


SENTIMENT IN TRADITIONAL THAI ARCHITECTURE

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ABSTRACT

 Traditional Thai Architecture was initially created from Thai behavior on the basis of beliefs. Each feature, for instance, had different decorated styles; nevertheless, they had the same main function such as Spaces created by separated time zoning, split step floors, being made of natural material and prefabricated building elements. This article aims to analyze the spiritual aspect of Traditional Thai Architecture by the Systems Method. The results imply that knowledge of Thai ancestry was forged from the former environment; furthermore, the appearance appealed to all six common human contact points of eye, ear, nose, tongue, body and mind. Consequently, the buildings and the surroundings were plentiful in their display of visible-objects, sounds, aromas, tastes, touch and mind-objects. The entire system of appearance generated the Sentiment of Traditional Thai Architecture. This should be a clue to the fact that the transition between human needs and Thai culture is Traditional Thai Architecture. The results show that eye contact, ear contact, and body contact influence perception to enhance the value of Traditional Thai Architecture. Therefore, today's Thai Architecture should be adapted to these criteria, which should be considered by designer, for conserving Traditional Thai Architecture.

Keywords : *Traditional Thai architecture, Thai houses, Thai Temples, Thai culture, perception, six senses*

INTRODUCTION

The origin of the Thai race is still ambiguous. Some assume they migrated from Southwestern China, others believe they lived in the border areas between China, Laos, Burma, and Thailand for at least 2,000 years, and still others suggest that they became established in what is today Thailand and then transferred northwards.

A verifiable history of the culture and architecture of Thailand can be traced from the Dvaravati, Srivichai, and Khmer periods from about 500 BC, which influenced Thai Civilization. Thailand was known as “Siam” between the thirteenth and the eighteenth centuries. The capital cities were Sukhothai, Ayutthaya, and today’s Rattanakosin. Traditional Thai Architecture displays the various attractive forms, which have developed into the unique architecture of Southeast Asia.

Because of the agricultural lifestyle, traditional Thai Architecture was based on the ancestor’s knowledge of how to achieve a comfortable life in a hot-humid climate with a rich natural environment. Therefore, living with nature was appropriate in the former traditional Thai Architecture.



Figure 1: Agricultural country with religious status

Previous Thai Cultural structures could be separated into two buildings by manipulation to serve as residential buildings and religious buildings.



Figure 2: Residential building and religious building

The residential Buildings: traditional Thai houses

The modular system was well applied in traditional Thai houses, which could be easily reconstructed. A high gable roof was decorated as symbolic of each part. Raised floors were intended to prevent flood and pests; moreover, all natural materials were light weight. The traditional Thai house was a living place which all Thais, not only ordinary people but also the monarchy took pleasure in. (Saksri, 1996).



Figure 3: The royal residence at Nakornprathom

As inhabitants of an agricultural country, Thai people grew rice, fruit and vegetables. They worked hard in the fields during the day. Consequently, the traditional Thai houses normally were used at night time. Others worked as

craftsman making household implements such as pottery, clothing, tools and the other things that were used in the area underneath their elevated floors, the area in shade near their houses or under the tree near their houses.

The religious Buildings: traditional Thai temples

Most traditional Thai temples were built with thick brick walls in wall bearing construction as a High Mass wall, which affected building performance and human comfort. The temple represented the landmark of the village. The high pitched roof reached the heaven with the floor standing on earth. Since Thailand is a Buddhist country, the Thai temple as a holy space was intended to be used during daytime for prayer.



Figure 4: Spiritual worship in Thai Culture

Traditional Thai Temples were used for Buddhist activities for the community. Men were encouraged to study as monks in Buddhist temples, as a form of schooling. Dry leaves were used for writing and recording their ideas, while architecture itself was the product of knowledge and learning with real buildings as examples. Thai architecture was built to gain merit and represented their belief in unchanging truths, rather than for more mundane reasons.

BACKGROUND

Thailand has a hot-humid climate all year. The ancestors acknowledged their rich environment and then they took the opportunity to reduce the temperature and humidity by creating living places and lifestyle that matched their surroundings.

Thai culture, social standards and lifestyle developed a vital, religious and also unique architectural character. Traditional Thai Architecture has high and slanted roofs, raised on stilts or a masonry structured base, and is decorated to reflect religious and local history. The main materials employed, such as wood, masonry and thatch, are produced from nature. In Thai culture, major beliefs influenced architectural design. They also affected many levels in the building. Brief detail descriptions are as follows:

Hell

Hell, located underground, normally means a place where the souls or bad people are sent to be punished after death. There is still hell on earth in the form of an undesirable environment or bad circumstances. For example, the loud noise of traffic, radios, and machines or the annoying sound of dogs barking, children crying and people yelling make our lives uncomfortable. People sometimes treat or speak to others very angrily and it is then believed that they live in hell on earth. Natural disasters such as floods, droughts, fire conflagrations and Tsunami waves are also implied as hell.

Heaven

Heaven, located on the upper level from the ground, normally means a place of perfect happiness where the souls of good people go after death. There is also still heaven on earth if people are in a state or experience of great happiness which is staying alive, being healthy, having peace, love, riches, and all pleasurable things. Thailand is a hot-humid region with a rich environment. Its climate is suitable as paradise for the human body. Good food is always available. All Thai ancestors enjoyed their lives by patterning their living according to their belief in heaven and at the same time playing hell as an example for comparison.

METHOD

Systems Theory¹ Analysis

The word “System” or unity indicates many levels and dimensions, and is sometimes inconsistent. Systems Theory Analysis emphasizes the importance of a united view; therefore, synthesized thinking is necessary. The first step is to review the subject of unity until it acquires new properties through exposure. Finally, all system can be clarified by the explanation of each component. “Systems Theory” focuses on the arrangement of and relation between the parts that connect them to the whole. (Patton, 1990)

Results

The Sentimental of all traditional Thai Architecture came from the intersection of biological, social, and psychological needs. How the complete applicable use of a valuable environment blends with Thai culture in traditional Thai Architecture is explained in Figure 3. It illustrates that Traditional Thai Architecture served the Thai people’s needs and preferences. The needs are established as part of Thai culture, which are its biological requirements, available traditional technology, sociological needs, social organization, psychology and ideology.

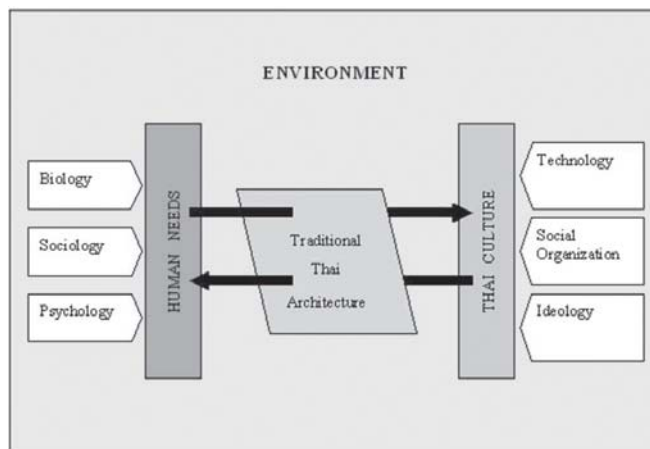


Figure 5: Traditional Thai Architectural System

¹ Systems Theory is the transdisciplinary study of the abstract organization of Phenomena, independent of their substance, type, or spatial or temporal scale of existence. It investigates both the principles common to all complex entities, and the models, which can be used to describe them.

By modifying natural materials and the environment, our Thai ancestors found a way of living close to conditions of comfort. The four basic needs for humans in Thai belief are food, cloth, medicine and shelter. Traditional Thai Architecture proved to be one of the ultimate examples of shelter using conventional knowledge by a trial and error process over a long period. People preferred to have a lot of children for agricultural work. It required attached units for family expansion. Thai people believed in guardian spirits before they believed in Buddhism. Both beliefs became merged in Thai culture and were expressed in its architectural character.

Thai ancestors forged their pattern of culture with their pattern of manifestation, the buildings, while examples of traditional Thai Architecture were a transition between human needs and Thai culture.

Elevated space in Thailand expresses a higher value of mind. Traditional Thai Architecture is not only physical but also spiritual. Thai people treated Thai architecture as spiritually relevant to their Buddhist or guardian beliefs.

Zones and steps indicate the meaning of hierarchy in Traditional Thai Architecture. Thai society has the high caste of king to the low caste of slave, they believe in the high level of heaven to the low level of hell. They have different levels of words, speech, and manner; for example. Therefore, zones and steps were introduced in traditional Thai Architecture to classify social position, specific activities and spaces of beliefs. The places people occupied represented their social status. The privacy zone and upper level stood for higher status such as royalty, monks and elders. Spaces and steps were applied in traditional Thai Architecture.

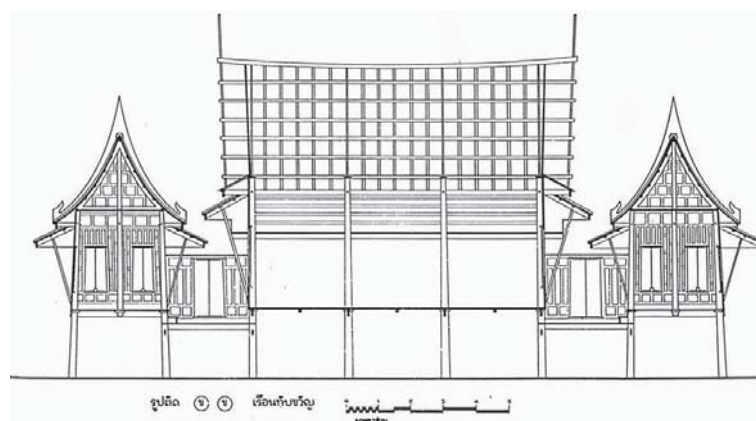


Figure 6: Section of a Thai house showing separated zones and steps

In traditional Thai houses, natural materials such as grass, thatch, and straw have been used for roofs, which were the best insulation at that time. The roof gave protection from solar radiation as well as reducing the inside surface temperature, making people feel cooler. The elevated floor performed as insulation in the architectural design. The high pitched roof provided a smaller area of hot inside surface temperature for people. Moreover, the space inside the house allowed the cross air motion to move heat through out building. During daytime, the lower level underneath the elevated floor was used for activities. Therefore, people experienced a cool surface temperature at ground level thus, redemonstrating the intelligent passive design of the ancient Thai people. The native Thai dress was made of silks or cotton for waistcloth, while children normally wore no clothes until they were ten to twelve years old. Their waistcloth was soft and thin. So, the body could reduce body heat on cool surfaces. The slow activities common in Thai behavior required a lower metabolism rate. Then, human body did not get warm easily.



Figure 7: People take off their shoes, and use bare feet in the temple area

For traditional Thai temples, the hierarchy of space zoning is a unique character. The outside space represents the belief in seas surrounding Mount Meru of Buddhist thought. White sand from the river was used as ground covering. Exposure to the sun raised the sand surface temperature. Taking off the shoes before walking through temples makes people feel hot. Then, when entering the temple, people would feel cooler than normal. This technique reinforced the perception in people's minds of hell as hot area and heaven as cool area. The Thai temple was built as a very heavy structure as 60 – 100 meters in width with small windows. Therefore, heat during daytime was absorbed and radiated during night time.

Sentimental

The six elements of sense-impression, eyes, ears, nose, tongue, skin, and mind are applied to the Sentiment of traditional Thai Architecture. The human body perceives the architectural elements through those six senses as follows:

1. Perception of form
2. Perception of sound
3. Perception of aroma
4. Perception of taste
5. Perception of touch
6. Perception of mind-objects

Table 1 illustrates the main ways in which the sense-impression is expressed in Architecture. Appreciation of Thai architecture is the way people 'taste' the building through those five physical senses and form mind contact.

Table 1: Comparable between sense-impression and perception with examples of appearance.

Sense-impression	Perception	Example of Appearance
Eye contact	Visible-object	Form, shape, color
Ear contact	Sound	noisy, quiet
Nose contact	Aroma	Smell of incense, flower
Tongue contact	Taste*	Sweet, hot, delicious
Body contact	Touch	Smooth, rough
Mind contact	Mind-objects	Beautiful, Merit worthy, Sacred

* The perception of taste combines with mind- object as the same internal sense

Although sense-impressions do not give the main point of Buddhist thought, they show the Sentiment in traditional Thai Architecture. This technique expresses perception as a whole with the human senses. The greatest creations of the Thai past have appeared over centuries and still remind us of how we are compatible with the past.

External sense and Traditional Thai Architecture compared

Visible appearance

The manifestations of traditional Thai architecture express their standing by being tall and erect, rising high into the clouds. All the buildings represent a small universe and a region between hell and heaven.

The Thai house was constructed from natural materials, mostly wood. The living place of Thai people had a unique form which is explained by Suwannakiri (2547) representing the human body; man-shape, woman-shape, or giant-shape as the language of Thai Architecture.

For traditional Thai temple style decoration, the architecturally ornamented “gable-end” of the Thai roof has four different shapes. There are different meanings with appropriate applications reflecting each culture of the individual regions. The golden color means higher ranked people. Colored glasses and gold decoration on the gable and the high roof had an enormous impact on all human visible perception. One would see the temple as the village’s landmark from far away.

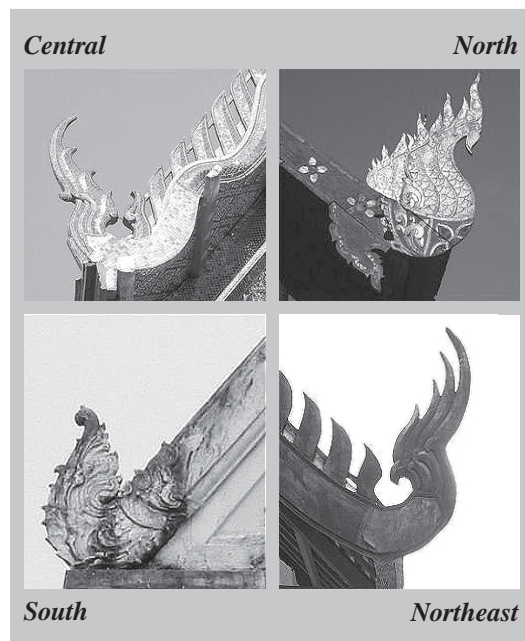


Figure 8: Four different styles of Thai ornamental gable-end on the roof



Figure 9: The hazy but holy light in a Buddhist temple

Traditional Thai Architecture, mostly, has been designed for nighttime use. During daytime, people usually go out to their farmlands. Interior surfaces, made of dark wood, have less reflective property resulting quite dark. In the evening or early morning, eyes can adapt to the outside brightness from interior wall to green leaves outside. Their reflective properties of both wooden wall and green leaves are quite similar. Therefore, the contrast ratio reaches to eye adaptation comfort.

The temple was designed with least natural light. The idea was to emphasize the Buddha's images with candle illumination. The reflection from the golden surfaces of the Buddha's images would enhance religious spirit.

Sound appearance



Figure 10: Small bells with leaf-shape

The Thai house was surrounded by a lot of trees such as bamboo, Mango, banana. These mostly were planted for food or handicraft. Whenever the wind blew, the sound of different leaves dancing played as background noise or natural music. People enhanced the natural sound with their handmade music instrument such as bamboo, ceramics or seashells.

The sound of small bells with leaf-shape clappers hung along the eaves of the Buddhist temple when the wind blows, produces melodies which represent the heavenly sound of the human imagination. Some temples have big bells for expressing the belief in their fortune.

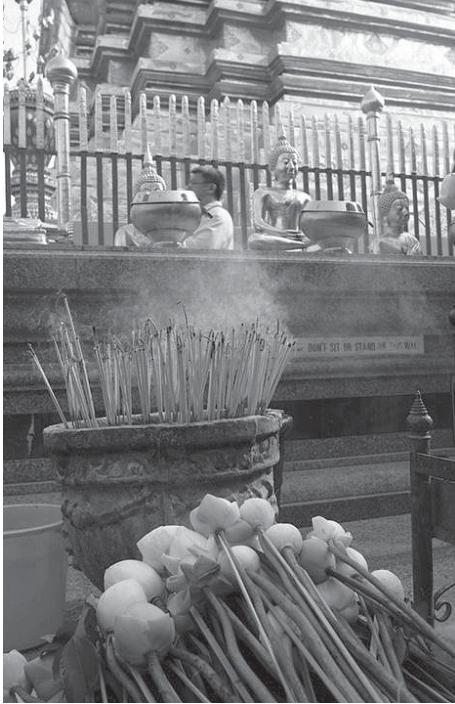


Figure 11: Aroma of holy incense

Aroma appearance

Many aroma tie plants can be found in Thailand. Traditionally, Thai houses normally had flowery plants to provide smells.

Thai Temple areas also have herb trees or shrubs with blossom. Smell is one element of aroma that makes people feel better, relaxed, and also provides mental therapy. For Buddhist activities, flowers, joss sticks, and candles are used for worship. These are made from perfumed substances flower like jasmine. When people breathe in, they feel relaxed.



Figure 12: Thai house at Chulalongkorn University

Taste appearance

The sense-impression of tongue contact does not mean tasting by mouth. The other meaning of taste is the ability to make good or suitable judgements in matters such as beauty, style, music or social behavior. The taste of Traditional Thai Architecture consigns to the mind appearance as a corporate entity.

Touch appearance

The elements of different tangibility were built into the traditional Thai Architecture. Traditional Thai houses were created the texture of wall by using pieces of wood. Sitting on the floor is the custom of carrier Thai people; they always touch the coolest area of their houses.

Traditional Thai Temples illustrate a lot of techniques in how to apply finishing materials such as the smooth surface of plastering on masonry walls, textures of lime and glass in windows and doors, floor finishing in sand, stone, brick, ceramic or wood.

Mind appearance

Mind perception was applied to architecture. It could be an impression of beauty, merit and holiness. The main pillar in traditional Thai Architecture expressed the core of the universe of the mind. Each building was decorated with woodcrafts in keeping with religious belief expressing the deepest creed of the builder. Their huge force reached the softest part of the hearth, the soul.

CONCLUSION

The influence perceptions which have had a high impact to Traditional Thai Architecture are eye contact, ear contact and body contact. Local traditions in each region of Thailand produce different classical Thai architectural styles but the same common character. Details can be classified as follows:

- Unique symbolism of roof shaped boards.
- Steps in each space to identify social class.
- Hierarchy of zoning both inside and outside appropriate to daily activities.
- Nearby natural building and decoration materials making architecture more environmentally friendly.
- Spaces placed on stilts to protect from natural disaster and wild life.

Traditional or classical Thai architecture is an example of the perfect integration of the spiritual, human needs, traditional technology, social organization and religion. Thai people not only created their unique architecture but also created the rich culture of Thai lifestyle in areas such as dress, music, and food. Those combinations can be well explained as a sentiment unique to Southeast Asia.

Globalization has created rapid change. At every single minute, many new technologies or inventions occur. These affect lifestyle, culture and also architecture. What kind of architecture will be appropriate to contemporary needs beyond ancient Thai discovery? Questions relevant to this would be:

What would happen to traditional Thai Architecture if the environment were in ruin?

What would happen to traditional Thai Architecture if technology changed?

What would happen to traditional Thai Architecture if Thai society changed?

What would happen to traditional Thai Architecture if the faith were changed?

How does one express the Thai spirit in architecture? Without culture and spirit in building spaces, it is not Thai ...

Things will change as they always do. So, how can the Thai spirit prevail in today's architecture and beyond?

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