



SPEAKER 3: DR SURAT LERTLUM

**FROM LIVING ANGKOR ROAD PROJECT (LARP) TO
THE CULTURAL RELATIONSHIP STUDY OF MAINLAND SOUTHEAST ASIA RESEARCH CENTER
(CRMA):
CROSS CULTURE AND CROSS BORDER RESEARCH AND DEVELOPMENT**

Surat Lertlum¹
Im Sokrithy²

¹ Chulachomklao Royal Military Academy, Thailand

² APSARA Authority, Cambodia

Email: suratbrb@gmail.com

**WORKSHOP ON
THE HERITAGE OF ANCIENT AND URBAN SITES:
GIVING VOICE TO LOCAL PRIORITIES
14-15 MARCH 2016
SINGAPORE**

ABSTRACT

The Living Angkor Road Project, (LARP) was the collaboration research project between Khmer-Thai researchers started in 2005. Originally, the study was focus on the royal roads from Angkor to Phimai. The infrastructure, ancient communities, ancient industries, as well as cultures along these royal roads were identified and studied in detail. We then continued to study the royal roads from Angkor to Sdok Kok Thom (West road), Angkor to Vat Phu in Laos PDR (Northeast road) and Angkor to Preah Khan at Kampong Svay (East road). In addition, we have been continuing to conduct research on the extended ancient communication networks, culture and society along the cultural corridors in Thailand and neighbouring countries. The main objective of the study was to study the relationship of the local cultures by integrating knowledge of various fields related for cultural study from past up to present. The integrated results of the study on each component of the research can be utilized to analyse the relationship of the local cultures at regional scale.

From our research findings we seen that archaeological studies and the analysis of spatial data provide a broader picture of the relationship at a regional scale of the north-south and east-west cultural corridors. The results of the study provide a broader picture of sharing and adaptation of culture in the past. The development of the transportation system, industry had been revealed, which opens the new knowledge of the cultural material and evidence that had not been achieved previously.

From the experience of cross cultural and cross border research activities, we are currently establishing 'The Cultural Relationship Study of Mainland Southeast Asia (CRMA) Research Center' with the objectives to

- 1) Develop an overall mechanism that can be used as a tool to integrate and support education in the fields of history, archaeology, and anthropology by applying related technologies to the study of culture in the region.
- 2) Development of a cultural study consortium for the region to be a leader in the integration of art and science conducting multi-disciplinary research in the integration of history, archaeology, anthropology and technology application areas.
- 3) Serve as a hub to continue to promote the education of youth on issues of history, archaeology and cultural studies with the applications of technology.

CRMA Research Center is funded by The Thailand Research Fund and supported by 13 organizations from Thailand, Cambodia, Vietnam, Lao PDR, and Japan.

BIODATA

Dr. Surat Lertlum is an expert on the applications of geo-informatics for cultural study in the Southeast Asia area. Currently, he is the director of 'The Cultural Relationship Study of Mainland Southeast Asia (CRMA) Research Center' located at Chulachomklao Royal Military Academy, Nakorn Nayok, Thailand. He has been conducting the cross border and cross culture multi-disciplinary research collaboration between Thailand and Cambodia since 2005 and now the research collaboration is expanding to include Vietnam, Lao, and Myanmar.

E: suratbrb@gmail.com Tel +66813766649

Conference draft. Please consult the author when citing.

CONFERENCE PAPER

Cross Border Research and Development: From Living Angkor Road Project (LARP) to The Cultural Relationship Study of Mainland Southeast Asia Research Center (CRMA)

Surat Lertlum¹

Im Sokrithy²

¹ CRMA Research Center, Chulachomkiao Royal Military Academy, Thailand

² CRMA Research Center, APSARA Authority, Cambodia

email: suratbrb@gmail.com

Abstract

The Living Angkor Road Project, (LARP) was the collaboration research project between Khmer-Thai researchers started in 2005. Originally, the study was focus on the royal roads from Angkor to Phimai. The infrastructure, ancient communities, ancient industries, as well as cultures along these royal roads were identified and studied in detail. We then continued to study the royal roads from Angkor to Sdok Kok Thom (West road), Angkor to Vat Phu in Laos PDR (Northeast road) and Angkor to Preah Khan at Kampong Svay (East road). In addition, we have been continuing to conduct research on the extended ancient communication networks, culture and society along the cultural corridors in Thailand and neighbouring countries. The main objective of the study was to study the relationship of the local cultures by integrating knowledge of various fields related for cultural study from past up to present. The integrated results of the study on each component of the research can be utilized to analyse the relationship of the local cultures at regional scale.

From our research findings we seen that archaeological studies and the analysis of spatial data provide a broader picture of the relationship at a regional scale of the north-south and east-west cultural corridors. The results of the study provide a broader picture of sharing and adaptation of culture in the past. The development of the transportation system, industry had been revealed, which opens the new knowledge of the cultural material and evidence that had not been achieved previously.

From the experience of cross cultural and cross border research activities, we are currently establishing 'The Cultural Relationship Study of Mainland Southeast Asia (CRMA) Research Center' with the objectives to

1) Develop an overall mechanism that can be used as a tool to integrate and support education in the fields of history, archaeology, and anthropology by applying related technologies to the study of culture in the region.

Conference draft. Please consult the author when citing.

2) Development of a cultural study consortium for the region to be a leader in the integration of art and science conducting multi-disciplinary research in the integration of history, archaeology, anthropology and technology application areas.

3) Serve as a hub to continue to promote the education of youth on issues of history, archaeology and cultural studies with the applications of technology.

CRMA Research Center is funded by The Thailand Research Fund and supported by 13 organizations from Thailand, Cambodia, Vietnam, Lao PDR, and Japan.

1. Introduction

This paper will present an overview of collaborative research between local researchers from Cambodia and Thailand started in 2005 and continuing until present. The researchers came from different field of studies such as archaeology, anthropology, geo-informatics, and information technology conducting multi-disciplinary research beginning with the study the royal road from Angkor to Phimai. Since then, the collaborative research has been expanding the scope and study area. The current research topic is to identify the cultural relationship in the area of mainland Southeast Asia. The research team is now expanding from the original teams to include scholars from Cambodia, Lao, Myanmar, Thailand, and Vietnam. The research has been supported by Thailand Research Fund (TRF) and the APSARA Authority from the beginning until the present.

2. At the Beginning: The Living Angkor Road Project (LARP)

In the Living Angkor Road Project (LARP, 2005-2008), archaeological and anthropological knowledge was used together with geo-informatics, information and geo-physic technologies to identify and pinpoint the royal road from Angkor to Phimai mentioned in an inscription of the renowned in late 12th century CE Khmer king, Jayavarman VII and the previous kings. From our integrated studies, we obtained ground verification for the brief epigraphic mention of the extent of the empire through mapping the physical road network constructed by the Khmer to cover the area now in Cambodia and Thailand.

In this project, we collated detail on this royal road, its utilization, the people who lived along and used the road and the ancient industries along it. We also compared the culture that has disappeared, and the one that has continued to flourish along the royal road until today. The most advanced technologies were applied in remote sensing, GIS, archaeology, anthropology, and geo-physics. Information systems were developed to gather all the information from this study together for all scholars to use. In addition, the data from this project are now being further utilized in related projects in land use planning related to cultural management, tourism, and community awareness of the value of local heritage traditions.



Figure 1 The research team during our studies

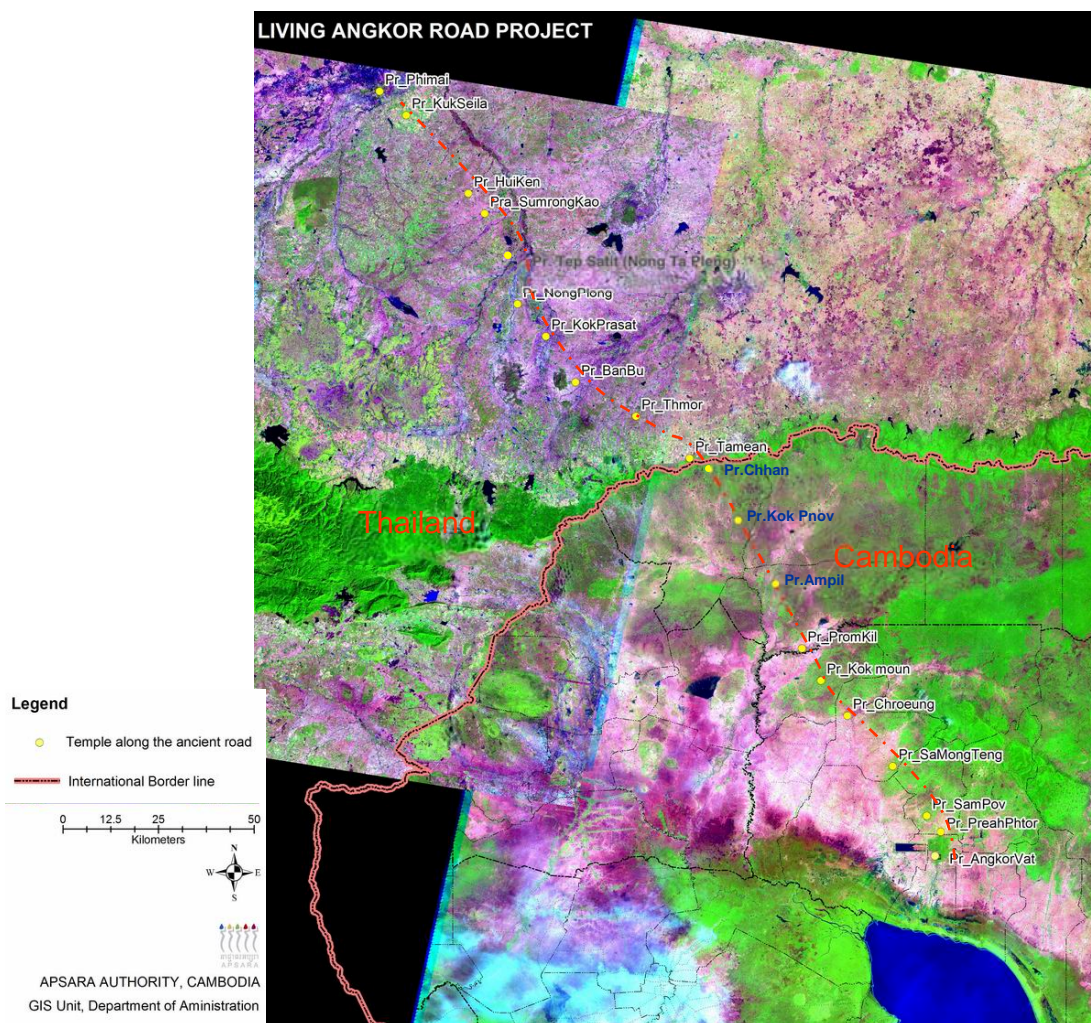


Figure 2 The locations of Dhammasalas along the royal road from Angkor to Phimai



Prasat Ampil



Prasat Kok Phnov

Figure 3 Two newly identified Dhammasalas



Figure 4 Laterite bridges identified along the royal road from Angkor to Phimai



Figure 5 Ancient iron smelting sites identified



Figure 6 Ancient archaeological sites identified along the royal road from Angkor to Phimai



Figure 7 Study of local customs

Development of Collaboration and a Network

The research collaboration of LARP and now CRMA has developed a network of researchers in various fields from within Thailand and Cambodia. In the initial stage, scholars of domestic and international institutions including the Chulachomkiao Royal Military Academy, Silpakorn University, Fine Arts Department, Prince of Songkla University, and APSARA Authority (Authority for the Protection and Management of Angkor and the Region of Siem Reap), Cambodia, worked jointly. This cooperation of Thai and Cambodian academics had never taken place prior to LARP with the project making a tremendous impact on academic as well as political and economic relations between Cambodia and Thailand. This can be seen for example by the citation of the LARP project as a collaborative research model by a UNDP report (in press).

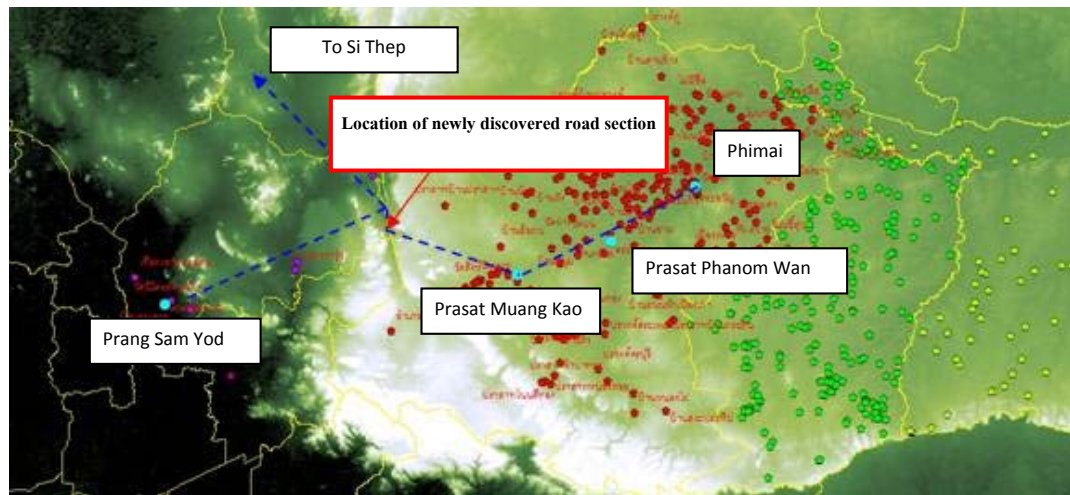
3. The Continuation: The Research Project on the Relationship of The Ancient Through Present Culture for the Development of Cultural and Civilization Database for GMS and Malay Peninsula Regions (GMS Project)

The GMS Project was a direct outgrowth of the multiple variables assessed and mapped during the Living Angkor Road Project. The objective is to examine the ancient culture and society along the north-south and east-west cultural corridors in Thailand and neighbouring countries. The purpose of selecting the Greater Mekong Sub-region (GMS) and the Malay Peninsula as the study area was to conduct comparative research in parallel tracks.

Thus in this phase of the research, the results from each corridor were able to be analysed to identify the changing relationship between the cultures. From this a chronological cultural relations model can be generated to enhance regional research. The subtopics of this study were selected from, and thus continue, the information gained during our initial phases of the Living Angkor Road Project.

The methodology continues the multi-disciplinary model generated since the beginning of our research. The main topics remaining are the royal roads and communication networks, ancient religious, habitation and mortuary sites in the region and ancient metallurgy. The results from this study demonstrated the continuing relationship of the local culture from the past to the near present. This has become evident from ground-truthing, study of remote sensing data, excavation and other

Conference draft. Please consult the author when citing.



Historical Documentation
 - Ayutthaya period
 Inscription -



Archaeological Evidence
 -Ancient Road in
 Nakorn Ratsima
 Lopburi

Figure 9 The map and evidence of connections between Phimai and Lopburi

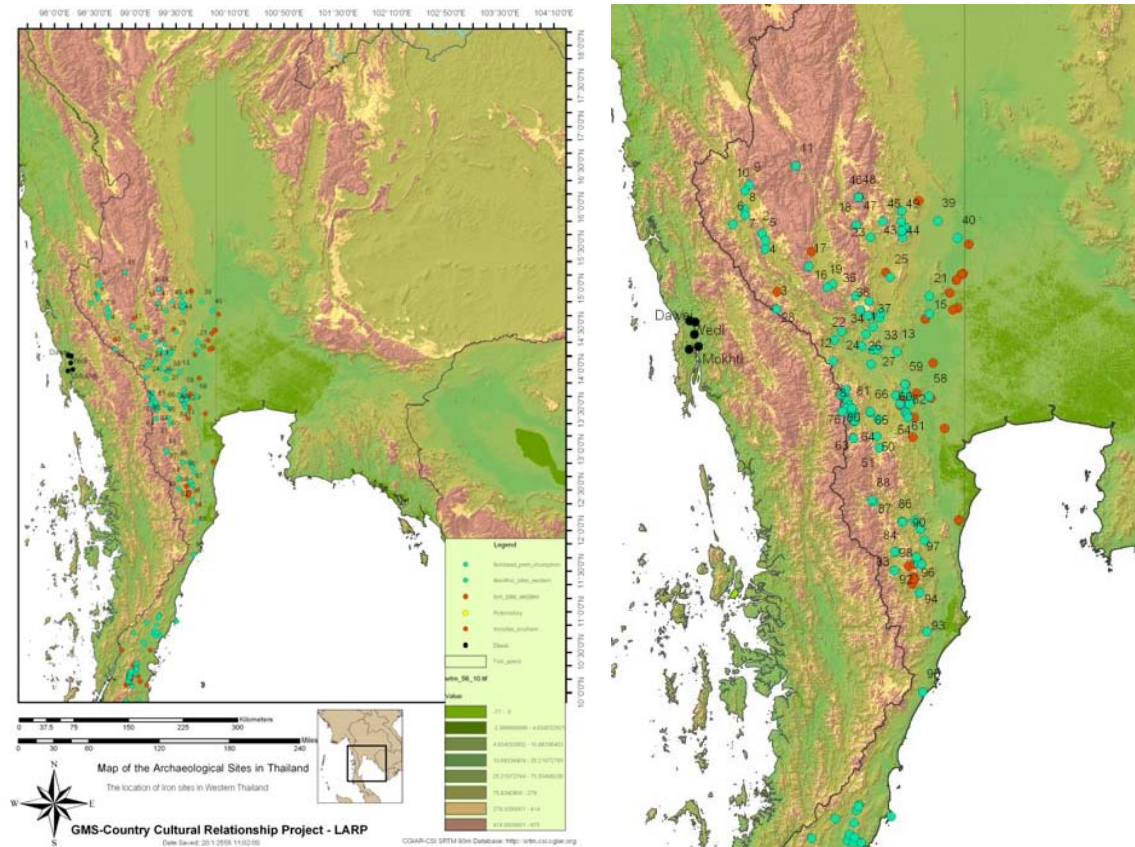


Figure 10 Locations of archaeological sites in the upper Malay Peninsula from the GMS Project



Figure 11 Research Team from Thailand, Cambodia, Lao PDR and Vietnam

4. The Cultural Relationship Study of Mainland Southeast Asia Project (CRMA)

To implement the next study, we have created a regional and international network to extend the study area to neighbouring countries, including scholars from the Ministry of Culture, Lao PDR, Conference draft. Please consult the author when citing.

the Ministry of Culture (Union of Myanmar), the Republic of Vietnam, SOAS (University of London, England), and Kyoto University (Japan).

Our 2013-2015 study, based on our previous results, aims to extend across mainland Southeast Asia. Our focus is on the impacts affecting cultural change to visualize the relationship of cultures at the regional scale. The research process seeks to define the reasons for past cultural change in various societies of Southeast Asia. Our goal is to define and interpret the inter-relationships of the past to discover the ways this has impacted on society and cultural development until the present. The objectives of our 2013-2015 research include: tracing connections and cultural relations resulting from the extension of transport systems from their initial state to the 17th century CE; studying the process of cultural adaptation from the evidence of cultural objects; developing an information database to disseminate the research results; and finally, utilizing the results of the research in various ways within academia and the wider public.



Figure 12 Images from our study of ancient communication systems



Figure 13 Examples of our multi-disciplinary study in Cambodia

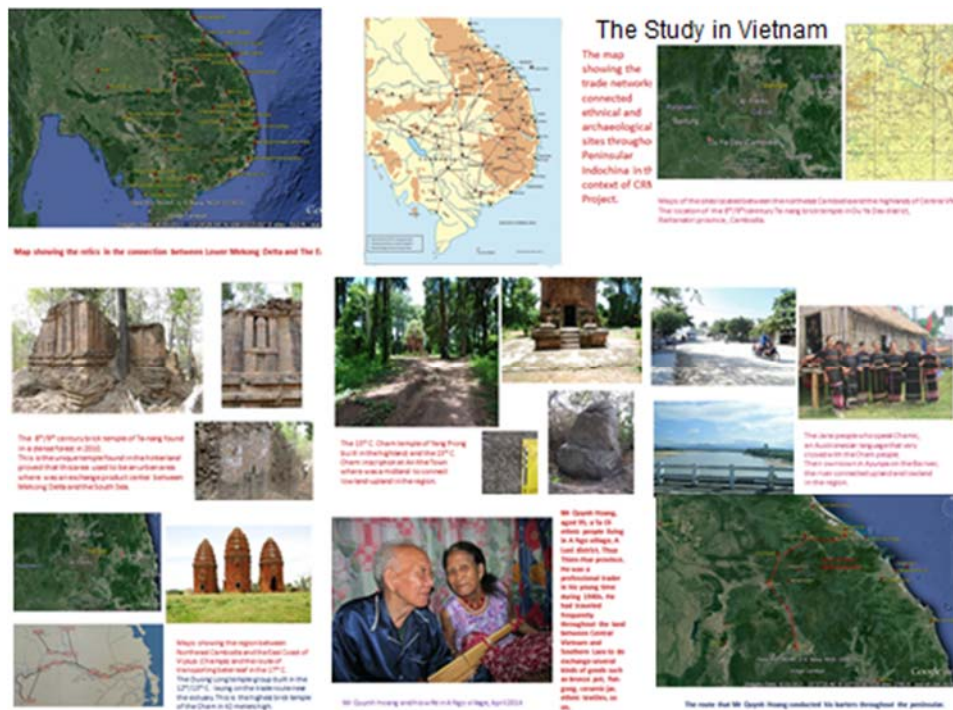


Figure 14 Examples of our multi-disciplinary study in Vietnam

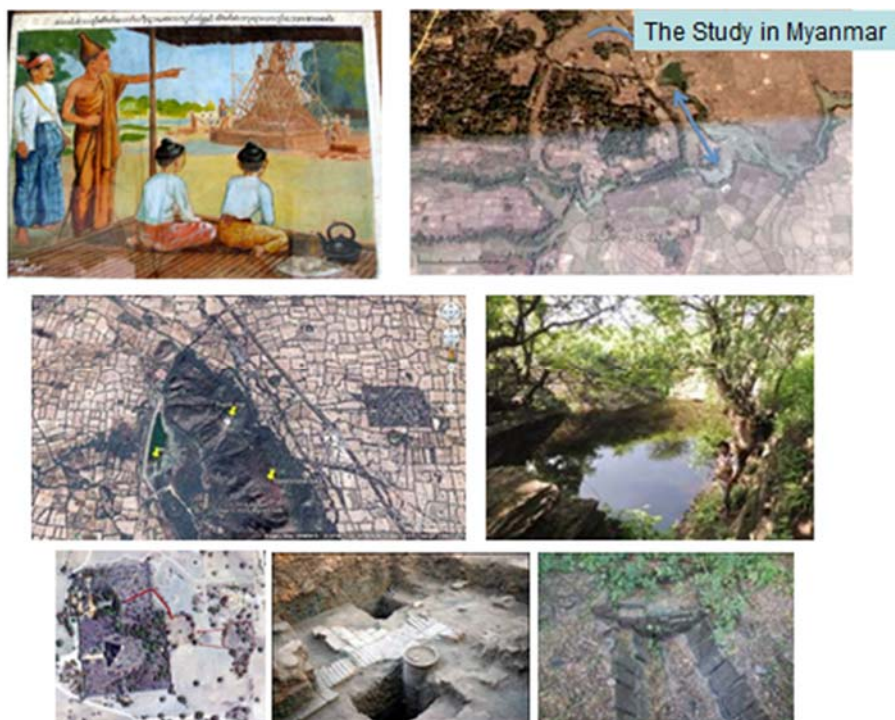


Figure 15 Examples of our multi-disciplinary study in Myanmar



Figure 16 Application of research: Student research program

5 The Cultural Relationship Study of Mainland Southeast Asia (CRMA) Research Center

From the experience of cross cultures and cross border research activities, currently, we have opened 'The Cultural Relationship Study of Mainland Southeast Asia (CRMA) Research Center' with the objectives outlined at the start of this paper.

The research will focus on the following issues:

- 1) Research linking culture through communication and transport by land, water in the past
- 2) Study of art and religion as the basis of cross border cooperation
- 3) Cultural Database Development for the dissemination of research results

The activities of the research centre will include:

- 1) Development of a mechanism for implementing a cultural and archaeological research consortium network
- 2) Research and development on related technologies such as *geo-informatics*, *UAV*, *computer graphics* etc. for cultural study
- 3) Academic publishing - to produce technical documents, organizing symposiums to expand the regional knowledge base
- 4) Putting into practice a centre for youth education. The knowledge from the project will be utilized to educate youth in the region, and to further positive international relations
- 5) Collaborate with institutes and agencies in the region to develop a network of laboratories in all related fields such as archaeological analysis, forensic analysis, physics analysis, and nuclear analysis.

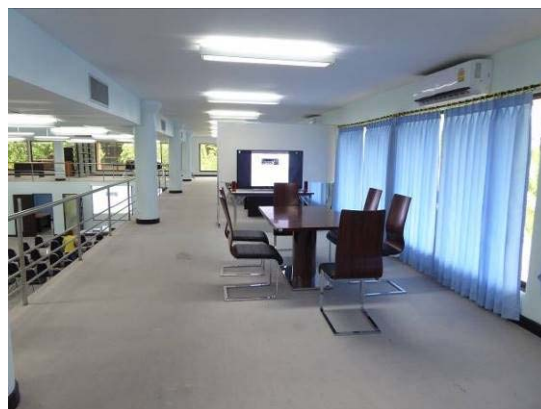




Figure 17 CRMA Research Center at CRMA, Nakhon Nayok

6. Conclusion

This paper summarises collaborative research across the ASEAN region from 2005 to the present, 2016, thanks to generous funding support from the Thailand Research Fund (TRF). The collaboration now includes regional and international scholars in our common focus on the past and present societies of mainland Southeast Asia and the establishment of ‘The Cultural Relationship Study of Mainland Southeast Asia (CRMA) Research Center’ to support our long-term aims.

In addition to our academic contribution in defining new knowledge, the results from this research have been utilized to enhance the relationship of the ASEAN countries, for example, in six events organizing Khmer-Thai student activities as well as Thai-Malay student activities. The academic and community projects of our initial research provide the foundation for our expansion into an international team to enlarge our academic and community themes to past and present sites from the Andaman Sea to the South China Sea.

References

- Im, S., 1998, *Les réseaux routiers et moyens de transport à l'époque angkorienne du IX^{ème} au XIV^{ème} siècles*, mémoire présenté en vue du diplôme de l'EHESS, Paris (inédit)
- 2005, "Angkorian Communication Routes and Associated Structures", *Udaya Journal of Khmer Studies*, n. 5, in Khmer
- Im, S. et al, - "Phum Kol: First Archaeological findings", *UDAYA, Journal of Khmer Studies*, n°8, 2007, in Khmer with abstract in English and French
- 2008a, "Ancient Khmer Road Network: A Case Study of a Royal Road from Angkor to Phimai", Paper for International Conference, *Archaeology of Vietnam Cambodia-Laos: Toward Sustainable Cooperation*, Hanoi
- 2008c, "A Research Study on Royal Road from Angkor to Phimai", Papers for Angkor International Symposium 2008, *The History of the Royal Roads: Country Development and Control*, Nihon University, Tokyo, Oct. 2008
- Lertlum, S, et al., "*The Final Research Report, Living Angkor Road Project*", submitted to Thailand Research Fund, Feb 2006 (in Thai)
- Lertlum, S, et al., "*The Final Research Report, Living Angkor Road Project Phase 2*", submitted to Thailand Research Fund, Nov 2008 (in Thai)
- Lertlum, S, et al., "*The Final Research Report, The Research on the Relationship of The Ancient Through Present Culture for the Development of Cultural and Civilization Database for GMS and Malay Peninsula Regions Project*", submitted to Thailand Research Fund, Nov 2010 (in Thai)
- Lertlum, S, et al., "*The Final Research Report, The Research on the Relationship of The Ancient Through Present Culture for the Development of Cultural and Civilization Database for GMS and Malay Peninsula Regions Project phase 2*", submitted to Thailand Research Fund, Jan 2013 (in Thai)
- Lertlum, S, et al., "*The Final Research Report, The Research on The Study of Cultural Relationship of Mainland Southeast Asia*", submitted to Thailand Research Fund, July 2015 (in Thai)

Conference draft. Please consult the author when citing.

Lertlum, Surat and Shibayama, Mamoru. 2009. Application of Geo-Informatics to the Study of the Royal Road from Angkor to Phimai. *Southeast Asian Studies*, Vol. 46, No. 4, March.pp. 547-563.

Shibayama, M. 2013. An examination of the East-West Cultural Corridor. Paper presented at SPAFA International Archaeological Conference, Chonburi, 1-4 May.