ANALYZING SUSTAINABILITY OF A LOCAL COMMUNITY BY EBS THEORY: THE CASE OF KAO YI SARN, SAMUT SONGKRAM, THAILAND

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ABSTRACT

The purpose of this article is to explain the factors that enable Kao Yee Sarn, a small local community in Samut Songkram Province, maintain its identity as a ‘Thai community’ despite the strong influences of global change. The study uses the concept of EBS for the investigation of the interactions among places, user groups, socio-behavioral-cultural phenomena and time. Literature review, direct observation and interviews were conducted. It was found that the balance of the dynamic interaction among environment, social economic culture and residences’ behaviors is the key factor that enables Kao Yee Sarn to maintain its identity.

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Keywords: community, identity, localization, globalization
INTRODUCTION

The architecture of Thailand has been influenced by western architecture for 150 years. The Center for Architectural Environment Innovation, Chulalongkorn University was established to investigate and create architectural innovation that integrates and balances globalization and localization. The identification of the Thai traditional housing community characteristics is one of the goals. The Kao Yi Sarn Community in Samut Songkram Province, has been selected as a case study. The question of this paper is: Why can the Kao Yi Sarn Community maintain its local characteristics at a time when Thailand has largely been affected by globalization?

LITERATURE REVIEW

The EBS Explanatory Theory

The EBS explanatory theory is a coherent set of explanations answering the why behind observable phenomena. It serves to give meaning to and explain the pattern of observables seen in the world (Platt, 1964; Popper 1965). EBS theory is used to investigate reciprocal interactions among places, user groups, socio-behavioral-cultural phenomena and time (Garry T Moore, 2006).

(Source: Garry T Moore, 2006)

Figure 1: Gary T Moore’s EBS theory
Characteristics of ‘Thai Lifestyles Community’

Thai lifestyle housing communities comprise “Ban” (villages) consisting of groups of “Ruen” (houses) (Srisakara, 2009: 48).

“Ruen” (Thai traditional houses) were constructed according to the local climate and geographical conditions, a practice which illustrates Thai people’s local wisdom and traditions. (Thai Social and Culture: 3). “Ruen” characteristics have been influenced by “Buddhism and superstitious beliefs, tropical geography, agricultural societies, nature and environment”. Thai houses do not stand alone, but are closely linked with local livelihoods from the various levels of families, village and urban communities. (Srisakara, 2009: 40).

“Ban” (Thai traditional villages) are small with few occupants living in primary relationships, holding to their own traditions and cultures (Thai Social and Culture: 2). Thai villages represent their invented culture (Thai Society and Cultures: 6) as an agricultural society, living together as groups with clan relationships and equity, sharing labor and resources in a self-sufficient and sustainable economy, with spiritual dimensions and beliefs in sacred powers that have been transmitted for over three generations; a “cultural society” living together with other villages as part of a “cultural ecosystem” in natural geography and environment recognized as “geo-cultures” (Srisakara, 2010: 11).

Thai Community Economy: Self-sufficiency Economy

The self-sufficiency economy has always been a feature of Thai community livelihoods with its entirely different production ideologies compared to those of the capitalist system (Aphichai, 2007: 11). The concepts and practices have used a holistic approach highlighting inter-relationships amongst multi-faceted knowledge. This knowledge shapes and integrates production ideologies, procedures and relationships with the systems of human society and all things surrounding people and the ecosystem into one body called “holistic manner” (Aphichai, 2007: 129).

METHODOLOGY

The study was conducted through research of documents related to Thai lifestyles, Thai society culture, self-sufficient economy, Thai architecture and documents related to the Kao Yi Sarn Community. Field surveys were conducted on the community, housing and physical environment. Structured interviews were administered with residents, completing three theses in housing development sciences under this project, as a basis for analyzing and describing the identities and sustainability of the Thai housing community.
RESULTS AND DISCUSSIONS

Places and Environment of Kao Yi Sarn

Location

Kao Yi Sarn is an ancient community of more than 800 years old located in Amphawa District, Samutsongkhram Province. It is four kilometers from the Gulf of Thailand. “Yi Sarn” was a trade center situated on the trade route between the capital, Petchburi, and foreign countries. At present, Kao Yi Sarn has a population of 300 households. It is a closed community situated on low-lying land surrounded by dug canals and mangrove forest which have been turned into mangrove plantations to supply raw material for charcoal production.

Kao Yi Sarn Community Compositions

The Kao Yi Sarn Community covers some 36.8 Ha, subdivided into private-used plots (40% of the total area); the remaining 60%, are public-used plots for the community temple, a multi-purpose ground, a school, a cemetery etc. The main composition of Kao Yi Sarn Community includes:

- **Yi Sarn Mountain and Kao Yi Sarn Temple**: located in the middle of the community as the most significant component of this community. This temple was built at the end of the Ayutthaya Era (B.E. 2246) (Valailak, 2002: 38) It is thus assumed that Kao Yi Sarn Temple and Community must have been very important in the distant past.
- **Grandpa Sriracha Shrine**: Grandpa Sriracha is regarded as the first community ancestor to whom a devotional shrine was erected in front of the

(Source: Pongpitak Pattani, 2010)

Figure 2: (a) Land use (b) Housing quarters in Kao Yi Sarn community

- **Kao Yi Sarn Village Museum**: a Thai style Buddhist prayer building Situated at the front of the community, built in 1996 in collaboration with Kao Yi Sarn villagers.

- **Multi-purpose Ground and the Community Center**: Situated at the front of the community where community residents regularly come to meet and talk with one another and where the weekly fresh market plaza is held.

- **Charcoal Kilns**: These are large, one-storey ground-based structures, made of wood, bamboo, and thatch. Inside each workshop are large charcoal kilns, built with superb workmanship and thus regarded as a delicate architectural structure.

- **Housing Quarters and Settlements**: are subdivided into 2 groups. The first, the old community, is located behind the temple, next to Yi Sarn Canal where groups of typical Thai traditional houses are clustered. The second, the new community, is located in front of the Kao Yi Sarn Temple.

- **House Categories**: the physical characteristics of houses can be subdivided into 4 categories:
  - **Thai traditional houses** built with high expertise, with floors raised on high poles suitable for areas with regular floods and a tropical climate. Trees are planted as part of the Thai houses. At present, these Thai traditional houses have become less used because the new generation tends to work elsewhere. This has resulted in inadequate care for most of traditional houses which have gradually become dilapidated.
  - **Vernacular houses** are built with simple workmanship. In most cases they are wooden, bamboo and thatch-roofed. They are small sized since most of their residents have limited resources. The charm of these houses is the residents’ use of the most economical construction materials and shared labor. At present, most are decaying because their construction materials are less durable.
  - **Adapted houses** have been adapted from both the Thai traditional and vernacular styles, using modern construction materials and technology. Most are two-storey houses with the ground floor in a reinforced concrete structure, while their upper level is wooden or pre-fabricated sheet wall. This style became popular when traditional construction materials like wood became scarce, coupled with the social value that a modern style demonstrates their owners’ higher social status.
  - **Modern houses** are those wholly constructed with modern materials and look similar to those in Bangkok’s modern housing projects. They are one or two-storey structures with reinforced concrete. Their residents are from better-off households. Unfortunately, these houses are not in harmony with the traditional houses in the community.
Housing Conditions

Based on interviews with residents from 140 houses, 34% reported that their house had an age ranging from 30-50 years, while 30% had new houses with an age range of 10-20 years. Among the old houses, there are 20 Thai traditional houses (20%) which are more than 100 years old. In terms of their physical condition, 44% were good, 31% medium and 19% dilapidated (Pongpitak, 2010: 77).

Community Residences: Socio-economic-cultural Characteristics

Many of the houses have 3-5 residents while 37% have more than 5 residents. This suggests that many households are extended families.

Incomes, Savings and Debts

From the surveys, it was found that most of the households did not have regular income. When estimating their monthly household income, 42% had an income less than 10,000 baht. On the other hand, 61% did not have any debts and had some savings; only 22% had debts. (Pongpitak, 2010: 114). It should be noted that most of the households are low-income but only few have debts.

Clan Relationships and Houses Set-ups

From the surveys, it was found that, at present, there are 13 clans in Kao Yi Sarn. The old clans have lived in the community for five generations. (Laddawal, 2010: 72). Based on the study of four clans, it was found that the clans with a high degree of clan relationships had houses grouped in clusters and which were in better condition than those with a low degree of clan relationships. (Laddawal, 2010: 173).

Charcoal Production

Charcoal production, the most important occupation for the Kao Yi Sarn Community, consists of two main processes, (1) Cultivating mangrove wood as the raw material; and (2) Burning it into charcoal. This occupation was started 70 years ago (1937). At that time, the Kao Yi Sarn Community had 60 kilns (Valailak, 2002: 134). At present, ten clans still had land to farm mangrove forests for charcoal production. Of this number, seven still have charcoal kilns, employing 74 families as charcoal kiln workers or mangrove forest farmers, and applying resource-sharing and group-support traditions. (Valailak, 2002: 138). Charcoal production is closely linked with their clan system, income, debt, housing conditions, as well as their traditions, culture and natural resources.
**Cultural Assets**

Apart from houses which are high-value cultural assets as previously mentioned, the Kao Yi Sarn Community still has other forms of cultural assets including the following:

- **Artifacts**: Kao Yi Sarn Temple is beautifully built and highly valuable in terms of architectural arts. The Yisarn temple (ubosot) has beautiful paintings and drawings on the ubosot’s window panels, and sculptures on the front under the roof. Apart from these, there are 410 ancient documents from the Ayutthaya Era in the museum (Valailak, 2002: 38-44, 183, 191, 201, 212).
- **Local Wisdom**: The most important example is ‘Lom Nam’ to carry fresh water from a canal and the Petchburi River, 50 kilometers away, for home consumption. Local wisdom also includes their knowledge about medicinal herbs and preserving various kinds of food (Valailak, 2002: 160).
- **Belief Systems and Rituals: Harmonious Co-existence Principle**: The Kao Yi Sarn Community has been integrating various beliefs such as Buddhism, Brahmanism, animism, beliefs in life after death and supernatural powers in the environment, such as soil, sky, rivers, mountains and trees, with a main belief in Grandpa Sriracha for whom special worshipping ceremonies are held every year (Valailak, 2002: 106). These beliefs are their life-guiding principles and a mechanism that explains their geographic conditions and brotherhood. Most importantly, these belief systems serve as tools for passing on social experience, shaping the people’s conduct patterns, and reducing community conflict and promoting harmonious co-existence (Valailak, 2002: 121).

**CONCLUSION**

**Kao Yi Sarn Local Community and Globalization**

The influence of globalization on the Yi Sarn Community since its very first stages transformed it into a canal-based trade center for Siam’s capital as well as the world community. Later, when land and rail transport systems arrived, its trade-center role diminished. In 1937 the people started to produce and send charcoal to Bangkok and abroad. In 1987, recognizing the potential of the global prawn farming business, some locals sold a large portion of their mangrove forests to be converted into prawn ponds. In recent decades, eco-cultural tourism has started to expand along with the completion of a modern provincial road system in nearby areas. These and other forms of aggressive, globalization influences in the area are challenging the sustainability of the traditional Thai lifestyle.
Factors that Enable Kao Yi Sarn Community to Maintain its Identities Despite Global Influences

From this analysis, the following factors have enabled the Kao Yi Sarn Community to sustain its Traditional, historical local identity up to the present:

- **Physical and Environment Identities:** This community’s identities are its houses, mountain temple other community components with their specific characteristics and high values, consistent with its own geo-cultural aspects as a water community situated harmoniously amidst mangrove forests. Barriers to easy access are important factors in preserving its present identity.

- **Occupational and Economic Identities:** Producing and exporting mangrove charcoal overseas has provided the community with sufficient income. This occupation acts as a social linkage for the community, and consumes natural resources in a rotational manner, resulting in smooth inter-relationships amongst people, and between people and nature. Thus, the community residents are bound together by their beliefs, ensuring their capacity to consistently maintain the physical environment as one identity.

- **Social and Cultural Identities:** Kinship, historical and cultural assets are valuable. The people have practical beliefs in a variety of local-wisdom practices that are merged into one identical whole. The clan relationship, continuously vitalized with the charcoal-related occupation, engenders common inter-dependent life-sharing criteria reinforced with the principles of self-sufficient economy.

- **Holistic Approach:** The holistic perspective as applied to production procedures is well-suited to the characteristics of traditional Thai village community cultures (Aphichai, 2007: 129). They are sustainable with the support from production ideologies and relationships among villagers and their surroundings. This can be referred to as a “cultural society” that has cultural roots in “Ban” as a bio-culture in the natural geography and environment called “geo-cultures” (Srisakara, 2009: 11). These factors have helped the community sustain its localization amidst globalization in a rather balanced manner.

Kao Yi Sarn Community and Its Future

Some recommendations for Kao Yi Sarn’s future are as follows:

- **Sustainability through Charcoal-based Cultural Economy.** There is a high possibility that the Kao Yi Sarn Community can apply the cultural economy to sustain its revenue base. This is because charcoal production, its main livelihood, binds the community’s socio-economic life with the
outside world, as well as with its environment. To-date, the mangrove charcoal from Kao Yi Sarn has been well-accepted by the overseas market. The opportunity to produce and export this charcoal, with high value in the globalized world, is possible with the store of knowledge existing in the community.

- **Sustainability with the Middle-Way Lifestyles and Economy at Every Level** is based on the concept that integrates: (1) **Sufficiency** in adequate and reasonable consumption and production; (2) **Balance**: Holistic development ensures the balanced globalization-localization relationship, the balance between the economic sector and the social sector, and balance in production structure and resource consumption; (3) **Sustainability**: Continuously self-sufficient in every aspect, especially in terms of natural resources and environment; and (4) **People Quality**: People must possess various aspects of quality – spiritual, ethical, honesty, kindness, patience, and intelligence. (Aphichai, 2007: 58). The young generation should return to Kao Yi Sarn and participate in the community rehabilitation.

- **The community environment sustainability must stem from the community socio-economic – cultural forces** The Kao Yi Sarn Community should focus more on self-dependency development, rehabilitating its formerly abundant cultural capital and integrating this with local organizations in formulating community action plans, participating in determining policies and laws likely to have impact, bearing in mind the need to work in partnership with other communities in building common learning processes. These are summarized in applying EBS Explanatory Theory as follows:

![Diagram](figure3.png)

(Source: Applied from EBS theory and CODI: Community Network’s Force Synergy Fair – December 15-17, 2002)

**Figure 3**: Linking development activities towards own self-development
ACKNOWLEDGEMENTS

Research Fund: This research was funded by the Chulalongkorn University Centenary Academic Development Project 29: Architectural Environment Innovation, Faculty of Architecture, Chulalongkorn University.

Content reviewers: This article was reviewed by Assistant Professor Siriapha Ratchatahiran, Faculty of Education, Silapakorn University, and one of the Kao Yi Sarn Community leaders.

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