Peircean Visual Semiotics for Tertiary Level Students on Storytelling of Lanna Mural Paintings at Wat Phumin, Nan Province, Thailand

Tawipas Pichaichanarong
College of Communication Arts, Suan Sunandha Rajabhat University,
Nakhon Pathom Campus, Thailand
E-mail: tawipas.pi@ssru.ac.th

Abstract
Most temples throughout Thailand have mural paintings upon their inner walls. Founder of Silpakorn University, Prof. Silpa Bhirasri, highlighted 13 temples in Thailand as having exceptional mural paintings. With its original Lanna Mural paintings, Wat Phumin in Nan is one such temple. These mural paintings depict three stories: the Buddha, the previous life of the Buddha and the ordinary lives of local people. In general, mural art is considered a medium designed to convey messages to the audience. Therefore, this study is designed to examine the capability of tertiary level students to comprehend the storytelling of the Lanna mural paintings at Wat Phumin. However, the target group of this study coincided with the data from the questionnaires which collected the data from a field trip onsite, which is tertiary education. Various methodologies were used to explore the comprehension of the storytelling of Lanna mural paintings among the tertiary students via Peircean visual semiotics. As a result, the report of this research has been shown in this study. Finally, the knowledge from this study can be used to enhance teaching in various education fields related to visual semiotics and mural paintings. In addition, due to the COVID-19 Pandemic, the volume of visitors to Wat Phumin has been reduced. As the situation gets better, this study can educate anyone who plans to visit this temple.

Keywords: peircean visual semiotics, tertiary level students, Lanna mural paintings, Wat Phumin

Semiotika Visual Peircean dalam Pengisahan Lukisan Mural Lanna di Wat Phumin, Provinsi Nan, Thailand pada Mahasiswa

Abstrak
Sebagian besar kuil di Thailand memiliki lukisan mural pada dinding bagian dalam. Pendiri Universitas Silpakorn, Prof. Silpa Bhirasri, menyoroti 13 kuil di Thailand yang memiliki lukisan mural yang luar biasa. Wat Phumin di Nan adalah salah satu kuil yang memiliki lukisan Mural Lanna Mural. Lukisan-lukisan mural ini menggambarkan tiga cerita: Sang Buddha, kehidupan Sang Buddha sebelumnya, dan kehidupan biasa masyarakat setempat. Secara umum, seni mural dianggap sebagai media yang dirancang untuk menyampaikan pesan kepada pengunjung. Oleh karena itu, penelitian ini dirancang untuk menguji kemampuan mahasiswa dalam memahami kisah pada lukisan mural Lanna yang ada di Wat Phumin. Kelompok sasaran penelitian ini berkesesuaian dengan data dari kuesioner yang didapat pada hasil kunjungan lapangan setempat, yaitu pendidikan tinggi. Berbagai metodologi digunakan untuk menggali pemahaman akan kisah pada lukisan mural Lanna di kalangan mahasiswa melalui semiotika visual Peircean. Hasilnya kemudian dilaporkan dalam penelitian ini. Pada akhirnya pengetahuan dari penelitian ini dapat digunakan untuk meningkatkan pengajaran di berbagai bidang pendidikan yang berkaitan dengan semiotika visual dan lukisan mural. Selain itu, karena pandemi COVID-19, jumlah pengunjung ke Wat Phumin menjadi berkurang. Dengan semakin membaiknya
situasi, penelitian ini dapat mengedukasi siapa saja yang berencana untuk mengunjungi kuil ini.

Kata kunci: semiotika visual peircean, siswa tingkat atas, lukisan mural Lanna, Wat Phumin

INTRODUCTION

Founder of Silpakorn University in Bangkok, Professor Silpa Bhirasri wrote a book “Appreciation of our Murals” (1959), in which he highlighted the mural paintings of 13 temples throughout Thailand as national treasures. Specializing in the teaching of arts, both lectures and studio classes, Silpa Bhirasri’s opinions on mural paintings in his book can be viewed as focusing primarily on arts and aesthetics. However, mural paintings are not only a type of art, but also a medium. Throughout the history of humankind, mural paintings have been used as visual narratives recounting events and stories to following generations. This is particularly the function of mural paintings in Buddhist temples and the messages they convey to the audience. Of the 13 Thai temples Silpa Bhirasri viewed as having valuable mural paintings, Wat Phumin in Nan is one and is the focus of this study. The study attempted to examine the understanding of the storytelling depicted in mural paintings from the visitors regarding their visual semiotics knowledge. As a result, visitors who visited Wat Phumin were the target group providing the relevant information needed for the research. Fortunately, most of the visitors at Wat Phumin were studying at the tertiary level of education. In addition, the Lanna mural painting at Wat Phumin comprises three main stories: “the Buddha”, “the previous lives of the Buddha”, and “the ordinary lives of the local people”.

As a result, the study attempted to study the comprehension of the storytelling of the Lanna mural paintings among tertiary level students via a Peircean visual semiotics approach. The study focused on tertiary level students as the target group to gain insights into and knowledge of the visual semiotics for learning Lanna mural paintings at Wat Phumin.

LITERATURE REVIEW

Peircean Visual Semiotics

Visual semiotics is a subset of semiotics, which is the study of signs that represent meaning on any objects or in written paragraphs, pictures, etc. In addition, visual semiotics manages pictures that enclose meaning for the audience. The study of visual semiotics has increased in popularity and importance following the rise of mass communication to use images via different media. Today, visual semiotics theory has become part of our culture. Our brains are trained to decode messages with images that we receive every day from senders through various forms of
media. Within the field of visual semiotics, there is Peircean visual semiotics. This focus on pictorial elements or images and so is suited to the field of mural paintings. Jappy (2013) points out that Peircean visual semiotics is usually used to decode images with words such as comic strips and advertising campaigns. Chandlers (2007) introduced the Peircean model used in this research. The model has its origins in Charles Sanders Peirce, who devised his own semiotics model to approach a situation requiring certain skills to decode the message from the image. As shown in Figure 1, Peirce presented a three-part model which consists of:

1) Representation refers to a sign-carrier.
2) Interpretant refers to the metaphor of creating a sign.
3) An object referring to something that transcends the sign.

![Figure 1. Model of Peircean Visual Semiotics by Jappy, T. (2013)](image)

**Tertiary Level Students**

Tertiary level education is the next stage for students who pursue education beyond the secondary level. This includes vocational education, bachelor education, master education, and PhD education. UIIS (2021) describes tertiary education as having the aim of individuals learning in specialized fields of education. It focuses on a higher level of sophisticated and expert education. Fry et al. (2014) point out that students who enter tertiary level education will learn to think critically and gain knowledge independently. This study focuses on visitors who obtained tertiary education to study how they interpreted and learned from the storytelling depicted in Lanna mural paintings at Wat Phumin in Nan, according to Peircean visual semiotics.

**Storytelling**

Serrat (2008) defines storytelling as the powerful depiction of opinions, faiths, exclusive, backgrounds, and principles for living one's life through the stories or tales that arouse mental states and intuition. Therefore, storytelling uses stories as an articulation tool for any individual to value, contribute and gain
knowledge. Most storytelling is told via the forms of personal stories, text, pictures and sound. In general, Wat Phumin depicts stories concerning the Buddha, the previous lives of the Buddha, the lives of ordinary people, as well as other various pictures and writings in the Lanna script.

**Lanna Mural Paintings**

The Lanna mural paintings at Wat Phumin in Nan were painted by Nan Bua Phan, a Tai-Lue artist who lived in Nan Province. Following King Chao Anantaworaritthidej's patronage, Nan Bua Phan was instructed to depict the life of the Buddha, the previous lives of the Buddha, and the lives of ordinary people. Nan Buaphan and his artisan worker took about seven years to complete the Lanna mural paintings on all four sides of the wall inside the temple. The mural paintings reflect the high degree of artistic and aesthetic skill among these individuals. The artists gave their best works at Wat Phumin Nan Province for hundred and fifty years and more to draw people to come and look at their works.

**Wat Phumin in Nan**

As can be seen from figure 2, Wat Phumin is the most attractive temple in the town of Nan. This is largely by virtue of its unique Lanna and Tai-Lue architecture and its vibrant 19th-century murals that represent day-to-day scenes of Nan life. However, there is no exact date as to when Wat Phumin was built. According to Supot Phrommanoch, Director of the 7th Regional Office Fine Arts, Chiang Mai (2019), there is evidence that Wat Phumin was first established in 1603. Later the temple was reconstructed during the period of 1867-1874.

![Figure 2. Wat Phumin, Nan province](source: Tawipas Pichaichanarong Documentation)
Provide brief but sufficient information for others to be able to understand reproduce or the research. Describe any new methods/procedures in detail, but cite in references if the procedures are already published. If the previously published procedures are modified, describe how you modified them and cite the published procedures’ references.

**METHODOLOGY**

Questionnaires were used to collect data from 411 Thai and foreign tourists who have visited Wat Phumin in Nan. At the same time, a qualitative method was used to collect data from tourists who have visited Wat Phumin. The data were then analyzed using descriptive statistics and qualitative data. In addition, qualitative data were rising from in-depth interviews.

**TOOL MEASUREMENTS**

Participants' responses were measured according to demographics and education level.

**RESULTS**

For the questionnaire, the sample comprised 411 depictive individuals. This was made up of 161 males (39.2%) and 250 females (60.87%). In terms of education level, 22 individuals (5.4%) had a primary school education, 48 (11.7%) had a secondary school education, 15 (36%) had vocational school education, 249 (3.6%) bachelor's degree education, 70 (17%) master's degree education, and 7 (1.7%) PhD degree education.

| Tertiary Level Education | Visitors (Percent) |
|--------------------------|--------------------|
| Vocational School        | 36                 |
| Bachelor’s degree        | 3.6                |
| Master’s degree          | 17                 |
| Ph.D. Degree             | 1.7                |
| **Total**                | **58.3**           |
Fieldwork approach

A discussion was designed to collate the wide range of opinions regarding the storytelling of Lanna mural paintings to visitors who have visited Wat Phumin in Nan. In order to learn about personal experiences and interpretations from looking at Lanna mural paintings, the researcher then conducted an in-depth interview with one individual with a tertiary level education, and this fieldwork lasted one day.

PROCEDURES

The selected participant for in-depth interviews was male, aged 24 years old, and had obtained a bachelor's degree. His hometown is in Ranong province. The participant viewed the Lanna mural painting at Wat Phumin in Nan and selected three images from the temple. For in-depth interviews, the researcher used the critical thinking process to study the participant's activity to engage with the storytelling of the Lanna mural painting at Wat Phumin. To gain information from the tertiary level student, this research phase employed critical thinking based on “Critical Thinking: What is It and Why It Counts” by Peter A. Facione (2013). Facione detailed the core of the critical thinking process according to the following six steps: 1) Interpretation, 2) Analysis, 3) Evaluation, 4) Inference, 5) Explanation, and 6) Self-Regulation.

1. Interpretation

The participant answered that it was his first-time visiting Wat Phumin in Nan. He understood the form of the temple. Wat Phumin is a cross-shaped building, as shown in Figure 4, with the area of the building expanding in four directions. The participant understood all the characteristics of the temple before entering the building. In addition, he also understood the function of temples in Lanna and Thai culture, which is to perform daily temple rituals and educate the people who visit the temple. According to Patterson et al. (2016), in contemporary times, museums serve as learning spaces. Therefore, the Lanna mural paintings at Wat Phumin serve the same purpose as museums.

2. Analysis

The participant was asked to select three images from the Lanna mural paintings that he liked the most from the wall and any temple side. The participant selected two images from the northern wall: an image of Buddha and a scene from the previous lives of Buddha, which contained carts, a vehicle in Lanna used to carry heavy items. The participant selected an image of an ordinary Lanna couple from the western wall, as shown in Figure 5.
Figure 4. Cross-shaped Building Plan of Wat Phumin in Nan
Source: The 7th Regional Office of Fine Arts, Chiang Mai
3. Inference

The participants were given the position of three images. However, in Lanna mural paintings, the storytelling is in the composition with other elements in the mural painting. Therefore, the first image came from the northern wall, an image of Buddha and included two Buddhist monks in the same scene. The second image came from the same direction, an image of a previous life of Buddha, from Panyas Jataka in the scene where Khatthana Kumara met Noi Roi Kor and Noi Rai Keawn, with carts in the scene. Regarding the third image from the western wall, the participant described it as a life-size figure of a couple that attracted him, as shown in Figure 6. Furthermore, to make the images from the Lanna mural paintings easier to study, the researcher converted the images from the Lanna mural painting into Lanna graphic drawings more suitable for learning.
4. Evaluation

As the critical thinking approach, the stage of evaluation to determine the states of selected participants on the image of Buddha, the image of the previous life of Buddha, and the image of ordinary people were to be focused on single objects as shown in figure 7.
5. Explanation
To state the results of one's reasoning, this stage used Peircean visual semiotics to explain the participant's selection of three different images as follows:
The Buddha

The participant selected an image of the Buddha from the north wall. This research used the Peircean visual semiotic model to explain the selection by the participant. First, the image represents a sign vehicle – the participant selected a graphic drawing of the Buddha. Second, the interpretant refers to a sense that creates a sign, the interpretant refers to an image of the sort people pay tribute to at the temple, in a ritual to pay tribute to the three major symbols in Buddhism: the Buddha, the Dhamma, and Sangha. Third, the researcher used image sorting as suggested by Kumar (2012) to sort a vintage photograph of the statue of Buddha at Wat Phumin, considered an object which represents the image of Buddha in the form of art as shown in Figure 8.

Figure 8. Peircean visual semiotic model of the image of Buddha at Wat Phumin in Nan
Source: Tawipas Pichaichanarong Documentation
The Carts

The participant selected an image of a cart from the north wall. This research used the Peircean visual semiotic model to explain the participant's selection. First, the image represents a sign-vehicle as the participant selected graphic drawing of carts. Second, the interpretant refers to a sense that creates a sign; In this case, the interpretant refers to an image of a Lanna cart that is part of the daily life of the Lanna people. Third, the researcher uses image sorting as suggested by Kumar (2012) to sort a vintage photograph of a cart because this represents the history of the cart from the past up to the present. As a result, Lanna people still use carts in their daily life as shown in Figure 9.

Figure 9. Peircean visual semiotic model on the image of the carts at Wat Phumin in Nan
Source: Tawipas Pichaichanarong Documentation
The Couple

The participant selected an image of ordinary people from the west well. First, the image represents a sign vehicle as the participant selected a drawing of a couple. Second, the interpretant referred to the image of a person wearing a sinh, which is a skirt that Lanna women usually wear every day. Third, the researcher used image sorting as Kumar (2012) suggested finding a photograph of various sinh in different patterns. The reputation of the unique pattern of Nan's sinh attracts many visitors to come to Nan province and purchase them, as shown in Figure 10.

Figure 10. Peircean visual semiotic model on the image of the couple at Wat Phumin in Nan
Source: Tawipas Pichaichanarong Documentation
6. Self-Regulation

In this stage, the selected participant was interviewed regarding his mental processes. The researcher used the participant's qualitative interview data to answer this topic. The participant described how he perceived three selected images from the Lanna mural painting at Wat Phumin as he walked around the temple. Regarding how he selected the first image from the north wall, the participant answered it was because the Buddhas were more beautiful than on the other walls. For the second image, he commented that the position of the carts, placed over the door of the north wall, was very distinct, and the picture stood out for him. The third image, the life-size image of a couple from the west wall, he found attractive to look at. In this picture, various elements make this image worth looking at. He said he likes this picture because it is a very famous painting, and it is beautiful.

DISCUSSION

The researcher used observation methodology to gain general information about the visitors who visited Wat Phumin in Nan. On the same day, the researcher noticed that most visitors to Wat Phumin on the same day were in their late teens or young adults. Then the researcher returned to Wat Phumin to fill out questionnaires. The questionnaire asked about their education levels. As a result, most visitors have tertiary level education. The researcher subsequently asked a visitor who visited Wat Phumin to participate in qualitative research via in-depth interview. In addition, the researcher used the Peircean visual semiotics model to ask the participant to select three images from the Lanna mural painting at Wat Phumin. The participant then provided information about his selections. In order to graduate, all graduates of tertiary education are expected to think critically for when they enter the real world. The researcher asked the visitor/participant with tertiary education to report on his experience of the Lanna mural paintings at Wat Phumin.

To investigate the participant's critical thinking. The researcher used six steps of the critical thinking process to inform the in-depth interviews. As a result, the researcher studied the selected participant's answers, and found that the participant was able to think critically in mural paintings by himself. However, more knowledge is required to fully understand the storytelling on the Lanna mural paintings at Wat Phumin. In addition, the researcher used the Peircean visual semiotics approach to obtain information from a selected visitor. As a result, the selected participant showed his ability to solve the problems with his tertiary level education knowledge. Therefore, this research can enhance teaching and learning at the tertiary level of education when combined with other methodologies to gain new knowledge, such as mural paintings, as shown in Figure 11. Indeed, there are many murals at temples throughout Thailand that need to be further explored.
An important part of this research is related to COVID-19 pandemic.

When the spreading of the virus COVID-19 throughout the world at the present, there are numbers of people in various fields are working hard to find the cure for COVID-19 at the same time. After this research has been published and distributed to the public, it can educate prospective people staying or working from home during the COVID-19 situation and plan to visit Wat Phumin, Nan Province, when everything is back to normal. Whenever people read this article, the author believes that visitors have read this article before visiting Wat Phumin, Nan province. Robert Curedale, the author of "Design research methods: 150 ways to inform design", introduced online methods like this one. He suggested that online methods can develop tools for information design. As a result, they will use the model of the study to examine and analyze the findings of this research to facilitate them when they are going to glance and contemplate Lanna mural paintings at Wat Phumin, Nan province.
REFERENCES
Bhirasri, S. (1959). Appreciation of our Murals. Bangkok, Thailand: Fine Arts Dept.
Chandler, D. (2007). Semiotics: The basics. Routledge.
Curedale, R. (2013). Design Research Methods: 150 ways to inform design (Design Methods). Design Community College Inc.
Facione, P. A. (1998). Critical Thinking: What It Is and Why It Counts. Insight Assessment, 1-16.
Fry, H., Ketteridge, S., & Marshall, S. (2014). A handbook for teaching and learning in higher education: Enhancing academic practice. Routledge.
Jappy, T. (2013). Introduction to Peircean visual semiotics. A&C Black.
Kumar, V. (2012). 101 design methods: A structured approach for driving innovation in your organization. John Wiley & Sons.
Patterson, A., Kelly, A., Bryan, J., & Keenan, J. (2016). Museums as Learning Spaces: Exploring Trainee Teachers’ Attitudes to the Value of Museum Visits as Learning Experiences for Children. School of Teacher Education Research in Action, 1, 12-21.
Phrommanoch, S. (2019, July 22). Personal interview [Personal interview]
Serrat, O.D. (2017). Storytelling. In: Knowledge Solutions. Springer, Singapore.
UNESCO Institute of Statistics. (2021, May 31). Tertiary education (ISCED Levels 5 to 8). Retrieved from https://uis.unesco.org/en/glossary-term/tertiary-education-ised-levels-5-8