Circularity in Mainland Southeast Asia's Stilt Vernacular

This research seeks to trace material procurements and document construction techniques of traditional buildings originating from the Austronesian stilt vernacular in mainland Southeast Asia (namely Malaysia and Thailand), with learnings to reorient our ecological focus of material building culture towards reuse, regeneration, and circularity culture for carbon efficiency.

Sandwiched between the Pacific and Indian Ocean together with the Eurasian plate to its north, the syncretism of Southeast Asia since the early 7th century has been a quintessential condition of its ever-evolving culture and tradition. Austronesian stilt vernacular buildings, through exposure to consistent engagement with foreign and local cultures developed into three variety of housing typologies within mainland Southeast Asia (Fig. 1,2 & 3). The Malay, Khmer, and Chiang Mai type houses, constructed by traditional methods of vegetal fiber lashings and carpentry joints, have subsequently led to a multitude of typological transformations throughout history with similar tectonic and organizational principles utilized to construct various building programs such as temples, institutional meeting halls and museums (Fig. 4,5 & 6).

These construction techniques have also enabled buildings to be relocated and reconstructed in museums and universities for heritage conservation, alluding to their potential for a circular material culture, one that could make significant contributions to our era of climate crisis and demands (Fig. 7, 8 & 9). An exemplar example is Jim Thompson Residence in Bangkok, Thailand, where six vernacular houses ranging from 75 to 175 years old were dismantled, floated down the Chao Phraya River and reconstructed to form a new assemblage (Fig. 10).

To further enrich this research, I intend to interview Eleena Jamir Architects (Malaysia) and Sher Maker (Thailand), whose practices consciously draw from their own local tradition and building culture to conceive of contemporary ecological solutions. Specifically, Eleena Jamir's own research initiative "About Making", documents and collaborates with local craftspeople, called "Tukangs", to gain a more nuanced understanding of traditional craft for further exploration and experimentation of contemporary building techniques through an ecological lens of bio-based materials, reuse and regeneration (Fig. 13, 14 & 15). Being practitioners with an attitude of perpetuating tradition through invention, it will further enhance the research focus where looking into local craft does not necessitate reverting to pre-industrial techniques but leads one to explore potentials and possibilities for the architecture discipline.

Travel Itinerary

Malaysia

Day 01-07: Kuala Lumpur
- Eleena Jamir Architects
- Salinger Residences
- Sentosa Janda Baik

Day 08-14: Ipoh
- Kompleks Sejarah Pasir Salak
- Kuala Kangsar Royal Museum
- Rumah Kutai Anjung Beranda

Day 15-21: Kedah
- Balai Besar
- Rumah Tok Su

Thailand

Day 22-30: Chiang Mai
- Sher Maker Studio
- Lanna Traditional House Museum
- Kalae Houses

Day 31-38: Bangkok
- M R Kukrit's Heritage Home
- Jim Thompson Residence
- Suan Pakkad Palace Museum

Day 38-40: Samut Songkhram
- King Rama II Memorial Park

Budget

Airfare	$4,000
Train and Car Travel	$1,500
Accommodations	$5,500
Meals	$2,500
Research Expenses	$1,000
Contingency	$500
Total	$15,000

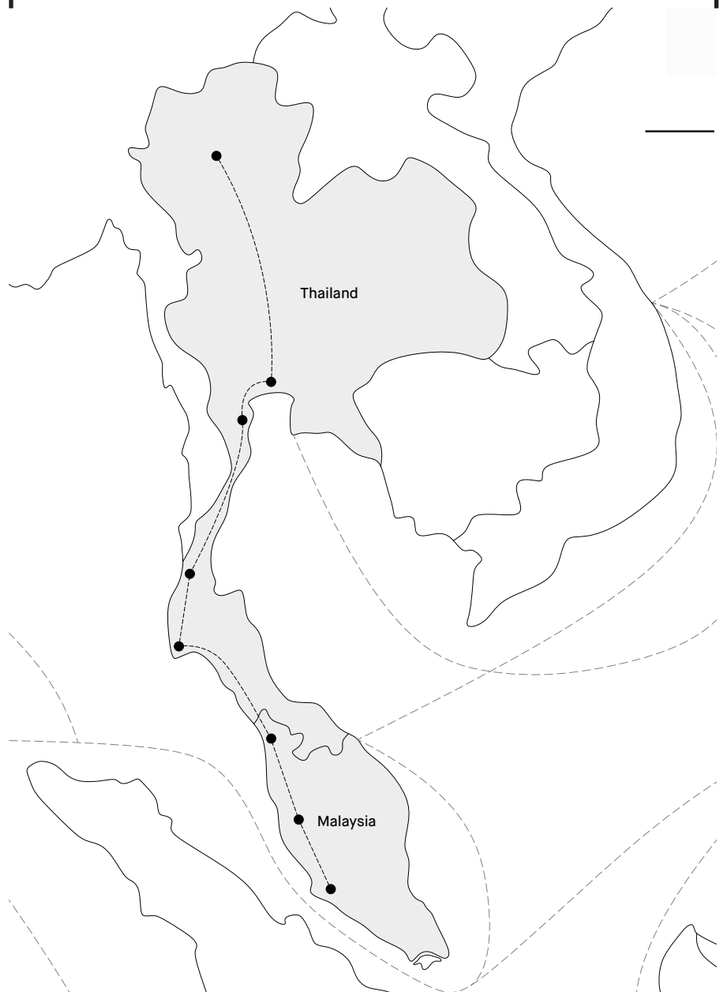

Image Credits:
Fig. 1-3: The House in South-East Asia, Dumarçay, Jacques
Fig. 13-15: Eleenar Jamir Architects, "About Making" Initiative

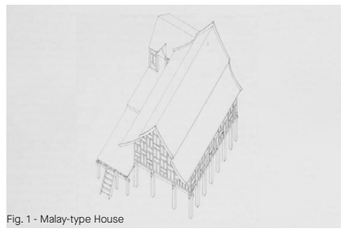
Fig. 1 - Malay-type House


Fig. 4 - Balai Besar


Fig. 7 - Heaun Oui Kaew


Fig. 10 - Jim Thompson House

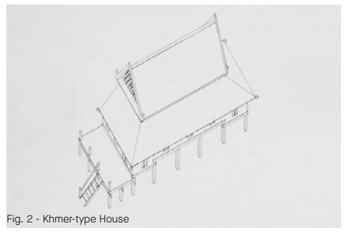
Fig. 2 - Khmer-type House


Fig. 5 - Kuala Kangsar Royal Museum


Fig. 8 - Kalae Houses


Fig. 11 - King Rama II Memorial Park

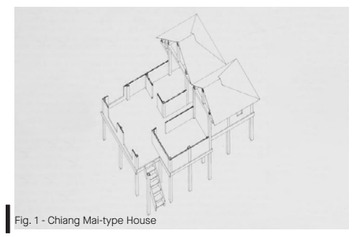
Fig. 1 - Chiang Mai-type House


Fig. 6 - Suan Pakkad Palace Museum


Fig. 9 - Rumah Tok Su


Fig. 12 - Kubu Maharajalela

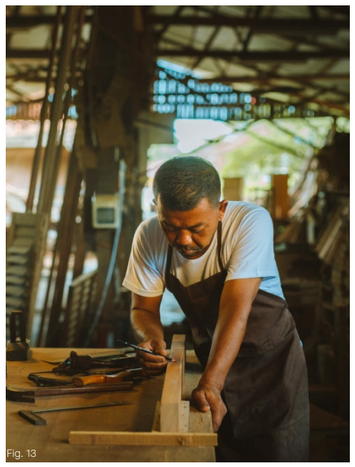
Fig. 13


Fig. 14


Fig. 15