



## **ABSTRACTS E-BOOK**

**mASEANa Project 2015-2020: Appreciating modern Asia**

**The 6<sup>th</sup> mASEANa International Conference**

**The Future of the Past : Materiality and Resilience of Modern Architecture in Southeast Asia**

**DAY1 - Session 1A : Development and International influence of Technology and Materials**

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## **Materiality and resilience in Japan**

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### **Abstract**

The Modern Movement has demonstrated its long-term legitimacy as a lasting concept endowed with longevity and resilience.

Japanese modern architects, such as Koji Fujii (1888-1938), Junzo Sakakura (1901-1969), Junzo Yoshimura (1908-1997), Kenzo Tange (1913-2005), have proven to answer to local conditions on a sustainable way. The experiences made by these architects remain valuable today, revealing resilient solutions, and a great a knowledge on material behavior.

To address these questions, "Materiality and resilience in Japan" explores good examples of modern architecture in Japan and their recent interventions – from restoration, to renovation and reuse – to assure the survival of modern heritage in the continuously changing conditions of current times.

DAY1 - Session 1A : Development and International influence of Technology and Materials (1A-02)

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## DEVELOPMENT OF MODERN ARCHITECTURE IN VIENTIANE CITY, LAO PDR

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### Abstract

It is said that modernity of Laos, a landlock country in the middle of Indochina Peninsular, started with entering of colony power to the territory of Laos in the last decade of 19<sup>th</sup> century. The country had then dramatically changed in term of politics, social-economy, and particularly technology.

Through documentary survey and interview to resource persons, this paper investigates modernity and modern movement in Laos, particularly in the present Capital City of Vientiane. It then goes further to examine influences of political, economic, societal and technological change on design development of the Modern architecture in Vientiane Capital City. Lastly, the paper discusses on conservation policy aiming to resilience of the 20<sup>th</sup> Modern architectural heritage.

### About the author

Khannaphphone PHAKHOUNTHONG earned her Master's degree in Heritage Studies. She is currently working as lecturer in heritage conservation, vernacular architecture and cultural landscape. Her research field of interest is heritage conservation and development policy. Her research publication includes: "The Impact of Modernization on the Historic Town and World Heritage Site of Luang Prabang, Laos".

DAY1 - Session 1A : Development and International influence of Technology and Materials (1A-03)

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## Early 20th-century Reinforced Concrete Buildings Designed by William Parsons

**Michael MANALO**

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### Abstract

American development of the Philippine archipelago began shortly after the conclusion of the Philippine-American War in 1902. Increasing interest in the creation of an American outpost in Asia had led to an invitation by the newly-created Insular Government to the architect and city planner Daniel Burnham to create plans for Manila, and a new city in the mountains: Baguio. After his stay in the Philippines in late 1904, the implementation of the plans was delegated to the Office of the Consulting Architect, the first head of which was William Parsons who began work immediately after arriving in Manila in 1906. Parsons was hand-picked by Burnham more for his practicality, than his aesthetic judgement. This is evidenced by the speed with which the work was carried out, that was made possible by the efficient work flow of Parsons' office - which he himself organized - and the use of reinforced concrete. Building types were standardized and replicated all over the archipelago until Parsons' departure in 1914. This paper analyzes the systems introduced by William Parsons through one of his early works – the Nurses' Home of the Philippine General Hospital. From early physical investigations of this building, the technological advances in reinforced concrete technology are clearly revealed. This, coupled with the style of architecture developed by Parsons for his Philippine buildings, creates a

Key words: reinforced concrete, colonial architecture, standardization

DAY1 - Session 1A : Development and International influence of Technology and Materials (1A-04)

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## The making of Thailand's the Vocational Education Project, 1965-70: collaboration between Thailand and Japan

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### Abstract

During the 1960s, Thailand directed the country towards industrialization in order to stimulate country's economic growth. Education gave a solid foundation in the country development so as that education facilities were constructed extensively around Thailand. The aim was to improve facilities and environment of 25 vocational schools and colleges in 20 provinces both existing and new sites. The construction required substantial amounts of budget, due to the fact that the Ministry of Education requested loan from the World Bank. This led to a remarkable international collaboration, particularly between Thailand and Japan. The design was commissioned by a Japanese architectural firm: Junzo Sakakura Architects & Engineers Limited Partnership.

All 25 schools and colleges were designed under the same concept of standardization. The construction of all 25 sites was completed within four years from 1966-1970. Before the design proposal was finalized, the team of Japanese architects had traveled across Thailand and met with a Thai architects. The team learned about characteristics of architecture in tropical area such as having outdoor space and using shade and shadow from the Thai architect. Moreover, discussion was done with architects of the Ministry of Education. Available materials and construction methods were selected to use in this project. After the completion the World Bank audited the project and found that the quality of construction was satisfactory but the finished schools reflected substantial over-design of structural elements particularly in administration buildings, cafeteriums and farm buildings. Although the design was criticized at that time, all schools in this project have proved durable almost 50 years until now with small amount of changes. Moreover, 4 out of 25 schools have held 'Buildings worthy of conservation' award from the Association of Siamese Architects under Royal Patronage since 2016.

DAY1 - Session 1B: Materiality & Materials (1B-01)

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## Of laterite, teak and concrete: 'modern' materials in the architectural work of Amorn Srivongse

**Pinai SIRIKIATIKUL**

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### **Abstract**

What sense are we to make of 'modern' material? How did this notion arise, and how is it to be accommodated within the history of modern architecture? Situating in the context of 1960s-1970s Thailand, this talk will look in particular at the architectural work of Amorn Srivongse whose preferred choice of materials like laterite, teak and concrete could be regarded as 'modern' as much as 'un-modern', and consider some of the consequences of his practice.

DAY1 - Session 1B: Materiality & Materials (1B-02)

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## Material Selection of Vann Molyvann, Cambodia, 1950-60s.

**Masaaki IWAMOTO**

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### Abstract

Immediately after the independence in 1953, Cambodia experienced the rapid modernization under the leadership of Norodom Sihanouk, constructing numerous modern infrastructure and public buildings in a short period. In response to this political situation, the Cambodian Modern Movement called "New Khmer Architecture" flourished in the 1950-60s, whereas the construction materials industry in the country was still undeveloped and bound to the post-colonial condition. The question here is how architects in this young independent country were able to realize modern buildings, without having much of modern industry and material. My investigation into the works of Vann Molyvann (1926-2017), the representative figure of the Movement, have revealed an aspect of the material procurement and selection in Cambodia in the 1950-60s, referring the original specification and quotation of Preah Suramarit National Theatre in Phnom Penh (1966) and other historical sources. Although he inevitably depended on imported materials, such as steel, aluminum and fixtures, he also tried to maximize the use of local materials, such as brick, stone and timber, and sublimated them into the unique architectural expression. His affection to "béton brut (exposed concrete)" has been understood as the result of the need for local procurement, and this hypothesis can be generalized to explain the trend of Brutalism in the Third World countries in the 1950-70s.

DAY1 - Session 1C: Materiality & Meanings (1C-01)

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## Materializing Identity: Modern Islamic Architecture in Bangkok by Paichit Pongpunluk

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### Abstract

This paper looks at three representative pieces of modern Islamic architecture designed by the Muslim architect Paichit Pongpunluk. It delves into an old photo album of the architect which contains images of the built projects between 1970s and 1980s. The focused projects are Yamiul-Islam Mosque (1971), the Foundation of Islamic Centre of Thailand (1982) and Libya Building of the Thai Muslim Women Foundation of Thailand (1982). These buildings were constructed in a crucial period when Muslim settlements, as well as Bangkok, were at great transformation. The aim is to investigate the modernist concepts embedded in the architecture as well as specific designs materializing 'new' identity for Thai-Muslim community. Among various experiments the architect carried out in each project, the reinterpretations of pointed arch are outstanding. The paper argues that the structures are innovatively conceived not simply to concretize Islamic identity but also to diversify the architectural vocabulary based on modernist ideology. It goes further to suggest that the designs appeared to architecturally embody the subjectivity of the Muslim architect himself.

Keywords: Modern Islamic Architecture, Thailand, Mosque, Muslim, Identity



DAY1 - Session 1C: Materiality & Meanings (1C-03)

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## The "Colors" of Wood - Genealogy of Dark Modern Architecture in Japan –

**Kentaro OKAMURA**

*University of Tokyo*

### **Abstract**

Both Japan and Southeast Asia were located in the same cultural area of wooden architecture. However, Japan is different in that the culture of wooden architecture continues even after the modern era. In this paper, Japanese wooden modern architecture is classified into two types. One is “bright modern architecture” and the other is “dark modern architecture”. They are classified based on the surface treatment of wood. In this paper, the genealogy of “dark modern architecture” will be introduced, which is not usually attracting much attention.

In Japan, wood is classified into three categories: black wood, red wood, and white wood since ancient times. They are not classified by actual color. Black wood means wood with bark attached, red wood means wood removed bark, and white wood means sawn timber. Each has been properly used depending on the purpose and period of the architecture. However, after modernism, white wood, especially solid wood that has not been painted, has become popular. This trend continues even now. In this paper, modern architecture with beautifully lumbered, uncolored wood is named as “bright modern architecture”. On the other hand, there should also be “dark modern architecture” with painted wood, red wood or black wood. In this paper, a part of the genealogy of “dark modern architecture” is clarified in order to explore the possibility of various wooden architecture in Japan.

DAY2 - KEYNOTE-02

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## The moisture - a key technique to conserve reinforced concrete structure

**Keiichi IMAMOTO**

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### Abstract

The National Museum of Western Art (NMWA) of Japan, designed by Le Corbusier and constructed in 1959, has been the world heritage. This paper reports on the degradation and deterioration of the structural concrete members in the NMWA building, such as the steel corrosion risks due to carbonation. Non-destructive test (NDT) methods were employed for measuring the air permeability of the concrete cover and the cover thickness in order to assess the steel bar corrosion risk due to carbonation. Furthermore, authors carried out round robin tests of impregnation agents from viewpoints of prevention capacity of moisture ingress into concrete and change of appearance of concrete surface. Authors applied the selected agent to the exposed concrete of NMWA and evaluated the effectiveness of impregnation agent on-site NDT method with surface electric resistivity. Conclusions of this paper are as follows.

- (1) A non-destructive on-site air permeability test was useful for assessing carbonation progress of concrete.
- (2) The surface-impregnation agents well prevented moisture ingress into concrete with no change of the appearance of concrete.
- (3) The effectiveness of impregnation agents was monitored with on-site NDT method.
- (4) Combination of above key techniques will provide a perspective to conserve historical RC buildings, whose authenticity should be maintained.

This paper will provide a perspective to assess the condition of buildings, whose authenticity should be maintained.

DAY2 - Session 2A : Conserving Modern Architectural Heritage (2A-02)

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## The Conservation of Modern Academic Buildings in Kasetsart University, Bang Khen Campus

**Thitiwoot Chaisawataree**

*Kasetsart University, Thailand*

### Abstract

Established in 1943, Kasetsart University originally provided teaching and research facilities for science and engineering. Low-rise buildings were designed by Thai architects with influences from the modern architecture movement, including applied traditional Thai style and International style. Since 1968, Kasetsart University has been implementing plans for reconstruction and development. Some original buildings were demolished to make way for larger and more efficient buildings, which leads to the loss of historical and architectural significant evidences.

To preserve the remaining original buildings, recognition and participation from every department of the university are necessary. The sustainable conservation and development plans should derive from synthesizing data collected through administration planning and policy, academic research and training courses, and expert practice in architectural conservation.

From sustainability approach, administrators set up a future plan by utilizing existing structures and spaces. These original buildings, aged between 45 and 75 years old, were strongly built and are currently in use, so they can be developed into modernized creative spaces for students' and staffs' activities. Students interested in history and architecture are assigned to conduct studies, surveys, and evaluations of the buildings. Historical research papers, drawings and models, can be used for the conservation projects in the future. University's architect and engineer teams, specializing in conservation, provide specifications and recommendations for documentation, restoration, adaptive reuse, and reconstruction projects as part of their professional services.

It is hoped that this process can be used continuously by the university in order to gain knowledge and preserve its heritage for the next generation.

DAY2 - Session 2A : Conserving Modern Architectural Heritage (2A-03)

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## Restoration Projects of Heritage Building in Cambodia Sisowath

**Men CHANDEVY**

*Heritage Center Cambodia*

### Abstract

One of the main building in Royal Palace in Phnom Penh, PRASAT CHANCHHAYA call the “Moon Shadow temple » located on the northern part of the main enclosure. The temple was built in 1913 with the history of it evolution since the first development of The Palace in Phnom Penh under the French protectorate period. Used as a new Dance Hall or “Salle des Dances” was built in reinforced concrete with decorations inspired by Cambodian style particularly in its roof and its decorations. The Cambodia art workers from the Royal Palace worked on decorative moldings following marquette models and approximate details provides by the construction firm of RICHAUD and PAPA, société Chochinchinoise de Béton Armé established in 1902 in Indochina. The interior paintings and decorations of the Dance Hall would be entrusted to “European artists” approved by the King. Despite this building appeal to modern technology, building material, and hygiene, it was very well invoked the authentic Cambodian architecture.

Since February of this year, the Prasat Chanchhaya has begun the restoration work and the work is in progress actually. By analyzing all architectural components, materials, diagnosis, the reinforced concrete structure in general is still well preserved.

DAY2 - Session 2B : The Future of Modern Architectural Heritage (2B-01)

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## The Heroic and the Everyday: Histories and Futures of Modern Architecture in Singapore

**Jiat-Hwee CHANG**

*National University of Singapore*

### Abstract

Architectural history, like all forms of history, is necessarily selective. Its practitioners – primarily, we the architectural historians – tend to single out a small number of exceptional architects and celebrate their oeuvres, or focus on a number of outstanding buildings and expound on their significances. Heritage conservation, including that of modern architecture, has been informed by such historiography. Advocates make cases for outstanding buildings by exceptional architects to be conserved and policy makers choose to gazette some of these buildings. Similar approaches have also been taken for modernism in Southeast Asia. In this presentation, I would like to argue that, though necessary and useful, this approach is inadequate for the case of modernism in Singapore, and perhaps elsewhere.

Recently there is a much-needed discussion and debate in the public sphere on the future of a number of what I called heroic modernist architecture in Singapore. Representing the heroic phase of nation building and socio-economic development from the late 1960s to early 1970s, these buildings are now threatened with demolition. Activists are arguing that these buildings should be added to the rather short list of modernist buildings currently gazetted for conservation, and they can be rejuvenated as a part of economic redevelopment (as Ho Weng Hin will discuss in greater depth in his presentation). This would be an important first step. The conservation of these heroic modernist architecture, however, has to be complemented with a broader survey of what I call everyday modernism in Singapore, and coming up with a strategy of conserving representative examples of everyday modernism. This presentation will seek to elucidate on what constitutes everyday modernism in Singapore and how it is intimately connected with Singapore as a modernist city-state, where a large proportion of its population grew up with and have deep affinities with unexceptional – by conventional understanding – modernist built environment planned, designed, and built primarily by state agencies.

DAY2 - Session 2B : The Future of Modern Architectural Heritage (2B-02)

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## Rejuvenating Singaporean Modern Landmarks: Revaluation – Rehabilitation – Revitalization

**Ho Weng HIN**

*Partner, STUDIO LAPIS (Singapore)*

### Abstract

Singapore's modernist megastructures show heroic scale and muscular form, yet their vulnerability is painfully apparent in the actual and attempted collective sale of Pearl Bank Apartments, People's Park Complex and Golden Mile Complex in 2018. These are all built in the 1970s, during the earliest phases of the government's Sale of Sites Programme, an important mechanism behind Singapore's uniquely successful urban renewal. Less than 50 years on, under the current real estate development paradigm, the ongoing en bloc sales, if successfully concluded, would very likely witness their demise and permanent erasure from Singapore's built environment.

The paper posits that these Singaporean Modern landmarks – born of a highly experimental period in Singapore's architectural, urban and political history – can be creatively conserved and rehabilitated in ways that benefit all stakeholders. In particular, advocacy work carried out in recent months by a working group of architects, engineers and real estate professionals arguing for the rehabilitation of Pearl Bank Apartments – already sold to a major developer and facing imminent threat of demolition – will be used to illustrate the key issues and challenges, as well as recommended policy actions that are urgently needed. Finally, the paper proposes an alternative development model that departs from the default tabula rasa paradigm, that aims to unlock the potential of these megastructures to allow for urban regeneration, and to meet the changing needs of society.