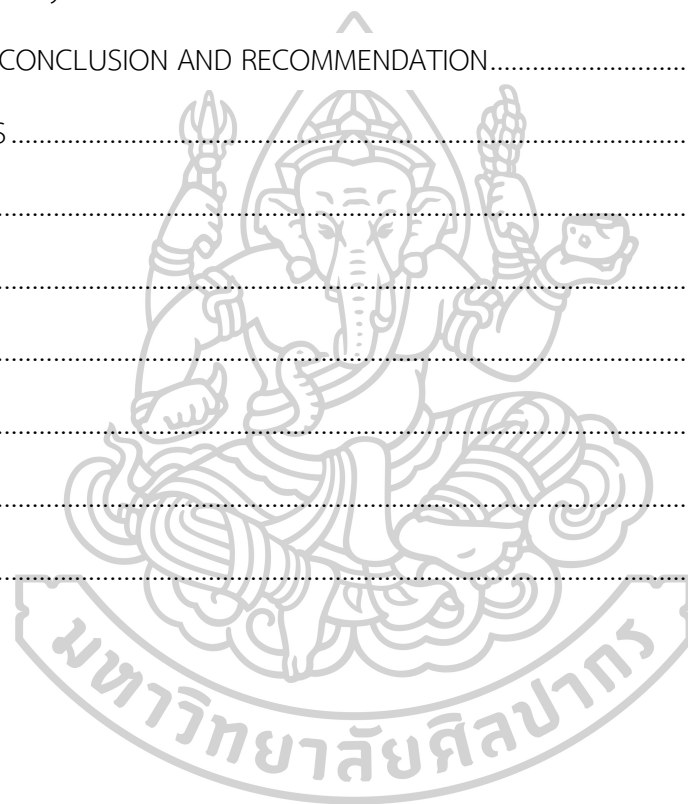
Finally, I would like to thank my mother for her support and encouragement that navigated me throughout my study. Truly, I am grateful for all the things she had done for me. Indeed, I am dedicating this thesis and all the success in my life to my loving mother entirely.

Tawipas PICHAICHANARONG

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In the book "Sociology: Understanding and Changing the Social World" (2016), the group of anonymous authors describes that the major basic elements of culture are symbols ,language, norms, values, rituals, artifacts, work ethics through out chapter 3.

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CHAPTER 1

BACKGROUND OF THE RESEARCH

1.1 Introduction and Background of the research

UNESCO aims to use Sustainable development for the year 2030 intangible cultural heritage.

"A nation's culture resides in the hearts and the souls of its people."

-Mahatma Gandhi

In Thailand, balancing the value of the past with constant striving for the new is a huge challenge. Thai government realized in the 1920s that their country could make much money through tourism, and they planned accordingly. From that moment, tourism plays an increasingly influential role in connecting Thailand to regional and global networks. Until present, it is undeniable that tourism is and will always remain a pillar of the Thai economy. In the meantime, Thai government planned to set up a proper authority in order to manage all the tourist attractions in Thailand in a professional way accordingly.
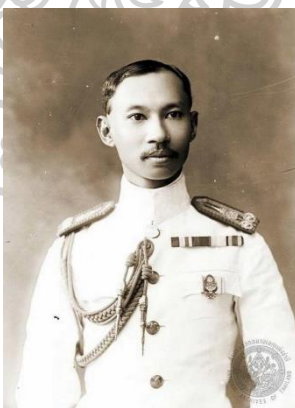
Figure 1 Prince Purachatra Jayakara, the Prince of Kamphaengphet

Source: PR Thai Government online, 82 Years of the Public Relations , accessed on Februay 4th, 2020, available from

http://www.mukdahan.go.th/muk_gallery/news2/view.php?id_view=333

At first, the idea for setting an organization that related to tourism in Thailand came from Prince Purachatra Jayakara, the Prince of Kamphaengphet, who was a train commander of Thailand. The prince sent stories about Thailand to get published in the USA frequently. As a result, in 1924, the prince set up an advertising department for the State Railway of Thailand to help tourists who traveled Thailand and to boost Thailand among foreigners. Later, the prince Purachara Jayakara went to work for the Ministry of Commerce and Transport.

In 2019, the Thai government authorized the Minister of Tourism and Sports to set goals to transform the tourism industry's quality standards and raise responsibility. Mr.Weerasak Kowsurat, the Minister of Tourism and Sports, who came into office in November 2017, has long encouraged tourism operators to change, placing a higher focus on quality tourism and safe destinations, rather than focusing on abundant arrival numbers. His proposal aims to reduce crises and protect the country's resources. He wants to avoid over-tourism in major destinations. If the sector changes, tourism in Thailand will position as a quality leisure terminal on the world atlas. In order to create higher quality tourism, Mr. Weerasak suggests that the public and private sectors collaborate to diversify their marketing strategy from traditional forms to permeate emerging markets and seek new tourist segments. From the statement of Mr. Weerasak Kowsurat (2017) has allowed a chance for the academic sector to join and find one solution together with the public and individual sectors in order to transform Thailand's tourism to meet Unesco's objectives through sustainable development in 2030 by academic study.

Sustainable Development

The idea of sustainable development arrived in 1983, the world commission on Environment and Development (WCED) published a report entitled "Our common future." The document came to be known as the "1987: Brundtland Report" addressed concerns about the quick deterioration of the world's ecological development and the concept of sustainable development framed as the central

tool for future global development initiatives. As a result, the report suggested the idea of sustainable development means "development that meets the needs of the present without compromising the ability of future generations to meet their own needs (p.5)" as figures 1, 2, and 3.
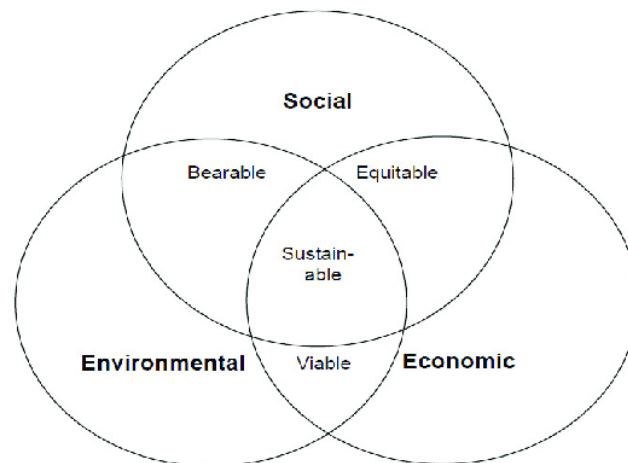
Figure 2 The triple bottom line model of sustainability

Source: Dr Sumit Gupta et al. , Key Determinants of Sustainable Product Design and Manufacturing The triple bottom line model of sustainability (p.7), accessed on February 4th,2020, available from https://www.researchgate.net/figure/Figure-1-Dimensions-of-sustainability-Triple-Bottom-Line-3_fig1_274196625
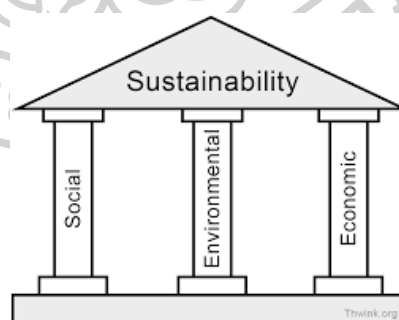
Figure 3 The three pillars model of sustainability

Source: thwink.org,The three pillars model of sustainability, accessed on February 4th,2020, available from

https://www.thwink.org/sustain/glossary/ThreePillarsOfSustainability.htm
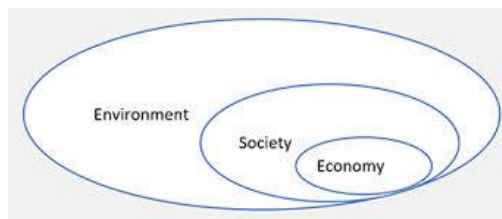
Figure 4   The nested model of sustainability

Source: galapagos.org, Nested Model of Sustainability (p.9),   accessed on February 4th,2020, available from https://www.galapagos.org/conservation/our-work/education-for-sustainability/education-roadmap/

Global Goals

Figure 5 The Global Goals For Sustainable Development

Source: UN Thailand, The Global Goals For Sustainable Development,   accessed on February 4th,2020, available from http://www.un.or.th/sdgs/

From 1983 until 2015 United Nation Member States set to larger agenda, which are 17 Global Goals for sustainable development to hopefully meet extraordinary things in the next 15 years, which is the year 2030.

According to UN adopted different goals on Sustainable Development that are the map to accomplish a better and more sustainable future for every part of the world. The global goals on Sustainable Development appoint to challenge the global current issues, and UN has categorized into 17 subjects, which can put into three main things; end extreme poverty, fight inequality and injustice, tackle climate change and much more.

The 17 Global Goals on Sustainable Development Goals (SDGs)

GOAL 1: No Poverty

GOAL 2: Zero Hunger

GOAL 3: Good Health and Well-being

GOAL 4: Quality Education

GOAL 5: Gender Equality

GOAL 6: Clean Water and Sanitation

GOAL 7: Affordable and Clean Energy

GOAL 8: Decent Work and Economic Growth

GOAL 9: Industry, Innovation, and Infrastructure

GOAL 10: Reduced Inequalities

GOAL 11: Sustainable Cities and Communities

GOAL 12: Responsible Consumption and Production

GOAL 13: Climate Action

GOAL 14: Life Below Water

GOAL 15: Life on Land

GOAL 16: Peace, Justice, and Strong Institutions

GOAL 17: Partnerships to Achieve the Goal

In this study, we selected one subject from 17 subjects of the UN 2030 agenda on Sustainable Development Goals (SDGs) to focus and explore for more possible outcomes, which are Goal no.1 (No Poverty), Goal no.4 (Quality Education), Goal no.8 (Decent Work and Economic Growth) , Goal no.11 (Sustainability Cities and Communities) ,and Goal no.17 (Partnerships to Achieve the Goal) because it coincided with the direction of the Thailand government's objective for tourism sector at present time.

Figure 6 Diagram 5 Selected five goals from The Global Goals For Sustainable Development

Source: UN Thailand, The Global Goals For Sustainable Development, accessed on February 4th,2020, available from http://www.un.or.th/sdgs/

The four pillars of sustainable development

Figure **7** The four pillars of sustainable development

Source: Sustainability 2019, Achieving Cultural Sustainability in Museums: A Step Toward Sustainable Development, accessed on February 4th,2020, available from https://www.mdpi.com/2071-1050/11/4/970/htm

Culture, the fourth Pillar of Sustainability

Since the beginning of the century, voices of different parts of society, from international institutions to academia, began to question the validity of the current definition of sustainable development. They state that economic growth, social inclusion and environmental balance, no longer reflect all the dimensions of our global societies and propose the addition of the dimension of culture to policies aiming at sustainable development.

The Executive Bureau of The United Cities and Local Governments (UCLG), approved the Policy Statement "Culture is the Fourth Pillar of Sustainable Development" on 17 November 2010, in the framework of the World Summit of Local and Regional Leaders - 3rd World Congress of UCLG, held in Mexico City"

Cultural sustainability is increasingly being perceived as a fourth dimension of sustainable development. So far, some studies have debated the way in which cultural sustainability can lead to economic, social, and environmental benefits, while others have highlighted how the classic pillars of sustainability can help museums to achieve their core cultural mission.

Sustainable development is increasingly seen as being composed of four dimensions; namely, economy, society, environment, and culture [1]. There are multiple reasons for adding culture to the traditional three-pillar construct of sustainability. Culture includes the beliefs, values, practices, and aspirations of a society; the way in which values are expressed and applied concretely in the day-to-day life of that society; and the processes and mediums through which the preservation and further transmission of values take place.

Tangible Heritages

The term tangible heritage refers in general to all the material traces such as archaeological sites, historical monuments, artifacts, and objects that are significant to a community, a nation, or/and humanity. The term is often used to distinguish such heritage elements from "intangible heritage," recognized by UNESCO in 2003, to refer to practices, representations, expressions, knowledge skills, as well as instruments, objects, artifacts, and cultural spaces associated therewith of living communities. The term "intangible heritage" replaced what was referred to in an earlier UNESCO document in 1989 as traditional culture and folklore. The designation of an intangible category of heritage led to the distinction of varieties of "material" archaeological and historical elements of heritage – "tangible heritage." In the UNESCO 1972 convention, what is now called tangible heritage included

monuments, sites, and buildings. In addition, Somjate Wimolkasem (2015), the author of "Decoding Wat Phumin Temple" points out Wat Phumin, Nan province announced as an important historical building or tangible heritage in Thai national Government Gazette Volume 97, Chapter 10, dated January 24, 1981.

1.2 The Statement of the Problem

1.2.1 Wat Phumin is one of the well-known Wats (Temples) which located in the North of Thailand. It becomes as one of the significance places for Buddhism as ritual spot.

1.2.2 Wat Phumin is also become one of the significance places as tourist attractions for many characteristics such for the architectural elements, wall paintings, religion spot and few to mention.

1.2.3 Wat Phumin as one of the important place in Thailand

This research has inspiration from the artists and academic professors who understood the value of mural paintings in Thailand. Wat Phumin, Nan province is only a beautiful mural painting, but also has a beautiful building and ancient.
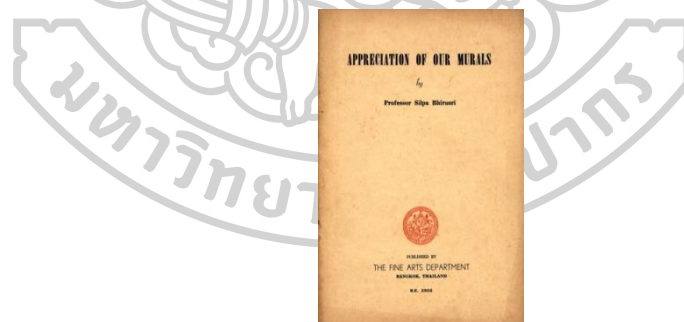
Figure 8 Figure Appreciation of our Murals (1959)

Source: Fine Arts Department, Appreciation Of Our Murals by Professor Silpa Bhirasri, accessed on February 4th,2020, available from

http://www.digitalcenter.finearts.go.th/book-detail/601#.XPIJKyN94yk
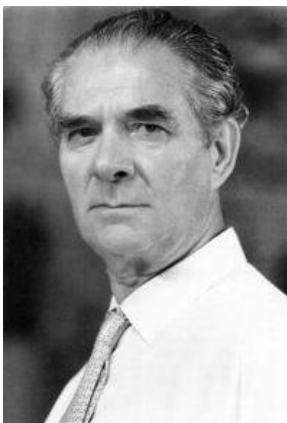
Figure 9 Professor Silpa Bhirasri

Source: Twitter.com, Professor Silpa Bhirasri, accessed on February 4th,2020, available from https://twitter.com/hashtag/bhirasri

Figure 10 Assistant Professor Fua Haripitak

Source: facebook.com, Assistant Professor Fua Haripitak , accessed on February 4th,2020, available from https://www.facebook.com/Kamavijitra/posts/fua-haripitak-1910-1993fua-haripitak-was-a-modern-thai-artist-recognized-for-his/1258585030891142/

The book calls "Appreciation of our Murals" written by Professor Silpa Bhirasri (b.Corrado Feroci: 15 September 1892 - 14 May 1962) who is founder of Silpakorn university then Assistant Professor Fua Haripitak (b.22 April 1910 - 19 October 1993),

Thai national artist who followed his teacher Professor Silpa Bhirasri in order to preserve Thai mural paintings inside the temple throughout Thailand.

Professor Silpa Bhirasri (1959) pointed out there were 13 provinces throughout Thailand, which have valuable mural paintings;

1) Bangkok

2) Yala

3) Sukothai

4) Pra Nakorn Si Ayutthaya

5) Thonburi

6) Ratchaburi

7) Phetchaburi

8) Uttaradit

9) Chonburi

10) Phitsanulok

11) Chiang Mai

12. Nakorn Ratchasima

13) Nan

Prof. Silpa Bhirasri, the author of Appreciation of our Murals (1959) has mentioned that Lanna mural paintings at Wat Phumin, Nan province is one of mural paintings that has a unique style. The paintings reflect the authentic of Nan artisan's skills. Prof. Silpa Bhirasri praises the artist who painted in the north, east, and south side of the walls has superb skills, but the mural paintings on the west are not equal as the other walls. He guessed that the artist may use one of his students to paint this wall. As a result, Prof. Silpa Bhirasri pointed out Wat Phumin, Nan province to be one out thirteen selected temples in Thailand that contain the most valuable mural paintings that make their temples very important as both tangible and intangible heritages.

1.2.4 Image is one of the important roles in communication like other communication medium that can facilitate and help to promote anything around us.

Image is one of the important roles in communication like other communication medium that can facilitate and help to promote anything around us.

According to ..., Mural painting is art. Since there are major scholars has mentioned about how beautiful of Lanna mural paintings at Wat Phumin, they are via articles, books, and other written medium. The number of photographs of Lanna mural paintings at Wat Phumin, Nan province has increased, and printed worldwide. Undoubtedly, there are many people can recognize some images from Wat Phumin, Nan province via photographs. Lipkin (2005) stated artists have adopted that Photographs for visual expression, by journalists to catch the exact events. Coincided with Halabi (2009), he mentioned that when photography considered as a communication channel, then communication can use in effective ways for everybody.

Therefore, Photographs of Lanna mural paintings from Wat Phumin, Nan province will use as a tool to find out the answer of research questions (RQ) of this study. In the meantime, Photographs of Lanna mural paintings from Wat Phumin, Nan province will use as materials for creating tools to facilitate and help Thai and foreign visitors to promote Wat Phumin as a sustainable community-based culture.

1.3 Objectives of the research (RQ)

The main objectives of this research are:

1.3.1 To investigate the current situation of Wat Phumin in the province of Nan, Thailand among the local community

1.3.2 To analyse the significance criteria and elements of Wat Phumin, Nan province by using images to be promoted as the Sustainable Community-based Culture.

1.3.3 To propose Wat Phumin in Nan province as the Sustainable Community-based Culture for the local community and international tourists.

1.4 Research Questions (RQ)

1.4.1 What is the current situation and status of Wat Phumin in Nan province within the context of culture?

1.4.2 Why is the Wat Phumin, Nan province very significant and important within the community of Thai people to be develop as the Sustainable Community-based Culture?

1.4.3 What are the type of images and how it can play important role in identifying fundamental characteristics of Wat Phumin, Nan province?

1.4.4 How does this research can facilitate Wat Phumin, Nan province to be recognized as the Sustainable Community-based Culture for the local community and international tourists?

1.5 Scope of the research

Wat Phumin, Nan province

This study selected "Wat Phumin, Nan province" to be the scope of the study to be an example of sustainable community in Thailand. Wat Phumin, Nan province fits in to the goal for "Sustainably Cities and Communities" as follows;

This study will focus on the government's region that represent 'the kingdom of Lanna,' consisting of 8 provinces (Chiang mai, Chiang Rai, Lampang, lamphun, Phayao, Phrae, Mae Hong Son and Nan).

Nan province, located in the most eastern part of Northern Thailand and at the border with Laos, is a sparsely populated part of the country. Only about 500,000 people live in the valley along the Nan river and in the mountain ranges on both sides of the river.

This geography is reflected in the ethnic make-up (amalia Rossi, 2012). They are made up of various different ethnic or language groups such as the Mon-Khmer

speaking minorities Lua, Htin, Khamu, Mlabri and the Hmong and Mien groups (Davis, 1984, Delcore; 2008; Rossi,2012). In addition, Nawit Ongsavangchai (2013) points out that Nan has been ranked Thailand's top five most livable cities for many years. It is well known among visitors as a living old town and becomes a famous destination for Thai visitors who love living heritage. The rich culture of Nan city and abundant nature of Nan province have attracted many visitors to make a visit. The numbers of them have increased every year; nonetheless most of them pay a visit to only some famous places. Especially, in the city such as, Muang district, the city centre where many famous temples and noble family's houses are located. For this

Reason Wat Phumin,Nan province will suitable to be a focus place in this study.

1.6 Significance of the research

1.7 Definition of Terms/Keywords

i). Wat Phumin:

ii). Sustainable Community-based Culture:

iii). Image:

- a visual representation of something: such as

(1): a likeness of an object produced on a photographic material

(2): a picture produced on an electronic display such as a television or computer screen

iv). Representation:

- a sign, picture, model, etc. of something:

Cambridge Dictionary

v). Characteristics

1.8 The overview of the thesis

The overall thesis is comprised of five Chapters. Chapter 1 is focused on the introduction and backgrounds this research. This include the introduction and backgrounds of the research, the statements of the problems, objectives, keywords, limitations and delimitions and the significance of the research. Chapter 2 is focused on the Literature Review based on the Key themes and words of Wat Phumin, Nan province, and A study on the fundamental characteristics through image representation. Chapter 3 is focused on the Research Methodology that is employed in the process of collecting data or information. The overall research data collection is employed by using Qualitative and Quantitative research approaches in the two phases of data collection processes. Chapter 4 is emphasized on the discussions of findings of second phase data collection processes. Meanwhile Chapter 5 is emphasized on the conclusion and recommendation of the research and to fulfill the Research Objectives.
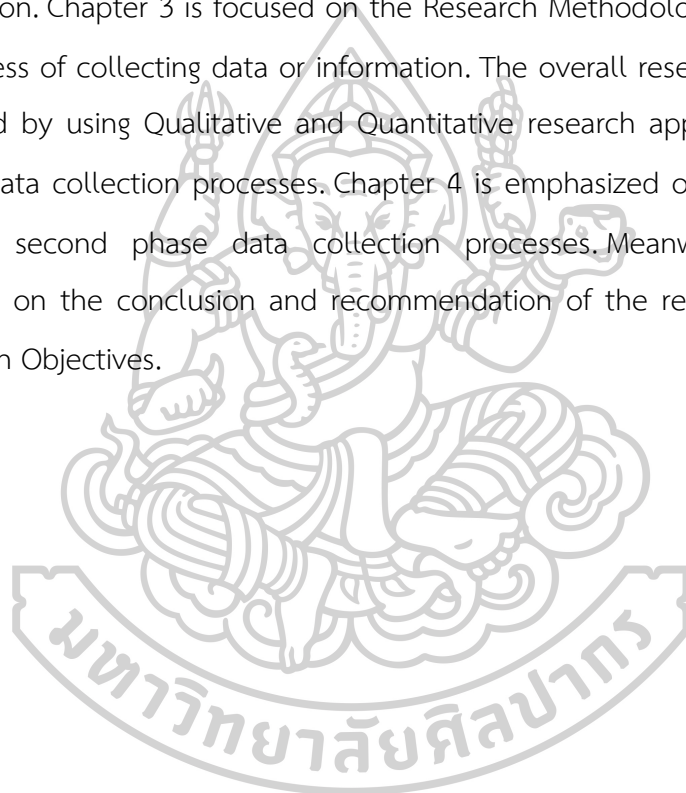
CHAPTER 2

LITERATURE REVIEW

In this chapter, the researcher attempted to examine the various purposes of this study. To begin, there are two main items to be the focus; which are

2.1 The SUBJECT is Wat Phumin

2.2 The VARIABLE is a study on the fundamental Characteristics by using image

representation

2.2.1   Why Wat Phumin is very significance in Thai Communities

2.2.2   Fundamental characteristics

2.2.3   Elaboration of fundamental characteristics for Lanna temples to play a very important role in the mural painting in Wat Phumin, Nan province

2.2.4   Image

2.2.5   Why image is important in communication

2.2.6   How images can help to identify the important characteristics of Wat Phumin

The information that need to be explored and what had been achieved, with this chapter will help the researcher to understanding the whole image of the topic better which can lead to the next step of field study, data analysis, findings and evaluation at the end of the research.

The Subject of the Research

2.1 Wat Phumin, Nan province

Figure 11 Wat Phumin, Nan province

Source : Researcher's photographs, on site studied at Wat Phumin, Nan provine on November 23, 2014

Wat Phumin is situated at Pha Kong Road, Nai Wiang District, Amphoe Mueang Nan, Nan, 55000. Wat Phumin has established long as a significant landmark of the province and the kingdom for over 400 years. The temple's architecture features magnificent art style. The four-sided gable roof hall serves not only as the vihara but also as the ubosot. In the middle of the hall locates four identical Buddha images facing outwards to the four directions. The hall on the body of a large Naga and has stairs entrance on each of the hall's four sides. The mural painting inside the hall adds exceptional architectural value. Nan mural painting represents Nan's invaluable heritage. As a result, at Wat Phumin tourists from around the world who come to see Lanna mural paintings will gain an experience while looking at them.

John Dewey (1934) mentions art as:

An experience has pattern and structure, because it is not just doing and undergoing in alternation,but consists of them in relationship. To put one's hand in the fire that consumes it

is not necessarily to have an experience. The action and its consequence must be joined in perception.This relationship is what gives meanings; to grasp it is the

objective of all intelligence. The scope and content of the relations measure the significant content of an experience (p.44).

Top (outside)

Top (inside)

North

East

South

West
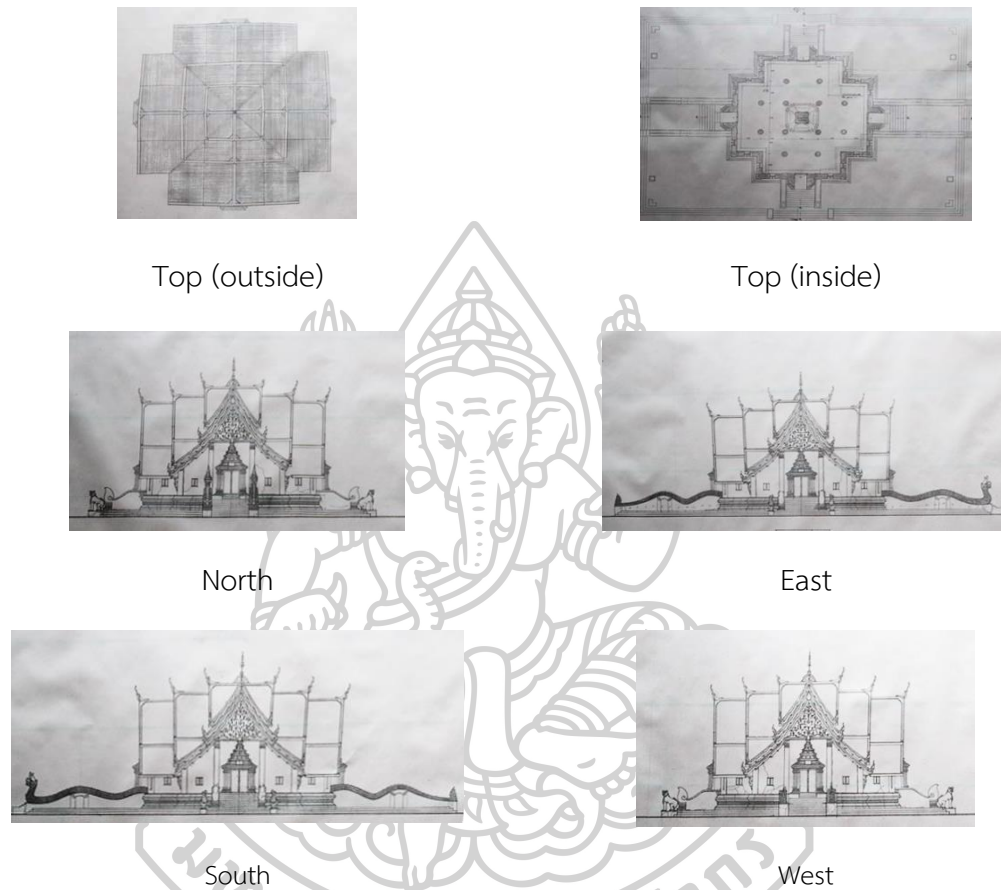
Figure 12 Wat Phumin, Nan province plans

Source: The 7th Regional Office of Fine Arts, Nan province, on site studied on November 23, 2014.

Nan province,located in the most eastern part of Northern Thailand and at the border with Laos, is a sparsely populated part of the country. Only about 500,000 people live in the valley along the Nan river and in the mountain ranges on both sides of the river.

This geography is reflected in the ethnic make -up (Amalia Rossi, 2012),they are made up of various different ethnic or language groups such as the Mon-Khmer speaking minorities Lua, Htin, Khamu, Mlabri, and the Hmong and Mien groups (Davis, 1984; Delcore, 2008; Rossi,2012).

Nan becomes tourist attraction because it boasts a rich history as well as vibrant local cultures and traditions. Just over a hundred years ago, the area played a significant role as the gateway to the Lanna kingdom (TAT News, 2015).

In addition, Nawit Ongsavangchai (2013) points out that Nan ranked Thailand's top five most livable cities for many years. It is well known among tourists as a living old town and becomes a famous destination for Thai tourists who love living heritage. The rich culture of Nan city and abundant nature of Nan province have attracted many tourists to make a visit.

The numbers of them have increased every year; however, most of them pay a visit to only some famous places. Especially, in the city such as Muang district, the city centre where many famous temples and noble family's houses located. For this reason, Wat Phumin, Nan province will suitable to be a focus place in this study.

Figure 13 Map of Nan province

Source : Accessed February 4, 2020, available from

http://upload.wikimedia.org/wikipedia/commons/d/da/Thailand_Nan.png

2.2 The VARIABLE is a study on the fundamental Characteristics by using image representation

2.2.1.Why Wat Phumin is very significance in Thai Communities

2.2.1.1. Religion

Temple is a center for learning the teaching of the Buddha. Most of Thai people and other ethnics in the northern parts of Thailand are Buddhists, they came to temples not only for learn the teaching from the Buddha through the monks but also spend time to read the books in Ho Dhamma which refers as a library within the temple. Wat Phumin is one example of Lanna temples that comprises the element of Lanna temples in three architectural building which are Vihara, Ubosot, and Ho Dhamma. Nithi Sthapitanonda et al. (2015) explains that Hor Dhamma in Lanna dialect means a hall of Tripitaka. It is a small two-story building. The upper floor was used to keep palm leaf manuscripts, and Tripitaka.

Figure 14 An example of old photograph of Wat Phumin, Nan province

Source : siamsouth-noppadon.blogspot, Wat Phumin, Nan province, accessed on February 4, 2020, available from http://siamsouth-noppadon.blogspot.com/2015/12/blog-post_62.html

Wat Phumin as a center of learning

Wat Phumin as a ritual ceremony

Wat Phumin as a distinction architecture

Figure 15 Photographs of Wat Phumin, Nan province at the current situation

Source : Researcher's photographs , on site studied at Wat Phumin, Nan provine on November 23, 2014.

Wat Phumin built in the 16th century, after the construction Nan kingdom has occupied through different rulers until King Ananta in 1857. However, the faith of Buddhism as a religion from the past until present still strong in Nan province.

2.2.1.2. Culture

Historically, Wat Phumin built with influenced from Burma while Nan is under the rules of Burma. However, Nan people are most of the people who live in this area. In the meantime, during the time of was in Nan kingdom. There are the people who came to Nan as prisoners of war to work in Nan. As times went by, these people has lived in Nan and became the residents. Most of the ethnics in Nan is Tai Lue.Tai Lue

has an influenced on culture in Nan province, such as tattoos, costumes. As a result, it coexists the culture of Nan people and Tai Lue people in Nan province.

2.2.1.3. Painting (Mural paintings)

In his 'Study of Thai Traditional Architecture', Wattana Boonjub (2009) describes that Mural paintings recreate the walls, comprises ordination and visual images with some texts which designed for spiritual instruction. He points out that Mural painting is used to teach Thai people dates back before the 20th century. Most Thai population were illiterate, only Buddhist monks educated in the temple which to study the ancient scriptural language 'Pali'.

As a result, murals were used to represent the teachings of Buddha because they were easy to understand and remember. In addition, there are three categories for storytelling on Lanna mural paintings at Wat Phumin, Nan province. Tai - Lue artists depicting 'Story of the Buddha' as the first category and 'Previous life stories of the Buddha' as the second category on the upper parts of the wall and the lowers parts depicts 'the ordinary life of local people' as the third category. These paintings are very special and famous that they considered one of the most beautiful paintings in Lanna and Thailand.

| Story of the Buddha | Previous life stories of the Buddha | The ordinary life of local people |
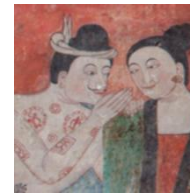
Figure 16 Photographs of the images in category that depict at Wat Phumin, Nan province

Source : Researcher's photographs, on site studied at Wat Phumin, Nan provine on November 23, 2014.

2.2.2. Fundamental characteristics

Fundamental characteristics for Lanna temples (temples in the northern of Thailand) are

2.2.2.1. Buildings that stand for the three jewels of Buddhism, which are the Buddha, his teachings (Dharmma), and his followers (Sangha).

2.2.2.2. A distinction architecture for a specific purpose.

2.2.2.3. A school for teaching and learning for monks, young monks, people and their children from both the temple and its communities nearby.

2.2.2.4. A place for meditation.

2.2.2.5. A place for a ritual ceremony.

2.2.3. Elaboration of fundamental characteristics for Lanna temples to play a very important role in the mural painting in Wat Phumin, Nan province as follows;

2.2.3.1. Most of the building that called temple or Wat (in Thai), it built to

represent the Ratanattaya, means The triple gem of Buddhism comprises the Buddha, his teachings (Dharma), his followers (Sangha). These three components are existing in every temple.

First, there are four statues of the Buddha that face to four directions at Wat Phumin, Nan province.

Second, Wat Phumin has a building to keep the doctrine of the Buddha's teaching called Hor Trai within the area of the temple. Third, Wat Phumin has monks (Sangha) to dwell at the temple to perform the monk's duty. From an architectural standpoint, these fundamental characteristics of of Lanna temples have influenced on the mural paintings inside the temple not only Wat Phumin but also the other Lanna temples in the northern part of Thailand.

First, the position of the image of the Buddha will paint at the top of the wall in all sides of the wall.

Second, the image of his followers (Sangha) will paint with the Buddha, especially at Wat Phumin, Nan province.

Third, the gesture of the Buddha in the painting depicts the scenes when the Buddha was teaching about the Truth (Dharmma) in different times and places, such as the event of his enlightenment day, the event of his teaching to 1,500 followers (Sangha), and the day he has passed away.

2.2.3.2. Buddhist cosmography has influenced on building temples in Theravada Buddhist countries, especially Southeast Asia. Buddhist cosmography existed dates back in the 14th century. It written in the book titled Tribhumi, means three worlds (Heavens, Human's world, Hells. The book Tribhumi introduced by King Lithai of Sukhothai Kingdom (1348-1369 AD). This fundamental characteristic has influenced in

both the function of the building and the mural paintings at Wat Phumin, Nan Province.

For the architectural of the building, the temple will reflect as Mount Meru in Tribhumi, which is the chief mountain of cosmic geography. C.J. Reynolds (1976) describes that in Tribhumi discusses about there are the six heavens, the four levels of formless brahma deities, the sixteen levels of brahma deities form, the divinities of nine planets, the four continents, and the chief mountains of cosmic geography.

As a result, Wat Phumin, Nan province and temples in all the regions of Thailand built based from the notion of Tribhumi. Imaginably, the building stands for the top of the world as close as it gets to heaven.

The notion of Tribhumi also has influenced on the function of mural painting inside the temple. The images of the paintings will reflect the stories about heaven, earth, and hell in various ways. Especially, Wat Phumin, Nan province contain the paintings of heaven from Nimi Jataka tale, the painting of human's world from the way of life of Nan people and the paintings of hell from Nimi Jataka tale.

2.2.3.3. Wat Phumin, Nan province built as a particular architecture with a specific purpose. Temple built to be a landmark of the location. Therefore, the temple built to be the most beautiful architecture as much as possible.

Historically, Wat Phumin built in the period of Ayutthaya dynasty (1351-1767 AD), under King Chettabut Phrommin (1591-1613 AD) a Nan ruler under occupation by Burma, he constructed the temple in 1602 AD after he had governed Nan in 1596 AD for six years.

As a result, the style of the architecture of the building has an influential from Buma. Wat Phumin has a style of Jaturamuk or building with four gable ends, which similar to Ananda Temple in Burma.

Same with the mural painting , there is a specific purpose for painting inside Wat Phumin, Nan province. However, it took about 261 years later to paint murals inside the temple. King Ananta Woraritthidet became King of Nan in 1857 AD and built about twenty religious building throughout his kingdom under his reign (1852-1891 AD). King Ananta Woraritthidet was ruled in the same period of King Rama IV of Thailand (1804 -1868 AD), he has been in Bangkok in 1857. Undoubtedly, he must have absorbed the information about both domestic and abroad situation while he was in Bangkok. When he renovated Wat Phumin as a one of the Nan's royal temples. King Ananta Woraritthidet hired Thit Buaphan (a Nan local artist) and his artisans to paint mural paintings on four sides of Wat Phumin's wall under his supervision.

2.2.3.4. Wat Phumin, Nan province is a religious building that serve as a school for teaching monks, young monks, people and their children from their communities around the temple. They came to Wat Phumin to educate from the senior monks in different knowledge, such as the knowledge from the Tripitaka (the book of Buddha's teaching), the knowledge from the monk's life experiences. The mural paintings at Wat Phumin, Nan province served as image representation of various knowledge from different perspectives. For example, the storytelling of Khatthana Kumara Jataka and Nimi Jataka, two stories of the previous life of the Buddha.

2.2.3.5. Wat Phumin, Nan province as a place for mediation. For architectural purpose, it served as a place for finding peace. In the meantime, the mural paintings

have served as a visual environment for the people to look while they are mediating. Basically, mural painting is art.

2.2.3.6. Wat Phumin, Nan province as a ritual spot. For architectural purpose, the building is a religious building that design for performing a ritual ceremony inside the hall (Vihara) of the temple. Evidently, Wat Phumin, Nan province has both the Hall (Vihara) and (Ubosot) within the same building. For mural painting purpose, the artist painted the scenes based on Buddhist events in various occasions all over the walls. In addition, they painted the images of Nan people in the mural paintings as parts of

mural paintings. It implies that there is Nan people to perform a ritual ceremony at Wat Phumin, Nan province forever.

2.2.4. Image

2.2.4.1. What is image

Longman Dictionary gives the definitions of Image in various meaning. In this study, there are two specific direction to explore in this study, which are "idea in mind" and "picture/what you see".

2.2.4.1.1. IDEA IN MIND

- a picture that you have in your mind, especially about what someone or something is like or the way they look

   Longman Dictionary, 2020 - see https://www.ldoceonline.com/dictionary/image

2.2.4.1.2. PICTURE/WHAT YOU SEE

- a picture of an object in a mirror or in the lens of a camera

- a picture on the screen of a television, cinema, or computer

- a picture or shape of a person or thing that is copied onto paper or is cut in wood or stone

Longman Dictionary, 2020 - see https://www.ldoceonline.com/dictionary/image

2.2.5. Why image is important in communication

This study use various theories to explore and find the fundamental characteristics of Wat Phumin, Nan province as a sustainable community-based culture through image representation.

First is introduced by John Dewey, the author of Experience and Education (1938).

2.2.5.1. **Experience as Interaction**

Dewey (1938) emphasized that "experience" refers as "interaction", that collaborate with physical nature and the living things with their surroundings. This study aims to explore the people's experiences with tangibles and intangibles through image

representation to conclude the outputs as a sustainable community-based culture of Wat Phumin, Nan province.

Experience includes feelings, sensations, concepts, psychical events, physical things, relations, actualities, potentialities, the harmonies and disharmonies of life. Later, Dewey pointed out memories and imaginations considered as components of experience.

2.2.5.2. **Mental Imagery**

Mental imagery (varieties of which are sometimes colloquially referred to as "visualizing," "seeing in the mind's eye", "hearing in the head", "imagining the feel of", etc.) is quasi-perceptual experience; it resembles perceptual experience, but occurs in the absence of the appropriate external stimuli. It is also understood that bear intentionality (i.e., mental images are always images of something or other), and to function as a form of mental representation. Traditionally, visual mental imagery, the most discussed variety, was thought to be caused by the presence of picture-like representations (mental images) in the mind, soul, or brain, but this is no longer universally accepted. (April 2,2010 from World Wide Web: http://plato.stanford.edu/entries/mental-imagery/). Mental imagery, also called and mental rehearsal, is defined as experience that resembles perceptual experience, but which occurs in the absence of the appropriate stimuli for the relevant perception.

2.2.5.3. **Visual communication theory**

The study of visual communication theory is a multi-disciplinary and multi-dimensional effort.

2.2.5.4. **Social Learning Theory**

People learn through observing others' behavior, attitudes, and outcomes of those behaviors. "Most human behavior learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions, this coded information serves as a guide for action." (Bandura,1997).

Social learning theory explains human behavior in terms of continuous reciprocal interaction between cognitive, behavioral, and environmental influences.

2.2.5.5. **Jakobson's model**

This research will use Jakobson's model to develop proper solutions in order to facilitate visitors to obtain information from Lanna mural paintings at Wat Phumin, Nan province. According to Jacobson's model which related to verbal communication. Indeed, the paintings are communicating to the viewers as well. Roman Jakobson explains that Language must be investigated in all the variety of its functions. An outline of these functions demands a concise survey of the constitutive factors in any speech event, in any act of verbal communication. The ADDRESSER sends a MESSAGE to the ADDRESSEE. To be operative the message requires a CONTEXT referred to (the "referent" in another, somewhat ambiguous, nomenclature), graspable by the addressee, and either verbal or capable of being verbalized; a CODE fully, or at least partially, common to the addresser and addressee (or in other words, to the encoder and decoder of the message); and, finally, a CONTACT, a physical channel and psychological connection between the addresser and addressee, enabling both of them to enter and stay in communication(p. 66). All these factors inalienably involved in verbal communication may be schematized as follows;

Figure 17 Jakobson's model (1960)

Source: Roman Jakobson, Language in Literature (1990)

Type	Oriented towards	Function
Referential	Context	Imparting information
Expressive	Addresser	Expressing feelings or attitudes
Conative	Addressee	Influencing behavior
Phatic	Contact	Establishing or maintaining social relationships
Metalingual	Code	Referring to the nature of the interaction (e.g. genre)

Figure 18 Jakobson's model (1960)

Source: Roman Jakobson, Language in Literature (1990)

2.2.5.6. Jakobson's model on Lanna mural paintings: A case study at Wat Phumin,

Nan province

Oriented towards	Lanna mural paintings function
Context	Events on Lanna mural paintings
Addresser	Artists
Addressee	Visitors/Users
Contact (Channel)	Wat Phumin, Nan province /Temples have the same settings*
Code	Interpretation
Message	Paintings/Storytelling/Image representation/Photographs

Figure 19 An applied Jakobson's model (1960) for Lanna mural paintings

function

Source: Researcher's table

2.2.5.7. **Contact (Channel)**

According to Associate Professor Sone Simatrung's book (2013), "Representations of the Tribhumi and cosmological beliefs in Thai mural paintings", he explains that after studies of the wall mural paintings all through the four regions of Thailand, the wall mural paintings in the north, northeast (Esarn), central and southern regions are different in design conceptualization, design pattern and their development. This is because of individual folk arts cultures and its different historical background which can be presented into three zones, which are Lanna cultural zone (northern region), Esarn cultural zone (norteast region) and Ayutthaya / Rattanakosin cultural zone which cover both central and southern regions (p.33). Therefore, contact (channel) of communication will be suitable for Lanna temples only.

2.2.6. How images can help to identify the important characteristics of Wat Phumin

In this study, the source of images came from two different approaches as one from mental imagery and another one came from photographs of mural paintings of Wat Phumin, Nan province.

2.2.6.1. **Mental imagery**

To identify the important of characteristics of Wat Phumin by mental imagery from local people will put the elements of important characteristics into perspective. This method use as the first step to find out the common understanding from the local people. As a result, the images that the local people have selected can identify the important of Wat Phumin as a subject of this study.

2.2.6.2**. Image representation**

Image representation of mural paintings selected from focus group, eye-tacking and heat maps on photographs of Lanna mural paintings from Wat Phumin, Nan province.

As a result, the amount of ten photographs from the selection from the people will process with art analysis by Edmund Feldman. As a result, ten images will reflects the important characteristics of Wat Phumin.

2.2.6.3. **Focus group**

Robert Merton(1987), he explained that the basic purpose of the "focused" interview was to gather qualitative data from individuals who have experienced some "particular concrete situation", which serves as the focus of the interview (Merton & Kendall, 1946, p.541).

2.2.6.4. **Eye - tracking**

Eye-tracking is a process of measuring the point of looking at the images. In this study used the eye-tracking methodology for selecting ten photographs of Lanna mural paintings by the participants.

2.2.6.5. **Heat maps**
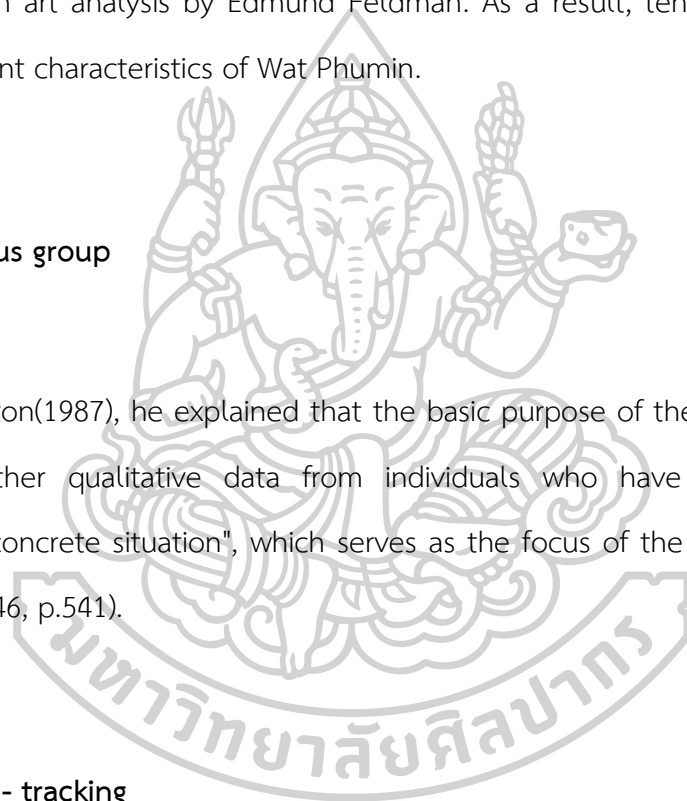
A heat map is a graphical portrayal of data where values are illustrated by color. In this study apply the heat maps technique to identify ten images that majority have selected together repeatedly from the high to low numbers respectively on Lanna mural paintings.

2.3 Summary

In this study, the subject is Wat Phumin, Nan province and the variable is a study on the fundamental Characteristics by using image representation. This study have applied various methodologies under design thinking methodology's framework to obtain all the objectives of this study. Moreover, the design thinking methodology refers as a modern tool to acquire a possible outcome from different angles. In addition, the definitions of theories and tools under design thinking process were described in chapter 2, such as Mental imagery, Visual communication theory, Social learning theory, Jakobson's model, Image representation, Focus group, Eye-tracking, heat maps.

Robert Merton(1987), he explained that the basic purpose of the "focused" interview was to gather qualitative data from individuals who have experienced some "particular concrete situation", which serves as the focus of the interview (Merton & Kendall, 1946, p.541).

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will explain the method adopted by this research. This chapter will mention every components involved in conducting this research on Design thinking process on Sustainable community based - cultural model for tangible heritages : A case study of Wat Phumin, Nan province. Finally, this chapter provides a detail explanation of the selected mode of analysis used and data collection method through various methodologies that related with Design thinking as figure 20.
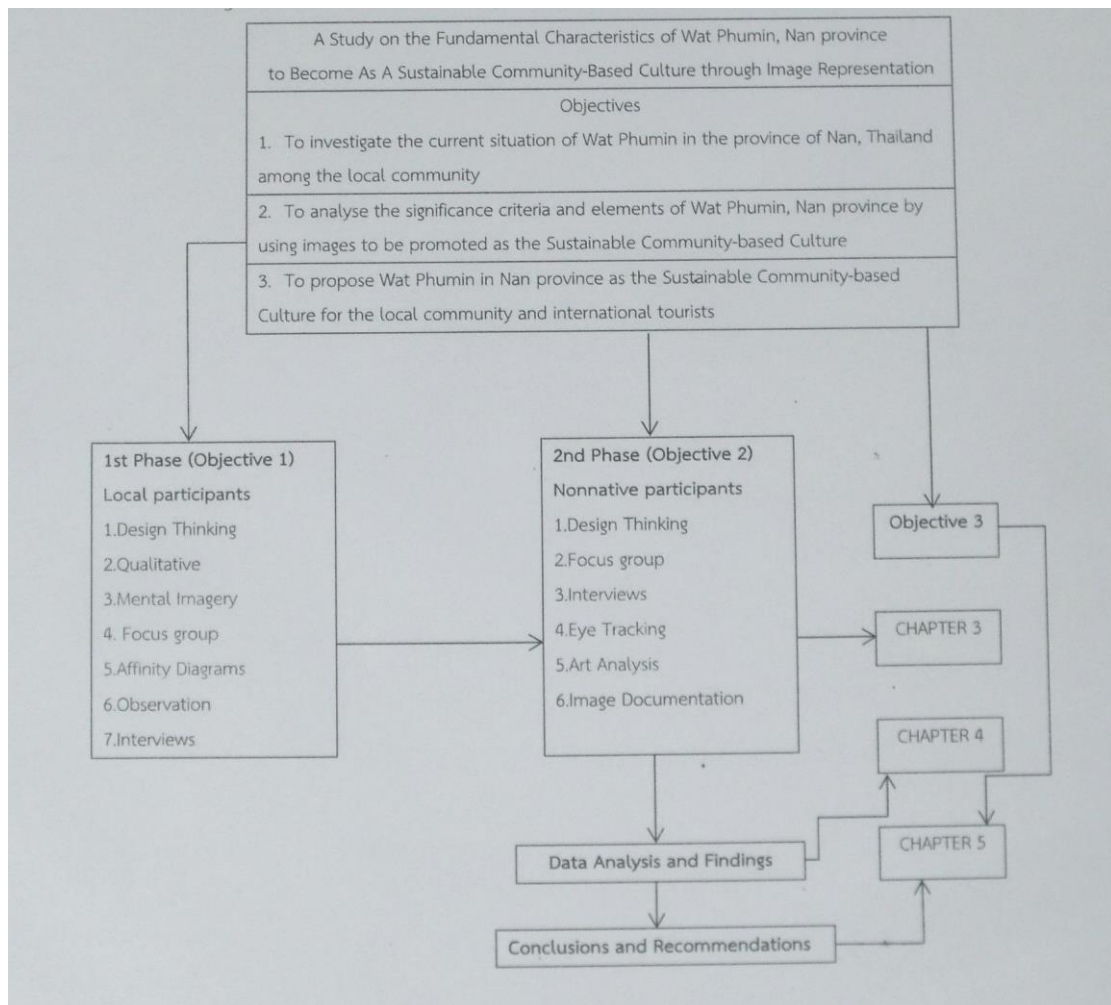
Figure 17 Diagram for the process of data collection

Source : Researcher's diagram

The methodology that used for 1st phase to obtain objective 1, it comprised with various research tools such as qualitative, observation, interviewing, focus group, mental imagery, affinity diagrams. These were tools under Design Thinking process.

In this study, these tools worked effectively on the stakeholders, which local community, government authorities, local authorities, private sectors, art and cultural organization.

The researcher has selected several tools to gather the data from different stakeholders as figure 21.
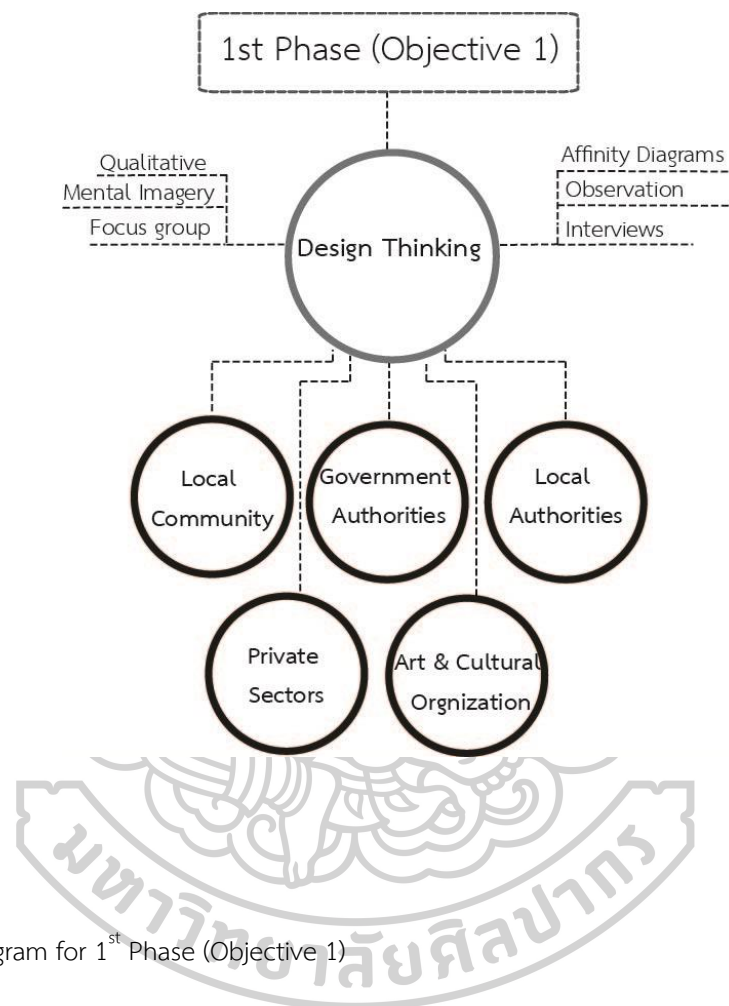
Figure 21 Diagram for 1st Phase (Objective 1)

Source : Researcher's diagram

The methodology that used for 2nd phase to obtain objective 2, it comprised with various research tool such as focus group, interviews, Eye tracking, Art analysis, image documentation, these were tools under design thinking process.

In this study, these tools worked effectively for Non-native participants, who gave their insights and opinions on the data for objective 2 as figure 2.
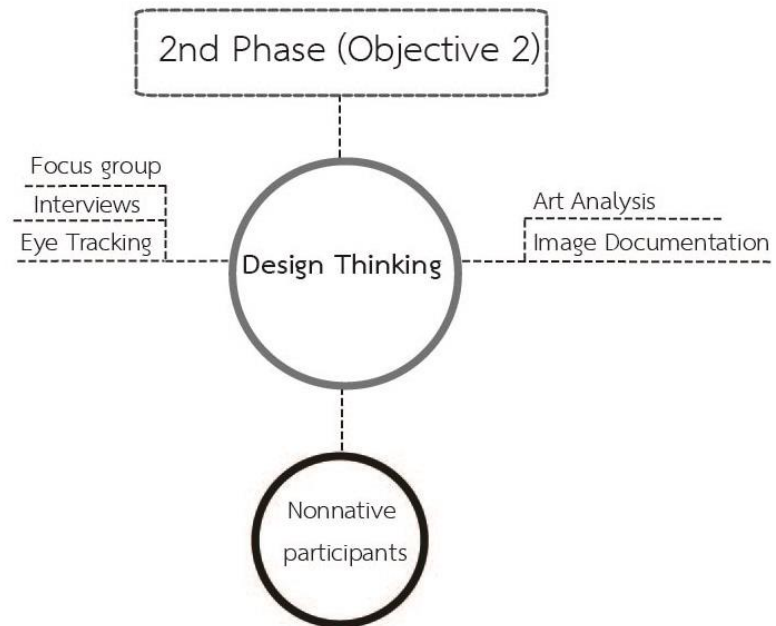
Figure 18 Diagram for Diagram for 2nd Phase (Objective 2)

Source : Researcher's diagram
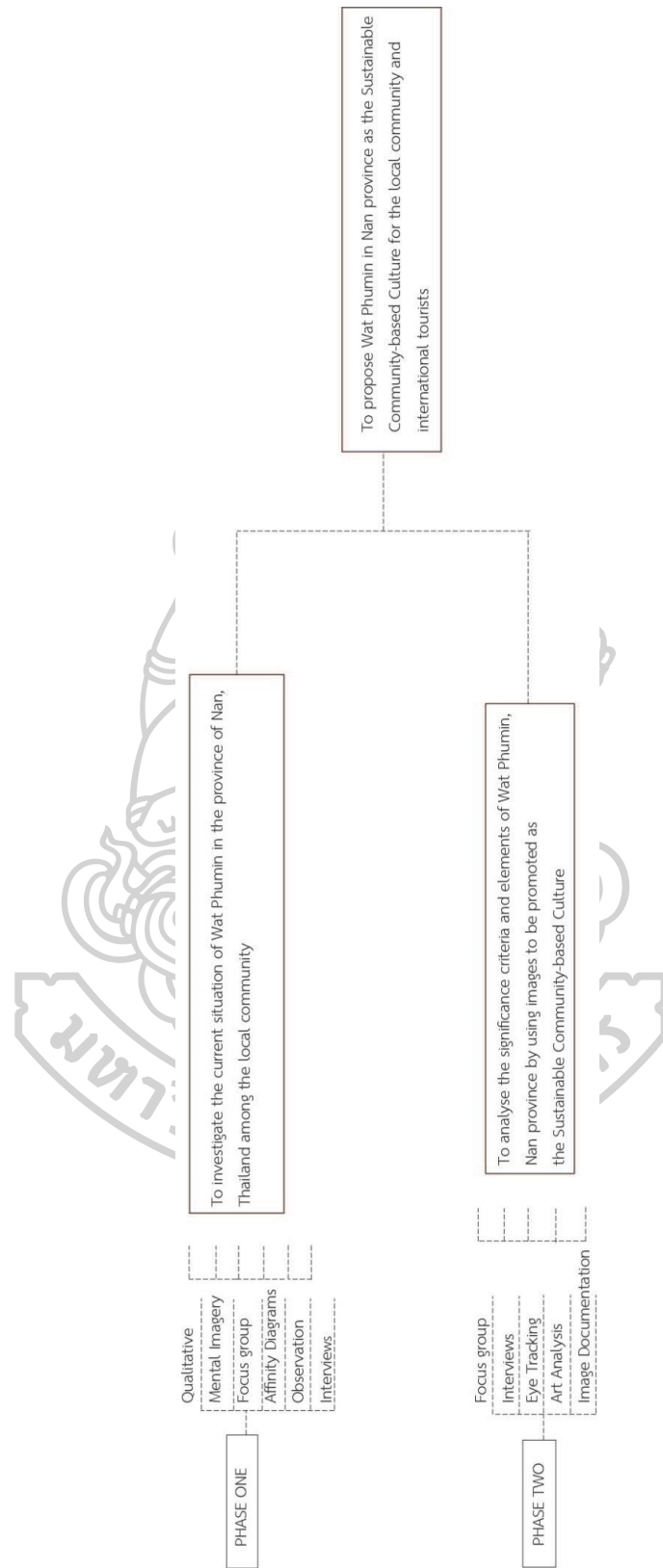
Figure 19 Diagram for the findings from Phase One and Phase Two

Source : Researcher's diagram

Figure 20 Ajarn Pattana Decha, the professional photographer of Mural painting at Wat Phumin, Nan province this research

Source: Accessed February 5, 2020, available from Pattana Decha Facebook

Figure 21 Image Representation of Lanna mural paintings at Wat Phumin, Nan province
Source: Accessed February 5th, 2020, available from#ReviewThailand from
https://twitter.com/hashtag/วัดภูมินทร์

3.2 Research Design/Structure

This study on the fundamental characteristics of Wat Phumin, Nan province to become as a sustainable community-based culture through image representation. It will be investing on various information and studies involved to the topic. The information that need to be explored with this chapter will help the researcher to understanding the whole image of the topic better which can lead to the next step of field study, data analysis, design implementation, and evaluation at the end of the research.

3.3 Methodology

This chapter is divided methodologies as following;

3.3.1 Design Thinking

3.3.1.1 Hasso Plattner Institute of Design at Stanford University

3.3.1.2 Design Thinking : A non - linear process

3.3.2 Research through Design

3.3.3 Participatory Design

3.3.3.1 The design research process

3.3.3.2 The UX Research Process

3.3.3.3 Participatory design is a method

3.2.3.4 Participatory design is iterative

3.3.4 Three pillars of sustainable development

3.3.4.1 Environmental Sustainable Development

3.3.4.2 Social Sustainable Development

3.3.4.3 Cultural Aspects of Sustainable Development

3.3.5 Fourth Phase is Culture for Sustainable Development Model

3.3.5.1 The Four Well - beings of Community Sustainability

3.3.5.2 Cultural Aspects of Sustainable Development

3.3.1 Design Thinking

"Design thinking is a set of principles (of generating innovative ideas) that can be applied by diverse people to a wide range of problems that is no longer limited to the introduction of new physical products but includes new sorts of processes, services, interactions, entertainment forms, and ways of communicating and collaborating."

Tim Brown (2009) Change by design p.3-4
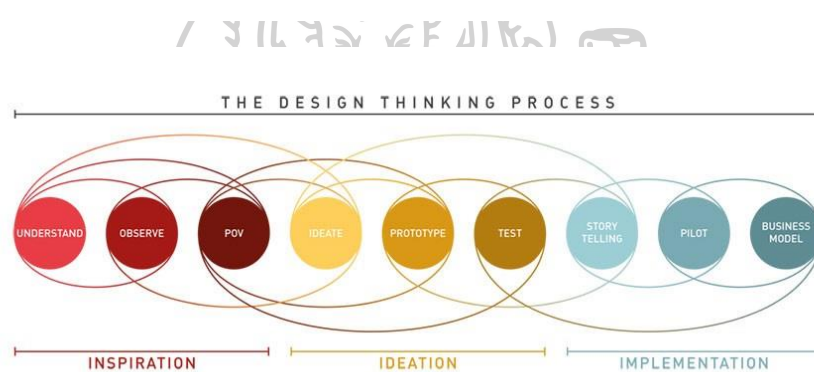
Figure 22 The design thinking process by IDEO (2015)
Source: The design thinking process by IDEO, accessed on Febuay 5th, 2020, available from
https://www.interaction-design.org/literature/article/design-thinking-a-quick-overview

Tim Brown, president and CEO assert that, Design Thinking as figure 25, is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success (IDEO, 2015).

According to Robert Curedale (2016) describes what is design thinking as follows;

Design thinking is a people centered way of solving difficult problems it follows a collaboration team based cross-disciplinary process. It uses a toolkit of methods and can be applied by anyone the most seasoned corporate designers and executives to solve the problems.

In addition, Design thinking is an approach that seeks practical and innovative solutions to problems. It can be used to develop products, services, experiences and strategy. It is approach that allows designers to go beyond focusing on improving the appearance of things to provide a framework for solving complex problems. Design Thinking combines empathy for people and their context with tools to discover insights. It drives business value. Companies such as GE, Target, Procter and Gamble IDEO as Intuit have successfully applied this approach to design as figure 25.

Consequence, design thinkers observe users and their physical environment, interact with them with prototype, and feed the outcomes of their experiences back into the design.

On the perspective, Design Thinking has six principles as Rich Crandall (2010) concluded that 1) **Human Centered** (often referred to as User Centered) is a core tenet of the design process at the stanford d.school. As Human Centered means that the design process is grounded in responding to human needs and user feedback 2) **Mindfulness of Process** is one of the key tenets of design thinking at the stanford d.school. In essence, it is a call to find ways to be thoughtful not only of the work that one do, but of how one do that work, and of how one will improve on one's methods in the future. 3) **Culture of Prototyping** pushes one to design ways for the stanford d.school community to stay experimental, to build to think, to engage people with artifacts, and to elicit and receive feedback in a way that will help us learn more about both our designs and about design thinking. 4) **Bias Toward Action**

is a core principle or mindset of design thinking. In the most basic sense, it means that one promote action-oriented behavior, rather than discussion based work. 5) As principle, **Show Don't Tell** takes traditional visualization another step further, including sketching and traditional prototyping and adding digital communication and good storytelling to the mix. 6) The stanford d.school is a place for people from disciplines that promote vastly different thinking styles to work together. The benefit of Design Thinking is that Design Thinking is a process for problem solving. Design Thinking is a sentimental human process that taps into abilities that all have but was not able to acknowledge by more conventional problem solving practices. It relies on user ability to be intuitive, to recognize patterns, to construct ideas that are emotionally meaningful as well as functional, and to express ourselves through means beyond words or symbols. Nobody wants to run an organization on feeling, intuition, and inspiration, but an over-reliance on the rational and the analytical can be just as risky.

The reason that this paper used Design Thinking Methodology. Because of it is suitable for this kind of research that involved with various elements.

As Robert Curedale (2016) describes characteristics of the problems that design thinking can get involve with as follows;

1. People focused

2. Collaborative

3. About building doing and testing things

4.The problem has an iterative process

5. The problem has an agile perspective

6. The problem follows a tested and successful process

7. The problem has a wide range of tools and methods that can help overcome traditional problems of design process to create more usable and innovative designs (p.13).

Finally, this research was created with the Research Methodology Approach based on Design Thinking Methodology by Emrah Yayici (2016) served as a common platform for research process as show in figure 26, then separated into 6 Following phases.
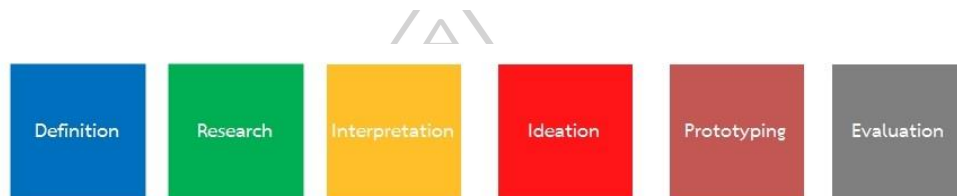
Figure 23 Design Thinking Methodology

Source : Emrah Yayici, Design Thinking Methodology Book (2016), p.11

1. Method for the definition phase requires concretization skills.

2. Method for the research phase requires observation, asking the right questions, and contextual thinking skills.

3. Method for the interpretation phase requires empathy, pattern recognition, and intuition skills.

4. Method for the idea generation phase requires empathy, pattern recognition, and intuition skills.

5. Method for the prototyping phase requires visual thinking and conceptualization skills and the ability to simplify and create allegories.

6. Method for the evaluation phase requires critical thinking skills.

In conclusion, the method follows a six-step of the research process, beginning with the collection of data on customer work practices through interviews and observation (contextual inquiry), followed by modeling of the co-creation workflow (work modeling) and the analysis of results using affinity diagramming (consolidation). The system is then redesigned. (Work Modeling) and the analysis of results using affinity diagramming (Consolidation). The system is then redesigned (Work redesign and User environment design) and tested with users before implementation (Test with Users). Thus, Contextual Design handles a qualitative research approach to build a software-based product.

3.3.1.1 Hasso Plattner Institute of Design at Stanford University

Design thinking process model by Hasso Plattner Institute of Design at Stanford University as figure 27.
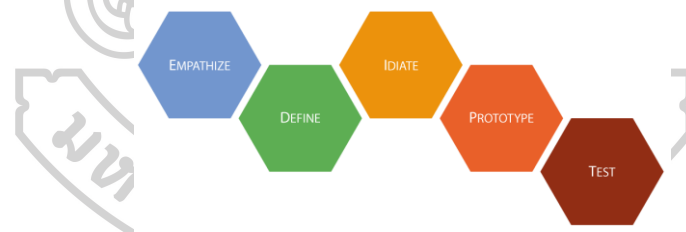
Figure 24 Design thinking process model

Souce : HP,**Designing for the Future of Education Requires Design Education**, accessed on September 17, 2019, available from https://www.researchgate.net/figure/Design-thinking-process-graphic-by-dschool-Hasso-Plattner-Institute-of-Design-at_fig1_309479446

3.3.1.2 Design Thinking : A non - linear process

Design Thinking : A non - linear process as figure 28 .
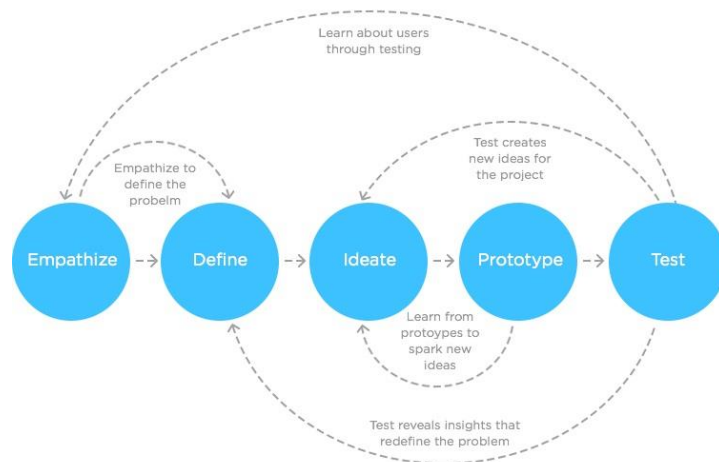
Figure **25** Design Thinking : A non - linear process model

Source: Design Thinking : A non - linear process , **A Design Thinking-Based Study of the**

Prospect of the Sustainable Development of Traditional Handicrafts, accessed on February 5,

2020, available from https://www.researchgate.net/figure/Proposed-five-stage-design-thinking-

model-A-non-linear-process-Teo-Yu-Siang-and-the_fig1_335625850

3.3.2 Research through Design

For a long time, design and research have been regarded as separate endeavors.

First, doing research became a recognized part of designing products (and later

services). Second, design activities, along with designed artifacts, would become

established as the chief elements in the process of generating and communicating

knowledge. As Frayling's speech (1993, 2015) these two have been concluded to as

research for design and research through design (RtD), respectively as figure 29 and

figure 30.
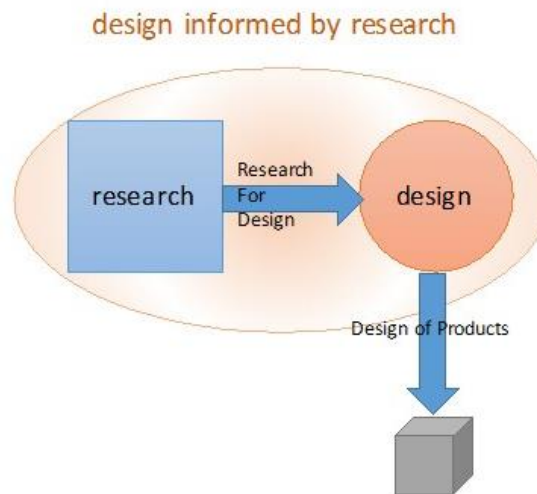
Figure 26 Research for design

Source: Stappers et al.The Encyclopedia of Human-Computer Interaction, 2nd Ed., accessed on February 7, 2020, available from https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/research-through-design
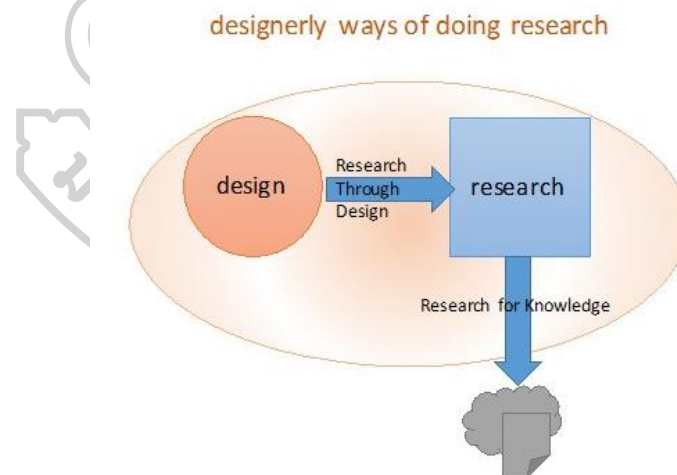
Figure 27 **Research through Design**

Source: Stappers et al.The Encyclopedia of Human-Computer Interaction, 2nd Ed., accessed on February 7, 2020, available from https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/research-through-design

As a result, this paper selected research types referred as Research through design, which doing design as a part of doing research. In addition, this research uses Design Thinking process framework as a core research framework. Design Thinking Process framework the methods are related to process of study in each step to create a new insight from the research. Furthermore, using a combination or research approaches through employing a Qualitative Research Methodologies Approaches is also emphasized to help the method concentrated deeply into user insight.

3.3.3 Participatory Design

The roots of Participatory Design (PD) are deep and broad. It began in the 1970s in Scandinavia when progressive ideas spread from the society at large into emerging computer system development in the workplace.

More, the team 'participation' is commonly used within a wide range of academic disciplines and public policy ares. Including participatory art,participatory action research, participatory democracy, participatory culture, and participatory journalism, which motivated us to further uncover what is meant by 'participation' in participatory.

Participatory in PD research has had a strong focus on exploratory design projects and so far has often taken place through simple design events (e.g. Ethnographic field study or a workshop), where issues such as involving users' including the users

point of view, and participation as a matter of mutual learning have been in the foreground as figure 31.

Politics	People who are affected by a decision should have an opportunity to influence it
People	People play critical roles in design by being experts in their own lives
Contexts	The use situation is the fundamental starting point for the design process
Methods	Methods are means for users to gain influence in design process
Product	The goal participation is to design alternatives improving quality

Figure 28 The five fundamental of life aspects of Participatory Design by Sanders, E. (2013)

David Sherwin and Erin Muntzert (2013) mentions that Participatory design is a process that involves developers, business representatives, and users working together to design a solution.

Participatory design activities help one balances the gathering of inspiration to generate the right design, bolstered by information that helps one get one's design right.

Participatory design aims to bring users into the creative process. One takes part in activities with users, providing them with materials for them to descriptively discuss their personal experiences and express their ideal solutions as figure 32.
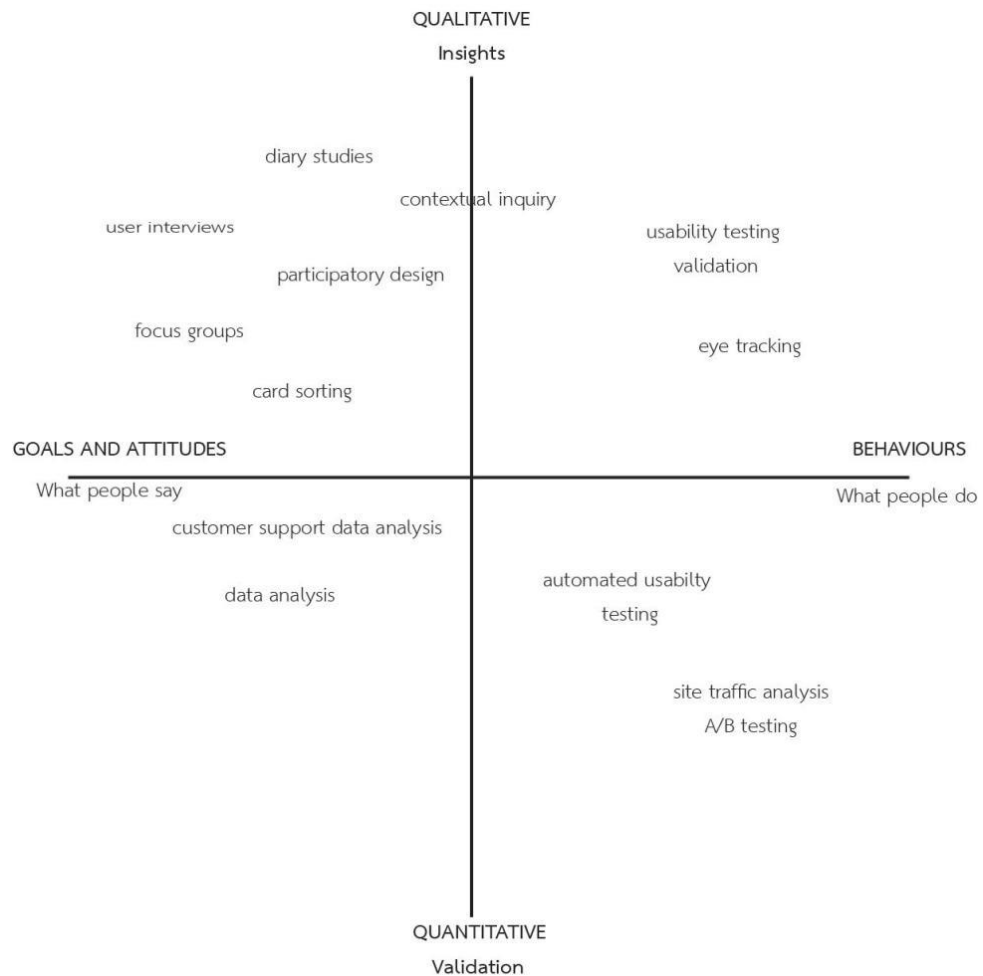
Figure 29 Participatory design activities

Source : Robert Curedale, Design Thinking Process & Methods Manual 2nd Edition (2016)

3.3.3.1 The design research process

Participatory design is a method whose use is solely dictated by one's research objectives.

3.2.3.2 The UX Research Process

The five-step process for conducting user research, originated by Erin Sanders (2014) at Frog.

Participatory design is a method whose use is solely dictated by one's research

objectives as figure 33.
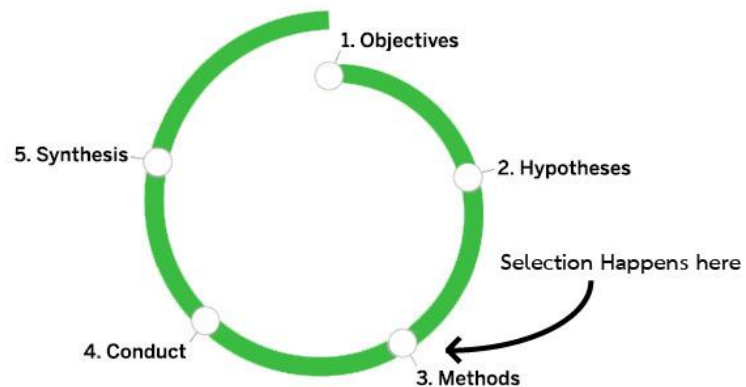
Figure 30 Participatory design process

Source : Erin Sanders , Bringing Users into Your Process Through Participatory Design (2014)

3.3.3.3. Participatory design is a method

It should work alongside many other methods and types of design research, it isn't one method to rule them all.

3.3.3.4. Participatory design is iterative

It should be used iteratively throughout the design process depending on the overall objectives, logistics, and expected outcomes of the project as figure 34.

Figure 31 Participatory design is iterative model

Source : Erin Sanders , Bringing Users into Your Process Through Participatory Design (2014)

Participatory Design Research Process

FRAMING identify research goals, objectives, questions and hypotheses

PLANNING Define activities to use to help to (dis)prove your design hypotheses

FACILITATING Best practices for moderating participatory research sessions with users

ANALYZING Ways to make sense of your research results, which will help jumpstart one next design iteration

3.3.4 Three pillars of sustainable development

In addition, at the beginning of this study to obtains a sustainable community for Wat Phumin. Nan province based on three pillars of sustainable development. As a result, a paper title "Appending Roles of Thai Temples for Sustainable Communities: A Case Study of Wat Phumin, Nan Province" has been presented at the 3rd International Conference on Media Studies (ICMS 2019), 3-6 July 2019 at Bansomdejchaopraya Rajabhat University (BSRU), Bangkok, Thailand. Indeed, this research has described the elements of creating a sustainable community for Wat Phumin, Nan province based on Three pillars of Sustainable development, which the model of three pillars of sustainable development first presented by Edward B. Barbier (1987) as a figure 35.
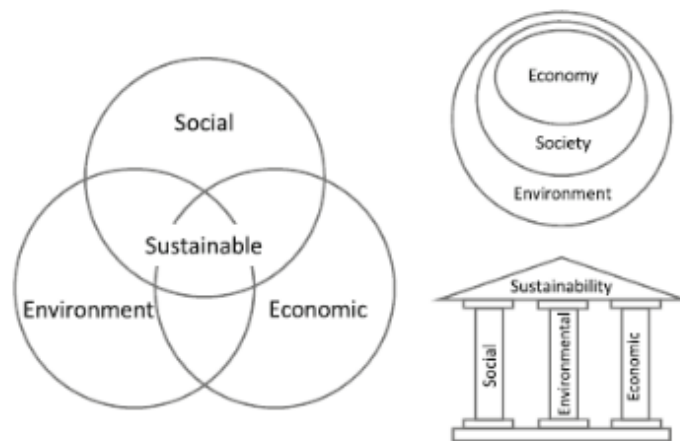
Figure 32 Three pillars of sustainability

Source : Ben Purvis et al., Three pillars of sustainability: in search of conceptual origins, accessed on February 7, 2020, available from https://link.springer.com/article/10.1007/s11625-018-0627-5

3.3.4.1 Environmental Sustainable Development

According to Urban Future Summary on "Global report on culture for sustainable urban development" the summary explains about environmental sustainable development in the phrasing of "Urban heritage conservation", is a central component of a development agenda that promotes inclusive, safe, resilient and sustainable cities. In this study, Wat Phumin, Nan province considers as a tangible heritage in the urban area in Nan province. Besides, dictionary.com also defines "Urban" means of, relating to or designating a city or town (UNESCO, 2016,p.7). Therefore, Environmental Sustainable Development has involved with an asset for cities and their communities for Wat Phumin, Nan province as Figure 36.
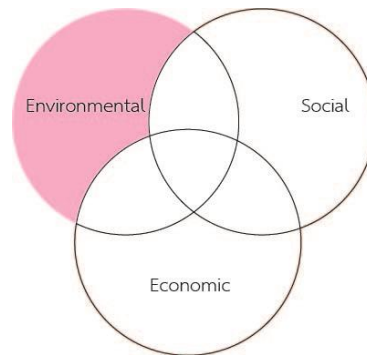
Figure 33 Environmental Sustainable Development model

Source : Researcher's diagram

3.3.4.2 Social Sustainable Development

According to the 2030 Agenda for Sustainable Development was adopted at the United Nations Summit in New York from 25 to 27 September 2015 (UN, 2020, para. 1). mentions on Social Sustainable Development to eradicate deficit in all its forms and depths, including extreme dearth, is the greatest global challenge and an indispensable requirement for sustainable development. This agenda also suggests the role of local governments is a crucial part to initiate and support spaces for dialogue and action; plan, design, implement and monitor policies and programs; and help to develop infrastructure;and to ensure that the values of heritage, diversity, and creativity are recognized, particularly in contexts where there may be neglected or threatened (**UNESCO,2016,**p.23). Therefore, Social Sustainable Development has involved with the local governments, the stakeholders, and other organizations to participate and generate the different solutions to sustain the social relationships within Phumin - Tali community as Figure 37 .
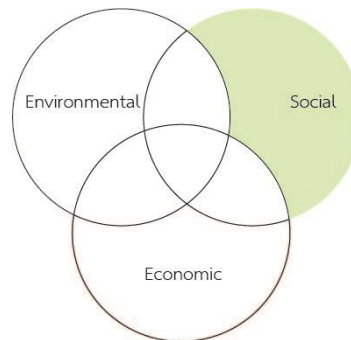
Figure 34 Social Sustainable Development model

Source : Researcher's diagram

3.3.4.3 **Economic** Sustainable Development

Economic is one of the dimensions of sustainable development. Economic sustainable development is one that raises local incomes and revenues for Phumin - Tali community at large. Gerald M. Meier (1976) points out that over the years economic development has been modified both in policy and general consensus (p.6). As a result, Economic development can be concluded that there are various ways to generate revenues to sustain the economic development for Phumin - Tali community. Therefore, Economic Sustainable Development has involved with the

local governments, the stakeholders, and other organizations to create alternative solutions for Phumin - Tali community in which the area of Wat Phumin is situated in this study as Figure 38.
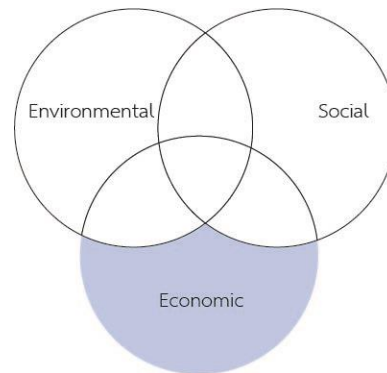
Figure 35 Economic Sustainable Development model
Source : Researcher's diagram

First Phase is Economic for Sustainable Development Model

The exploration of this study, the researcher started with the problems of Lanna mural painting on the wall of Wat Phumin, Nan province. As a result, the paper "Visual research practices on Thai Lanna mural painting: A case study of Wat Phumin, Nan province" has been presented at the 4th International Conference for Asia Pacific Arts Studies (ICAPAS) 2016, Yogyakarta, Indonesia. Besides, It has been published more in detail in Silpakorn University Journal of Social Sciences, Humanities in 2017. In 2019, the researcher has another undertaking to understand how to create a model for the sustainable community on economic.

The paper title "Practice-Based Research on Digital Technology: A Case Study of Wat Phumin, Nan Province, Thailand" has been presented at the 1st International Conference on Intermedia Arts and Creative Technology (CREATIVEARTS), on 3-5 July 2019, Yogyakarta, Indonesia. Indeed, both kinds of research on developing a model on the Economic for Sustainable Development Model coincided with the design

thinking process in "Observe" from the model of 6 Stages of Design Thinking Process from d.school as figure 39.
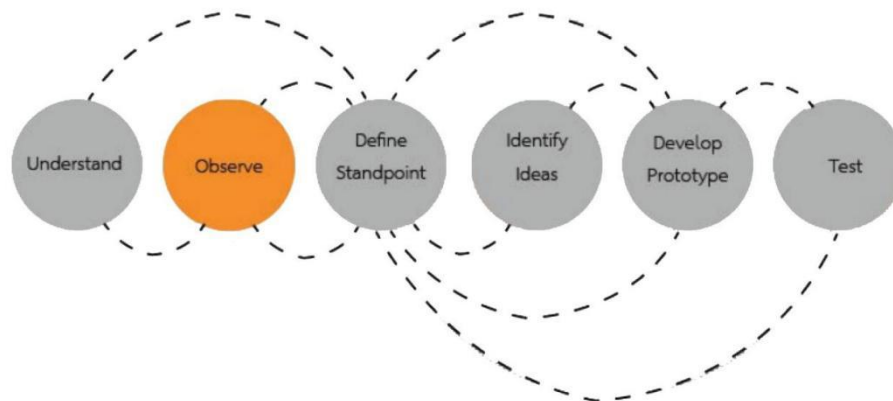
Figure 36 Six Stages of Design Thinking Process from d.school on "Observe"

Source : Michael Lewrick et al., The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems (2018)

The Design Thinking Process steps by d.school can describe as follows;

Understand: to gather information

Observe: to develop empathy for the current situation

Point of View: to connect all the empathy and summarize them

Ideate: to develop possible solutions

Prototyping: to create to solve the problem

Test: to use the innovation on the problem

Therefore, the researcher selected the "Observe" step to extend into research that supports the Economic for Sustainable Development Model. The results will show in chapter 4.

Second Phase is Social for Sustainable Development Model

In the second phase, the researcher began with the third phase of the design thinking process by d.school on the Define Standpoint step. Because the social related to many aspects around the selected site, which is Wat Phumin in Nan province. In define standpoint step has a process to analyze sustainable development for the

environmental model; which are Analyze information: Infer insights: Formulate possible questions: Specify questions as figure 40.

Figure 37 Six Stages of Design Thinking Process from d.school on "Define Standpoint"
Source : Michael Lewrick et al., The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems (2018)

Truthfully, the researcher has spends time to define standpoint on this component of sustainable development from the beginning of the research until the present. It is also the most difficult part to develop into the prototype that serves all communities. The researcher used another method, which is Participatory Design to connect the dots with the stakeholders. The results from understanding Wat Phumin, Nan province as a sustainable community-based culture, has a very strong social community that dated back at the beginning of Nan kingdom in the thirteenth century. There are many events from the past until the present that brings Nan people together and has to take care of each other to pass the obstacles that challenge them. Wat Phumin, Nan province as a sustainable community has cohesion from various groups within its community.

The researcher has conducted various research methodologies such as ethnography research, observation, interviews, focus group with the stakeholders, such as Local community (For example; Phumin-Tali), Government authorities (For example; The

7th Regional Office of Fine Arts, Nan, Office of Tourism and Sports, Nan), Local

authorities (For example; Nan municipality, Phumin-Tali village), Private sectors (For

example; The 6th Designated Areas for Sustainable Tourism Administration (dasta

area 6), Art & Cultural Organization (For example; Tourism Authority of Thailand, Nan

office) as figure 41.

To create a model on social Sustainable Development for Wat Phumin, Nan

province. The research chose to study Wat Rong Khun, Chiang Rai to understand the

collaboration from their stakeholders. The paper has published in the International

Journal of Innovative Technology and Exploring Engineering (IJITEE), the title

"Content Analysis on Developing a Sustainable Community from Wat Rong Khun

Model, Chiang Rai Province (2019)", and it has been presented in Creative Industry

International Conference 2018 (CIIC 2018), Kuala Lumpur, Malaysia on 5-6 December

2018.

Figure 38 Participatory Design

Source : Researcher's diagram

The results from this fieldwork contain a lot of data and many storytellings from different stakeholders from different organizations to understand the success story to the Phumin-Tali community with Wat Phumin, Nan province to be a sustainable community. Therefore, Participatory Design (PD) methodology is an important tool to solve this particular project with social participation. In the meantime, in Thai description that coincided with Participatory Design (PD), is called BORWORN, that contains three Thai words (Home, Temple, and Government).

Third Phase is Environmental for Sustainable Development Model

In the third phase, the researcher began with the first phase of the design thinking process by d.school on the **Understand** step. Because of sustainable development for the environmental model in this study based on UNESCO's sustainable community guidelines and World heritage's guidelines as figure 42.
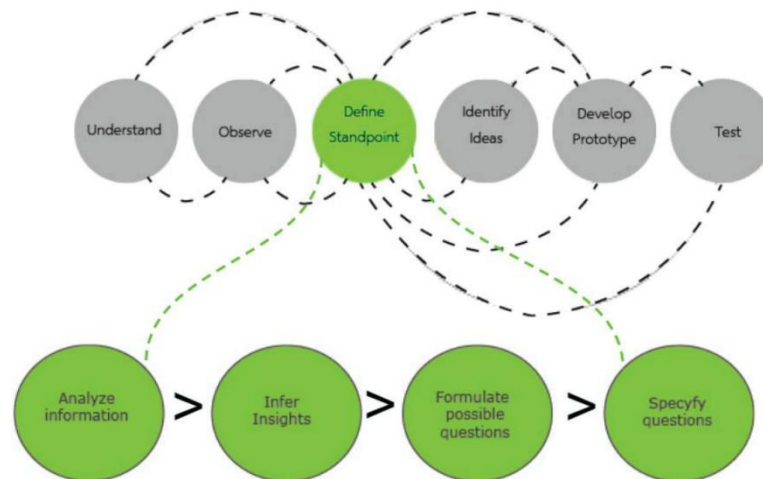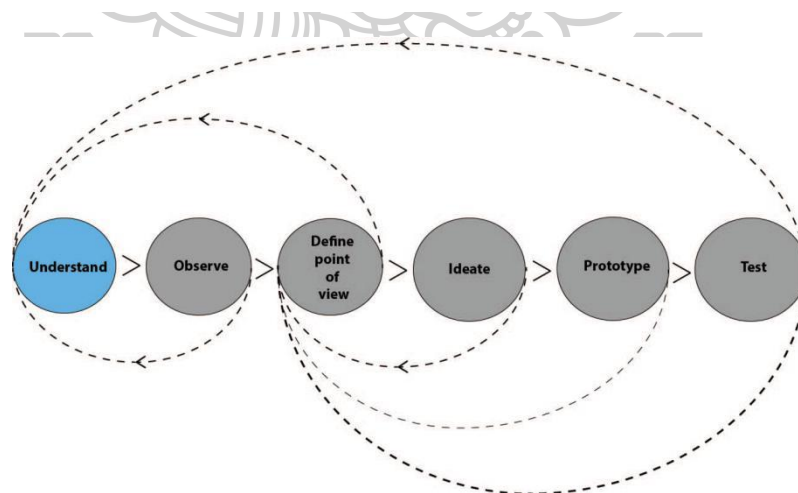

Figure 39 Six Stages of Design Thinking Process from d.school on Understand

Source : Michael Lewrick et al., The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems (2018)

According to the subject of this research based on Wat Phumin, Nan province, to put in for Sustainable Development Model. The first stage to analyze information, how tangible heritage define with UNESCO and World Heritage and has mentioned their definitions in chapter 1.

Also, a process design thinking can simply put in a micro design thinking process that shortens down the entire process into three phases relating to IDEO (a global design company), d.school (Stanford d.school), and the HPI (Hasso Plattner Institute of Design). As Michael Lewrick et al. (2018) the author of The Design Thinking Playbook describes that the SWISS ICT company has designed a simplified micro design thinking that allows for achieving the goal in a short process. The description of micro design thinking phases is Hear - Create - Deliver as figure 43 and figure 44 and 45.
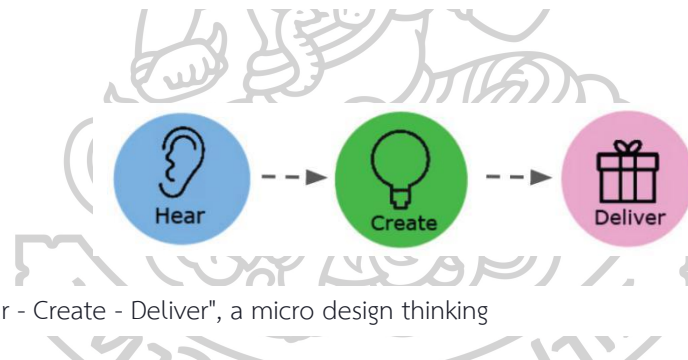
Figure 40 Hear - Create - Deliver", a micro design thinking

Source : Michael Lewrick et al., The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems (2018)

Phase	Description	Basic tools
	- Understand the project - Understand the customer problem/need - Procure information, internal and external - Gather experience directly from the customer	- Design challenge - Customer interview

Create	- Transform what was learned into potentail solutions - Generate multiple solutions and possibilities - Define solution features	- Core belief -Target customer experience chain
Deliver	- Concretize ideas - Create and test prototypes - Verify, expedite, or reject ideas - Gain insights and learn from them	- Need, Approach, Benefit, Competition (NABC) - Prototyping plan - Self-validation

Figure 41 The Swiss ICT company's definition on a micro design thinking process (2018)

Source : Michael Lewrick et al., The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems (2018)

Figure 45 Diagram of three pillars of Sustainable development of this study

Source : Researcher's diagram

As mentioned in the first chapter, this research would like to achieve cultural aspects of sustainable development that meet UNESCO's goal and World Heritage criteria as figure 46.

Figure 42 Sustainable development that meet UNESCO's goal

Source : Researcher's diagram

3.3.5 Fourth Phase is Culture for Sustainable Development Model

The fourth phase of investigation to develop a model for a sustainable community – based culture as figure 47, was conducted last. However, it became an important phase to drive every component of the four pillars of sustainability.
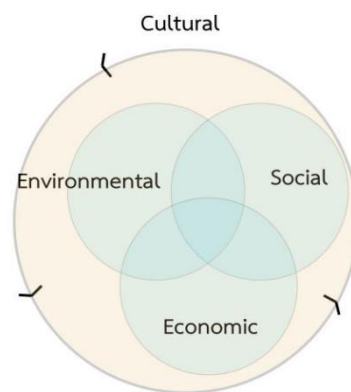
Figure 43 A model for a sustainable community – based culture

Source : Researcher's diagram

3.3.5.1 The Four Well - beings of Community Sustainability
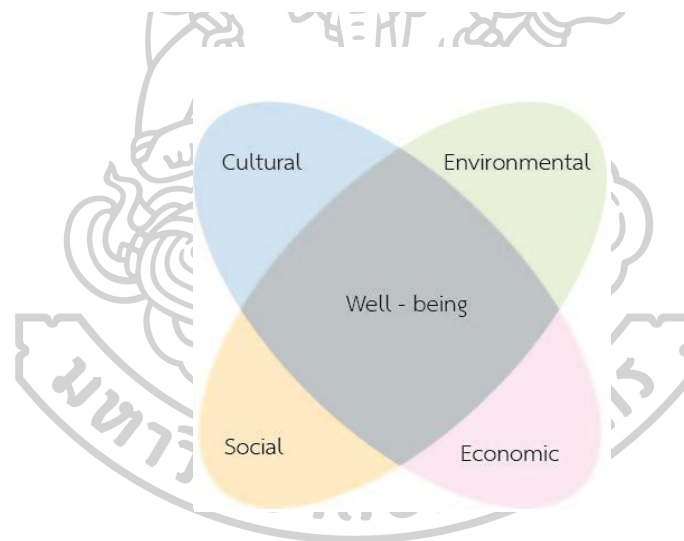
Figure 44 The Four Well - beings of Community Sustainability

Source : Vince Michael, accessed on February 7, 2020, available fom

https://vincemichael.com/2014/08/23/sustainable-development/

The model of The Four Well-beings of Sustainability as figure 47, was developed by the New Zealand's Ministry of Culture and Heritage in response to the Local Government Act 2002. (Sazonova,2014,p.10).

Cultural analyst Jon Hawkes accepts as a point or referebce the already mentioned formula for sustianability as caring for future generations to inherit a world at least as

abundant as ours. Yet he notes that the question how to archieve such as world is the subject of constant debates and those debates are for values (Hawkes,2001,p.20). Since values are formed, expressed, negotiated and kept exactly in the cultural sphere, Hawkes concludes that cultures is a key factor for achieving a sustainable society. He motivates the cultural aspect of sustainable development in his concept of the Four pillars of sustainability. In 2001 Hawkes published his thesis in the book "The fourth pillar of sustainability: Culture's essential role in public planning" where he reviews four equal elements in society - responsibility for the environment, economic health, social justice and cultural vitality (Hawkes 2001, p.25).

His four pillars model not only includes culture as an equal sphere but also accepts that the life quality of a certain community is tightly connected to cultural commitment, expression and dialogue in that cultural diversity for social sustainability are as great as that of biodiversity for ecological sustainability.

In addition, Hawkes adds that "Diverse values should not be respected just because we are tolerant folk, but because we must have a pool of diverse perpectives in order to survive, to adapt to changing condition, to embrace the future." (Hawkes 2001,p.23).

Moreover, Hawkes explians that since culture penetrates every human action and all aspects of public life, it should consider cultural as "lenses" or "filters" into the three areas of public planning - economy, ecology and social affairs as well as figure 48.
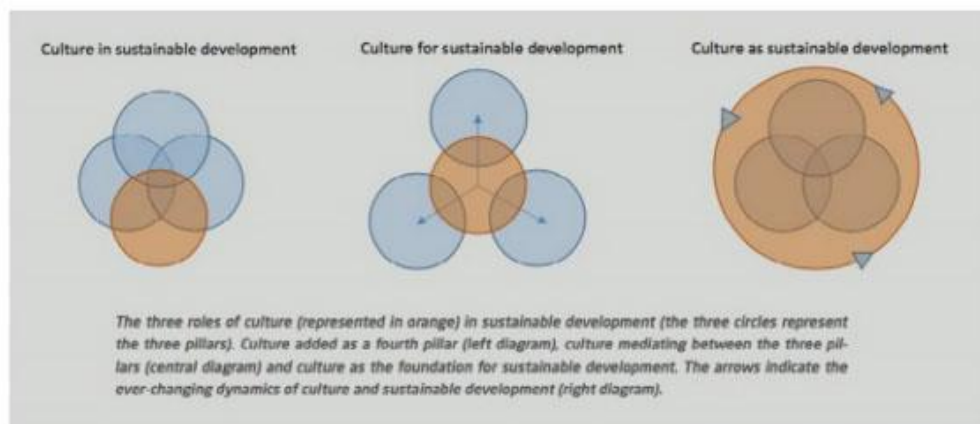
Figure 45 Culture and sustainable development: three models

Source : Dessein et al., accessed on February 7, 2020, aviailable from

https://vincemichael.com/2014/08/23/sustainable-development/

3.3.5.2 Cultural Aspects of Sustainable Development
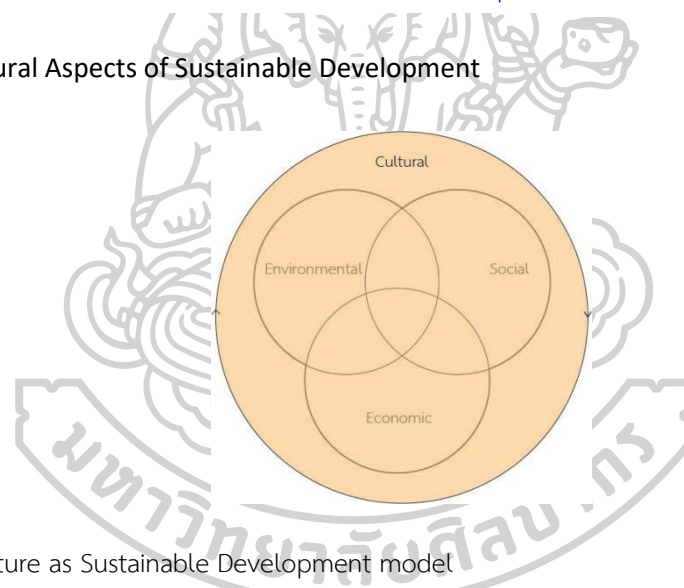
Figure 46 Culture as Sustainable Development model

Source : Researcher's diagram

Unesco gives the definition about Culture for Sustainable Development as figure 49,

Culture defines people are and what shapes their identities. No development can be

sustainable without including culture.
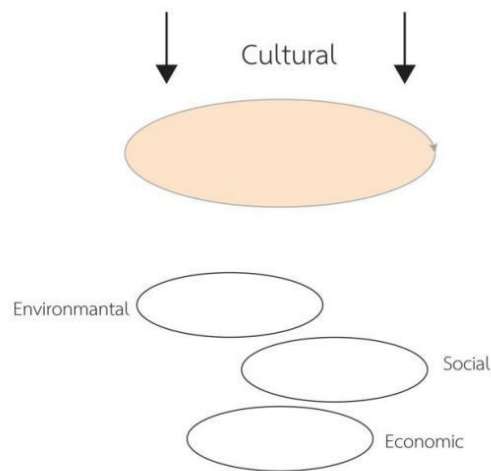
Figure 47 Culture as "filters" for Sustainable Development model

Source : Researcher's diagram

In 1995 UNESCO published a definition of culture as "the set of distinctive spiritual, material, intellectual and emotional features of society or a social group. It encompasses, in addition to art and literature, lifestyles, ways of living together, fundamental human rights, value systems, traditions and beliefs" (UNESCO 1995: 22).

3.4 Tool of Operation

Participants were recruited from the Phumin -Tali community for focus group in the amount of six individuals. The moderator told 6 participants to answer questions based on the element of culture, which are symbols, language, norms, values, rituals, artifacts, work ethics. Each questions will collaborate with different methods from design research methods.

For the first question on symbols, the moderator asked the participants to use the mental imagery to visual the symbols for their community in three images respectively. For the rest of the questions were conducted ethnography research which included observing and interviewing people.

3.4.1 Definitions of tool of operations

Focus Group

Jakob Nielsen (1997) describes that Focus groups are a somewhat informal technique that can help you can acquire the user's insight to develop an alternate implementation. In a focus group, there brings together 6–9 users to discuss issues and concerns about the stories of the user's insight. The group typically lasts about 2 hours and is run by a moderator who maintains the group's focus as figure 52.

Affinity Diagram

Matthew Weprin (2016) explains that an affinity diagram is a technique used to manage many concepts into an organized knowledge' set from the participants after a brainstorming session. Affinity diagrams are tools for analyzing extensive amounts of data and reveal interesting information that understands the relationships which allow arranging an implementation process based on the affiliation as figure 53.
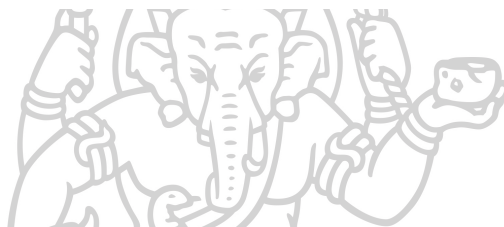
Figure 48 Design Thinking Methods: Affinity Diagrams

Source: uxdict.io, accessed on September 14, 2019, available from

https://uxdict.io/design-thinking-methods-affinity-diagrams-357bd8671ad4
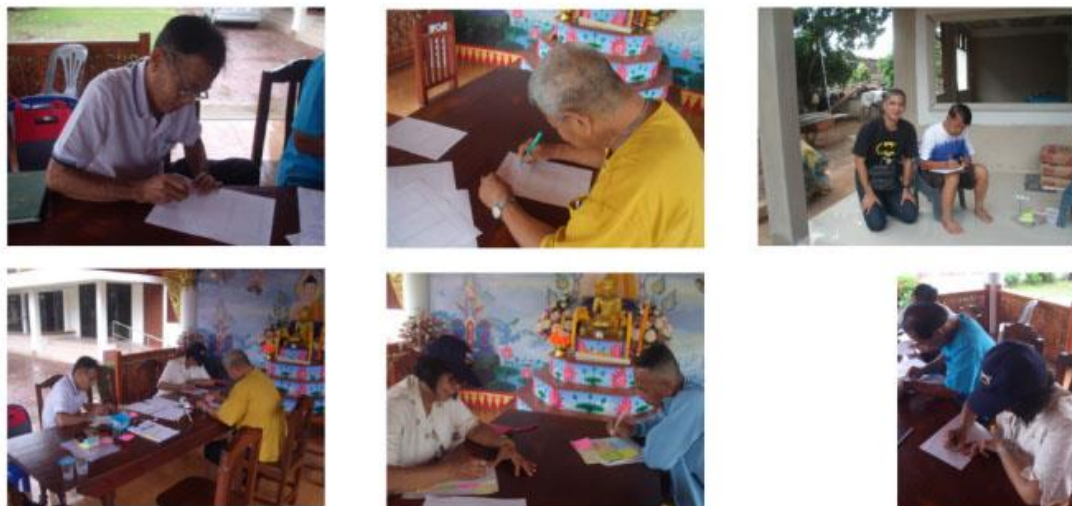
Figure 49 Focus Group Methodology with the participants from Phumin - Tali community

Source: Researcher's photographs
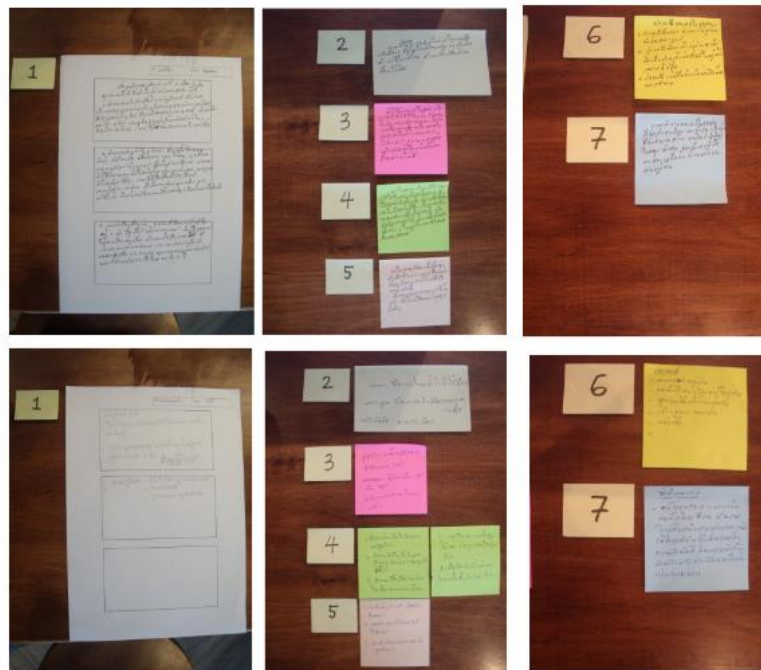
Figure 50 Affinity Diagram Methodology with the participants from Phumin - Tali community

Source: Researcher's photographs

When the participants gave the answers for mental imagery on what is the suitable image that represent Phumin - Tali community. The researcher put the images to match with gender and ages of the participants as figure 54 as follows:

	Gender	Age	1	2	3
1.	Male	62	Wat Phumin	Nan Boat - Racing Festival	Nan Provincial Prison
2.	Female	64	Wat Phumin	People of Phumin - Tali	Nan Boat -Racing

				community	Festival
3.	Male	64	Wat Phumin	People of Phumin - Tali community	Nan Boat - Racing Festival
4.	Male	74	Wat Phumin	Previous life stories of the Buddha	Nan Boat - Racing Festival
5.	Male	67	Wat Phumin	Nan Boat - Racing Festival	Previous life stories of the Buddha
6.	Male	67	'Poo Marn Yar Marn'	Nan Boat - Racing Festival	Wat Phumin

Figure 51 Mental Imagery Methodology with the participants from Phumin - Tali community

Source: Pictures from the Internet , accessed on September 14, 2019

3.4.2 The elements of culture

In the book "Sociology: Understanding and Changing the Social World" (2016), the group of anonymous authors describes that the major basic elements of culture are symbols ,language, norms, values, rituals, artifacts, work ethics through out chapter 3.

For the first question on Symbols, the moderator asked the participants to use mental imagery to visualize symbols that will represent their community for three images. For the rest of the questions on Language, Norms, Values, Rituals, Artifacts, Work Ethics, which the participants have been answered the questions with different approaches under Focus group methodology. Overall, the moderator asked important questions on six topics, then the moderator collected the answers and interrogated focus group with ethnography methodology. Erickson et al (1998) describe that Ethnography is a collection of research methods that includes observing and interviewing people. Furthermore, the moderator summarized key points to use this information in the next phase of the research. Concisely, ethnography helps to create a meaningful design.

In addition, the moderator used contextual interviews with six participants to document people's context on the six topics, which document with photographs, audio, and notes. Next step, using Affinity Diagram to put each answer or ideas on a post-it - notes and spread post-it-notes on a wall or large table. Then group similar items and name each group with a different colored card or post - it - role above the group. As a result, all different approaches have interpreted culture through these fieldwork processes.

3.4.3 Culture and Cultural Awareness

Zimmermann (1995) showed that getting along with the owners of one culture is a key to successful communication. Wiesman et al. (1989) demonstrated that intercultural communication competence and awareness of other cultures are positive correlated. As this research focuses on developing a sustainable community - based culture, then the results from the focus group could eventually help to develop a tailor-made model that suitable for a particular community.

3.4.4 Social Learning Theory

People learn through observing others' behavior, attitudes, and outcomes of those behavior, attitudes, and outcomes of those behaviors. "Most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions, this coded information serves as a guide for action." (bandura, 1977). Social learning theory explians human behavior in terms of continuous reciprocal interaction between cognitive, behavioral, and environmemntal influences.

3.4.5 Photographs as Image representation

The field of photography were adopted in this study to record Lanna mural paintings at Wat Phumin, Nan province. As a result, photographs that contain image representation in all sides of the wall were used in various methodologies to acquire the outcomes to meet all objectives of this study.

Figure 52 Photograph of North side of the wall at Wat Phumin, Nan province

Source : Pattana Decha
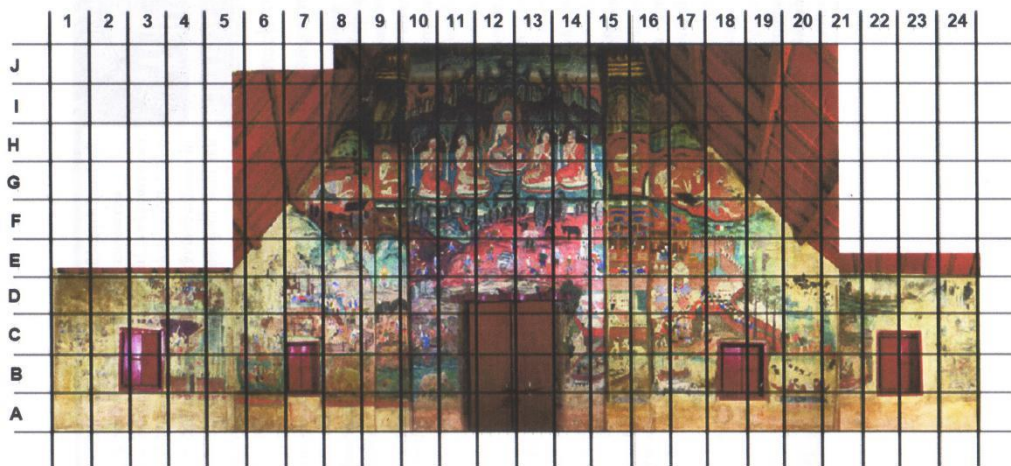
Figure 53 Photograph of North side of the wall at Wat Phumin, Nan province in grid

Source : Pattana Decha
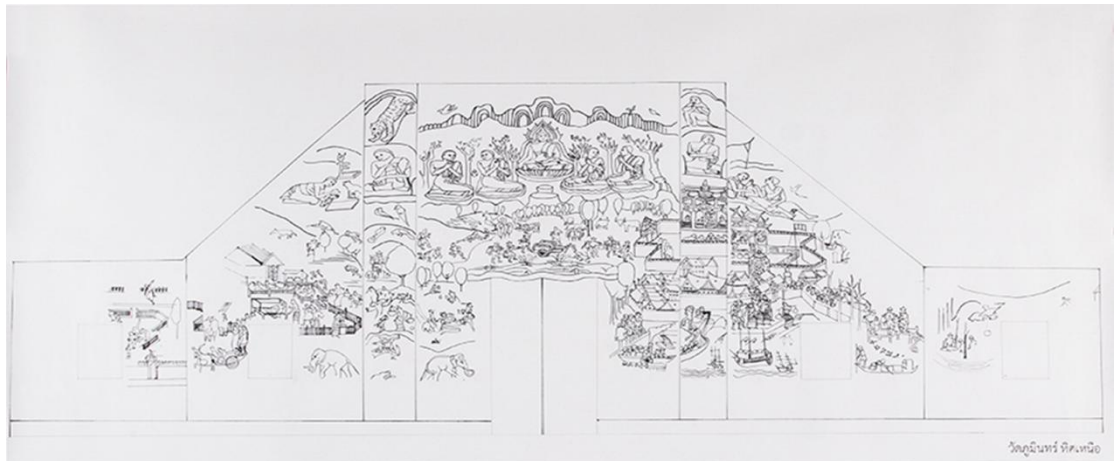
Figure 54 Drawing of North side of the wall at Wat Phumin, Nan province

Source : Researcher's drawing
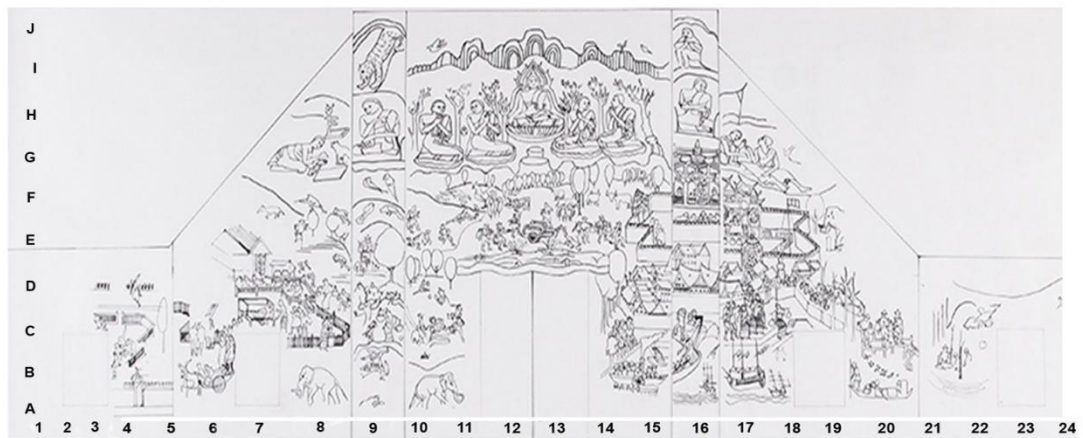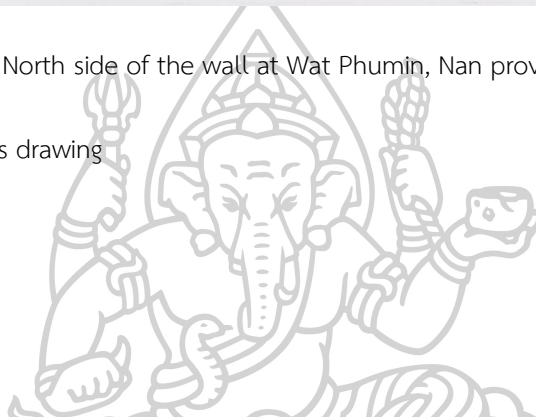
Figure 55 Drawing of North side of the wall at Wat Phumin, Nan province in coordination
Source : Researcher's drawing

Figure 56 Photograph of East side of the wall at Wat Phumin, Nan province

Source : Pattana Decha
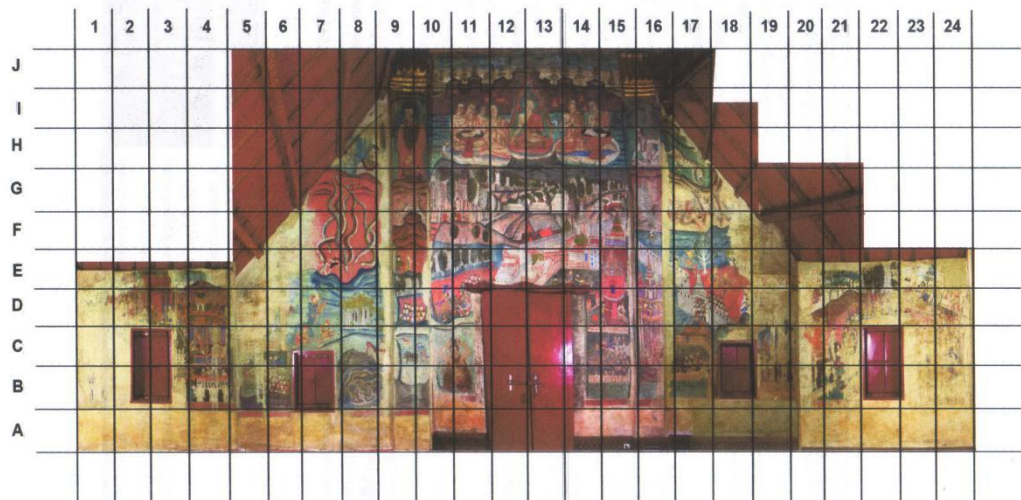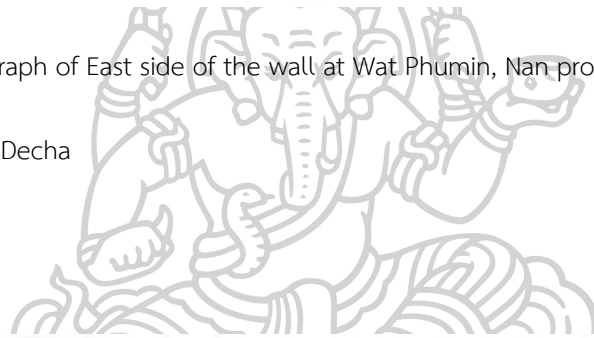
Figure 57 Photograph of East side of the wall at Wat Phumin, Nan province in grid

Source : Pattana Decha
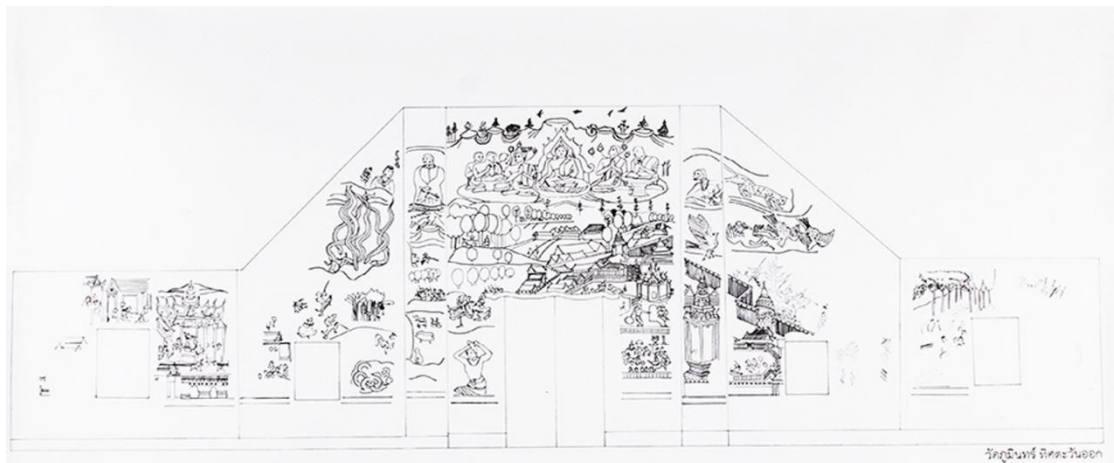
Figure 58 Drawing of East side of the wall at Wat Phumin, Nan province

Source : Researcher's drawing
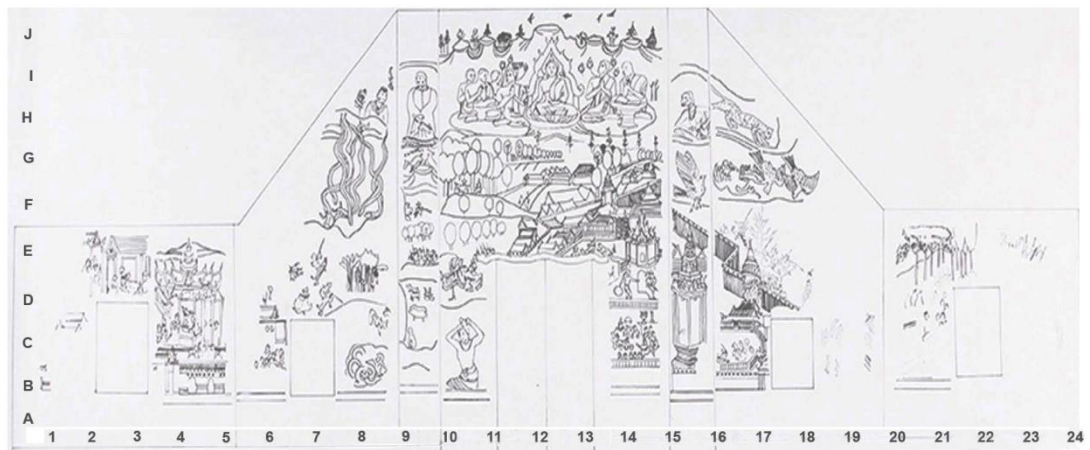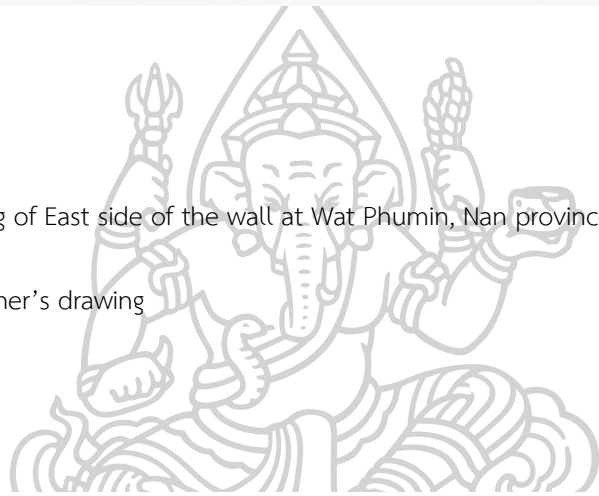
Figure 59 Drawing of East side of the wall at Wat Phumin, Nan province in coordination

Source : Researcher's drawing
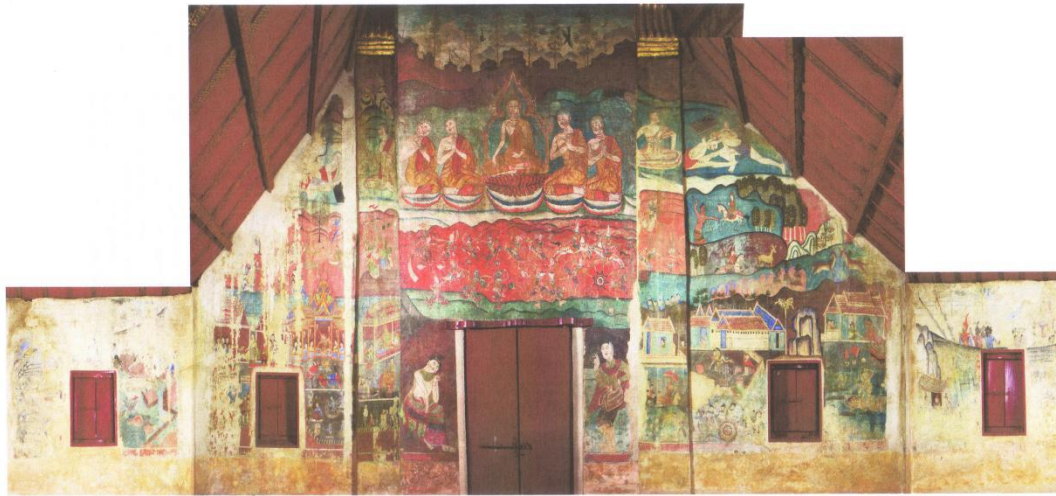
Figure 60 Photograph of South side of the wall at Wat Phumin, Nan province

Source : Pattana Decha
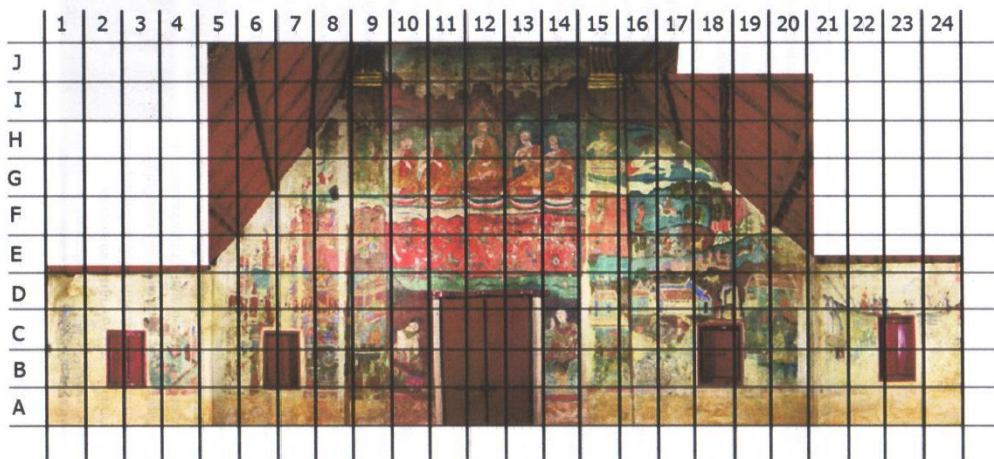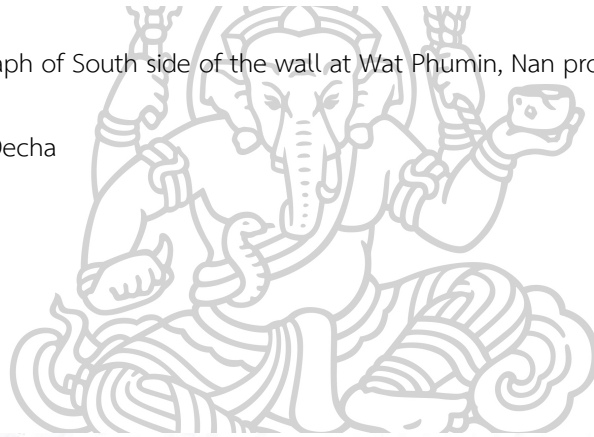
Figure 61 Photograph of South side of the wall at Wat Phumin, Nan province in grid

Source : Pattana Decha
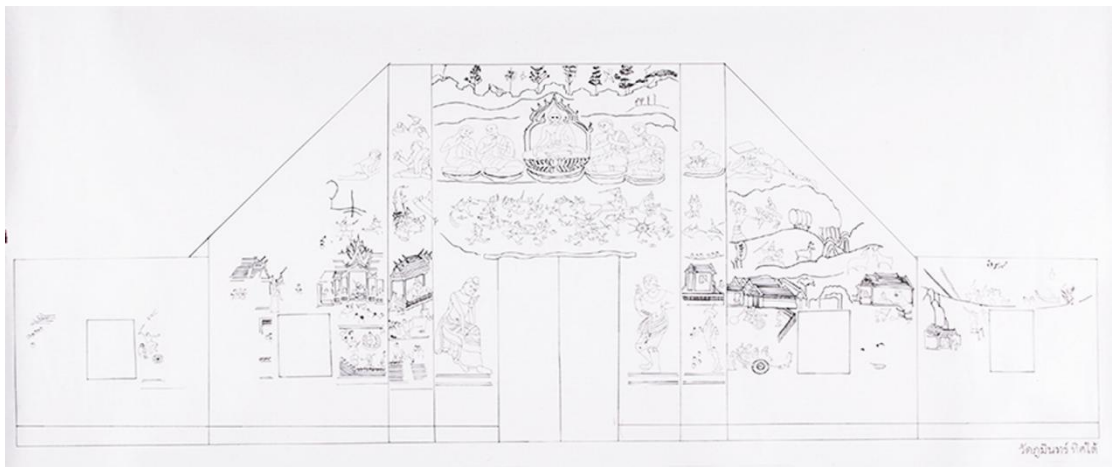
Figure 62 Drawing of South side of the wall at Wat Phumin, Nan province

Source : Researcher's drawing

Figure 63 Drawing of South side of the wall at Wat Phumin, Nan province in coordination

Source : Researcher's drawing

Figure 64 Photograph of West side of the wall at Wat Phumin, Nan province

Source : Pattana Decha
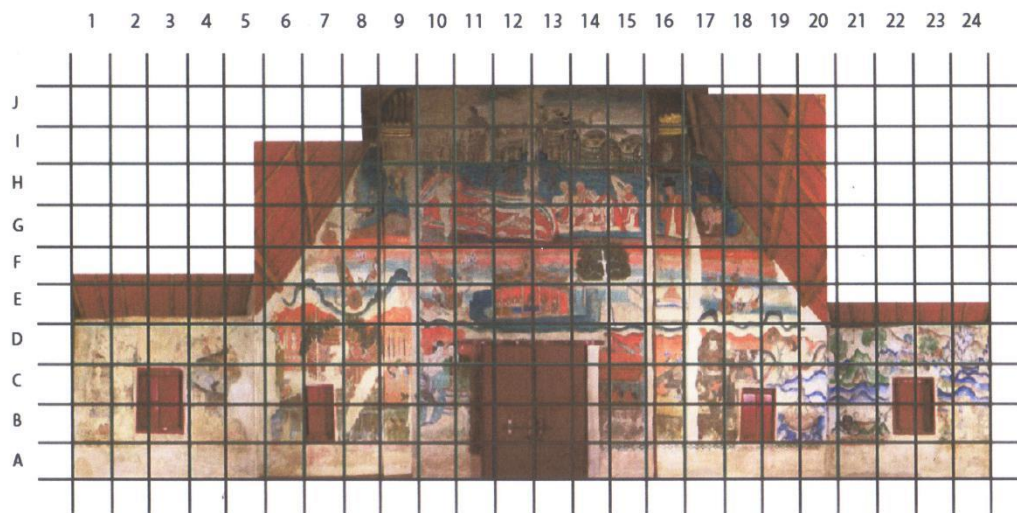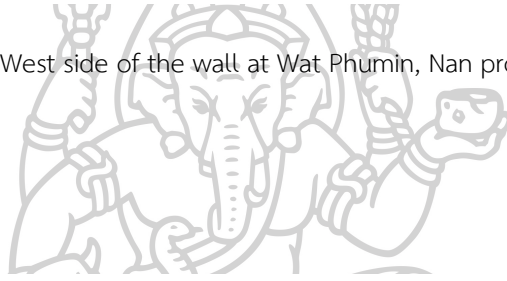
Figure 65 Photograph of West side of the wall at Wat Phumin, Nan province in grid

Source : Pattana Decha
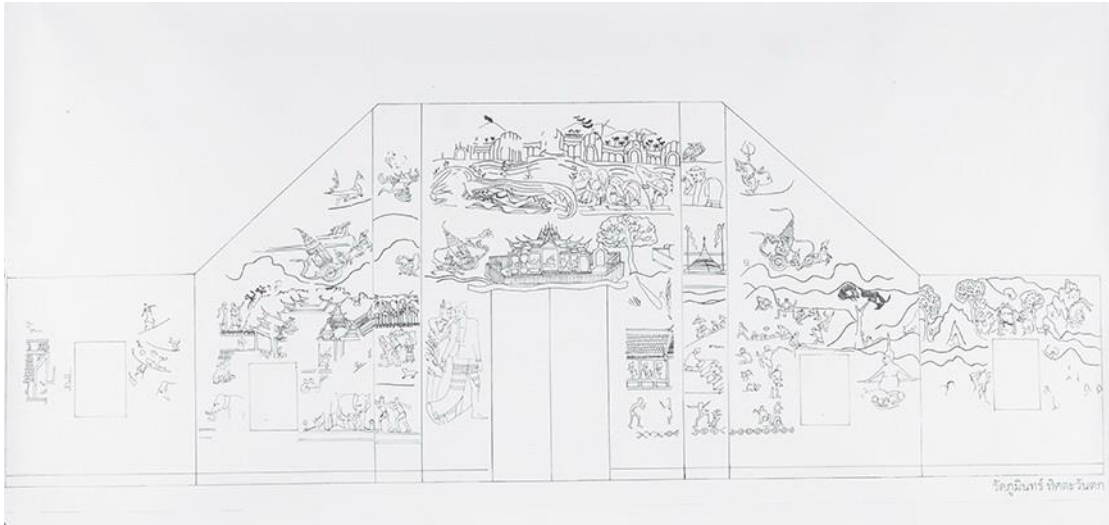
Figure 66 Drawing of West side of the wall at Wat Phumin, Nan province

Source : Researcher's drawing
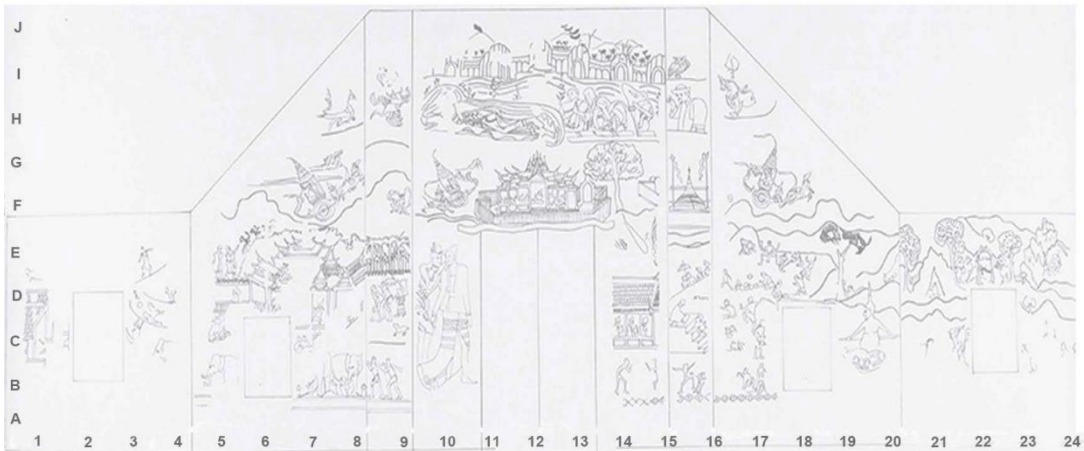
Figure 67 Drawing of West side of the wall at Wat Phumin, Nan province in coordination

Source : Researcher's drawing

3.5 Summary

This chapter concludes the methods adopted by this research. Then, the framework of diagram for the process of data collection of a study on the fundamental characteristics of Wat Phumin, Nan province to become as a sustainable community-

based culture through image Representation has suggested as mentioned at the beginning of this chapter.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

In this chapter, the researcher has used the data from the study to analyze for the outcomes. The data in which cases under study are combined into phases representing Design thinking processes, and extent to which phases differ from one another is analyzed in terms of the results of each objective of this study.
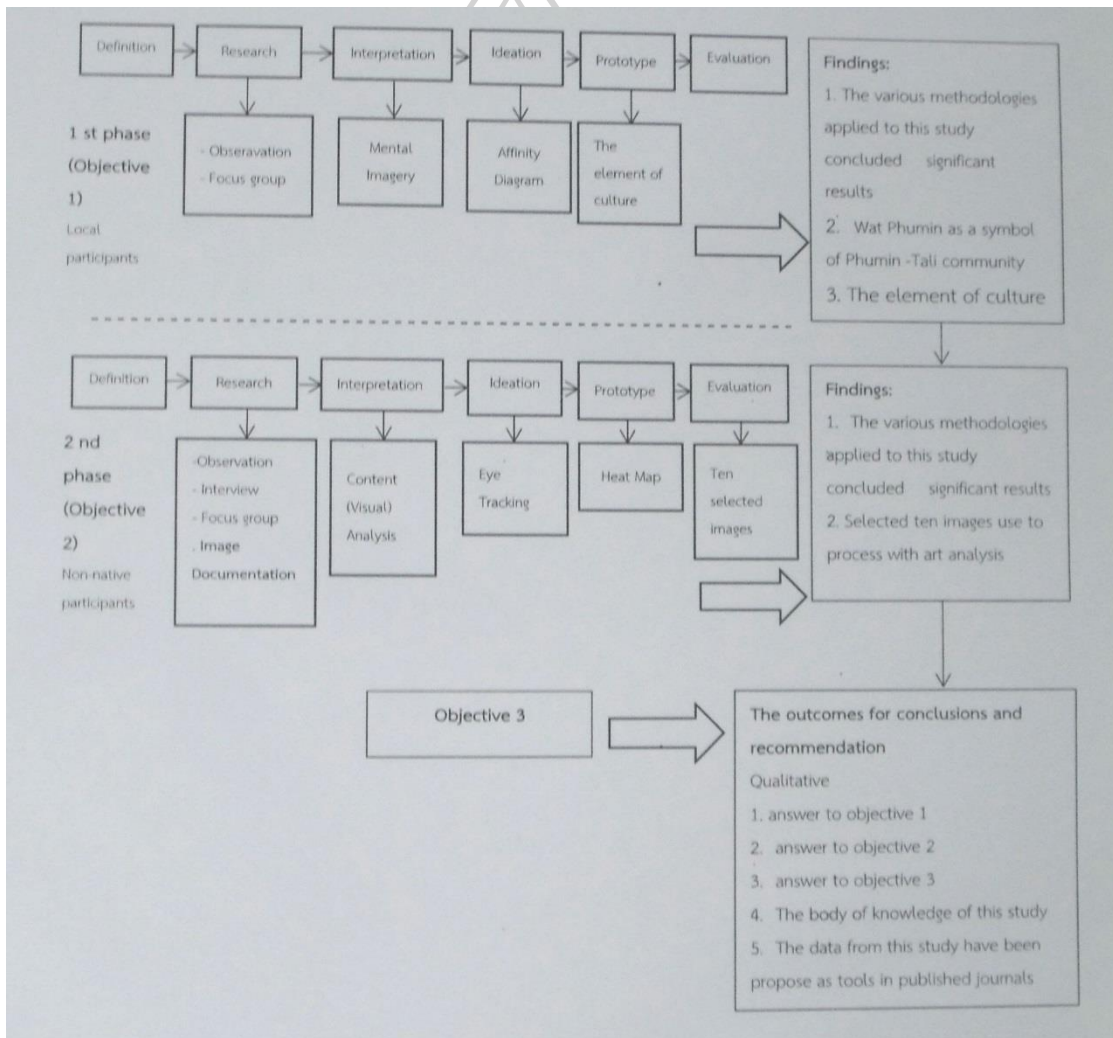
Figure 68 Data analysis and findings diagram

Source : Researcher's diagram

4.1 Data analysis

There are guidelines on data analysis process as follows;

What is the purpose of this methodology

1. Where are Discussions of Findings?

2. Discuss based on the data collection from methods

3. Select a minimum of 10 images from different categories that gathered from data collection (Community, activities, Jobs, etc).

For 2nd phase of gathering data, this study applied Design thinking methodology's tools such as focus group, interview, etc. In addition, there are eye - tracking and heat map methodology for nonnative participants to select ten photographs of Lanna mural painting at Wat Phumin, Nan province as figure 72.

Figure 69 Nonnative Participants

Source : Researcher's photographs

North	East
1) B14, B15,C7,C9,C10,C16,C17,D7,E15,E16	1) B4,B6,B8,C4,C15,C17,D10,D11,D17,I13
2) B6,B8,B10,C9,F9,G9,G15,G17,H12,I9	2) B8,C11,D7,F7,F16,G16,G17,H9,H14,I11
3) C9,C16,C17,D7,D8,E15,E16,F15,F16,H12	3)B10,B11,B14,B15,C4,C10,C11,C14,C15,H9
4) B4,C9,C10,C11,C17,D8,E10,F15,G8,H13	4) B11,C4,C9,C15,D15,F8,F13,F18,H9,I12
5) B6,B20,C9,C17,D7,E10,E14,E15,E16,E16	5) B11,B11,C4,C10,C11,C15,C17,D4,D7,D15
6) B6,C4,C10,C14,C17,D7,E16,G8,G17,H12	6) C11,D4,D10,D15,D17,E9,E16,F9,F17,G12

South	West
1) B9,C8,C9,C10,C14,C17,D8,D12,E9,F17	1) B20,C9,D10,E8,E12,E16,E18,G8,G17,H16
2) B8,B16,C10,C14,C15,D15,E14,G16,I9,I10	2) C10,C15,E10,E18,F8,G10,G15,H8,H9,H16
3) B10,B14,B16,C9,C10,C14,C16,C17,D9,I17	3) B9,C7,C8,C9,C10,D7,D8,D10,E12,E13
4) B17,C8,C10,C14,C17,D22,E12,E18,G12, I12	4) C16,D7,D10,E8,E10,E18,G11,G14,H16,I13
5) B10,C8,C10,C14,,C20,D20,E17,F13,F17, H12	5)B18,B21,C10,C11,C17,C17,D16,D17,D23, E12
6) C8,C10,C14,C16,D8,E14,E18,F17,G16,H11	6) B19,C15,D10,E8,E10,E12,E18,F14,H15,H16

Figure 70 The list of coordinates of ten images selected from six non-native participants

Source : Researcher's information

North	East
C9=5	C15=4
	C11=4
C17=5	
	C4=3
E16=4	H9=3
D7=4	
B6=3	
C10=3	
E15=3	
H12=3	

South	West
C10=6	E18=4
C14=6	H16=4
C8=4	
	E12=3
C17=3	

Figure 71 The list of coordinates of repeatedly images selected from six non-native participants

Source : Researcher's information
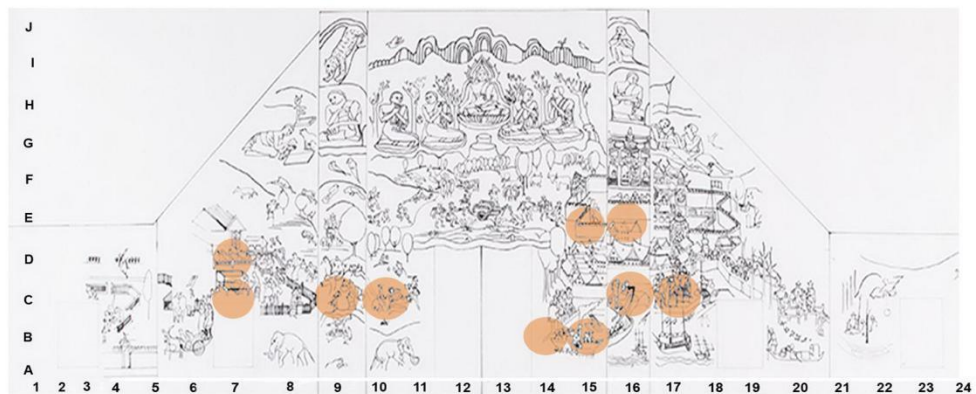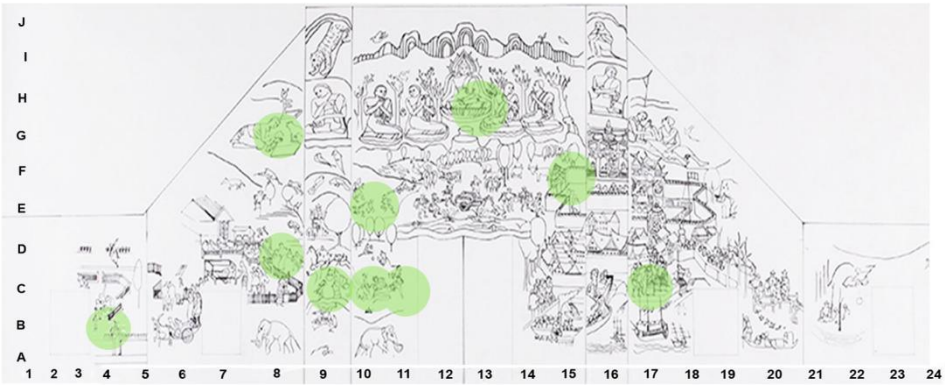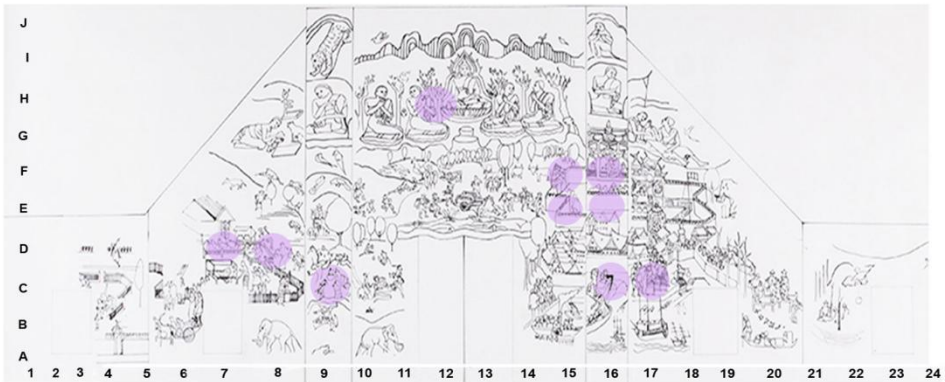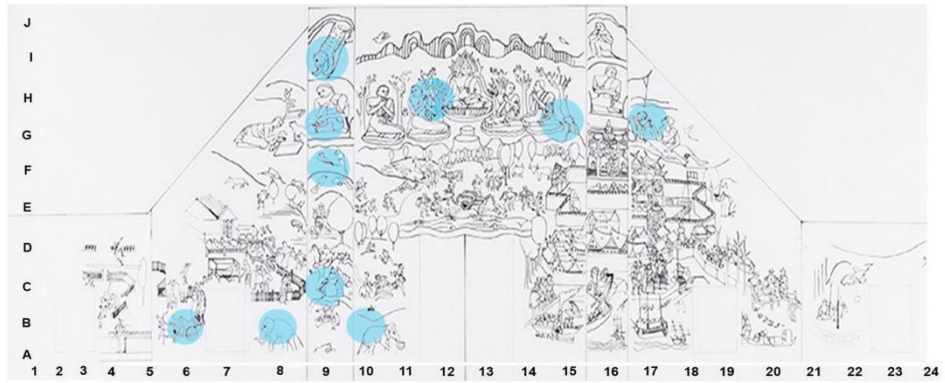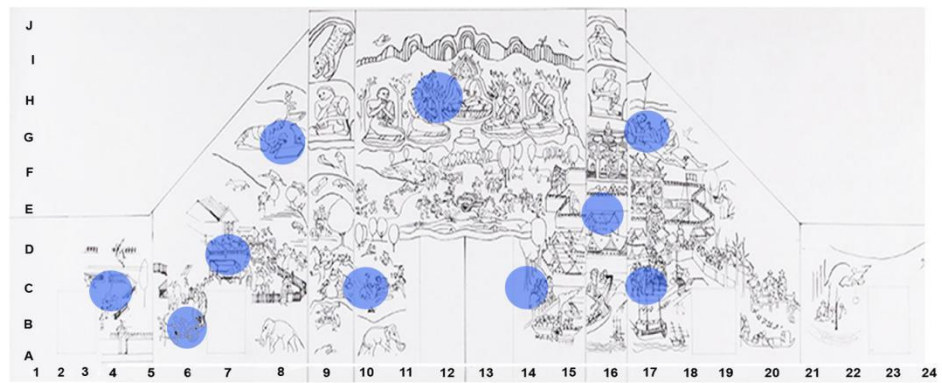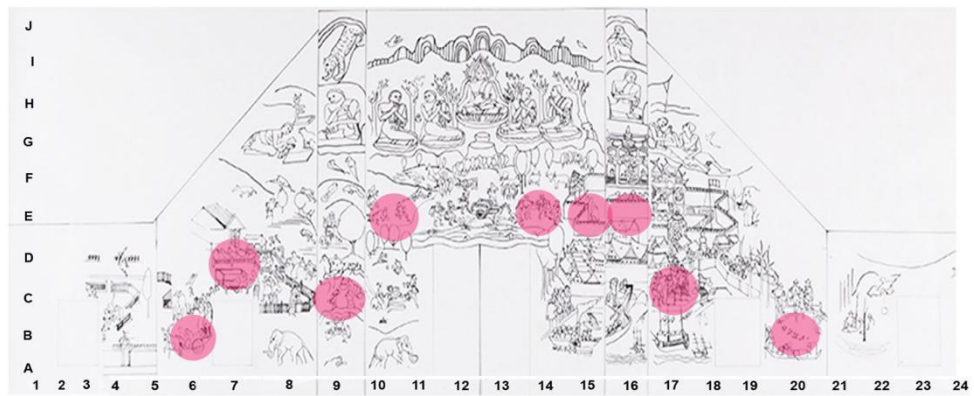
Figure 72 The heat map of images at the north side of the wall selected from the six non-native participants

Source : Researcher's drawing
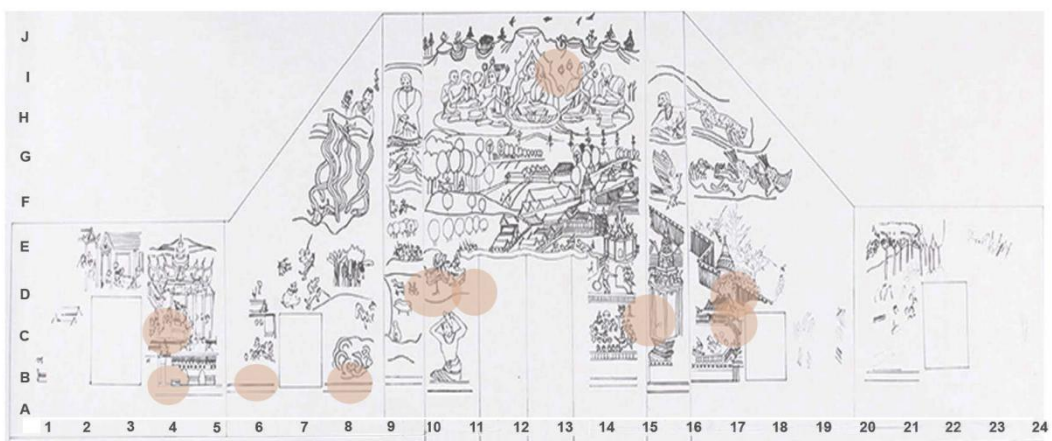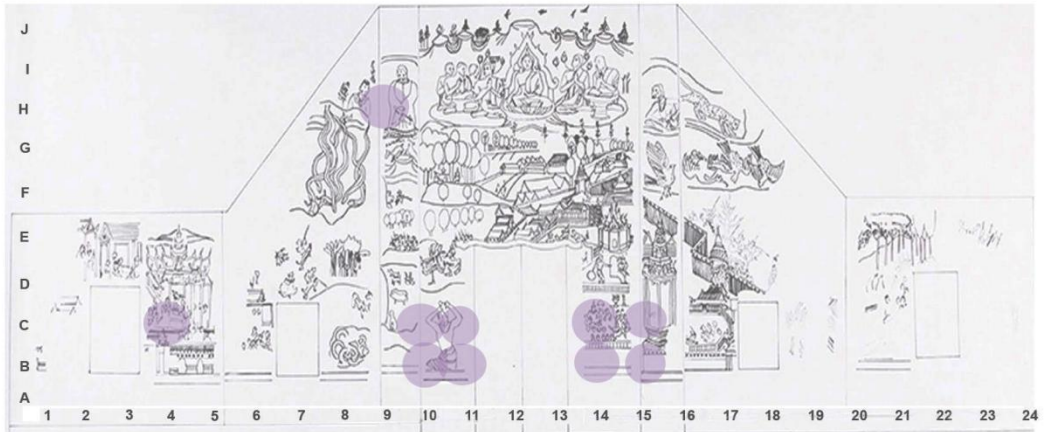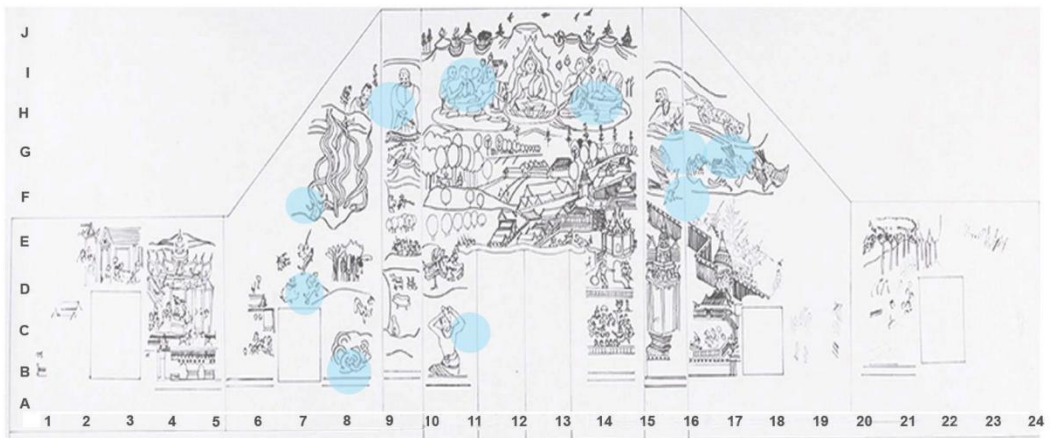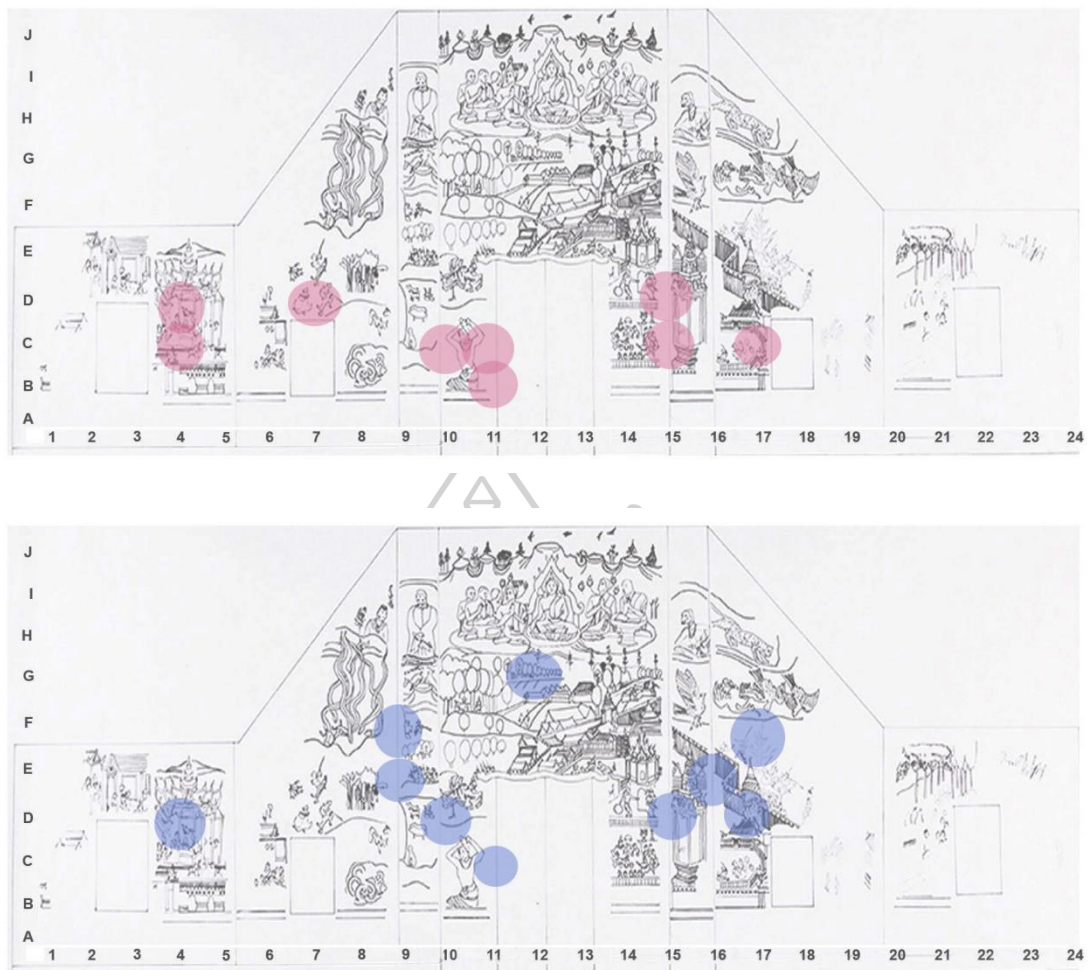
Figure 73 The heat map of images at the east side of the wall selected from the six non-native participants

Source : Researcher's drawing
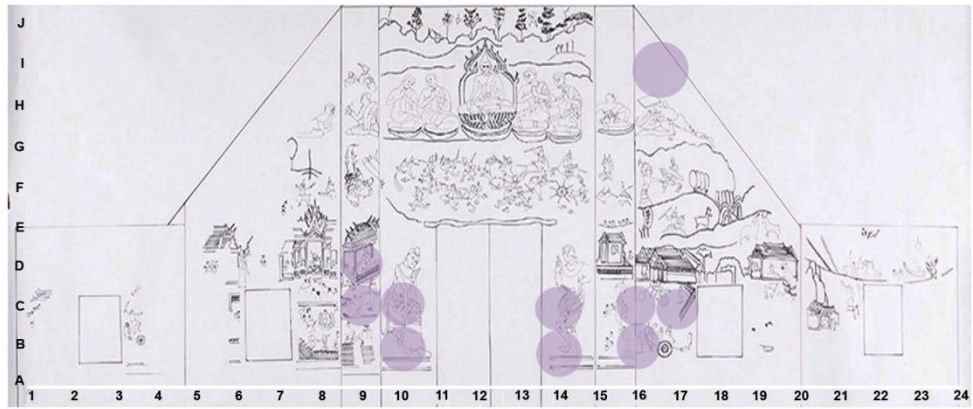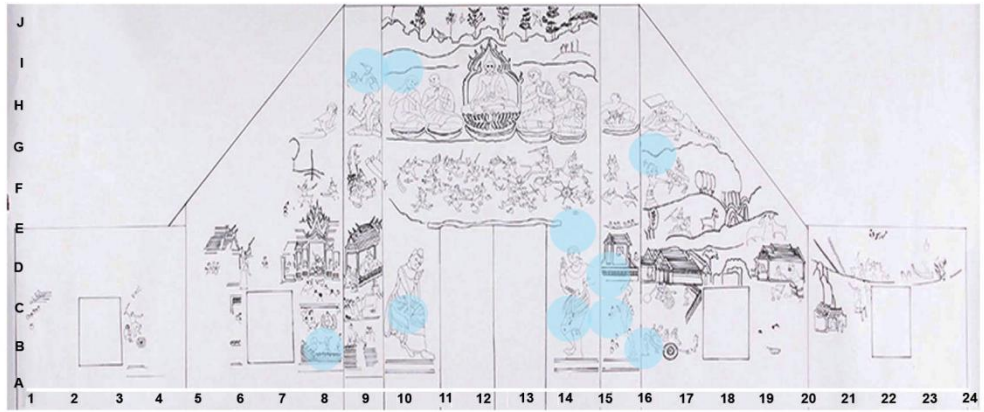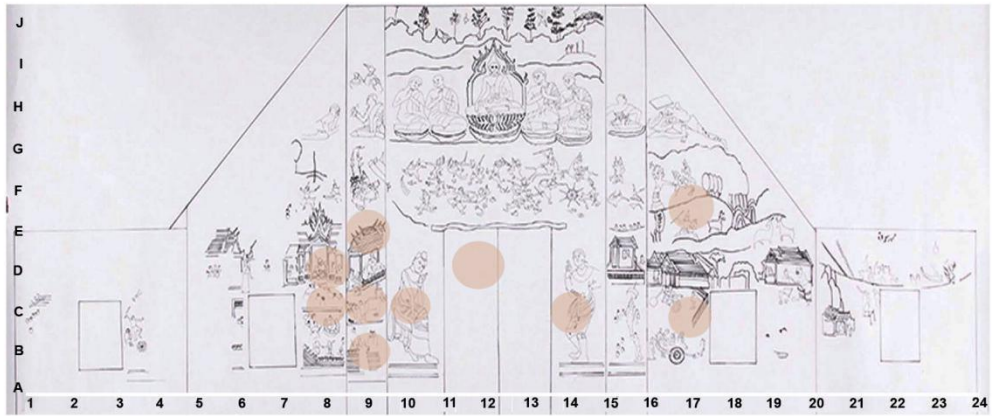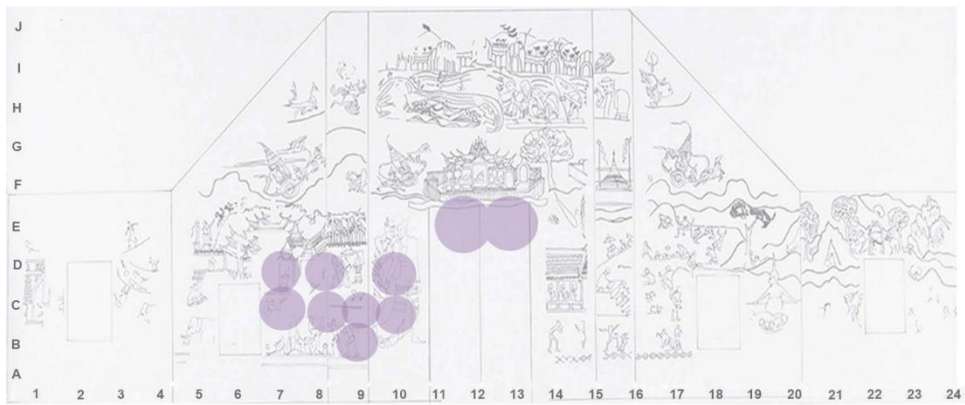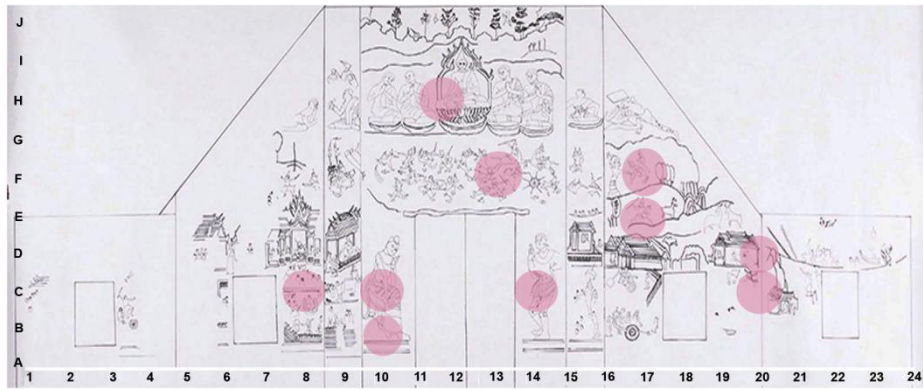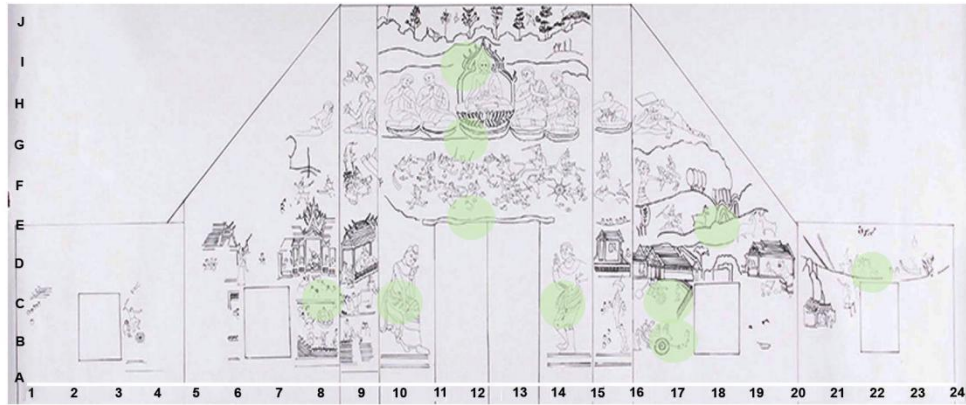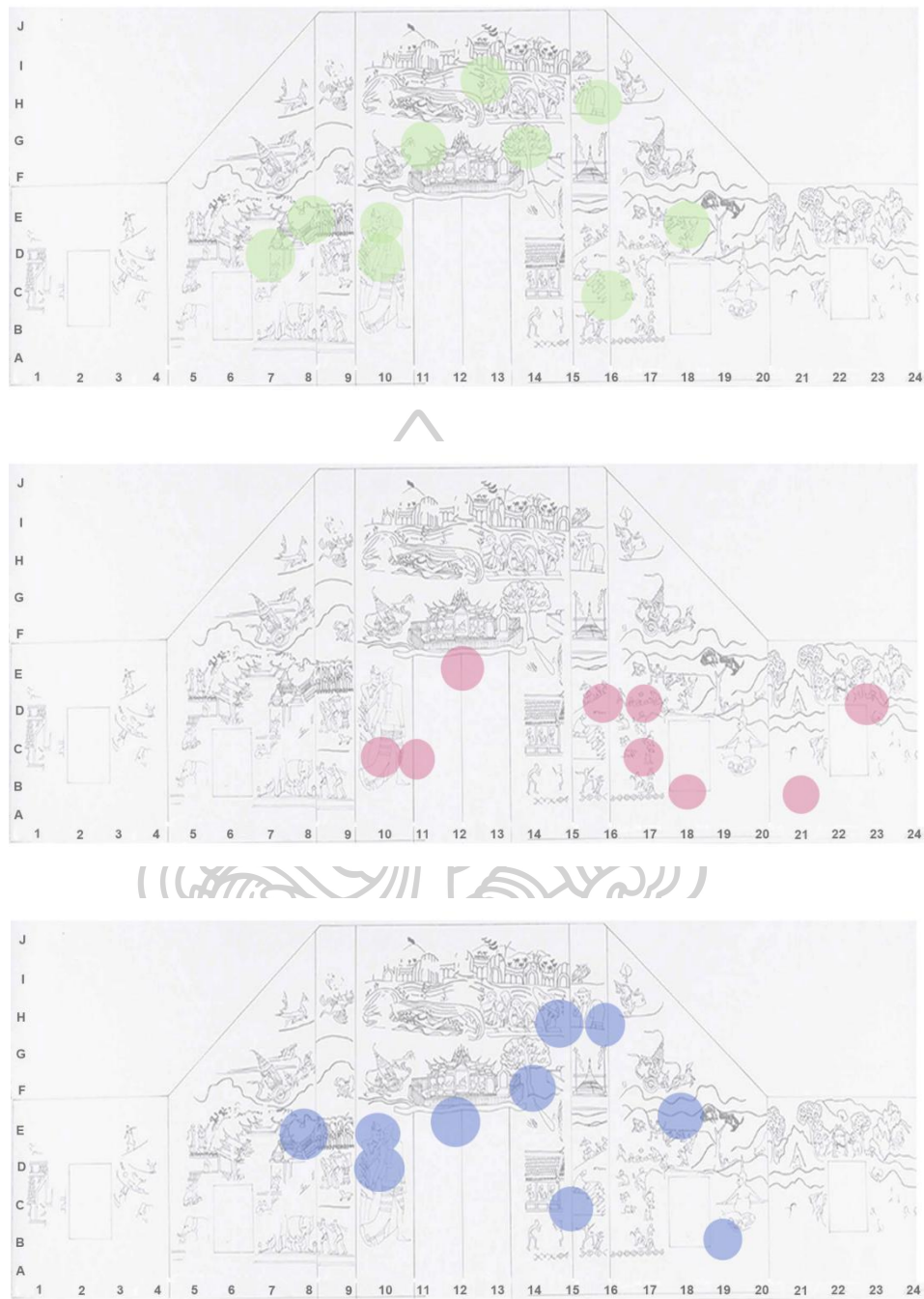
Figure 74 The heat map of images of the west side at the wall selected from the six non-native participants

Source : Researcher's drawing
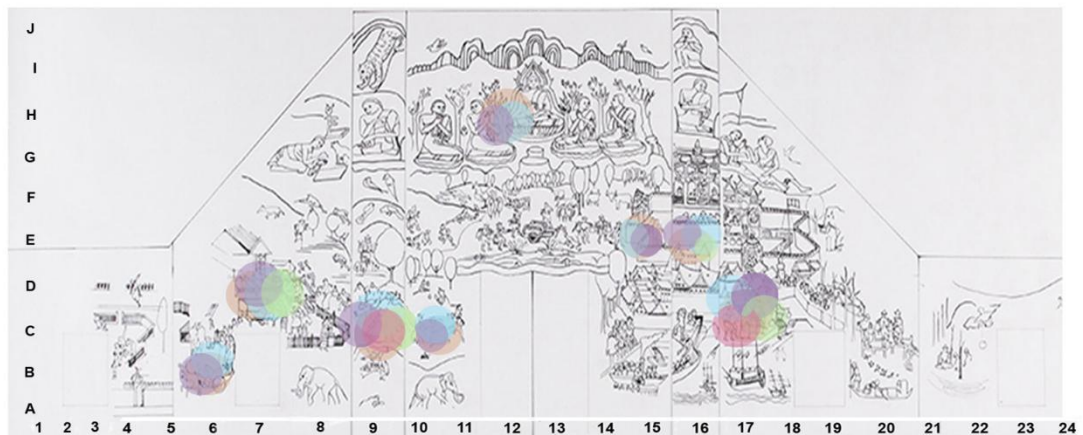
Figure 75 The heat map of repeated images selected from six non-native participants for the north side of Wat Phumin, Nan province

Source : Researcher's drawing
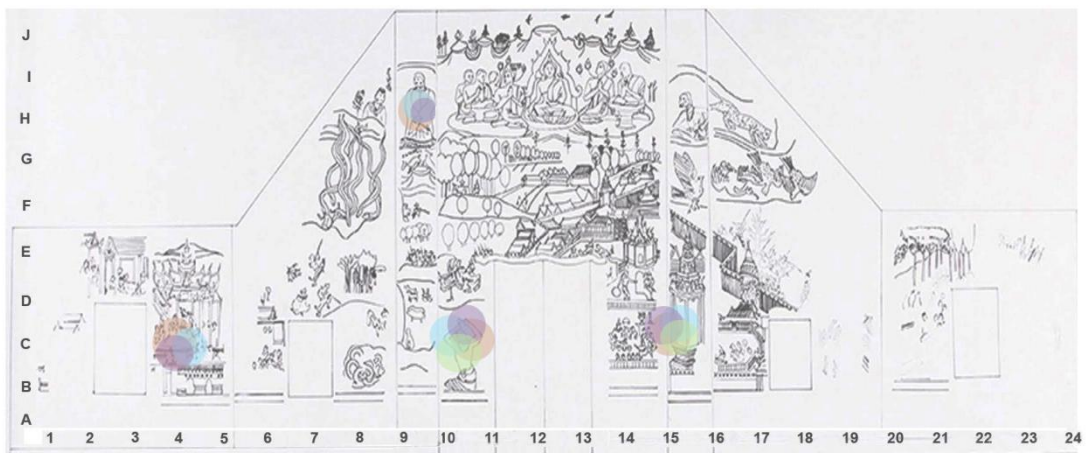
Figure 76 The heat map of repeated images selected from six non-native participants for the east side of Wat Phumin, Nan province

Source : Researcher's drawing
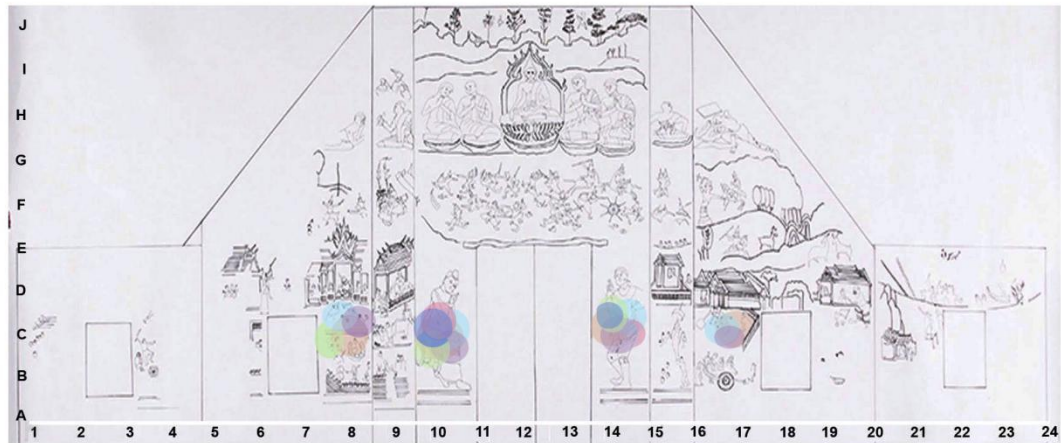
Figure 77 The heat map of repeated images selected from six non-native participants for the south side of Wat Phumin, Nan province

Source : Researcher's drawing
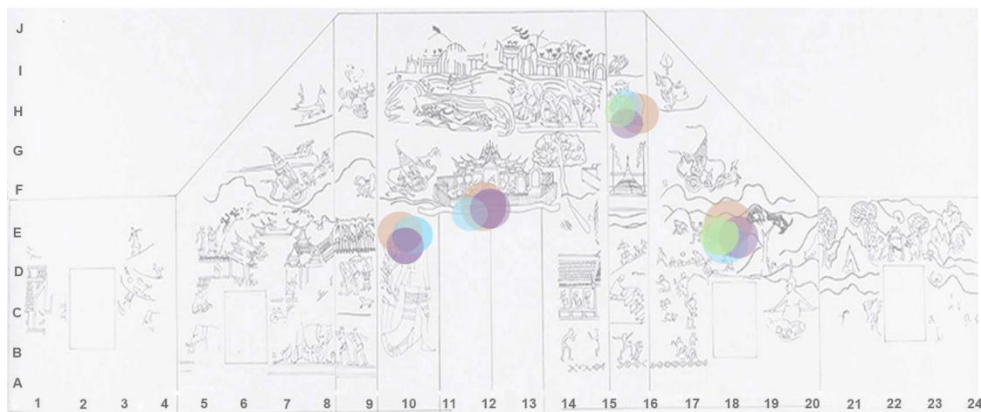
Figure 78 The heat map of repeated images selected from six nonnative participants for the west side of Wat Phumin, Nan province

Source : Researcher's drawing

North		East		South		West	
1.	C9=5	5.	C11=4	6.	C10=6	9.	E18=4
2.	C17=5			7.	C14=6	10.	H16=4
				8.	C8=4		

3.	E16=4			
4.	D7=4			

Figure 79 The final list of coordinates of repeated images in amounts of ten images which selected from six non-native participants

Source : Researcher's information

4.2 Findings

After ten images were chosen by Non-native participants as figure 83 to 92, then sending to art analysis by Edmund Feldman, to define what are important characteristics of these images.

4.2.1 What is Feldman's method of Art Analysis

4.2.1.1 Description: Describe what is seen in the artwork

4.2.1.2 Analysis: How were the elements and principles used? What are the

relationships that exist with what is seen?

4.2.1.3 Interpretation: What is the content, concept, or meaning of the artwork?

4.2.1.4 Judgment/Evaluation: What is your evaluation of the artwork, based on

steps 4.2.1.1, 4.2.1.2, 4.2.1.3

4.3 Ten image representation of Lanna mural paintings at Wat Phumin, Nan province

Figure 80 Khattana Kumara and his mother
Source : Pattana Decha

Picture 1

Title: **Khattana Kumara and his mother**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

Khattana Kumara and his mother image is one scene of Khattana Kumara Jataka, it painted the entire story in all four sides of the walls inside the temple. Thit Buaphan is the artist. The art work is a mural format painting using Tempera painting on the wall. The image of Khattan Kumara and his mother is a scene painting, which is a part of the story. The color that uses are two tones, which are warm and cool. The boy is wearing a green shirt and a blue short pant. He is carrying a golden sword on his shoulder. It uses gold color in Thai mural painting for a specific

reasons. In this image, the boy is Khattana Kumara who will be the Lord Buddha. The boy has tattoos on his right thigh. Tattoos widely accepted throughout the Kingdom of Nan among men. There is a notion that a man who does not have tattoos is not ready to marry a lady. His mother is wearing a blue shirt and a colorful Sinh (local skirt). She is carrying a Bung (local northen basket), while she is pointing her right index finger at the elephant's footprint. The Landscape of the painting pictures the mountains, trees, and shrubs.

The artist uses the individual style technique in his painting. His style is a local style of art, but using a realistic approach. It balances the composition of the images. The color of the picture of Khattana Kumara and his mother is complementary hues. For example, Green and Red (the boy), Blue and Light Red (the mother)., and the boy is carrying a golden sword in the bright color. The value or tone of colors seen in this painting where the light and shadow plays the roles to form the images. There are harmonious with the two images in the aspect of colors and characteristics. The artist uses deep space in this painting where we can see the mountains far from the human figures.

There are many kinds of lines that used in this artwork, such as horizontal, diagonal and organic. The image of the mother is dominance compare to the other images because the standing out of her beautiful Nan's costumes. The positions of the two images create the movement like both walking towards an elephant's footprint.

Khattana Kumara and his mother image was represented the achievement for Nan's style of mural painting in Thailand. This two images contain the information for the way of Nan people's life at the same period of the painting made. The appearance

of the woman and a boy reflects Lanna's culture from their hairstyles, costumes, accessories, equipment, etc. As a result, the artist has a high artistic skill to deliver the storytelling of Jataka into visual images with a unique style.

This painting has achieved the issues on portraying the way of Nan people's life during a 19th century in Lanna style of mural painting. This painting reflects both the artist and his background, which is the Lanna region. The styles of Lanna mural painting in Lanna regions usually present with informal styles, which different from other regions in Thailand. Truthfully, the artist has given evidence of the way of life for Nan people on this side of the wall (North direction).

Figure 81 Looming scene
Soure : Somjate Wimolkasem

Picture 2

Title: **Looming scene**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

Loom scene is the artwork from Thit Buaphan, a Nan artist. This image is on the north side of the wall at Wat Phumin, Nan province. The art work is a scenery format painting using tempera medium on the wall. The painting finished between 2410 – 2417. The images are uses in the painting are the image of two women are looming cloths. The color that been use are monochromatic.

The artist uses narrow space in this painting, where we can see the other scenes from different episodes from "Khattana Kumara Jataka". There are many kinds of lines that used in this artwork, such as horizontal, vertical, diagonal and organic. The image of Nan women who is looming at the station is dominance compared to the other images. The painting depicts the way of Nan women's life in the past, they taught to make "Sinhs", which is a garment that mostly wearing in North and Northeastern regions of Thailand and Laos, before they have families of their owns. The position of the two images creates the movement of looming a sinh in action.

The looming scene represented a successful case for portraying Nan's culture and the way of life. First, two women represented Tai Lue people, which is one of various ethnics in Nan province. As a matter fact, Tai Lue is the same ethnic with the artist. The evidence of Tai Lue's characteristics in painting is hair style, costumes, equipment, etc. Second, this painting depicts the event that still exists today.

Figure 82 Women going to market

Source : Somjate Wimolkasem

Picture 3

Title: **Women going to market**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

Women going to market image considered one painting that delineating the way of everyday life of Nan people. Thit Buaphan is the artist to paint this image. The art work is a mural format painting using Tempera painting on the wall. The painting painted in 1874. The painting contains two tones of the colors, which are warm and cool. The group of people on the left, some men and women were wearing red color in shirts and sinhs (local skirts), and some of them also were wearing a blue

and green color in shirts and sinhs. This painting is about the scene of Khatthana Kumara Jataka, which called Chawatha Wadi city. The artist used geometric form to depict a bridge in the painting, which created a dimension. The artist uses the tempura technique in his painting. His style is Nan style of Lanna mural painting, which using the realistic approach. The composition of the image is an asymmetrical image. The color of the image is color harmony, which mixes both warm and cool color with the right amounts.

We can see the value or tone of colors in this painting where the light plays the major role to make this image more bright with white and other mix colors. As a result, the brightness of the tone of colors in this image represents the activity of women going to market image in a real action.

There are many kinds of lines that used in this artwork, such as horizontal, vertical and organic. Especially, women from the group of the people on the left, the artist used the repetition of an organic line from Sinhs , that women are wearing. It creates the actual movement to the eyes. In addition, the patterns of different Sinhs in the painting also represent various patterns of Nan's style. Men and women in this image are Tai Lue, which based on previous knowledge about the characteristic of Tai Lue, such as the hairstyle, costumes, tattoos. As a result, the artist had the intention of drawing Tai Lue people throughout the mural paintings in Wat Phumin, Nan province.

This painting can accomplish the outcome of representing the way of life for Nan people in the late 19th century. According to David K. Wyatt (2004), he mentioned this painting that this scene reproduced for commercials, which can conclude that this painting has a significance impact on the viewers in large.
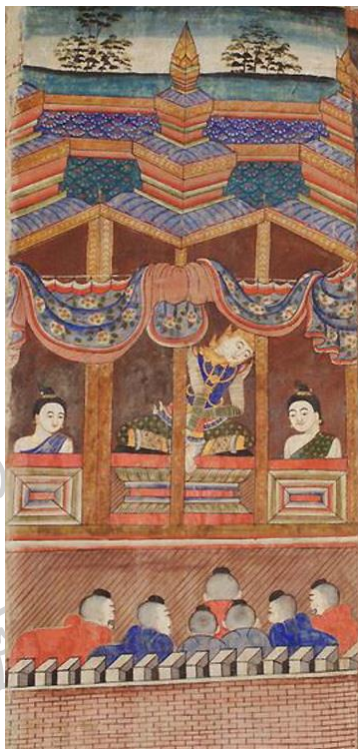
Figure 83 King, his two wives, and his officers of Inthapa Nakorn
Source : Pattana Decha

Picture 4

Title: **King, his two wives, and his officers of Inthapa Nakorn**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

King, his two wives, and his officers of Inthapa Nakorn image is a painting from Khattana Kumara Jataka. Thit Buaphan is the artist, who painted this image. The artwork is a mural format painting using tempera on the wall. The painting was done

between 1867-1874. The colors used warm and cool tones. The image of 'King, his two wives, and his officers of Inthapa Nakorn' were wearing costumes in blue, light-

blue, green, and red, etc. Especially, the king, the artist painted with gold color on his crown and clothing's accessories, to identify as an important person on the painting. The artist used space perception with the king's two wives and the king's officers to create the interaction to each other in the painting. The artist used individual style technique in his painting. His style is an individual, but using the realistic approach.

The composition of the image is an asymmetrical image, because the king turns to his wife on the right and gazed at her. This gesture implied that this woman on the right should be that the king gives her trust in discussing important issues with his officers. Therefore, the dynamic of his gazing goes directly to his wife on the right, which the weight of this painting's composition goes to the right from the center. The setting of this painting, the artist painted the scene of city hall, there are a royals's platform with beautiful curtains for the king and the royal family' s activities. There are many kinds of lines that used in this artwork, such as horizontal, vertical, diagonal, and organic. The image of three persons in the middle of the painting created a focal point to look at the king, which is the most important person in the scene. King, his two wives, and his officers of Inthapa Nakorn image represents the classic Nan style of Lanna mural painting in Thailand. The artist used complementary colors, creating a complementary relationship in color vision. There are special effects, illusions, and color harmony. In short, the artist used pure hues and diluted them while he painted this painting.
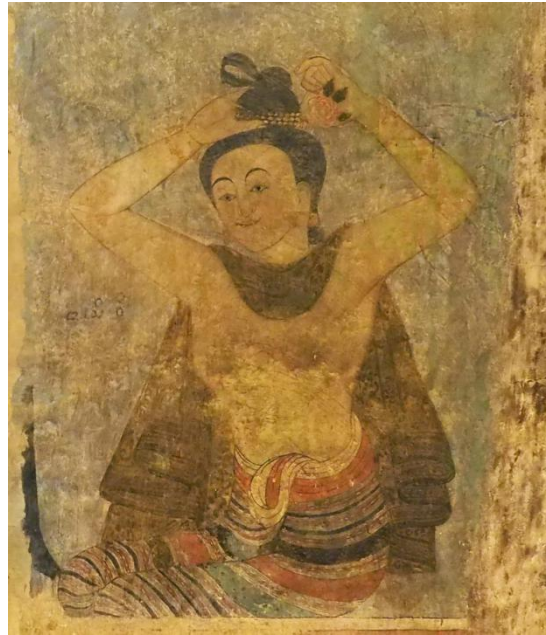
Figure 84 The portrait of Nang Si Wai

Source : Researcher's photograph

Picture 5

Title : **The portrait of Nang Si Wai**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

The portrait of Nang Si Wai is a painting from Khatthana Kumara Jataka. Thit Buaphan is the artist, who painted this image. The art work is a mural format painting using tempera on the wall. The painting was done between 1867-1874. The colors use warm and cool tones. The image of a woman in this painting is not wearing any cloths on her upper body, but is wearing a sinh (a type of local's skirts). She is also wearing a long scarfs to cover her neck and back. The position of the woman in this painting in the foreground, which are no other images at the back. The artist uses individual style technique in his painting. His style is a individual, but using the realistic approach. The image of this painting is symmetrical. The artist exhibits a

portrait of Tai Lue woman in large scale in this painting. The portrait of Nang Si Wai appears to stand out image with no shadows. The colors that represents this image are complementary colors, which are Red and Green. As a matter of fact, "Sinhs" contains mixing complementary colors, such as Red, Brown, Green. The artist uses invisible lines from the gesture of the woman's arms to guide the eyes to focus her

at the center of the painting. There are many kinds of lines that been use in this artwork such as, horizontal, diagonal, organic. This painting is able to achieve a result of creating a version of Nang Si Wai, a character of Khatthana Kumara Jataka in a Tai Lue woman version in the late 19th century. The viewers can detect Tai Lue's characteristic from hairstyle, costumes ,tattoos, in this painting. According to Somjate Wimolkasem, a Nan's local wise man describes that The portrait of Nang Si Wai is considering as a Mona Lisa in Lanna style, because of its authenticity and originality by Thit Buaphan.

Figure 85 The musicians

Soure : Somjate Wimolkasem

Picture 6

Title : **The musicians**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

The artist uses the individual technique in his painting. His style is an individual style, but using the realistic approach. The composition of the image is approximate balance. The artist use space perception for the musicians to interact to each other as a group. There are many kinds of lines that been use in this artwork, such as horizontal, vertical, diagonal, and organic. The image of group of the musicians has

representing the way of life of Nan people in the late 19th century. The musical instruments of Nan kingdom were depicted in this painting. Nan's music has primary influenced from Lanna kingdom. Nan kingdom is considering as East-Lanna regions, which its location is close to Laos. Therefore, some of the melody of Nan could have some influence from its neighbors. However, the songs and music of Lanna still playing from the past until today. Lanna folk music of Nan region of Thailand has been passed on from generation to generation through memorization. In this painting, the event depicts the scene from "Khatthana Kumara Jataka". When Khatthana Kumara helped Nang Si da the daughter of the king of Champa Nakorn, from a female Yak (a monster) who wants to eat her and her father. As a result, the king of Champa Nakorn has ordered to celebrate a victory over the death of the monster. There is a social gathering for the people in the city. The king arranged "Salaw-Saw-Seong ensemble", the Lanna style vocalist accompanied by Lanna musical ensemble with gong, flute, horn, three string harp, Glong Sabatchai and Glong Puja (the ancient Lanna drums), and a two-faced drum. Lanna folk music is not only to celebrate the joyful for the people of Champa Nakorn, it also pays respects to spirits and gods who always protect the people from bad things.
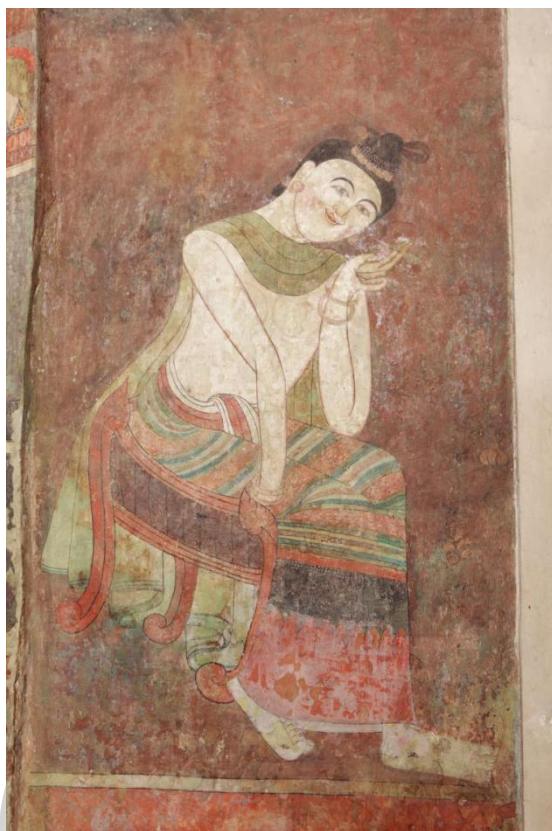
Figure 86 The portrait of Nang Si da

Source : Pattana Decha

Picture 7

Title : **The portrait of Nang Si da**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

The portrait of Nang Si da is the artwork from Thit Buaphan, Nan local artist. This image is on the south side of the wall at Wat Phumin, Nan province. The artwork is a scenery format painting using tempera medium on the wall. The painting was done between 2410 - 2417. The image in the painting depicts a character from Khattana Kumara Jataka, is Nang Si Da, she is a wife of Khattana Kumara. However, the artist

drew Nang Si Da as a Tai Lue woman. She wears Tai Lue costumes, such as Sinh (local skirt), shoulder cloth, jewelry on the top her head. In addition, she also is smoking a cheroot. The definition of cheroot by cambridge dictionary online is a short, thin cigar with both ends cut flat, accessed on February 11,2020. The color that been use are monochromatic. A Nan woman is wearing only lower body, she does not wear shirt on her upper body. There are many kinds of lines that been use in this artwork, such as horizontal, vertical, diagonal and organic. This is a portrait painting. The artist draw as a life -size picture. The portrait of Nang Si da represented the skill of painting a portrait of a person by Thit Buaphan. The artist put the details of the culture for a Tai Lue woman into this painting as much as he can. As a matter of fact, we can see the costumes or jewelry on Nang Si Da's body in everyday life of Nan people.
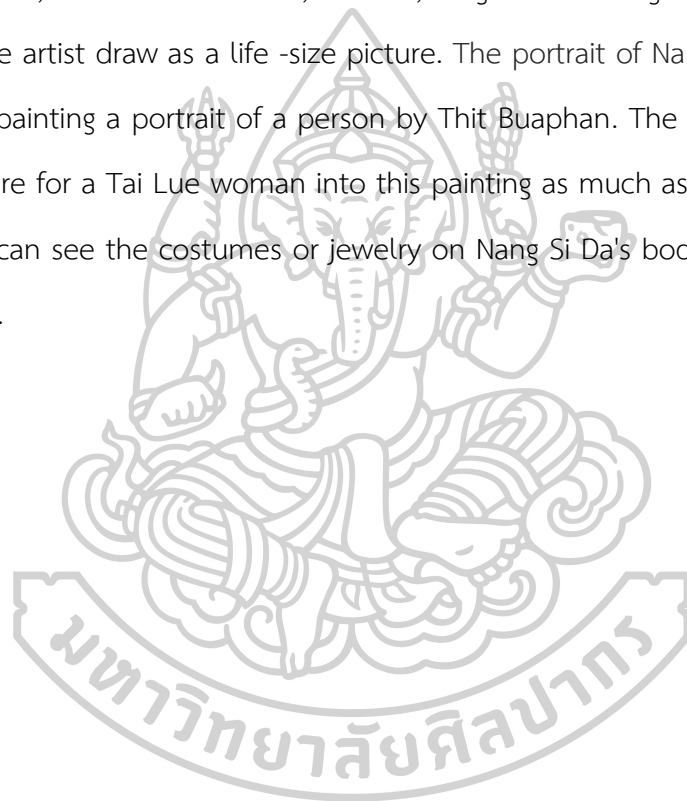
Figure 87 The portrait of Khatthana Kumara
Source : Pattana Decha

Picture 8

Title : **The portrait of Khatthana Kumara**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

The portrait of Khatthana Kumar**a** is the artwork from Thit Buaphan, Nan local artist. This image is on the south side of the wall at Wat Phumin, Nan province. The artwork is a scenery format painting using tempera medium on the wall. The painting was done between 1867- 1874. The image depicts a character from Khattana Kumara

Jataka. The color that been use are monochromatic. The artist draw Khattana Kumara wear Tai Lue costumes such as shirt, pant. The style of his hair is circular and parted topknot. In addition, the artist drew Khattana Kumara wear earpiece, and smoking a cigarette. There are many kinds of lines that been use in this artwork, such as horizontal, vertical, diagonal and organic. This is a portrait painting. The artist draw as a life-size picture.

Figure 88 The portrait of Dr. Jivaka Komarabhacca
Source : Pattana Decha

Picture 9

Title : The portrait of Dr. Jivaka Komarabhacca

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

Dr. Jivaka Is the art work from Thit Buaphan, Nan local artist. This image is on the west side of the wall at Wat Phumin, Nan province. The artwork is a scene format painting using tempera medium on the wall. The painting was done between 1867-1874. The image depicts an image of physician who take care the Buddha. The color that been use are monochromatic. The artist paints the costume of the physician with red color with the blue color at the background. There are different kinds of lines that has been use in this artwork such as diagonal and organic. This is a portrait painting. The artist draw as a life-size picture.

Dr.Jivaka is represented the skill of painting a portrait of a person by Thit Buaphan. The artist put the detail of Foreign country influence in this painting, such as the face of the physician looks like a foreigner. As a matter of fact, during 2410-2417, Nan province is occupied by Thailand, which is in the period of colonization from the west. The artist draw the event on the wall as a record at the period.
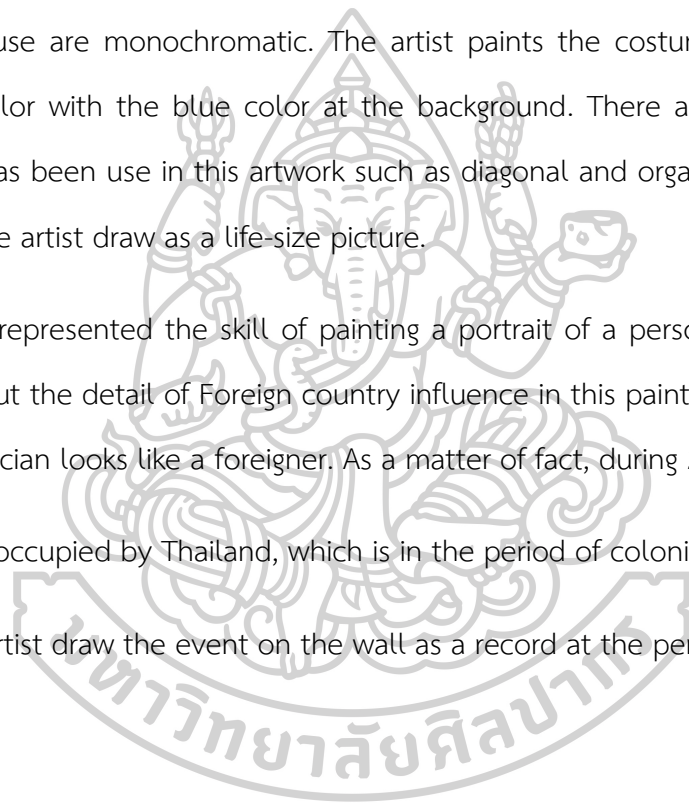
Figure 89 Hells (Nimi Jakata)

Source : Researcher's photograph

Picture 10

Title : **Hells (Nimi Jataka)**

Location: Mural painting at Wat Phumin, Nan province

Technique: Tempera painting

Hell (Nimi Jataka) is the presumably art work from Thit Buaphan's student. This image is on the west side of the wall at Wat Phumin, Nan province. The artwork is scenery format painting was done between 1867 – 1874. The image in the painting depicts various characters of people in hell from Nimi Jataka. They were punished by the chastiser. The artist draw persons who being punished with nonhuman forms. In contrast, the chastisers draw in human forms. The color that use are monochromatic.

There are many kinds of lines that been used in this art work, such as horizontal,

vertical, diagonal, and organic. Hell (Nimi Jataka) is presumably not draw by Thit

Buaphan, because the skill of drawing not as good as Thit Buaphan's previous works.

However, the scenary of Hell obviously represented Lanna mural painting served the

temple as a learning space to remind people to do good. Imaginably, there will be a

place for people who do bad things as the painting on the wall.

4.4 Summary

In this chapter, the study focused on to obtain the objective 2, which to analyze the significance criteria and elements of Wat Phumin, Nan province by using images to be promoted as the sustainable community-based culture. The research have selected six non-native participants for interviewing and selecting ten images of photographs, which took from Lanna mural paintings at Wat Phumin, Nan province. The six participants were asked selected ten images by using eye -tracking to track the coordinates from the photographs of Lanna mural paintings. Each six non-native participants were selected ten images of the photographs and then six non-native participants came down to ten selected images. As a result, the researcher brought ten selected images into Art analysis using Edmund Feldman's guidelines.

There are four steps of Art analysis, which are 1) Description 2) Analysis 3) Interpretation 4) Judgement / Evaluation.

In this study, the researcher referred four steps of Art analysis for ten selected images as followed;

1) Description : Description words about selected images from the photographs of Lanna mural paintings at Wat Phumin, Nan province. The researcher described something worth seeing of these images.
2) Analysis: The researcher described analysis of relationships such as sizes, shapes, colors, textures, value, contrast, space, volumes and other principle of design in

order to find the way to connect the viewers with these ten selected images from photographs.

3) Interpretation : the researcher used information obtains from step 1 and 2 into researcher's own interpretation.

4) Judgement: the researcher concluded the statements of ten selected images from photographs into researcher's conclusion for these ten selected images can promote as the sustainable community-based culture for Phumin-Tali community, the local community of Wat Phumin, Nan province.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

This research aimed study on the introduce different idea to create any community which contains value heritage to become a sustainable community-based culture.

A study was done by using mixed techniques to gain useful information and perspective from stakeholders in the area of research.

Firstly, Researcher did a review in related documents to find possible outcomes to solve the problems.

After that, a site observation, a semi-structured interviewing and data collecting from questionnaire, and other methodologies was taken place in consequence.

Lastly, by reviewing and combining all obtained information,researcher had come up with the outcome of attempts to support Objection 1, 2 and 3 as follow;

5.1.1 Objective 1 : To investigate the current situation of Wat Phumin in the province of Nan, Thailand among the local community

The researcher focused on local participants with image from mental imagery. The reports for objective 1 majority of local participants from Phumin -Ta Li community agreed that Wat Phumin , Nan province was a symbol of their community To analyse the significance criteria and elements of Wat Phumin, Nan province by using images to be promoted as the Sustainable Community-based Culture as described in chapter 4.

5.1.2 Objective 2 : To analyse the significance criteria and elements of Wat Phumin, Nan province by using images to be promoted as the Sustainable Community-based Culture.

This objective the researcher focused on nonnative participants with photographs (or image representations) of Lanna mural paintings with eye tracking and heat map. As a result, there were ten selected images to process with Art analysis by Edmund Feldman as described in chapter 4.

This study concluded for objective 1 and 2 there is a connection with tangible and intangible heritage from local participants and nonnative participants with processes of this study.

5.1.3 Objective 3 : To propose Wat Phumin in Nan province as the Sustainable Community-based Culture for the local community and international tourists. The researcher attempted to purpose the methodology to create sustainable community based-culture based on the data at hands in the period of this study has taken. As a result, the examples of implementation of the data from phase 1 and 2 to use as tools to propose Wat Phumin as the sustainable community-based culture have published in different journals.

DISCUSSION

This study presents the information which have collected from different events in order to conclude as the solutions to propose Wat Phumin in Nan province as the sustainable community-based culture by follows the research questions as below;

Research Questions

1) What is the current situation and status of Wat Phumin in Nan province within the context of culture?

Throughout this study, the research have been visited Wat Phumin, Nan province many times. For my observation, Wat Phumin drawn lot of people to visit this place continuously in every time when I have visited this place. Evidently, I have experienced high volumes of people to come to the temple especially on the weekends To answer RQ1, what is the current situation and status of this temple within the context of culture? According to the element of culture, which the researcher has interpreted into major basic elements of culture are symbols, language, norms, values, rituals, artifacts, work ethics. Wat Phumin is situated in the downtown of Nan municipality's area, then the context of culture came from this area. The researcher attempted to find the answer to RQ 1 with various research methodologies. As a result, the highlights of answers on basic elements of culture from selected people will .

To summarize basic elements of culture

1." Symbol", most of six participants agreed that Wat Phumin is a symbol for their community.

2."Language", all of six participants pointed out "Lanna language" is using in their everyday's life. The people from this community use Lanna and Thai language fluently.

3."Norms", one of the participant gave the answer for this definition that they reside near Nan river. Therefore, the people of this community have many activities involved with Nan river.

4."Values", one of the participant gave the answer for this definition that the people have strong teamwork in their mindset since the past. For example, whenever this community has some problems, the people from their community came out to help each other without hesitation.

5."Rituals", one of the participant gave the answer for this definition that there is a traditional event that exist every year, such as Sport Rowling.

6.“Artifacts”, one of the participant gave the answer for this definition that the people of Phumin-Tali community have skills to create meaningful objects, such as flowers container made from banana leafs.

7.“Work ethics”, one of the participant gave the answer for this definition that the people of this community have positive work ethics. The people of this community always have something to do. In addition, the top three careers that people of this community work for 1) Government officer 2) Business owner 3) Freelance.

2) Why is the Wat Phumin, Nan province very significant and important within the community of Thai people to be develop as the Sustainable Community-based Culture?

My investigation on this topic, to answer RQ2, because Wat Phumin, Nan province is very significant and important within the Phumin-Tali community and within most of Thai people's perception. Wat Phumin is not only a beautiful building, but also contains the meaningful Lanna mural paintings. Both an architecture and paintings at Wat Phumin become tangible and intangible heritage for Phumin Tali community and Nan province. Undeniably, Wat Phumin and Phumin-Tali community have been developed as sustainable community-based culture from every stakeholders in Nan province overtime.

3) What are the type of images and how it can play important role in identifying fundamental characteristics of Wat Phumin, Nan province?

Historically, Wat Phumin was built in 15th century. Then around 400 years later, Wat Phumin had a major renovation. At that time the ruler of Nan hired a Tai Lue painter name “Nan Bua Phan” and his crews to paint the walls inside the temple with storytelling of the Buddha, the story of previous life of the Buddha, and the way of life of Nan local people. Since major restoration at Wat Phumin in 1867, now it is

over 150 years that Lanna mural paintings has existed to the viewers who come to visit Wat Phumin, Nan province. According to previous researcher's works by selecting 10 images and analyzed with Feldman's Model of Art analysis. To answer RQ 3, the type of images that can play important role in identifying fundamental characteristics of Wat Phumin, Nan province. There are two paths to identify characteristics of Wat Phumin, Nan province are 1) Tangible assets and 2) Intangible assets. Wat Phumin contains tangible assets as its architectural buildings which support for Buddhism's purposes. On the otherhand, Wat Phumin contains intangible assets as Lanna mural paintings which not only support for Buddhism's purposes, but also use to record historical events in paintings.

From ten images which have selected by the participants, the researcher chose only one image that can answer RQ 3 on tangible assets. It is picture number 10, **Hells (Nimi Jakata),** figure 93. This image reflects the Buddhist's teaching, there are heaven and hell for everyone to go after everyone passed away, whether go to heaven or hell depend on everyone's action while everyone is alive. According to the fundamental characteristics of Wat Phumin, Nan province, one of them, temple is the place for people to learn which is the same reason with other temples in Thailand.

Figure 90 Hells (Nimi Jakata) to answer RQ 3

The researcher took pictures while visiting Wat Phra That Chang Kam as figure 94, the image is reflected Nan people's perception for the various functions of temple.

Figure 91 Nan people pay respect to sacred item at Wat Phra That Chang Kam
Source: Researcher's photograph

From ten images which have selected by the participants, the researcher chose five images that can answer RQ 3 on intangible assets. It is picture number 1, **Khattana Kumara and his mother,** picture number 2, **Looming scene,** picture number 3, **Women going to market,** picture number 5, **the portrait of Nang Si Wai, and** picture number 7, **The portrait of Nang Si da,** as figure 95**.**

1.Khattana Kumara and his mother

2.Looming scene

3. Women going to market
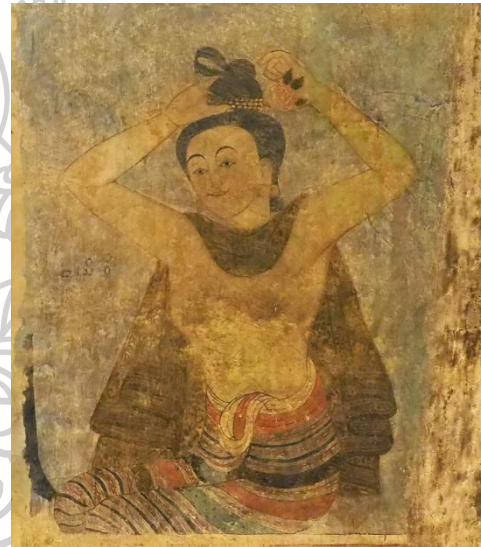
4. the portrait of Nang Si Wai

5. The portrait of Nang Si da

Figure 92 Five selected images to answer RQ 3
Source: Researcher's photograph

The researcher have taken some pictures while visit Wat Phra That Chang Kam as figure 96, 97, 98, and 99, the image are reflected Nan people wear "Sinh", a traditional garment worn by Lanna people in different occasion.
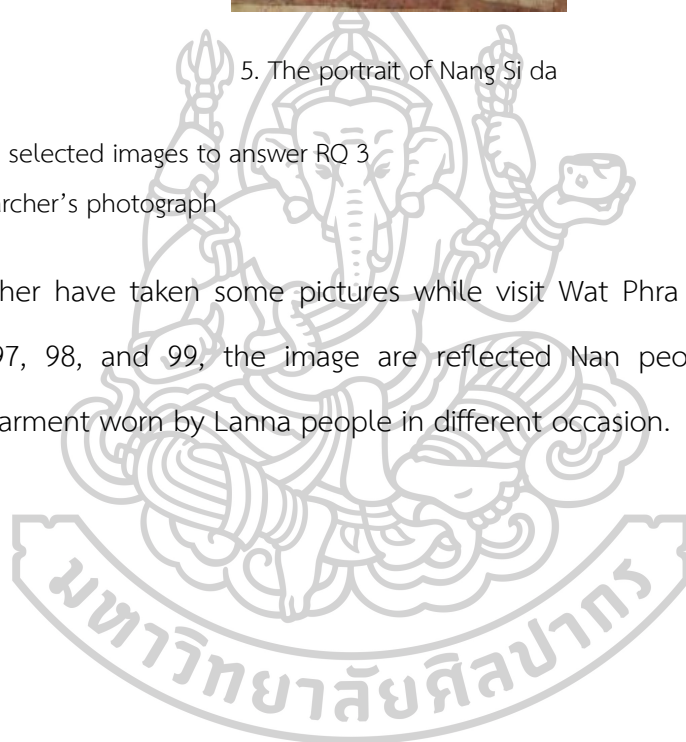
Figure 93 Nan people wear "Sinh" and walking to Wat Phumin, Nan province together

Source: Researcher's photograph

Figure 94 A Nan woman people wear "Sinh" and driving a motorcycle

Source: Researcher's photograph

Figure 95 Nan people wear "Sinh" and preparing things to give away at Wat Phra That Chang Kam, Nan province

Source: Researcher's photograph

Figure 96 Nan people wear "Sinh" and greeting each other at Wat Phra That Chang Kam, Nan province

Source: Researcher's photograph

4) How does this research can facilitate Wat Phumin, Nan province to be recognized as the Sustainable Community-based Culture for the local community and international tourists?

This research attempted to explore different approaches to facilitate Wat Phumin, Nan province to be recognized as the Sustainable Community-based Culture. As a result, all the findings are only suggestions from the researcher personally. However, Wat Phumin, Nan province is already a sustainable community-based culture for the local community and international tourists on its behalf.

In addition, the researcher attempted to propose the methodology to create sustainable community based-culture based on the data at hands in the period of this study has taken. As a result, the examples of implementation of the data from phase 1 and 2 to use as tools to propose Wat Phumin as the sustainable community-based culture have published in different journals.

5.2 Recommendations

5.2.1 The recommendation for anyone who would like to develop a sustainable community-based culture at any site. This study title "A study on the fundamental characteristics of Wat Phumin, Nan province to become as a sustainable community based-culture through image representation" is a beginning to develop body knowledge that apply from various methods and theories in order to obtain new findings in this area of study.

5.2.2 The community targeted to be sustainable — based has active participation within and out the community in order to complete a mission in the long run. This process is the most critical part of all the processes. The harmonious from the people in the community and the stakeholders is crucial. From the finding from the fieldwork found that Nan province has a critical idea called 'Nan Civil Society.'

According to the paper titled "The Feasibility of Establishment of Study Group for Knowledge Management in the Participatory Administration of Historical and Cultural Tourism in the Nan Civil Society," by Nanta Termsombatthavorn et al. (2017), describe Nan Civil Society is a conscious mind of participation among people within the community. It began with old communities in Nan with a history of establishing communities from immigrant groups, which came from many villages in the

downtown area of Nan over a hundred years ago. However, Nan villagers also cooperate in various cultural activities such as Buddhist rituals in which the communities usually use Temple as a place for performing religious ceremonies.

5.2.3. The community that targeted to be sustainable — based culture has to possess valuable assets that can create some products in order to support the community in creative ways, such as an exquisite mural painting like Wat Phumin. This process is opened to possible approaches, as this study has attempted to do several times.

5.2.4. The community that targeted to a sustainable community — based culture has to be authentic that no one can imitate. The community has to have a "sense of place" in order to distinguish itself from following the sustainable community-based culture as figure 100.
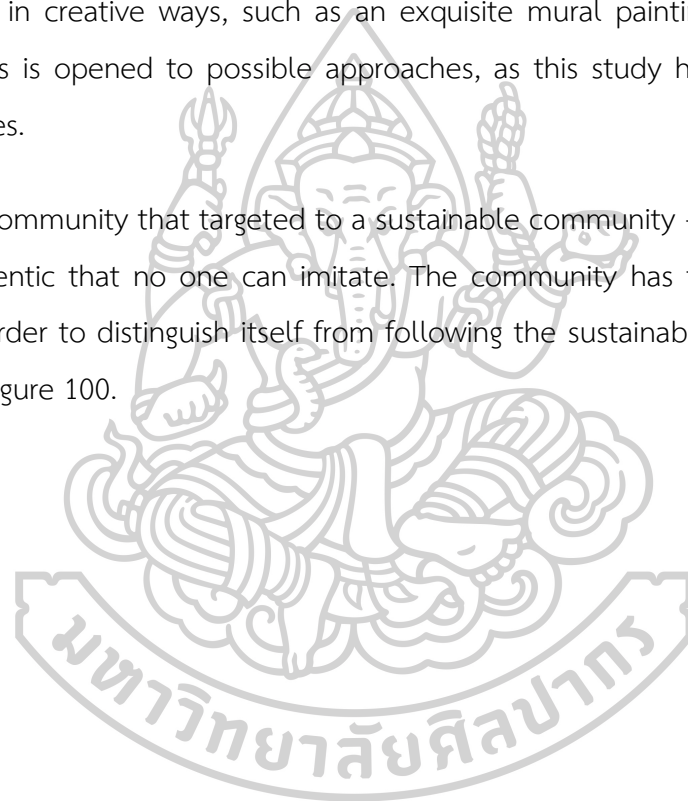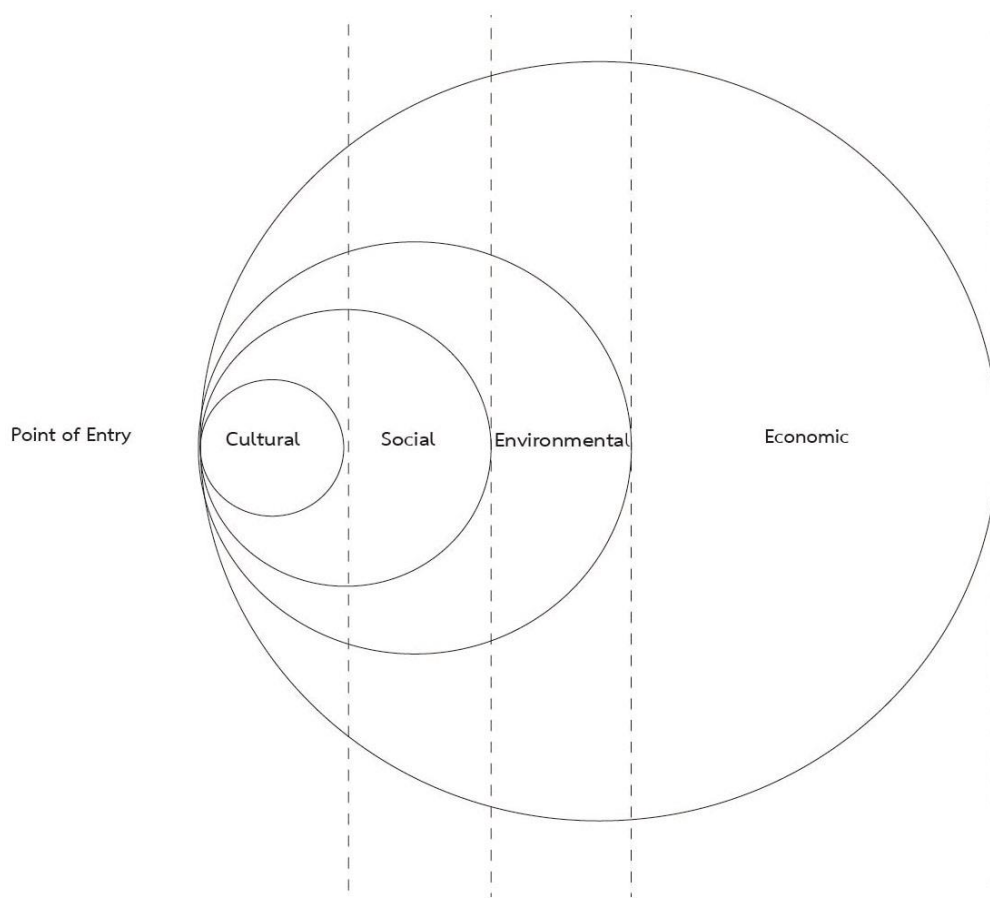
Figure 97 Point of Entry for Sustainable Community Based - Culture

Source : Researcher's diagram

In addition, the researcher used another method, which is "Participatory Design" to connect the dots with the stakeholders. The results from understanding Wat Phumin, Nan province as a sustainable community-based culture, has a very strong social community that dated back at the beginning of Nan kingdom in the thirteenth century. There are many events from the past until the present that brings Nan people together and has to take care of each other to pass the obstacles that challenge them. Wat Phumin, Nan province as a sustainable community has cohesion from various groups within its community.

The researcher has conducted various research methodologies such as ethnography research, observation, interviews, focus group with the stakeholders, such as Local community (For example; Phumin-Tali community), Government authorities (For example; Culture of Nan province), Local authorities (For example; Nan municipality, Phumin-Tali village), Private sectors (For example; Wat Phumin, Nan province as figure 105. To create a model on social Sustainable Development for Wat Phumin, Nan province. As a result, the researcher can concluded the information from participants within Nan province and published a paper title "Appending Roles of Thai Temples for Sustainable Communities: A Case Study of Wat Phumin, Nan Province" has been presented at the 3rd International Conference on Media Studies (ICMS 2019), 3-6 July 2019 at Bansomdejchaopraya Rajabhat University (BSRU), Bangkok, Thailand.

In the other attempt, the researcher conducted the same procedures with other province. The research chose to study Wat Rong Khun, Chiang Rai to understand the collaboration from their stakeholders. The researcher have talked with Dr. Chalermchai Kositpipat, a Thai National artist and the designer of Wat Rong Khun, Chiang Rai province and acquired the knowledge for creating a sustainable community-based culture for Pa O Don Chai community, which is a local community of Wat Rong Khun, Chiang Rai province.

This paper has published in the International Journal of Innovative Technology and Exploring Engineering (IJITEE), the title "Content Analysis on Developing a Sustainable Community from Wat Rong Khun Model, Chiang Rai Province (2019) and it has been presented in Creative Industry International Conference 2018 (CIIC 2018), Kuala Lumpur, Malaysia on 5-6 December 2018.

The people that the researcher have conducted in-depth interview have representing their organizations. In each individual, they have contributed their insights which contained lots of knowledge and their attempts to create a sustainable community-based culture with a wide breadth of knowledge, as figure 101.

Phra Thep Nanthajarn, The Abbot of Wat Phumin

Mr.Somjate Wimolkasem, Nan local wiseman

Mr.Wijit Chaimongkol, Phumin-Tali's local wiseman
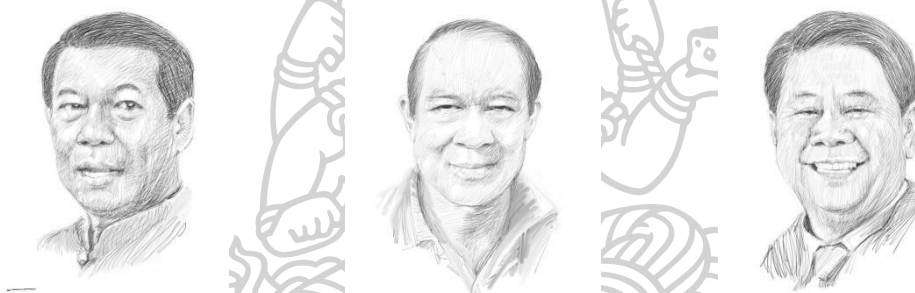
Mr.Saroj Rattanamas, Director of Culture of Nan province

Mr.Sorasak Phromjak, Principal of Phumin-Tali community

Mr.Sorapol Thiansutr, Mayor of Nan City

Figure 98 Selected participants for Participatory Design

Drawings by Mr. Jaturong Laohatrakool

Figure 99 Dr. Chalermchai Kositpipat, Thai National artist
and the designer of Wat Rong Khun, Chiang Rai province
Drawings by Researcher's drawing

1. Mr. Somjate Wimolkasem worked as Nan local wise man. He was also one of the leading people to place Nan to be the city heritage. His contribution gave the local community to represent sustainable community-based culture. In addition, Mr. Wijit Chaimongkol Phumin-Tali's is a Phumin-Tali wise man and Mr. Sorasak Phromjak is a principal of Phumin-Tali community gave more information to enhance the understanding from local community.

2. Ms. Nunwichida Wichaisiritrakul, the representative of the director of Tourism and Sports of Nan (Nan mots), Nan province. She mentioned Tourism and Sports of Nan (Nan mots), Nan province represented as a government authority. On the other hand, it is not a part of local stakeholders. Therefore, she pointed out Nan mots has positioning as a facilitator for Wat Phumin, Nan province. In addition, Nan mots supported Wat Phumin, Nan province in every way it can.

3. Phra Thep Nanthajarn, the abbot of Wat Phumin, according to his poor health, there is Phra Maha Taweesak Akkapunyo, who served as a secretary of the abbot of Wat Phumin, Nan province. He was represented the abbot of Wat Phumin during the interview. For his responsibilities, he knew everything about Wat Phumin's activities including financials, community-service activities, Buddhist's ceremony activities, etc. As a result, the abbot of Wat Phumin's contribution gave a sustainable community - based culture's knowledge as a private sector.

According to Wat Phumin considered as a private sector. Because Wat Phumin depends on its own. Most of the money came from donations from the people who visited the temple. Every month, he collected the donations to pay utilities, such as electricity, water, phone bills, etc.

4. Mr. Saroj Rattanamas is the director of Culture of Nan province, which stands for one of Art & Cultural organization. In addition, he was one of the leading people to propose Nan town municipality to be an old town conservation area in 2005. His contribution gave the perspective for Art & Cultural organization. Culture of Nan is

dealing with Nan culture and related areas. As a result, Mr. Saroj Rattanamas worked together with other stakeholders in order to preserve tangible and intangible heritage such as Wat Phumin, Nan province to stay the same as long as possible.

5. Mr. Surapol Thiensutr, Mayor of Nan city, Nan municipality, Local authorities, he was one of the administrator to create the activities which generating the revenue that involve with Wat Phumin, such as Kuang Mueng Nan walking street.

6. Dr. Chalermchai Kositpipat is one example of sustainable community-based culture models. He created the unique management to support his temple in three pillars of sustainable which are environmental, social, economic. Firstly, he built Wat Rong Khun since 1997,later it became the tourist's attraction for Chiang Rai province. Secondly, he trained the local people to preserve the temple to stay the same in the long run. Therefore, he wanted the local people to be parts of his establishment. Thirdly, he set the system to create the revenue in order to earn money enough to pay for his worker's salary and fix the temple. Therefore, his contribution for creating the model of sustainable community -based culture is a particular example, as figure 102.

CONCLUSION

To conclude the study, there are many attainable outcomes that would create a suitable model for sustainable community-based culture as this study has the data to support objective 1, 2, and 3 through image representation. To select image representation for propose Wat Phumin in Nan province as the sustainable community-based culture can decrease or increase numbers of image representation to analyze independently. In fact, there is no limitation on how many images would be sufficed for this study.

In addition, the selected image representation need to contain interesting storytelling to broaden the possible outcomes to recognize any other sites to become as the sustainable community-based culture like Wat Phumin, Nan province and the nearby community.
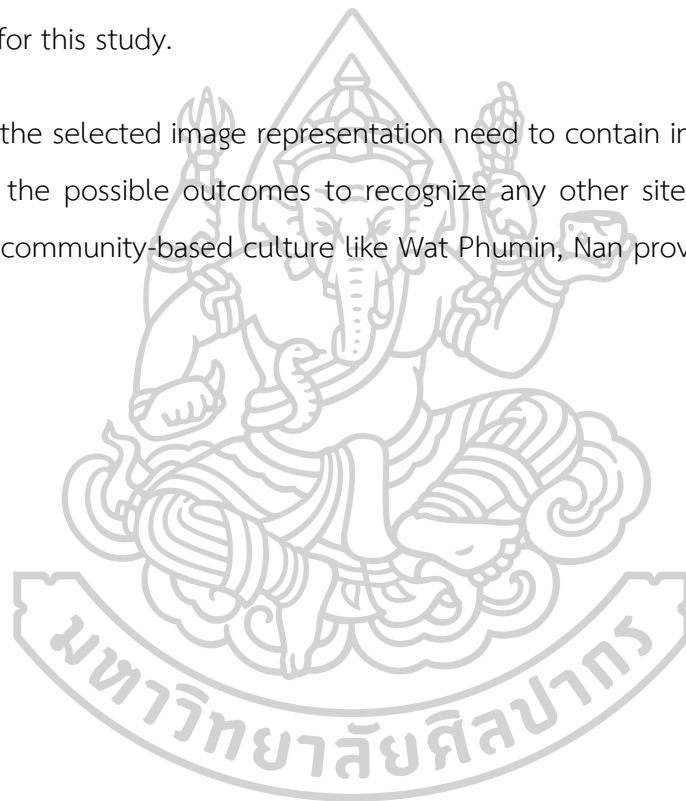
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Appendix A

Research surveys by a research student

From Faculty of Decorative Arts,

Silpakorn Univesity,Thailand

Appendix A

Research surveys by a research student from

Faculty of Decorative Arts, Silpakorn Univesity,

Thailand

Statement of purpose

1. The students will gain an opportunity to get acknowledge from this survey

2. Please fill mark ☐ and fill out completely

Part 1 : Overview of the respondents

1. Genders

☐ Male ☐ Female

2. Status

☐ Young Tourists

☐ Tourists in Thailand

☐ Foreign tourists (Country ....)

3. Education

☐   Elementary

☐   Secondary

☐   Vocation

☐   Bachelor

☐   Master

☐   Ph.D.

4. Age

☐   Under 20 years (please specify............)

☐   20 - 40 years (please specify............)

☐ $\geq$41 years (please specify............)

Part 2 : The research from visitors who have seen mural paintings at Wat Phumin, Nan province.

1) How many times you come to watch mural paintings at Wat Phumin, Nan province?

☐ First time   ☐ More than one time   ☐ More than five times   ☐ More than 10 times

2) Once you have viewed the mural paintings at Wat Phumin, Nan province. Do you understand the story telling were painted on the wall? (Please ignore to explanations fom guides or get any information while you were looking at the paintings)

☐ Undertsand every   ☐ Undertsand some of   ☐ Do not undertsand

    storytelling   storytelling   at all

3) Once you have viewed the mural paintings at Wat Phumin, Nan province. Do you know "Where is the begining of storytelling at Wat Phumin, Nan province?" (Please ignore to explanations from guides or get any infomation while you were looking at the paintings.)

☐ Yes   ☐ No

4) Let us understand about your opinions on Storytelling on mural paintings at Wat Phumin, Nan povince. Please fill mark ☐ in scale boxes that you chose.

	Very much (5)	Very (4)	Somewhat (3)	Little (2)	Very little (1)	
There are confusing						There are Not confusing
Don't know where to start to look at						Know where to start to look at

5) Let us understand about your opinions on Storytelling on Lanna mural paintings in general. Please fill mark ☐ in scale boxes that you chose.

	Very much (5)	Very (4)	Somewhat (3)	Little (2)	Very little (1)	
There are confusing						There are Not confusing
Don't know where to start to look at						Know where to start to look at

6) Let us understand about your opinions on Storytelling on Thai mural paintings in general. Please fill mark ☐ in scale boxes that you chose.

	Very much (5)	Very (4)	Somewhat (3)	Little (2)	Very little (1)	
There are confusing						There are Not confusing
Don't know where to start to look at						Know where to start to look at
Don't know where to start to look at						Know where to start to look at

7) Let us understand about your opinions on Storytelling on Lanna mural paintings in general. Please fill mark ☐ in scale boxes that you chose.

	Very much (5)	Very (4)	Somewhat (3)	Little (2)	Very little (1)	
There are confusing						There are Not confusing
Don't know where to start to look at						Know where to start to look at

8) Let us understand about your opinions on Storytelling on Thai mural paintings in general. Please fill mark ☐ in scale boxes that you chose.

	Very much (5)	Very (4)	Somewhat (3)	Little (2)	Very little (1)	
There are confusing						There are Not confusing
Don't know where to start to look at						Know where to start to look at

1. If you have an understanding of the stories that artists painted on the walls of the temple at Wat Phumin, Nan province. Which one of the four walls that contain the stories of Lanna mural paintings, would you like to develop into an interesting storytelling?

_____

_____

_____

_____

_____

_____

_____

_____

2. If you do not have an understanding of the stories that artists painted on the walls of the temple at Wat Phumin, Nan province. Which one of the four walls that contain the stories of Lanna mural paintings, would you like to develop into an interesting storytelling?

_____

_____

_____

_____

_____

_____

_____

_____
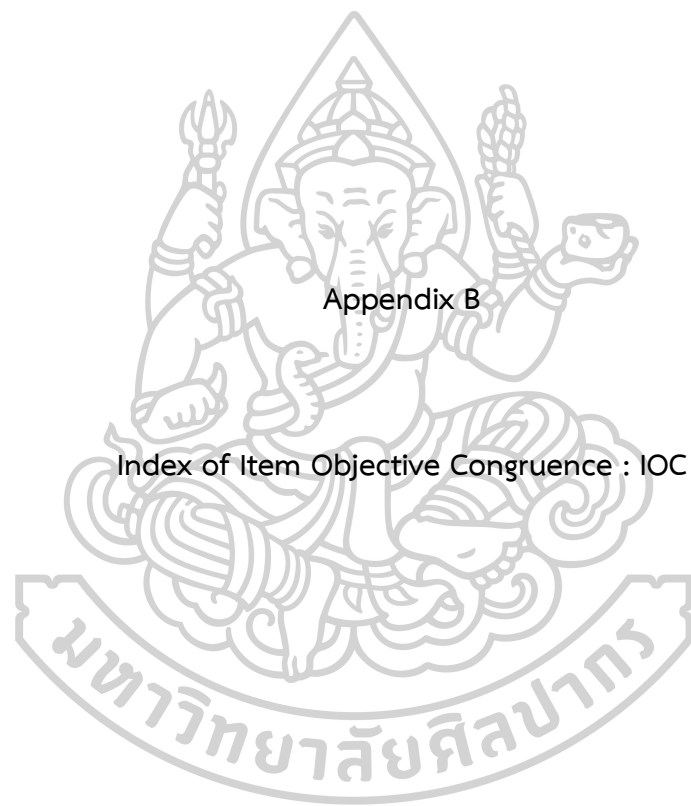
Appendix B

Index of Item Objective Congruence : IOC

Appendix B

Index of Item *Objective Congruence* : *IOC*

Version 1

IOC for a research title's

"Visual storytelling on Lanna mural painting: A case study of Wat Phumin, Nan province"

The questionnaire divided in four parts

Part I Personal information

Part II Tourist statistical data

Part III Primary information for this research

Part IV Additional information for this research

Consistency Checkup (IOC) for 3 experts

Item *Objective Congruence* (*IOC*)		
-1	represents	*The question is not relevant*
0	represents	Undecided
1	represents	*The question is relevant*

Part I Personal information

1. Gender

Male
Female

-1	0	1

2. Status

Youth
Thai tourists
Other

3. Education

	-1	0	1
Primary			
Secondary			
Vocation			
Bachelor degree			
Master's Degree			
Ph.D.			
Other			

4. Age

Less than 20 years
20 to 40 years
41 years and older

-1	0	1

Part II Tourist statistical data

5. How many times you have been seen Lanna mural paintings at Wat Phumin, Nan

Province?

First time
More than 1 time
More than 10 times
Other

-1	0	1

Part III Primary information for this research

6. When you have seen Lanna mural paintings at Wat Phumin, Nan Province, Do you have an understanding of the stories of Lanna mural paintings at Wat Phumin, Nan Province?

-1	0	1

Understand every stories in Lanna mural paintings	
Understand some stories in Lanna mural paintings	
Do not understand at all	
Other	

7. There are many Lanna mural paintings at Wat Phumin, Nan Province, do you know which direction to start to look at?

-1	0	1

Yes
No
Other

8. What do you think about the stories on Lanna mural paintings at Wat Phumin, Nan province?

-1	0	1

	1	2	3	4	5	
Not confusing to understand						Confusing to undertand

	1	2	3	4	5	
There are images to begin the storytelling						There are no images to begin the storytelling

-1	0	1

9. What do you think about the stories on Lanna mural paintings in general?

	1	2	3	4	5	
Not confusing to understand						Confusing to undertand

	1	2	3	4	5	
There are images to begin the storytelling						There are no images to begin the storytelling

-1	0	1

10. What do you think about the stories on Thai mural paintings in general?

-1	0	1

	1	2	3	4	5	
Not confusing to understand						Confusing to undertand

	1	2	3	4	5	
There are images to begin the storytelling						There are no images to begin the storytelling

-1	0	1

Part IV Additional information for this research

_____

_____

_____
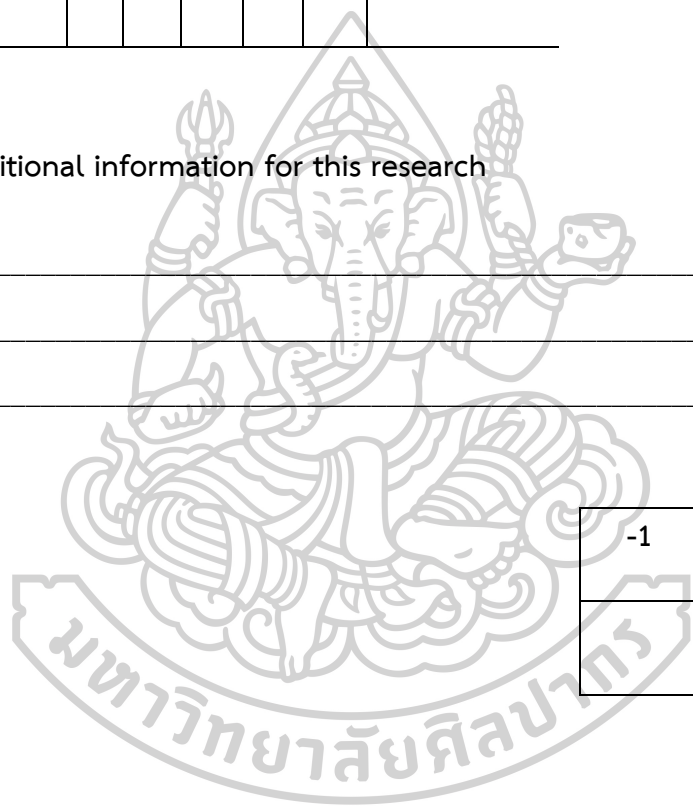
-1	0	1

Version 2

IOC for a research title's

"Visual storytelling on Lanna mural painting: A case study of Wat Phumin, Nan province"

The questionnaire divided in four parts

Part I Personal information

Part II Tourist statistical data

Part III Primary information for this research

Part IV Additional information for this research

Consistency Checkup (IOC) for 3 experts

Item *Objective Congruence (IOC)*		
-1	represents	*The question is not relevant*
0	represents	Undecided
1	represents	*The question is relevant*

Part I Personal information

First Name…………………	Last Name ……………………
Age	
Province	
Education	

-1	0	1

Part II Tourist statistical data

When you have seen Lanna mural paintings at Wat Phumin, Nan Province, Do you have an understanding of the stories of Lanna mural paintings at Wat Phumin, Nan Province?

_____

_____

_____

-1	0	1
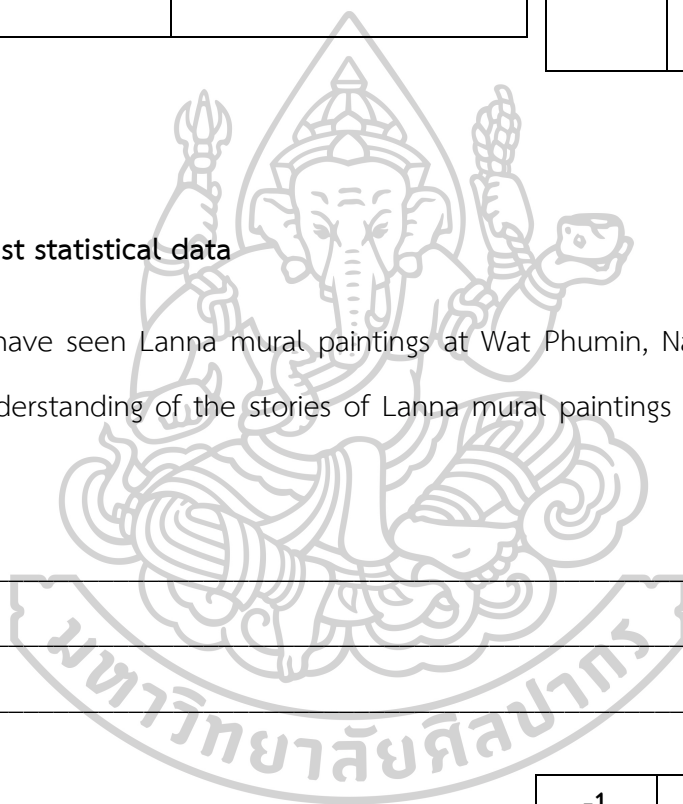
Part III Primary information for this research

If you are understand the stories about Lanna mural paintings at Wat Phumin, Nan province, what stories do you want to develop more, which direction of the wall?

_____

_____

_____

-1	0	1

Part V Additional information for this research

If you are NOT understand the stories about Lanna mural paintings at Wat Phumin, Nan province, what stories do you want to develop more, which direction of the wall?

_____

_____

_____

-1	0	1

Appendix C

The Experts'opinions on Item Objective Congruence : IOC

Appendix C

Numbers	the *Experts' opinions*			IOC	*Interpretation*
	Expert #1	*Expert #2*	*Expert #3*		
Part 1					
1.1	1	1	1	1	Good
1.2	1	1	1	1	Good
2.1	0	0	-1	-0.3	Need improve
2.2	0	1	1	0.6	Good
2.3	0	-1	1	0	Need improve
3.1	1	1	1	1	Good
3.2	1	1	1	1	Good
3.3	1	1	1	1	Good
3.4	1	1	1	1	Good
3.5	1	1	1	1	Good
3.6	1	1	1	1	Good
3.7	1	1	1	1	Good

4.1	0	1	1	0.6	Good
4.2	0	1	1	0.6	Good
4.3	0	1	-1	0	Need improve
4.4	0	-1	-1	-0.6	Need improve
5.1	1	1	1	1	Good
5.2	1	1	-1	0.6	Good
5.3	1	1	-1	0.3	Need improve
5.4	1	1	-1	0.3	Need improve
5.5	1	-1	-1	-0.3	Need improve
6.1	1	1	1	1	Good
6.2	1	1	1	1	Good
6.3	1	1	1	1	Good
6.4	1	-1	-1	-0.3	Need improve
7.1	1	1	1	1	Good
7.2	1	1	1	1	Good
7.3	1	-1	-1	-0.3	Need improve

| 8.1	1	1	1	1	Good
8.2	1	1	1	1	Good
9.1	1	1	1	1	Good
9.2	1	1	1	1	Good
10.1	1	1	1	1	Good
10.2	1	1	1	1	Good
Part 2					
1.1	1	1	1	1	Good
1.2	1	1	1	1	Good
1.3	1	1	1	1	Good
1.4	1	1	1	1	Good
2.1	1	1	1	1	Good
2.2	0	1	1	0.6	Good
2.3	0	1	1	0.6	Good
Total = 41				Sum = 29	

IOC= 29/41 = 0.7   (= or > 0.5 is OK)

This questionnaire have 3 experts to check Index of Item *Objective Congruence* (IOC).

The IOC value must be greater than or equal to .50.

The results of the IOC examination found that this questionnaire with a value an average value of .70 which between .67 - 1.00.
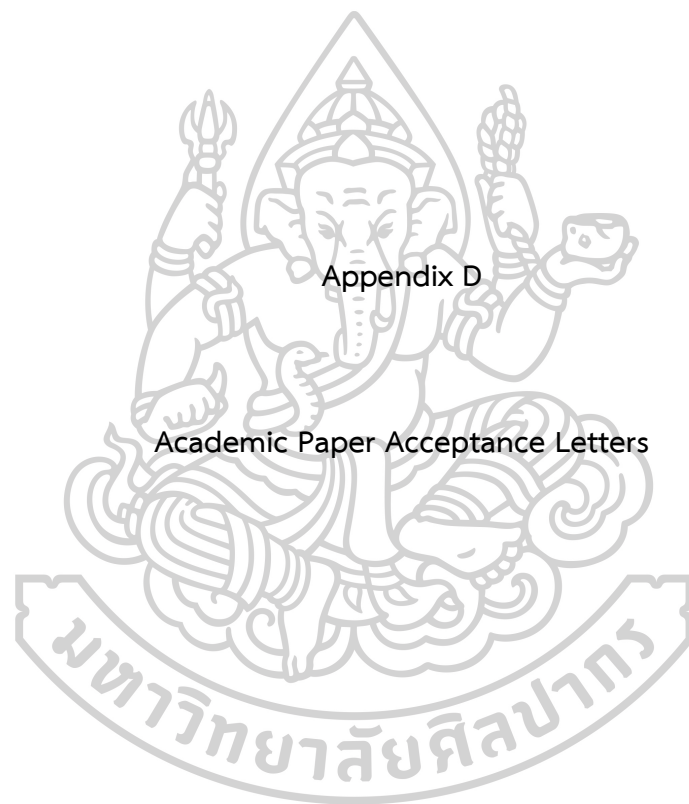
Appendix D

Academic Paper Acceptance Letters

Appendix D

ICAPAS 2016
Graduate School
Indonesia Institute of The Arts
Yogyakarta

The 4th International Conference for Asia Pacific Art Studies (**ICAPAS**)
Graduate School of Indonesia Institute of the Arts Yogyakarta
October 18th - 19th, 2016

Yogyakarta, 1st July 2016

Dear Mr/Mrs. Tawipas Pichaichanarong,

The 4th International Conference for Asia Pacific Arts Studies

Thank you for the submisson of your abstract paper entitled: VISUAL RESEARCH PRACTICES ON THAI LANNA MURAL PAINTING: A CASE STUDY OF WAT PHUMIN, NAN PROVINCE for the 4th ICAPAS 2016.

We are very pleased to accept your paper for presentation at the Conference, which will take place from 18th – 19th October 2016 at the Graduate School of Indonesia Institute of the Arts Yogyakarta, in Yogyakarta Indonesia.

Please follow some author instructions designed that will be helpful for you in revising your abstract and full paper prior to its re-submission. The deadline for the full paper submission will be on 14th August, 2016.

Participants are responsible for making their own travel and lodging arrangements. Hotel rooms on various rates are also available. Information for these is posted on the conference website.

Thank you very much for your interest and contribution to this event. Please feel free to contact us anytime you may have any queries to ICAPAS contact person (e-mail: retnomustika7@gmail.com/ ph. +62 813 33 133 167 – Retno).

We look forward to seeing you in Yogyakarta in October.

Warmest Regards,

Dr. Fortunata Tyas Rinestu, M. Si.
Chairperson of the 4th ICAPAS 2016 Organizing Committee

Note :
To be included in the conference proceeding, the presenting author must confirm his/her attendance and return the completed registration form to the 4th ICAPAS 2016 steering committee and payment receipt (Bank transfer scan) of registration fee via bank transfer before 14th August 2016.

IJCAS

International
Journal
of Creative
and Arts
Studies

November 29th, 2016

Regarding acceptance of Original Article for publication in IJCAS:

This is to certify that **Tawipas Pichaichanarong**'s original article **"Visual Research Practices on Thai Lanna Mural Painting: A Case Study of Wat Phumin, Nan Province"** has been accepted for publication by us, which was a part of and in conjuction with 4th ICAPAS 2016-International Conference for Asia Pacific Arts Studies in Graduate School Indonesia Institute of The Arts Yogyakarta, Indonesia. Your original article will be published in the upcoming issue of IJCAS Volume 3 Number 2 (2016): December.

We will not charge the article's publication fee.

Visit our official website: journal.isi.ac.id/index.php/IJCAS

Thank you for publishing with us.

IJCAS

Prof. Dr. Djohan, M.Si.
Editor in Chief, Int. J. of Creative and Arts Studies

No. 6821/ 3316

14   September .   2017

Dear   Tawipas Pichaichanarong,

Your research article entitled "Visual mixing research methods on Lanna mural paintings : A case study of Wat Phumin, Nan province " has been accepted for publication in Silpakorn University Journal of Social Sciences, Humanities, and Arts, Volume 17 Number 3 (September- December) 2017.

Thank you for your contribution to Silpakorn University Journal of Social Sciences, Humanities, and Arts.

Sincerely yours,

(Associate Professor Thanik Lertchanrit, Ph.D.)
Editor-in-Chief of Silpakorn University Journal
of Social Sciences, Humanities, and Arts

PUSAT PENGAJIAN PENGURUSAN INDUSTRI KREATIF DAN SENI PERSEMBAHAN
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Laman Web (Website): http://www.scimpa.uum.edu.my

UUM
Universiti Utara Malaysia

Ref: UUM/CAS (SCIMPA)/CIIC2018
Date: 15 May 2019

Tawipas Pichaichanarong
Veerawat Sirivesmas
Rueanglada Punyalikhit
Suan Sunandha Rajabhat University, Thailand

Dear Authors

ACCEPTANCE AND PUBLISHED ARTICLE IN SCOPUS-INDEXED JOURNAL FOR CIIC2018

Congratulations!

Your paper entitled "Content analysis on developing a sustainable community from Wat Rong Khun model, Chiang Rai Province" has been accepted and published in the International Journal of Innovative Technology and Exploring Engineering (IJITEE), ISSN: 2278-3075, Volume-8 Issue-7S2, May 2019, a Scopus-indexed journal.

Please visit the IJITEE Journal website (https://www.ijitee.org/download/volume-8-issue-7s2/) for more details. Should you have any queries, kindly contact us at ciic@uum.edu.my.

 "ILMU BUDI BAKTI"

Regards,

ASSOC. PROF. DR. SYAMSUL BAHRIN ZAIBON
CIIC2018 Conference Chair

T: +604 928 5878/ +6016 5108181

UNIVERSITI PENGURUSAN TERKEMUKA
The Eminent Management University

PUSAT PENGAJIAN PENGURUSAN INDUSTRI KREATIF DAN SENI PERSEMBAHAN
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Laman Web (Website): http://www.scimpa.uum.edu.my

Ref: UUM/CAS (SCIMPA)/CIIC2018
Date: 15 May 2019

Tawipas Pichaichanarong
Veerawat Sirivesmas
Rueanglada Punyalikhit
Suan Sunandha Rajabhat University, Thailand

Dear Authors

ACCEPTANCE AND PUBLISHED ARTICLE IN SCOPUS-INDEXED JOURNAL FOR CIIC2018

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Please visit the IJITEE Journal website (https://www.ijitee.org/download/volume-8-issue-7s2/) for more details. Should you have any queries, kindly contact us at ciic@uum.edu.my.

 "ILMU BUDI BAKTI"

Regards,

ASSOC. PROF. DR. SYAMSUL BAHRIN ZAIBON
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UNIVERSITI PENGURUSAN TERKEMUKA
The Eminent Management University

Appendix E

Key themes of Interview with Stakeholders

GLOBAL ACADEMIC EXCELLENCE (M) SDN BHD
Lot 1156, Tingkat 2, Kompeni Niaga LUTH, Jln Dato Pati,
15000 Kota Bharu, Kelantan
Tel: 09-7406346 / 010-8428094
Website: egax.org
Email: admin@egax.org

Our Ref : GAE/IJHAM/JP – 055
Date : 22 March 2020

ACCEPTANCE LETTER FOR JOURNAL PUBLICATION

Dear Tawipas Pichaichanarong, Veerawat Sirivesmas, Rueanglada Punyalikhit,

It's our pleasure to inform you that, after the peer review, your manuscript titled:

"APPENDING ROLES OF THAI LANNA TEMPLES FOR SUSTAINABLE COMMUNITIES: A CASE STUDY OF WAT PHUMIN, NAN PROVINCE"

has been **ACCEPTED** with content unaltered to being publish in **International Journal of Heritage, Art and Multimedia, eISSN: 2600-8262, Volume 3 Issue 8 (March 2020)**.

Your accepted manuscript will be published in our journal at **www.ijham.com** and it is open access journal.

Again, thank you for publishing with IJHAM. We believe that our collaboration will help to accelerate the global knowledge creation and sharing one step further. Please do not hesitate to contact us if you have any further questions.

Best wishes,
International Journal of Heritage, Art and Multimedia (IJHAM)

Sincerely

Director
Global Academic Excellence (M) Sdn Bhd

International Journal of Heritage, Art and Multimedia (IJHAM)
eISSN:0128-6666
Website: www.ijham.com
Email: ijhamofficial@gmail.com

VITA

NAME	TAWIPAS PICHAICHANARONG
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	B.A. in Fine Arts, Washington State University, Pullman, USA
HOME ADDRESS	281/10 Soi Sri Phuan
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	Thailand 10800
PUBLICATION	Visual research practices on Thai Lanna mural painting: A case study of Wat Phumin, Nan province has been presented at The 4th International Conference for Asia Pacific Arts Studies (ICAPAS), October 18-19, 2016 at Hotel Harper Aston Jl. Mangkubumi 52 Yogyakarta, Indonesia.
	Visual mixing research methods on Lanna mural paintings: A case study of Wat Phumin, Nan province , Silpakorn University Journal of Social Sciences, Humanities, and Arts Vol. 17 No.3 (2017). 193-210 : September-December, 2017.
	Content Analysis on Developing a Sustainable Community from Wat Rong Khun Model, Chiang Rai Province has been presented at Creative Industry International Conference 2018 (CIIC 2018), 5-6 December 2018 at the Institut Penyiaran dan Penerangan Tun Abdul Razak (IPPTAR), Kuala Lumpur, Malaysia.

Appending Roles of Thai Temples for Sustainable
Communities : A Case Study of Wat Phumin, Nan Province
: International Conference on Media Studies 2019 (ICMS
2019), on 3-6 July 2019 at Bansomdejchaopraya Rajabhat
University (BSRU), Bangkok, Thailand.