

TABATA Yukitsugu, SATO Katsura (eds.)

Mekong Cultural Diversity Beyond Borders

Proceedings for the International Seminar & Symposium
on Southeast Asian Cultural Heritage Studies Today



March 2020

Institute for Cultural Heritage, Waseda University

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Notes

The following are the proceedings of the International Seminar "Southeast Asian Cultural Heritage Studies Today" and Symposium "To Know and Share about Cultural Heritage" held on 23, 24 and 25 January, 2020, organized by the Institute for Cultural Heritage, Waseda University, as part of the project commissioned by the Agency for Cultural Affairs. Each paper of the Seminar was prepared by the presenter. The record of the Symposium was edited based on the presentation materials and audio recordings.

例 言

本報告書は、2020年1月23日、24日、25日に文化庁委託事業として早稲田大学文化財総合調査研究所が開催した国際研究会「東南アジア文化遺産研究の現在」及びシンポジウム「文化遺産を知り、そして伝える」の内容を収録したものである。研究会の論考は各発表者により書き下ろされた。シンポジウムについては発表資料及び録音記録に基づいて編集した。

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Published by Institute for Cultural Heritage, Waseda University
Toyama 1-24-1, Shinjuku-ku, Tokyo 162-8644, Japan
TEL & FAX +81-(0)3-5286-3647
Edited by TABATA Yukitsugu, SATO Katsura

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研究会・シンポジウムの概要

Part I

Seminar on Southeast Asian Cultural Heritage Studies Today

[Opening Remarks]

What is the Creativity of the World Heritage Cities in Mekong Basin Countries ?

NAKAGAWA Takeshi

Emeritus Professor, Waseda University

From 2013, our team had several opportunities to figure the common future subjects in the UNESCO World Heritage sites and its frontal cities for utilization of the cultural heritages in the five Mekong basin countries and Japan. Our project is supported by JSPS, to establish the mutual cooperation by gathering university researchers mainly, and exchanging the experiences and ideas through a comprehensive survey by using own study method, viewpoint, and techniques for preservation and utilization of each cultural heritage to live up to their own characteristics and the geographical and historic commonality in the Mekong basin countries.

Until today, we conducted workshops at Vat Phu, Hue, Ayutthaya and Tokyo. Today, I would like to make a review of three workshops in the recent years, which are Siem Reap & Angkor in 2017, Mandalay & Pyu Ancient cities in 2018, and Pyu & Bagan in 2019.

Angkor monuments are registered with UNESCO world heritage site in 1992. In the next October in 1993, the 1st International Conference on Angkor Remedies Relief in Tokyo, and the 1st International Coordinating Meeting that is ICC-Angkor has taken on December.

I visited the city of Angkor monuments and Siem Reap for the first time in October 1992 to make an investigation to prepare for the restoration works by the Japanese government aiming for the international restoration project as a leader country.

At that time, Siem Reap historic area around Old Market survived in a civil war, still remaining two-story shophouses partly. However, the central Old Market was damaged and shops were not yet open. I stayed dark at night and I couldn't walk because of the scattering of trash in the town. The guest-houses and small-marts were becoming opening from the surrounding areas rather than a central area.

The number of tourists to Angkor ruins continues to increase even Cambodia is under the confusion by such as the first and second prime minister system after a general election in 1993 and the opposition of the two parties in 1997. By opening of the 21st century, the tourism development tendency became more significant. Still remaining the city structure since the French colonial period, even the open spaces of green and small but large numbers of ponds (water places) are changed into hotels, restaurants, souvenir shops, and a night market. When we realize the condition of the small town, it was changed to the grown city even worry about the frequency of building fires.

Of course, the admins and shop owners have an idea to make their own town remarkable and harmonized place for the heritage of Angkor. Even there were some projects. One is the wooden bridge of Siem Reap River, designed by an expert of APSARA Authority to harmonize the landscape and his design to make an active riverside. And a comprehensive survey for a future city planning is conducted by JICA. They are always regarded to connect Siem Reap and Angkor such as in the infrastructure planning and even as a philosophical way of thinking.

The international teams delegated to monuments conservation work also focused on Siem Reap. Such as the French university team at the end of the 1990s and the Japanese team from JSA/Waseda University in the beginning of this century, held workshops to propose the urban design of Siem Reap. And APSARA Authority has also surveyed and inspected the historic buildings. However,

the crisis of the highly density development is in progress and the global tourism that can find in everywhere, every-city without uniqueness is influencing faster than any counter measures.

Our Waseda University team has carried out on-site survey of the building in colonial age around the Historic Area with the cooperation of APSARA Authority, and the made a reconstructive study of initial planning in 8 shophouses. Furthermore, we explored to outside of the Historic Area, and continued similar survey of the high cultural valued buildings since the French colonial period, and progress our research to figure out the dynamisms of the city formation including the the upper and lower area of the river at present.

We would like to learn from the history for thinking « what is the best way of appearance of Siem Reap as a base town for Angkor area ». And also, clarify the common characteristics in Indo-china landscape and architecture styles of colonial cities, we hope we can find the way to utilize the cultural heritages and the uniqueness to consider the future directions of the city Siem Reap.

On the other hand, in 2018, we made a workshop in a cooperation with Technological University Mandalay (TUM) for a comparative study of Pyu Ancient Cities. The actual condition and historic formative process of Pyu cities are far from understanding, and also, the problems of system and policy for research condition and conservation masterplan are pointed out in the same workshop. He thought there still has the long way to settle these issues.

Our researches in Mekong basin countries are based on only one-year study with core members of each country, but in 2019 we got a request to continue the conference and workshop act Myanmar again, also under the situation that Bagan is registered with UNESCO World Heritage sites, we hold a biggest and most attractive subject « from Pyu to Bagan », which means the historical relationship of cities and architectures « from Pyu to Bagan ».

Fortunately, with a great organize and including many participants, it was the best achieved workshop ever, I would like to report in the future opportunity of conference. Especially, three points of view to consider that subject are drawn.

1. To understand the transition from Pyu to Bagan, we should study the mutual influences of the continental South-east Asia in the geographic and historic way.
2. To analyze the chronicle and its features of the city planning method of huge numbers of Bagan monuments.
3. The India can consider as a core in the cultural affection, and Pyu and Bagan can considered to be a sub-margin cultural areas. To clarify the relationship between India and Bagan city characteristics, we need to compare with other historic cities in the Mekong Basin Countries.

As conclusion, for future consideration of the relationship of Siem Reap/Angkor as one of the world heritage city, we should take the historic personality and own uniqueness of Angkor into the present urban planning in the creative way. Also, the future for Pyu ancient cities and Bagan depends on what kind of meaning we can find from the cultural creativity which has been established the own culture even they got an impact from the ancient civilization, India and China. This is how to solve our common subjects in the Mekong Basin countries.

Teak Wood Architecture and Its Conservation in Myanmar

Zar Chi Min*

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Abstract

Teak wood in Myanmar plays a very important role in construction and it is the main raw material in many purposes of the whole buildings. Teak wood was used by people from all walks of life and most of teak wood buildings are artistically created and expressed Myanmar's craftsmen skills. Those buildings should be maintained without losing their arts, architecture and traditional construction methods for sustainability. According to degree of damages and decaying conditions on each building, conservation techniques should be widely considered. Today teak wood buildings are disappearing as urbanization threatens a traditional way of life and there are fewer chances to get teak wood. For those reasons, firstly, documentation of these structures is urgently needed. In this paper, teak wood buildings such as (a) religious buildings: monasteries, (b) tiered roof pavilion for royal tomb of Laungshe Queen, (c) world's longest teak wood bridge: U Bein bridge, (d) Buddha image throne of Shwe Nan Daw Kyaung and (e) traditional Burmese teak farmhouses are selected as case studies to discuss about diversity of teak wood architecture and restoration concepts and strategies to solve deterioration process and conservation practices in Myanmar.

PURPOSE OF THE STUDY for this seminar

1. Research work on architectural heritage conservation about the latest outcome and issues are presented to be solved and discussed together.
2. To promote and strengthen international cooperation activities by sharing and exchanging opinions on teak wood conservation practices.

METHOD OF THE STUDY

Teak wood buildings in Myanmar were taken as cases and widely studied to present different architectural characteristics based on respective functions. The outcome of the study is to uncover the unique architecture style of teak wood buildings that could be conserved in right methods. Then, inspiration and new creation

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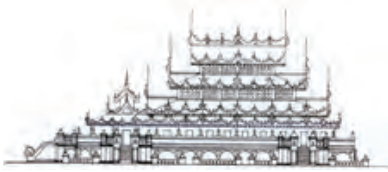


Figure 1 Shwe Nan Daw Kyaung: Measured drawing elevation of the monastery and photo of the main entrance to the building

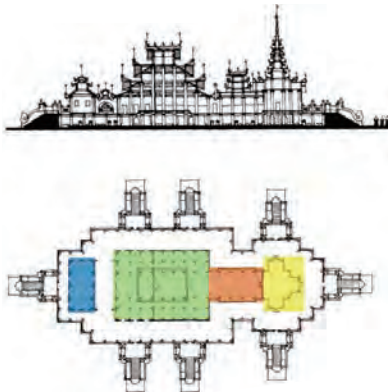


Figure 2 Shwe In Bin Monastery: Measured drawing elevation and Main floor plan showing functions of the monastery

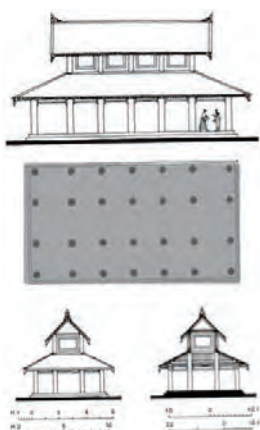


Figure 3 Thu Dhamar Zayat: Measured elevation, plan and section of the pavilion - Pavilion also plays a very important role for religious occasions and community space for villagers.

on Myanmar architecture could get achievements in future. Result of this study might be a report in which author has been involved in the practices of conservation of heritage wooden buildings.

1. INTRODUCTION

1.1 Teak Wood Architecture in Myanmar

In ancient Burma, the temples and palaces were magnificently decorated with carved wooden gables and eaves, and other fabulous ornamentation comprised of the most creative and intricate woodcarvings. Myanmar's woodcarving emerged before the Bagan period and subsequently improved in the middle of the Bagan era. It is a pity that many examples of the true genius of Myanmar wood carvings have suffered in the course of time but, fortunately, some of the most exquisite woodcarvings still survive in monasteries and pagodas. The best example of Burmese teak architecture is the Shwe Nan Daw Kyaung (golden palace monastery) built in the mid 19th century. The golden palace monastery is a great place to get an impression of what the Royal Palace must have looked like in olden times. As the Palace was destroyed by fire during the Second World War, the Shwe Nan Daw Kyaung is the only major original teak wood building left of the original Mandalay Royal Palace. The art of woodworking is also observed both in architecture and as decorative objects such as columns and beams, on doors and shutters, pulpits, mosque niches, ceiling ornaments, and balcony railings. Traditional wood carving art is preserved by people in the villages and craftsmen try to pass down the technique and skills to the next generation. Despite the challenges faced by the wood carving artists of Myanmar, the traditional art will continue to bring fame and name to the country.

Basically the fundamental purpose of monastery and house is the same. Both are residential space for monks and common

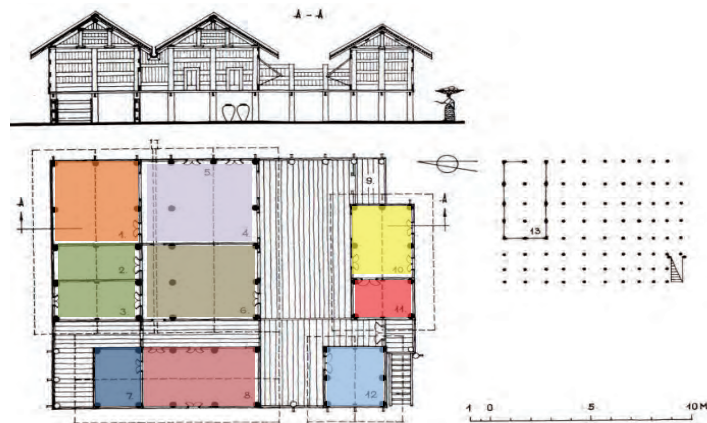


Figure 4 U Kyin Oo's house: Measured drawing elevation and plan of house

people. Monasteries were built in limited designs depending on donors' financial and social status. Houses were also built in different and limited designs belonging to high-ranking officials and commoners.

The best example of Burmese teak architecture will be seen in religious building such as monastery which is like an ancient arts museum. Not only religious reason but also monastery is a vital role in education known as monastic education. Monasteries are serving as teaching centers for Buddhism. For this reason, they are usually built in specialized and noble designs. They present and reflect their regional architecture characters and decorated with magnificent woodcarvings and together with form, space and function of architectural concepts.

Some monasteries like Bagayar are famous for its huge structure and wide wooden platform that offered ventilation and some protection. Bagayar monastery has very unique detailed wood carvings at that time.

Some monasteries have different style in architecture that were transformed to monastery functions from personal living apartment of royal family. See figure (8), (9) and (10).

Monasteries from Shan state have not much decorated with wood carvings but the structure and roof style are simple and beauty.

Detailed wood carvings which are suffering by environmental factors are falling down on ground and they are kept in store room and they should be maintained and replaced at right place. Students go the monastery which is far from city at every weekend and they clean the dust and they keep them in a better place. Conservation of the treasures is therefore urgently needed.

In some monasteries, preservation and restoration works are under the instruction of Chief Monk They well preserved and keep maintenance on monastery as much as they can. They are still using traditional construction method and original teak wood materials for roof.

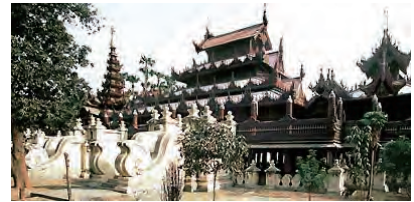


Figure 5-a Shwe In Bin Monastery



Figure 5-b Shwe Yan Pyay Monastery



Figure 5-c Nat Taung Monastery



Figure 6 Magnificent wood carvings at interior and exterior of the Shwe Nan Daw Kyaung



Figure 7 Bagayar Monastery, Inwa (Ava)



Figure 8 Moe Kaung Monastery



Figure 9 Yaminthin Monastery



Figure 10 Kyae Myin Monastery



Figure 11 Monasteries from Shan state showing new perspective of very simple form of monastery and have beautiful approach with lapping roofs



Figure 12 Extensive woodcarvings decorating monasteries

Some are famous for showing off jataka scenes about the life of Buddha and the style of Myanmar people. Some of the best preserved examples with outstanding woodcarving are used as a museum.



Figure 13 The marble or stone capping on the wooden pillars



Figure 14 (Left) Buddha statue and throne and Figure ; (Right) Boxes made by lacquer works



Figure 15 Detailed wood carvings in store room



Figure 16 Restoration work by chief monk and local people

Our conservation efforts at the monastery will not only serve one historic site, but will assist in maintaining traditional carpentry crafts in the region. By training local conservationists in the maintenance and preservation of heritage sites, the project will create skilled craftsmen, who will become a permanently available workforce for further maintenance, monitoring and conservation projects.



Figure 17 Monastery at Han Lin ancient village



Figure 18 Myo Shwe Monastery

2. COMMON PROBLEMS

Myanmar nations are proud of the splendid monastery which is like an ancient arts museum. Many of the wooden monasteries with architectural significance have disappeared over the centuries for a variety of reasons. Not only that, wood structures were less susceptible to the dangers of earthquakes.

Moisture: According to traditional foundation system, big teak posts were directly piled into the ground. Because of that method, posts touched with soil directly and for that reason, base of the post got moisture and deteriorated after a long period. Insects from the ground have been spreading the whole building and endangering. It is essentially necessary to carry out preventive measures.

Intense heat and high humidity: Due to extremely hot weather and on account of intense heat, teak got cracked and stained with dust in woodcarvings. Corrugated metal roofs transfer heat to the inside of the building, causing further damage. Ancient architects thought out building designs only after taking into consideration of local climate conditions, no doubt. However, buildings were neglected for long and suffered from intense heat for many years. Woods shrank, cracked and the whole structure degraded. Part of the building which gets direct sunshine becomes drier and essence of detailed carvings is faded away. Growing trees to get shade to protect from direct sun shine would be effective. We need to measure how much extent UV rays affect wooden buildings or not.

Termites and insects: The worst parts of building are at main posts that support the whole building. Base parts of the posts are mostly affected with insects and termites. The main thing to let termites affect posts is no other thing but Myanmar's traditional method of construction to dip posts to the depth of (7) feet at least in the ground. Termites eat up the base of posts in the ground first, and the whole structure becomes leaning. At last, levels become different and it almost looks like the structure is as if to collapse. Myanmar people prefer to keep traditional construction method of digging holes to erect posts in the ground on one hand, and also have to find the best possible ways how to prevent from the danger of termites on the other.

Rain water: During the rainy season, there are naturally torrential rains in a short time. Drainage system plays a vital role. In olden times, big wooden-gutters were installed. But now, they are already cracked and useless. So, tin-gutters are being fixed to overcome the problem. Most of monasteries that do not have enough gutters are degraded. Deterioration of some tiered roofs are damaged from rain water. For example, regarding with the water problem, there is Bargaya monastery in Ava, an ancient city, which is situated close to the Ayeyawady River. Every year, its posts are under water

for about 5 feet at base during the rainy season, at least 10 days. When water receded, bases of posts were left wet and fungus came into being.

Traditional treatment: For wooden buildings to be durable against the weather, Myanmar people are in the habit of painting wood with oil-dregs which is obtained when crude oil is refined to get petrol. This means not to let rain water get into wood easily, and to protect against insects. Here, it is necessary to know if the smell of oil-dregs could harmful or allergic to human beings. People living in rural areas are accustomed to that smell as they use only oil-dregs for their wooden or bamboo houses. So, they do not have any idea whether the smell is hygienic or not. We have to consider that if there are any disadvantages when we use oil-dregs. Oil-dregs become melted when the heat is intense and it can cause visitor's body and clothes dirty. It also easily collects dust and causes the carvings dirty. Part of exterior wall from which oil-dregs melted down becomes lack of oil-dregs. There can insects' attack bring about and rain water can seep in easily. From aesthetic aspect, by painting with oil-dregs layer after layer, again and again, detailed wood carvings cannot be seen clear enough. What is to be taken into consideration is to apply the material which protects not only from the weather and insects but also from degrading of wood quality.

Damages and Deterioration Conditions

Figure (17) is showing a monastery of damaged conditions at Han Lin ancient village. In this building the traditional construction method and the original materials are taken as a reference. There is a need for continuously monitoring and long-term maintenance of these huge structures as well as need for qualified master woodcarvers and conservation experts.

3. CONCEPTS OF THE RESTORATION, PRESERVATION AND CONSERVATION

3.1. Bagaya monastery, Ava (Inwa)

The name Bagaya is a Mon word and it literally means Khayebin(starflower tree)Kyaung. The grand teak wood monastery was first constructed during King Hsin Phyu Shin



Figure 19 Annual flooding from river Irrawaddy

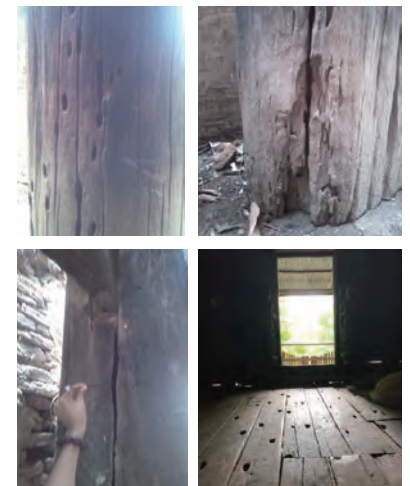


Figure 20 Insect holes on weathered teak columns, Deterioration caused by termites and Extended cracks on the column and holes on floorings inside building

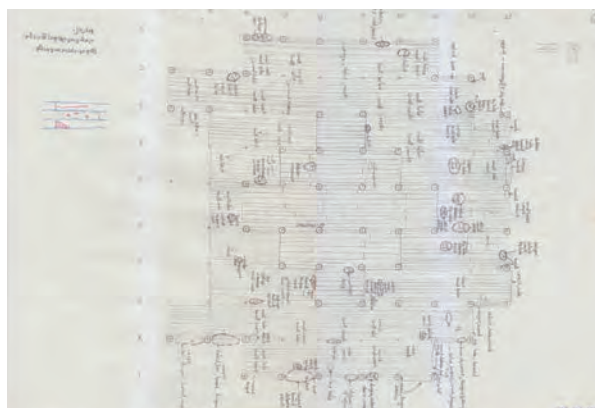


Figure 21 Damages assessment on floorboards



Figure 22 Concept on restoration work together with National Research Institute for Cultural Properties, Tokyo, Japan

(1763-1776) reign and a great fire broke out on 15 April 1821 during King Bagyidaw (1819-1837) reign and it seemed that the Bagaya monastery was partly destroyed by fire as well. The government tried to reconstruct in 1992. We did several studies and surveys on the monastery from 2014 to 2015 by the full supports of National Research Institute for Cultural Properties, Tokyo, Japan and cooperation with Department of Archaeology and National Museum, Ministry of Culture, Myanmar. The common problems are insect holes on weathered teak columns, deterioration caused by termites, extended cracks on the column, annual flooding from Irrawaddy river, improper restoration, reinforcing with concrete base, fungus on the floor, gradual disappearance of detail wood carvings and impressions. Floorboards are decaying and unsafe for visitors.

Bagaya monastery is a huge one and it should be studied portion by portion. Before taking practice on conservation works, the present condition is to be examined and taken into notes. First and foremost, visible damages are to be categorized whether they are broken, or lost, or infested with insects, or eaten by white-ants. After that, the way of how it should be done is to be decided and cost and time schedule are to be estimated.

Studying on degree of damages were divided into two parts and examined as follow:

1-Damages concerning site condition, and 2-Damages concerning building

1-For damages concerning site condition, it is necessary to investigate whether it is defective ground(weak ground, wet ground, inclined ground) or defective environment(poor lighting, poor ventilation, air pollution). 2- For damages concerning building, it is necessary to investigate about deformation, physical damage, corrosion and other. Again, deformation study was taken to investigate about inclination, irregular subsidence, unevenness and slackness. For physical damages, to investigate about loss, deficit, breakage, split, defacement, weathering, deterioration, crack, peeling and stain. For corrosion, to investigate about termite damages, insect damage, fungus damage, and corrosion under humid and closed environment. For others, to investigate about defective design, defective construction, and defective maintenance were intensely studied. Investigation and Inspection on post-leaning and post-dipping into the ground were studied.

Barrier zone around the building should be designated to prevent seasonal flooding. Normally, the part of pillar which is under water lasts longer because insects cannot be alive under water. However, at places where water and sunshine is exposed alternately, insects breed in large number. Damage in connection with humidity should be experimented. Regional climate condition should also be taken into consideration. Acidity containing in rain water should be tested to find out whether it can cause damage to wood and how much

extent. If and when necessary, a complete micro climate should be created for the building. If restoration is going to be carried out, wood to be used should be seasoned first. To avoid big hollows, the wood should be free from places where branches and twigs appear. Caps should be considered again in connection with their design. They will be absolutely durable against the weather if they are bigger than posts. In this respect, it should be considered not to affect the original image. Foundation depth for the tallest posts in the room for Buddha should be estimated to be consistent with weight they have to stand for. Flooring should be at regular spacing as wood expands and contracts naturally. Original size of timber planks are preferred to be used in flooring to be durable, to attain original image and to avoid from frequent replacing with new one.

3.2. Traditional Burmese Teak House

Private house for Royal family is called Palace (Nan Daw). In this paper, author will not be mainly focused on the Palace architecture and structure but houses for commoners shown Kongbaung Architecture and Myanmar rural architecture will be discussed because Burmese teak farmhouse or Burmese vernacular forms of architecture have little or no documentation. Teak farmhouses by design demonstrate a typical response to use and environment, especially in a region where seasonal patterns necessitate certain extreme weather defensive requirements. Most interesting in this case is how those requirements uniquely evolved through construction and embellishment. Of utmost interest from a timber framing view is a one-of-a-kind type of wood joinery that only exists in Myanmar that, no matter the physical form or decoration, is consistently applied no matter the ethnic or regional influences in form and ornamentation. Relying on a two-piece horizontal girder system (instead of a typical one beam construction), Burmese carpentry cleverly merges both an economical perspective with an efficient structural capability. Typical of Southeast Asian vernacular residential architecture in monsoon climate zones, the basic form is a stilted elevated platform upon which is erected a structure of singular or multiple gabled roofs. In Myanmar, columns are sturdy vertical logs of teak embedded sub-grade, a superstructure perforated with a mortise-and-tenon system of horizontal joinery supporting a uniquely Burmese nail-less network of girders hosting sleeper ledger boards holding interlocking floor joists. On top lies hand-planed deck planking forming the flooring. The columns often continue to ceiling height and form the basis for resting gabled roof structures and hanging vertical walls. Staircases are uniquely internally sheltered from sun and precipitation often with a decorated wood awning screen flush vertical to the face line. Stairs move from under storage spaces to living quarters above. Exterior vertical surfaces of the first floor are usually paneled top to bottom perforated with windows made of wood frames and paneled shutters. In other cases, the walls are more



Figure 23 U San Lwin taking a bucket of feed to his oxen. Kya Inn Village, Kale, Sagaing Region (upper), Ma Shwe Yi Win and baby Aung Paung Kar outside her family home. In Bin Thar Village, Lewe. (middle) foyer and entrance stair under decorated roof (lower)



Figure 24 A series of Thudhamma zayat on north moat road

economical of woven bamboo panels. Roofs are traditionally thatch and corrugated zinc, a later modification dating to the nineteenth century. Within these typical construction and decorative qualities is an expansive and varied interpretation in design and form as they relate to lifestyles and culture. This is conveyed in both physical form and decorative surfaces. Decorative patterning is reflective of local forms with some variance by region.

Most Myanmar are farmers, and their houses symbolize this lifestyle through the manner of their spatial organization, design and ornamentation. Teak – from farmer to king – was the mainstay building material, and it holds a special place in the consciousness of Burmese people. The harvesting of teak required ceremony and blessings, it's handling a manner of respect. Teak, in the context of a monsoon climate resists decay, rot and insect infestation. Its strength ideal for supporting tremendous weight became a natural for elevating living spaces above seasonal floodplains and spanning large spatial expanses. It provided shelter underneath for agricultural activities and livestock. The combination allowed for the creation of a unique living environment. In Burma's complex ethnic make-up this translated into a variety of forms and ornamentations, compounded by an abundant supply of teak, its diversity unique in the region. Now is the time to act: to document; raise awareness; engage; advocate; and where possible preserve Burma's surviving wood architecture; because hesitation is a missed opportunity that cannot be retrieved. Today rural populations are increasingly abandoning their stilted wood architecture and shifting to concrete slab and brick constructions with aluminum roof sheeting. Today traditional farmhouses are disappearing, as urbanization threatens a traditional way of life and there are less changes to get teakwood. Documentation of these structures is urgently needed and to develop a methodology for documenting the social and physical aspects of a farmhouse sampling in the regions around Mandalay and Sagaing Division



Figure 25 Wooden Pavilion (upper) and Wooden Ceiling, Pindaya, Shan State (bottom)

3.3. Pavilion (Zayat)

Zayat is the Burmese term for a public rest-house and open air pavilion used by travellers and pilgrims. A large number of



Figure 26 Location map of Royal Tomb of Laungshe Queen (left), Under the Restoration Process (center) and Complete Restoration work at Royal Tomb

these were built in Mandalay on the bank of the north side of the moat to provide accommodation for visiting monks during Fifth Great Buddhist Synod which was held at Mandalay in 1872. Zayat is found in almost every village. The main function is shelter for travellers and is also a place for religious occasions, meeting and community space for villagers to discuss about the plans for village. Religious center would be built at the foot of Mandalay hill and the great Thudhamma Zayat was a Buddhist convocation hall and built as the same time as the palace. Also group of Thudhamma Zayats built during Konbaung dynasty in north moat road, Mandalay. Here the author would like to express and discuss about conservation project of tiered roof pavilion for royal tomb of Laungshe Queen. This royal tomb project was taken at 2015 (November 23 to December 5) by the support of National Research Institute for Cultural Properties, Tokyo, Japan and cooperation with Department of Archaeology and National Museum, Ministry of Culture, Myanmar. Queen of Laungshe (1825-1 June 1881) was a royal princess and a minor queen during the Konbaung dynasty and the queen mother of the Konbaung dynasty's last king, Thibaw Min. She was of Shan extraction, descendant of a daughter of the Sawbwa of Thibaw (Hsipaw). Royal tomb contains the grave of the queen of Laungshe and it stood in a group of mausoleums inside the square of the Royal palace, to the north of the East gate. The tomb takes the form of a tiered spire known as a pyatthat, and it was enclosed with lattice panels around its base. The Pyatthat is a characteristic symbolic feature of Burmese royal and religious architecture. Its eaves are decorated with ornate and flamboyant wood carvings. Previous repair and restoration are investigated and Damages conditions are figured out to advise way and technology to restoration.

3.4. Concepts for the restoration of U Bein Bridge, Amarapura

The longest teakwood bridge in the world crossing the Taungthaman natural lake known as U Bein bridge. It was built at 1849-1851. All the bridge pillars are from the old Palace of Inwa (Ava). The bridge was built in V-shaped structure in the middle to resist wind and water. The main



Figure 27 Concept on restoration work at Laungshe Queen together with National Research Institute for Cultural Properties, Tokyo, Japan



Figure 28 U Bein bridge: the longest teakwood in the world crossing the natural lake

teak pillars were directly hammered into the lake with seven feet depth at least. The total length of the bridge measures 1.2 km with alltother 1086 pillars. There were four wooden pavilions at the same interval along the bridge and now three pavilions are added. It was important for daily life of local people of Amarapura and important passage way for local people and it has become a great attraction place for tourism. After decades, pillars are dangerously decayed by many factors and happen big issue in Mandalay city.



(a)
Decaying
Pillar



(b)
New Pillars
and Old
Posts



(c)
Restoration
Work at
Flooring

Figure 29 Showing Deterioration and Damages at Bridge

Problems and Challenges: There are floods in every rainy season from July to September and water level rises up to the floors of the bridge. Previous repairs to the pillars were not uniformly carried out in terms of systems and methodology. Cavities in the teak pillar near the ground were often simply filled with cement mixtures. The core is washed out starting from the soft pith and at the bottom, erosion caused by drainage rainwater. Holes made by insects and birds can be the starting point of serious damage and caused longitudinally waves from top to bottom when water can enter the pillars. Usually not only the core is washed out (hollowed pillars) starting from the soft pith and at the bottom, but also erosion caused by drainage rainwater is reducing the remaining wall thickness from outside. In addition to the protection of historical monuments, safety and sustainable stability of the bridge deserve top priority. Micro drilling resistance measurements are carried out. The investigations have shown that a number of pillars are not made of teak but of Pyinkado hardwood. In addition, to data on the wood quality of the existing bridge in particular must be collected. The implementation phase begins with the demolition of the existing concrete and stone sections, as they do not correspond to the original condition of the bridge. Each element of the bridge, especially the pillars need to be registered and checked in detail at its strength and stability, which should result in a complete assessment of the mechanical conditions. The pillars are already individually numbered like 101 (north) 2017 April. Based on this survey, it can be clearly understood when a certain pillar was exchanged. This system should be standardized and used on the whole bridge now and in the future. Each pillar is checked by a 50% assessment. If more

than 50% of a pillar is heavily decayed, it can not be used further on and will be replaced completely with a new pillar. If less than 50% of the upper part is heavily decayed, it should be repaired by just restoring the upper part. If there is a heavily decay at the bottom part of the pillar, it can not be used further on and will be replaced completely with a new pillar. Removed pillars, have to be recycled as handrails, benches or others if they are in adequate condition. If pillars have to be removed, their soil holes have to be used for the new ones. This method of one pillar, one position is the necessary consequence for the defined aim preservation of the original construction scheme. The new pillars should be used as they are naturally grown with thick ends in the ground. The top of the pillars should be reconstructed by capping them for leveling the pillars. Caps will be made of teak as well and are a kind of buffer zone which will degrade but can be renewed easily. There are two options for the benches as it is replacement by old style benches design or new benches in a removable way.

The concrete and brick parts of the bridge will be replaced by wooden construction in accordance with the entire bridge. The missing parts have to be placed. For example, the third layer which was removed at first restoration work and handrails also. The pavilions are important for the bridge as a social event. U Bein bridge should be preserved as a living monument. Today, there are seven pavilions. The original construction showed just four pavilions. It is suggested to have still seven pavilions at the reconstructed bridge. Benches have been kept over the time for better comfort. To distinguish additional parts from the original material all benches shall be mobile and with a harmonious design. If applicable material from old removed pillars may be used for the benches. For the restoration of the U Bein bridge as a living monument, under further regional and increasingly touristic use, safety aspects have to be considered. U Bein bridge should be preserved as the longest wooden bridge in the world, as teak bridge and as a living monument object in describing a concrete concept.

3.5. Conservation of historical hand carved wood, mythical Nayar creatures, Shwe Nan Daw Kyaung (Golden Palace Monastery)

The monastery is one of the most highly visited tourist sites in the country, featuring an ornate, gilded interior and extensive teakwood carving. Students from Technological University (Mandalay) have already participated to learn about conservation techniques in a professional setting as they help document and assess the dragon-like Nayar that are mounted to the monastery's veranda. I am responsible as a supervisor of them and this work is supported by World Monuments Funds, New York, United State of America. We made a number of surveys and assessments to the condition of Nayar. Project is developed as two sets of standards: International standards of conservation with a focus on authenticity of the architecture, structure, construction materials and surroundings and Myanmar standards for carpentry and carving techniques. Condition assessments and mapping on 25 Nayars have been put into AutoCAD as part of the documentation record of these architecture elements before conservation work is undertaken. The following nine process of Nayar conservation were taken under the training of conservation scientist from WMF.

1. Vacuum Cleaning
2. Biocide treatment
3. Ammonia solution treatment
4. Mechanical cleaning treatment
5. 2nd time biocide treatment
6. Chemical cleaning
7. Insecticide treatment
8. Consolidation of weak parts of the wood
9. Final coating

After that public outreach and knowhow transfer by students are taken in every month.



Figure 30 Cleaning Process under the guidelines of Conservation Scientist



Figure 31 Before and after conservation process



Figure 32 Applying traditional treatment on exterior wall

3.6. Pyi Min Tha Kyaung, Amarapura

It is located near Ta-khun-daing village, Amarapura Township on the way to Yangon-Mandalay highway and is an attractive teak wood monastery built on 7 feet height stilts. It was built in 1846 by Pyi Min-tha, a son of King Tha-ra-wadi. The monastery is also known for a collection of old Myanmar's Buddha images from different areas and it is worth for its historical purpose and Myanmar architecture as well as its woodcarvings. There are still remaining some fine floral and wood carvings at the building. The main composition of form and space are 1. Pya-that Hsaung, 2. Sa-nu Hsaung, 3. Hsaung-ma-gyi and Baw-ga-hsaung is not found in this monastery but wide verandah is covered by roof at the back of the building is likely used for storage function. Shrine hall is the most significant and important part of the building and has precious cultural objects like various features of Buddha Images of Amarapura era and literature boxes made with artistic lacquer works, ornamental backdrops of throne, book cabinets, lacquered boxes, teak boxes with Jataka inscriptions, packs of palm-leaf inscriptions, gilded glass mosaics, ancient brass bells, traditional arts depicting lotus buds, sculptures, Devas and Sakra at the entrance of Pyi Min-tha Monastery. Taking records while doing maintenance work will greatly help in future renovations. Chief Monk Sayadaw wanted to ask Myanmar Architectural Heritage Organization (MAHO) to take renovation and maintenance works especially at Shrine hall and to take traditional preservation action on building. Previously heavy amount of oil dregs (Yay Nan Gyi) was applied on the exterior and interior walls of the building. Yay Nan Gyi is the by-product of refining of crude oil and is widely used as a treatment to control insects eating the soft part of wood, to prevent weather condition especially in raining season, to protect rain water sink inside the wood. Young architects have measured and come out with a detailed drawing of the whole monastery.

3.7. Documentation and assessments of Buddha image throne, Shwe Nan Daw Kyaung, Mandalay

The objectives are to improve existing documentation on the history, meaning and condition of the Buddha image throne inside Shwe Nan Daw Kyaung and they would support later assembling a proposed conservation report for recognized authority over Shwe Nan Daw Kyaung, and that they later could also be utilized to seek donor funding for implementation. There is not any existing historical background about the throne, and this task would complete a review of it in the context of existing written documentation on Konbaung period thrones through their purpose and meaning. Collecting professional grade photograph of the most significant views and elements of the throne are done to support CAD drawings and to define a set of condition assessments of the throne as well. This project was started at December 2019 to take the following process.

1. Photo documentation of the throne
2. Acuto CAD architectural base drawings
3. Labeling and definition of throne elements on an Auto CAD graphic
4. Mapping and recording conditions
5. A short written report providing historical background

This work is an intensive study with architecture students from Technological University Mandalay (TUM) and outcome provided us an understanding of mechanisms of deterioration and threats to the objects. We will undertake ongoing research tasks on several studies, investigation, and documentation of Buddha image throne inside Shwenandaw monastery.

4. CONCLUSION

Simply cleaning process is fundamental but very important at the beginning of the whole process and keeping its pleasant atmosphere is essential to be maintained. Taking documentations such as digital photo documentation records, detailed measured drawings records and collecting historical facts in every single element of building as much as possible should be done before conservation works. It is carefully realized that in Myanmar oil dregs (Yay Nan Gyi) is widely applied as painting at the facade of teak wood buildings to control insects eating the soft part of wood and to prevent weather condition especially in raining season to protect rain water sink inside the wood. Shrine Area is currently off-limits to women and that is a big challenge and a barrier for women-researcher and scientists. I sincerely believe that this presentation will be of a great help for younger generation who have been taking great interest in teak wood architecture buildings which were built according to Myanmar culture. Our work is not only approaching to conservation but also to build up capacity building and to improve society of Burmese skillful craftsman. Our 'HERITAGE ARCHITECTURE' handed down to us by our ancestors for 'posterity' has inspired us to keep on thinking and creating the essence of continuity of 'Myanmar' into the twenty first century world of Architecture and technology.

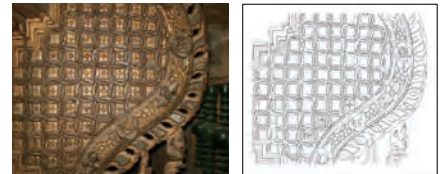


Figure 33 ACAD documentation drawing (Left), Part of the Throne Photo and Drawing to be taken assessments (Right)

Cultural Heritage Sites in Myanmar

*Soe Soe Lin is Deputy Director, Department of Archaeology and National Museum (Bagan Branch), Ministry of Religious Affairs and Culture, the Republic of the Union of Myanmar. He was born in Bagan at 31 May 1963. He got his A.G.T.I (Civil) in 1986 and BA (Geography) in 1995. He joined the Department in 1991 as an Assistant Conservator. Totally his experience is over 27 years. Formerly his responsibilities were Assistant Conservator and Conservator at the Department of Archaeology and National Museum (Bagan Branch) from 1991 to 2001. He conserved and repaired at Baw Baw Gyi Stupa at Pyay, Moe Kaung Stupa at Dawei District, Tanintharyi Region and other ancient monuments in other ancient sites. Then he maintained at Mwetawkatkuu, Pawdawmu Buddha Image at Maikkaing Township, Shan State. After that, he was promoted as Assistant Director of the Department of Archaeology and National Museum (Bagan Branch) in 2001. He communicated with other countries such as India, China, Korea, Germany, and so on for conservation, preservation and maintenance of ancient monuments. Since 2011, he is Deputy Director of the Department of Archaeology and National Museum (Bagan Branch) under the Ministry of Religious Affairs and Culture. He has participated and collaborated with Expert Teams, Conservation Departments, International Organizations, the Myanmar Architecture Association and the Myanmar Engineer Association for rehabilitation of damaged earthquake monuments.

Soe Soe Lin*

Deputy Director, Bagan Branch, Department of Archaeology and National Museum, Ministry of Religious Affairs and Culture, Myanmar

Abstract

1. 47 protective cultural heritage sites in Myanmar
2. 3 Pyu ancient cities namely Hanlin, Beikthano, Sri Kestra (World Heritage site in June 2014)
 - Crystallized out of the clusters of irrigated villages along the Irrawaddy river valley.
 - More than thousands year between ca 200 BCE and 900 CE.
 - Criteria (II, III, IV)
 - II – Interchange
 - III – Testimony
 - IV – Typology
3. Bagan Cultural Heritage site (AD 11 to 13)
 - East bank of Irrawaddy river, Middle of Myanmar
 - World heritage site in July 2019
 - Criteria (III, IV, VI)
 - III – Testimony
 - IV – Typology
 - VI – Association

Introduction

Cultural heritage is categorized as two. They are - Tangible culture and Intangible culture. Intangible culture signalizes ancient, traditional customs of faith handed down over the generations in different places of different ethnic groups, traditions, social custom, different martial arts, languages, festivals and rituals, method of making traditional food and traditional arts and handicrafts. It is essential for preservation of these cultural impact.

Myanmar is ethnically diverse country with over 100 ethnic races in the world, and they also have their own traditions and customs. Myanmar has signed the Intangible Cultural Heritage Convention of 2003, and the Government has taken steps to do research and adopt policies which can make a law for preservation of the country's intangible cultural heritages. Tangible culture symbolizes utensils used by human beings, dwelling structures, structures, symbol of faith, civilization of urbanization. It is further classified as immovable property and movable properties.

Cultural Heritage in Myanmar

Cultural heritages in Myanmar have been existed for millennium years ago. Urbanization developed from sample community to complex society. As Archaeological evidences, Myanmar history is so long. At the start of the prehistory, proto history, history and recent history, Myanmar civilization is developed from stone Age (Paleolithic Period), Bronze Age, Iron Age, Urban formation to historic period of civilization. Myanmar country are rich cultural heritages which are from prehistory to historic period. So many evidences of the transition from Stone Age to Bronze- iron chiefdoms to Iron Age kingdoms, a transformation having religious, technological and social dimension in Myanmar. And then Pyu culture has been discovered through evidences from the three Pyu city states. Bagan also represents Myanmar's world famous tourist site where thousands of pagodas lie. As Archaeological evidence on the Pyu Culture, there can be dated from 1st Century AD to 9th Century AD. Those culture significant can be measured to Urban formation of Myanmar and Southeast Asia Region.

Three Pyu ancient cities: World Heritage Site in Myanmar

Period developed and flourished over a period of more than 1000 years between 200 BCE and 900 CE in the dry zone of the Myanmar. The Pyu cites provide exceptional testimony of the introduction of Buddhism into Southeast Asia two thousand years ago and the attendant economic, socio-political and cultural transformations which resulted in the rise of the first, largest, and longest lived urbanized settlement of the region up until the 9th century. The Pyu showed a striking capacity to assimilate the India influences and swiftly move into a significant degree of re-invention. They created a special form of urbanization, the city of extended urban format, which subsequently influenced urbanization in most of mainland Southeast Asia. The earliest Buddhist city-states played a seminal role in the process of transmitting the literary, architectural ritual tradition of Pali-based Buddhism to other societies in the sub-region where they continue to be practiced up to the present.

Bagan: World Heritage Site in Myanmar


























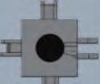







Located on a bend in the Ayeyarwady River in the central dry zone of Myanmar, Bagan is a sacred landscape which features an exceptional array of Buddhist art and architecture, demonstrates centuries of the cultural tradition of Buddhist merit-making, and provides dramatic evidence of the Bagan civilization (Bagan Period 11th – 13th centuries). Intangible attributes of the property are reflected in Buddhist worship and merit-making activities, traditional cultural practices and farming.

Bagan includes 3822 surviving monuments set in the landscape (stupas, temples, monasteries, ordination halls, a



COMPARATIVE ANALYSIS ON PYU ANCIENT CITIES: HALIN, BEIKTHANO, SRI KSETRA



Name	Urban Formation	Monument		Coin	Pottery	Seal	Brick	Literature	Sculpture	C14 Dating
		City Gate	Stupa							
HALIN	 Area-591.9 ha	 HL-17  HL-33	 HL-5  HL-13							60 CE To 890 CE
BEIKTHANO	 Area-889.6 ha	 KKG-13  BTO-35	 KKG-18  KKG-14							190 BCE To 600 CE
SRI KSETRA	 Area-1880 ha	 Rahandar Gate  Shwedaga Gate	 Mathigya  HMA-51							50 CE To 570 CE

palace site and fortifications, sometimes as part of complexes, associated inscriptions, sculptures, murals and cloth paintings, and associated objects), as well as archaeological deposits and water management features.

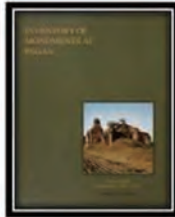
Criterion (iii) – Bagan is exceptional and continuing testimony on an impressive and unprecedented scale of the significant cultural tradition of Buddhist merit-making, and also as the pre-eminent testimony to the peak of the Bagan civilization in the 11th-13th centuries CE as the capital of a powerful and influential regional empire.

Criterion (iv) – Bagan is outstanding as the most extraordinary, rich and creative ensemble of monumental Buddhist architecture in the region, reflecting the strength of religious devotion and wealth of this early major Buddhist empire, and to centuries of continuous religious commitment.

Criterion (vi) – Bagan is a supreme example of the fundamental historical and living Buddhist tradition of and beliefs associated with merit-making, expressed through the remarkable scale, number and density of Bagan's architectural and archaeological ensemble consisting of surviving stupas, temples and monasteries, and continuing religious activities.

Monuments in Bagan

(3822)



1-Temple	1684
2-Stupa	1032
3-Monastery	480
4-Others	142
5-Unexcavated Mound	484
	3822

List of Archaeological Feature in Nominated Property Area of each Component

NO	Monument Type	Nominated property area									Buffer
		C*-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	Total	
1	Archaeological element	62	2	—	—	—	1	3	—	68	3
2	City gate and wall	1	—	—	—	—	—	—	—	1	—
3	Image house	8	—	—	—	—	—	—	—	8	2
4	Inscription house	2	—	—	—	—	—	—	—	2	—
5	Kiln site	7	—	—	—	—	—	—	—	7	—
6	Library	3	—	—	1	—	—	—	—	4	—
7	Monastery	429	7	—	2	—	4	9	—	451	29
8	Ordination hall	8	1	—	—	—	—	1	—	10	1
9	Other	8	—	—	—	—	—	—	—	8	1
10	Palace site	—	—	1	—	—	—	—	—	1	—
11	Sculptures	11	—	—	—	—	—	—	—	11	2
12	Stupa	931	12	—	7	—	7	1	4	962	85
13	Temple	1494	32	—	12	—	3	53	—	1594	90
14	Underground structure	4	6	—	—	—	—	—	—	10	3
15	Unexcavated mound	433	7	—	5	—	3	10	—	458	26
	Total	3401	67	1	27	—	18	77	4	3595	242

Monuments in property = 3595 (Mandalay region = 3391 / Magway region = 8)
 Monuments in buffer = 242 (Mandalay region = 231 / Magway region = 11)
 Monuments Total = 3837 (Mandalay region = 3622 / Magway region = 153)
 C* = Component



















S.S.I(Conservation)

BAGAN
MONUMENTS

TYPOLOGY








Monastery

Before 11-CAD	Stupa			S.S.L
11- CAD	Stupa			
	Temple			
12-CAD	Stupa			S.S.L
	Temple			
13-CAD	Stupa			S.S.L
	Temple			
S.S.L(Conservation)				

Grading the monuments in Bagan

No	Monument No	Name of Monument	Significant						Grade				
			Period	Architecture	Stucco Remain	Mural Remain	Historical value	Total	1	2	3	4	5
			3	3	3	3	3	15					

•Grade (I) - Outstanding monuments
 •Grade (II) - Exceptional monuments
 •Grade (III) - Important monuments
 •Grade (IV) - Valuable monuments, to be periodically inspected, maintained and repaired when necessary
 •Grade (V) - Archaeological deposit, to be periodically inspected, maintained and protected.

Bagan Branch

Primary field survey Card for priority lists to conserve

Date -

Sr No	Monuments Number & Name	Basic	Significant (Grade)					Damaged Conditions										Total	Priority			Remark	
			1	2	3	4	5	S			M			H									
			5	4	3	2	1	1	2	3	4	5	6	7	8	9	10		1	2	3		
		Mark																					

S = Slight M = Moderate H = Heavy

S.S.I.(Conservation)

The 43th session of the world heritage committee at republic of Azerbaijan, Gaku on 6th, July, 2019 on the basis of Criteria (iii),(iv)and (iv). Bagan which was one of the most important archaeological and monuments site in Myanmar. Bagan become Myanmar's second entry on the world heritage list.

Conclusion

Myanmar government is taking responsibilities in accord with the social objectives of the State and it is preserving the Myanmar cultural heritage and making endeavor for making progress and for propagation, uplifting the spirit of patriotism and promoting national prestige and integrity.

Preserving and Inheriting Cultural Heritage of Laos

Viengkeo Souksavatdy*

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1. Introduction

Laos is a sole land-locked territory at the heart of Mainland South-East Asia, which two third of the superficies are composed of mountain ranges, highlands and plateau. The largely mountainous topography extends across most of the northern and eastern part of the country. Yet the geographic characteristic plays role at the same time as land-linked and cross-road for the trade and cultural interactions across the hinterland of the Mekong sub-region.

Mekong is the seventh longest river in Asia stretches from Tibet Plateau to its delta in Southern Viet Nam of which nearly half of its total length course flows through the territory of Laos. Its many tributaries provide transversal networks and have served as important not only for navigation, but also land connected routes. Thus since the ancient time this part of the land locked territory from its geographic disadvantage has been gained opportunity into an important cross road not only for cultural but also for commodity exchanges as the various luxurious fauna, flora products, spices as well as minerals and metals are frequently pursuit by broader demands with its surrounding neighbors and even beyond the region. The richness in assortment exotic natural resources certainly became a potential factor to attract the attention of distant merchants from others regions and led to emergence of wider interactions.

The Mekong and its tributaries provide not only favorable condition for human settlements which led to occurrence of many early chiefdoms, but also have served as main natural fluvial routes of internal as well as trans-boundary connections. Being part of its basin which is a cradle of an ancient civilization, Laos has a complex and diverse cultural heritage – tangible and intangible, reflecting its long history, its many ethnic groups and the pattern of population movement within the region. Many of the tangible heritages are very much a living one, although it has some significant archaeological sites, such as Vat Phou and its Associated Ancient Settlement within the Champassak Cultural Landscape; Megalithic Sites with their unique giant stone jars and upright stone; the Ancient City of Suvannakhomkham; Vilabouly ancient copper mines; phe-historic Tham Paling Cave and many others. The Buddhist temples constitute

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Mr. Viengkeo has conducted series of archaeological excavations, as well as physical cultural resources related investigations under the frameworks of Environmental and Social Impact Assessment (ESIA) within the major socio-economic development projects in the country e.g. Nam Theun 2 Hydro-power, Sepon Mining, Phu Bia Mining, Hongsa Power....and many others. As part of mitigation measures in many cases, it is associated with the chance finds procedures and salvage operations that some of them led to the significant and unprecedented archaeological discovery which surprised the scientific societies. He is co-author of numerous publications, reports as well as organizer of many museum displays.



Figure 1 Maps; (Left) geographic location of Laos within the mainland Southeast Asia and Mekong sub-region, (Right) location of some major pre-historic and early hindu-buddhist sites

the most impressive architectural identity of Lao cities. In association with cultural aspects, the Hin Namno National Protected Area in Bualapha district, Khammuan province is among natural wonders of which bears not only the outstanding geological exceptional value but is also the sanctuary of bio-diversity which shared its eco-system with Phong Nha Kebang in Vietnam. The inscription on the Lao side is under process of preparation, whilst the Vietnamese side was already listed in the UNESCO world heritage property since two decades ago. This trans-boundary heritage will be the first world heritage site of Laos inscribed under the natural category.

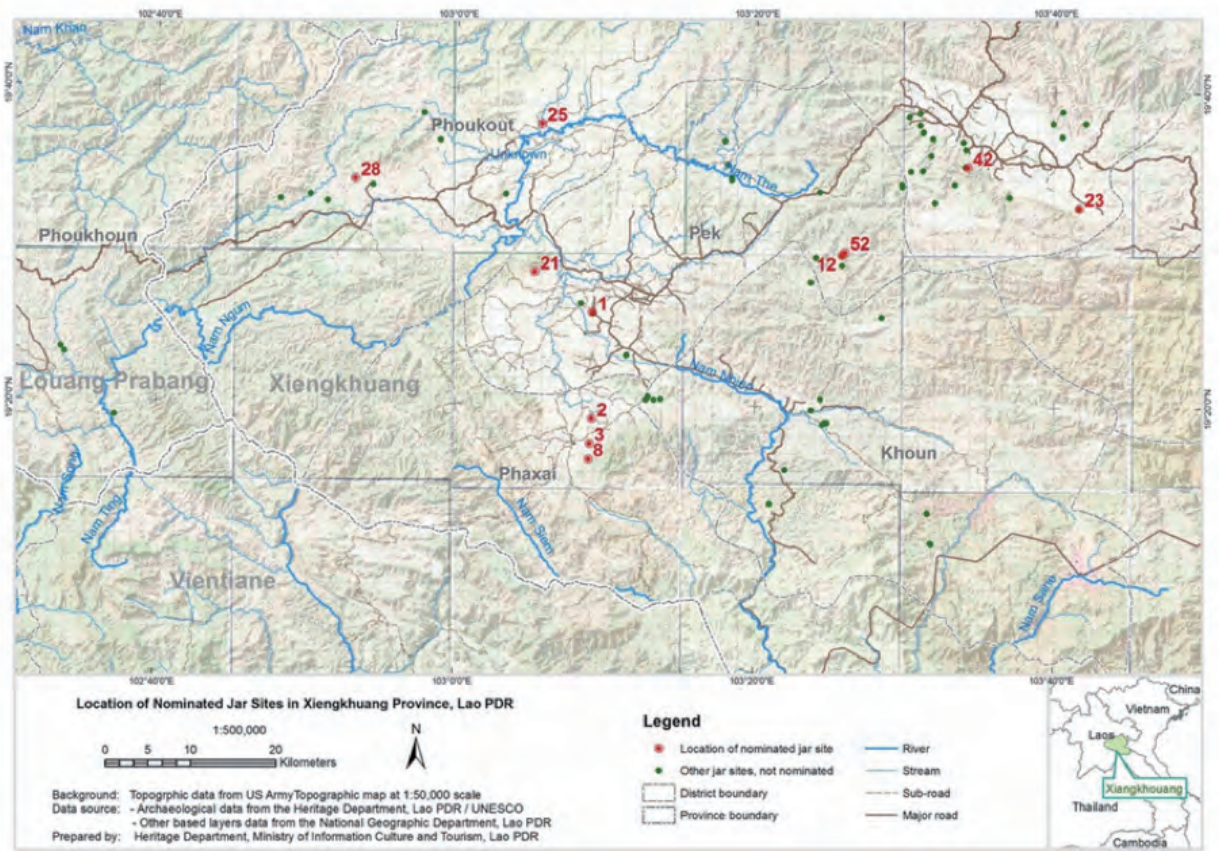
The natural and social factors have provided potential resources for the socio-economic development of the country. Thus the state policy is to promote, develop and broaden cultural creativity, history and nature-based tourism activities in order to create the synergy of preserving value of national heritage and sustainably improving living standard of the people.

However compared to its neighbors the circumstantial status of archaeological research in Laos is still in relative infancy due to several reasons caused by the instability of long aggressive wars. The systematic academic enquiries have been so far undertaken after 1980s, specifically when the new reform policy of the government was initiated.

2. Some major pre-historic archaeological sites

2.1. Megalithic sites in Upper Laos

Despite restraint archaeological research activities during the last century due to the political instability in the country and subsequent chain factors, over eighty years ago a french archaeologist Madeleine Colani (1935) undertook her field works in the upland Laos comprising the series of mortuary related sites which characterized by upright stone slabs or menhirs in Huaphanh and large megalithic jars in Xiengkhouang (fig.1 and 3).



From 1995 onward the field works were resumed again by various national and foreign scholars, which allowed recording nearly 80 jar sites extended beyond the territory of the actual Xiengkhouang province. The vestiges of the megalithic civilization were evidence of archaeological site dated back to Iron Age around 500 BCE to 500-800 CE. The key attributes of the sites are the eponymous giant stone jars which are found throughout Xieng Khuang in clusters that are intentionally located on hill slopes and spurs surrounding the central plateau. Along with stone disks, lids, buried terracotta/ceramic jars and assorted grave goods, these megalithic jars are the primary evidence of the funerary practices that are believed to be associated with an important pre-historic culture. These jar assemblages, along with associated jar production facilities; provide an evocative testimony to this ancient culture and its rituals, its impressive productive capacity, its manipulation over the landscape, and the status of its elites. The diversity of the jar sites is critical for future research that will shed further light on the Plain of Jars. It is obvious to mention that the jar groups spread over large area of Xiengkhuang and also some parts of the actual Xaysomboun and Luang Prabang provinces which indicate the upland spatial distribution of its western and southern most limits, whilst the menhir clusters are mainly located in Huamuang district, Huaphanh Province.

The plateau of Xiengkhuang rises more than 1,000 metres above sea level and its central plain gives the name to the enigmatic landscape which includes more than 2,100

Figure 2 Topographic map showing distributions of jar sites in Xiengkhuang (marked in black dots), which 11 sites are inscribed as world heritage property (in red dots)



Figure 3 Megalithic sites; (Top) Menhir in Huaphanh; (Bottom) Plain of Jars in Xiengkhuang, which was included in the UNESCO World Heritage List in 2019

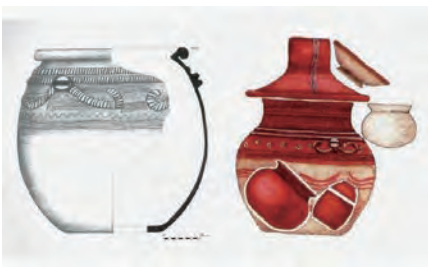


Figure 4 Some of the representative funeral jars found at the site of Lao Pako

megalithic stone jars clustered in 59 surveyed sites which date from the Iron Age, and are widely known as the Plain of Jars. The megalithic Jar Sites in Xiengkhuang was inscribed as UNESCO World Cultural Heritage in July 2019.

This nomination is for a limited selection of key sites from this larger population. The proposed serial property focuses on the five major jar sites, which include, within relatively small areas, a very large proportion of the jars and related evidence found in the province. In addition, six smaller sites are included to ensure the range of sites is represented (i.e. jar and quarry sites, as well as sites of different sizes), and also sites which give some representation of the geographic spread are included (fig.2).

This is the third world heritage site of Laos after the inscription of Luang Prabang in 1995 and successively by Vat Phou Champassak in 2001.

2.2. The site of Lao Pako near Vientiane

Lao Pako is located on the right bank of a meander on Nam Ngum River, some 40 km northeast from Vientiane capital and about 25 km upstream from its confluence with Mekong. Lao Pako is named after a light forest of a local species of trees named “Ko”. The site was identified by chance in 1994 during digging for the toilet septic pit in a resort. The minor salvage excavation was thus intervened by Lao archaeologists and a year later another broader investigations were conducted by Swedish archaeologist from Uppsala University Anna Karlstrom.

The nature of the site is representing late prehistoric period. Most of findings are characterized by pottery materials. The thick earthenware pots with particular decoration and red slip. Some of funeral associated artifacts, spindle whorls, beads, stone and bronze bracelets, metallurgical remains, smelting slags, tuyeres, clay rollers, iron spear head, bronze bells, chacoals... were found in situ. According to the materials found at Lao Pako site is likely contemporary to Ban Chiang site in Thailand which is about 80 km away across the Mekong.

2.3. Vilabouly ancient copper mine in Savannakhet

In line with the new economic mechanism reform and open door policy of the Lao government in 1990's as to promote the private sector investments both for domestic and foreign for socio-economic development of the country. The strategy to raise the national development and to preserve the past legacy of the nation at the same time is somehow a classical dilemma and challenge. Thus the government has defined a global main stream vision that socio-economic development should implicate side by side with the preservation of the national cultural heritage. After the adoption of the first republic constitution in 1991, series of sectorial national legal framework has been followed. Among them there are several legislations related to the protection of national heritage -

cultural and natural, tangible and intangible such as law on ownership, penal code, civil code, law on national heritage, law on environmental protection etc...As per requirement of national legal framework any development projects shall conduct the environmental and social impact assessment (ESIA) in association with mitigation management plan prior to be granted the official approval. Thanks to this legal binding the archaeological investigations were determined under the “physical cultural resources chance finds procedures” in the countrywide e.g. the cases of hydroelectric dam projects, mining activities, infrastructure constructions or related actions which may cause adverse impacts to the cultural property. As for the outcomes, many of significant discoveries were successfully salvaged. Among the success stories there were series of archaeological evidences recovered from ancient copper mining and copper smelting within the Sepon copper tenement in Vilabouly district, Savannakhet Province. For the first time that such a remarkable human genius legacy surprises the unprecedented discoveries in the country and even in the world. Hundreds of mining shafts associated with wooden retaining structures and also evidences of copper smelting activities in Khanong and Thengkham hills which have been survived fairly intact over centuries. The sites were identified by Heritage Department in 2000 and followed by series of excavation campaigns over ten years from 2005-2017. This promising safeguarding policy became true thanks to the close cooperation between Lane Xang Mineral Limited Company (LXML), the line government authorities and James Cook University. In addition to the academic methods there was unparalleled effective crosscutting collaboration which based on the field specificity and experiences, so the archaeologist team from Lao Department of Heritage have developed a kind of specialized induction course to various onsite partners which dealing with metal detection as well as the earth works activities like unexploded ordinance clearance team (UXO) and other related corporate teams. This best practice of the cross cutting cooperation witnesses by the large number of antique collections encountered during the formal chance finds procedures which demonstrated a very valuable acquisition for the nation’s profit. Nowadays many of the national significant artifacts were safeguarded and kept in the local as well as national museums. Among the prestigious examples a Heger-I type bronze kettle drum approximately 2500 years old was safely salvaged and sheltered at the national museum in Vientiane. This object is one of the master pieces ever found in Southeast Asia. According to the carbon dating from various materials collected during salvage excavations has shown a quite large time span of around two millennia continuity of copper mining activities running in this area or between 500 BCE to 1500 CE. Some sites of national significance related to the ancient mining were also recorded. Among them, one of the most well-known site by local people since ancient time near Muang Luang village is “thongna- nguak” which is literally translated as the paddy



Figure 5 (From the top to the bottom) circular shape on the cutting slope, ancient mining shaft with wooden retaining frames revealed during the actual mining activity at Sepon. Excavation at Dragon field. Bronze kettle drum, chance find during the UXO clearance at Nam Kok-East within the current Sepon Copper tenement.



Figure 6 (From the top left to the right) the ancient city of Souvanna Khom Kham on the left bank of the Mekong and Chiangsaen on the right bank. Vestiges of giant Buddha statue as well as some other forty brick structures of Buddhist temples still be visible on the surface.

field of the electric eel, some people gives a fancy name as “dragon field”. This area is about the size of about seven soccer field stretched east-west approximately 100 x 700 m grassy and swampy space in the middle of the thick forest. It is actually at the proximity of current Khanong-A2 copper pit where for the first time the evidence of ancient mining pits was identified. So many dozens of ancient mining pits have been recorded during process of chance finds procedures. Once again that local legend reflects the reality of this area and which evidenced by the remains of stone arrangements visible on the surface at the northern edge of this place. In February 2008 a test archaeological excavation was carried out at the spot where a big rock which part of stone arrangement is located. As for the result two of the three large earthenware pots of 50 cm diameter were found underground and sealed by a large rock. Some associated artifacts were blue glass beads, copper ingots, fragments of crucibles as well as some slags. This site may initially be an ancient copper mine pit and probably due to the effect of longtime mineral exposures that caused natural chemical acceleration and became high acidic soil which seemly not allow trees to grow. The ancestors of the miners may therefore convert this open space for spiritual or funeral purpose by marking with natural rocks.

3. Some early hindu-buddhuist sites along Mekong valley of Laos

The following early religious settlements are presented only some of the archaeological sites in order to highlight the geographic and historic sequence in this part of the Mekong sub-region. The order of presentation is based on the geographic characteristic according to the Mekong flow which started from upstream to downstream respectively which is more or less on the north-south axis.

The Ancient City of Vientiane



Figure 7 (Left) aerial photography taken in 1958 showing layout of the walled city of Vientiane; (Right) some evidences of Dvarvati arts found in the surroundings of the Vientiane plain.

3.1. Ancient city Souvanna Khom Kham

The ancient city Souvanna Khom Kham is located on the curve of the left bank of Mekong at Ton Pheung district, about 7 km downstream from the Lanna ancient city Muang Chiang Saen which is located on the right bank in Thailand. The site was registered in 1992 by Ministry of Information and Culture though at that time it was considered as remote and difficult access site, the boat was the only possible mean to reach there, it is about 60 km upstream from Huay Say the capital city of Bokeo province. Nowadays this area is connected by road as part of tourist destination of the golden triangle Lao-Myanmar and Thailand. Some 40 structures of the ancient city remains including moat, water wells, stupas, viharas, big Buddha statues were recorded some were fairly well preserved and visible on the surface and some hidden in the vegetation, whilst some part was eroded into Mekong. The site represents a large area spanned over 5 km on the curve of Mekong riverine. The deepened studies have not yet been so far carried out. However according to M. Lorillard (Souvanna Khom Kham or Chiang Saen on the left bank) based on the literary and geographic context which is within the immediate zone of confluent of Nam Kok with Mekong, the ancient city of Souvanna Khom Kham seems to be a zone of settlement earlier to those which later was founded a prestigious walled city of Chiang Sen.

3.2. Surroundings of Vientiane plain and the contact with Dvarvati arts

Despite the modern urbanization tissues of actual Vientiane have disturbed the traces of the earlier occupations, but it still continue to be cradle of an ancient civilization. Some vestiges of the early settlement and successive period during the foundation of Lane Xang kingdom can be observed through the old aerial photography. The plain of Vientiane which is composed mainly of the fertile valleys of Mekong and Nam Ngum stretched nearly hundreds of kilometers around this



Figure 8 (Left) layout of the ancient city Nong Huathong, Sayboully district, Savannakhet Province, located on the left bank of Se Bangfai River. Vestiges of earthen fortification, moat and barrays still be visible. (Right) alignment of post holes dug into the siltstone bedrock of Se Bangfai, evidence of wooden platform extended over 15 meters from riverine - river port or ceremonial hub?

locality used to have been in contact with influences of early population mon holder of Dvarvati art and also some of khmer factors. Some pieces of arts presented in form of sema stones, statues – stand alone and bas-relief carved on the rocks, some are kept at Ho Prakeo, Pra Thaluang and many still be at the sites e.g. Dan Sung, Tham Vang Xang etc.

3.3. Recently discovered ancient city of Nong Hua Thong

The exceptional treasure consisted of 7kg and 17 kg of gold and silver respectively and other materials found by villagers of Ban Nong Hua Thong in 2008 led to the onsite investigation and identification of an ancient settlement that related to the influence which is contemporary to Dvarvati period in Thailand. Nong Hua Thong is situated on the left bank of Se Bang Fai where it forms a curve before to meet its confluent with Mekong about 15 km further down. It is under Sayboully district, Savannakhet province. Se Bang Fai is a tributary of Mekong where opposite of its confluent is the important Buddhist stupa - Pra That Phanom in Nakhon Phanom province of Thailand. The newly discovered site is referred to the toponym of a legendary pond called “Nong Hua Thong” which in lao means pond of the golden canoe. The vestige of city walls is fairly well preserved of which some portion reached 3 m in height and 30 m wide at the base. It may have more than one city layer. The inner enclosure is quite evident by an earthen wall which is extended some 3900 m long and forms a semi-secular shape on joining the river bank at both ends. The treasure finding spot is on the corner of inner wall where it forms sharp angle. There is another outer rampart which is straight line and parallel to the inner one at the northern tip of which further continuity is unclear, the space between the two walls is about 60 m. What is interesting evidence at the bank of Se Bang Fay which is corresponded to the interval of these two walls are traces of post holes dug into silt stone of the river bed which indicate the port installation of this ancient city.

There are 6 ponds identified within close vicinity, so 5 on the left bank and only one on the right bank, most of them have rectangular shape. No particular remains of monuments have been identified within this ancient city, except some



Figure 9 (Upper) Treasure found at the Ancient City of Nong Hua Thong in May 2008 contains over 7 kg of gold and 17 kg of silver objects representing master pieces of iconographic and artistic craftsmanship; (Lower) sema stones found within the close areas.

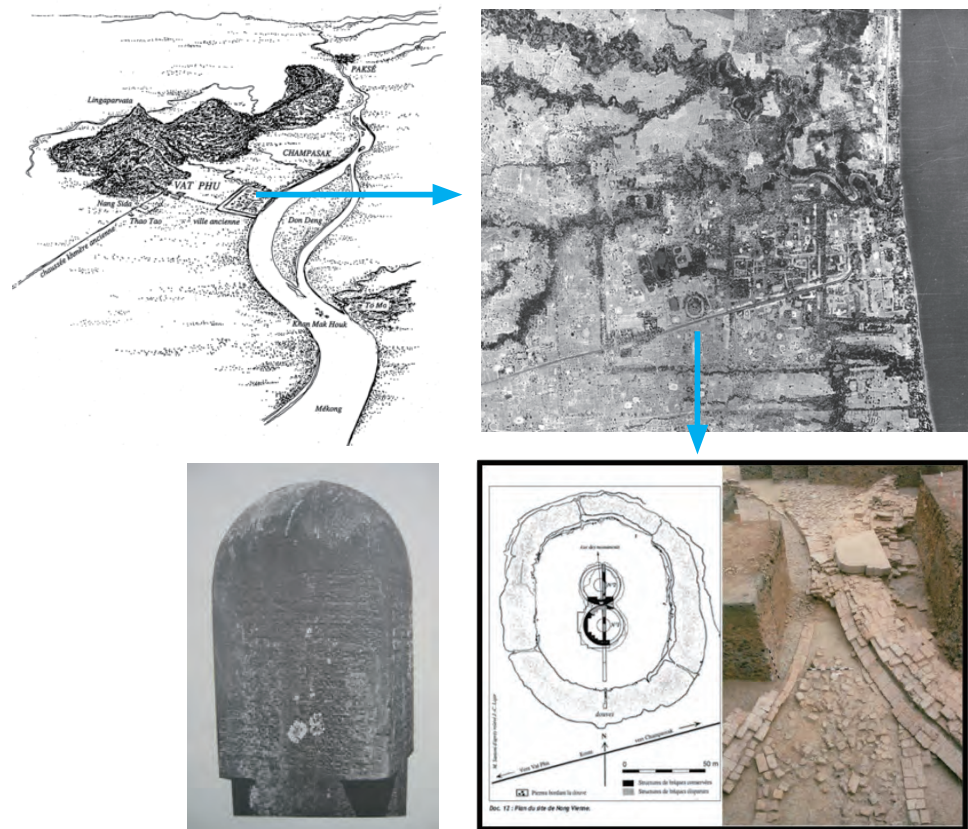


Figure 10 (Top left) drawing illustrate the holistic ancient settlement within the Champassak cultural landscape; (Top right) aerial photography of the ancient city, showing one of the rare circular moated monuments – Nong Vienne; (Bottom left) the oldest inscription of Vat Phou (2nd half 5 AD), known as “Devanika stele”, which mentioned about the foundation of the ancient city of “Kurukshetra” and sacred mountain “Lingaparvata”.

scattered bricks which at this circumstance could not provide a clear understanding about the founder of this ancient city. Though there are quite significant numbers of sema stone which have been found in situ and in the nearer villages e.g. at Ban Sikhay, Ban Kang and Ban Namuang that could indicate presence of Theravada Buddhism settlements in this area. However some of artistic and iconographical figures from the objects in the treasure collection found at this site are reflected the Hindu art, which is not quite supported to the circumstance of the site and series of questions were raised about the passage of these movable artifacts. More archaeological and further studies on stylistic art will provide deeper understanding and explanation for the political and economic importance of this ancient settlement.

3.4. Ancient city of Vat Phou

Since 1991 the Lao-French Archaeological Research Project has been conducted series of excavations, surveys and mapping in Vat Phou area and adjacent vicinities as well as those remote sites located along the ancient road which link to Angkor. Vestiges of material culture of which the ancient peoples adopt and adapt their believe both Hinduism and Buddhism in this part of Laos are still being fairly well preserved and protected as the site became the UNESCO world heritage list in 2001.

The Champasak cultural landscape, including the Vat Phou Temple complex, is a remarkably well-preserved planned landscape more than 1,000 years old. It was shaped to express the Hindu vision of the relationship between nature and



Figure 11 Archaeological excavation at Nong Vienne monument in 1996 revealed twin brick monuments in circular form (25 m diameter), which is quite rare comparing to the rest of the monuments found within the area that in rectangular shape. Thus the hypothesis of being a Buddhist monument is likely reasonable.

humanity, using an axis from mountain top to river bank to lay out a geometric pattern of temples, shrines and waterworks extending over some 10 km. Two planned cities on the banks of the Mekong River are also part of the site, as well as Phou Kao Mountain. The whole represents a development ranging from the 5th to 15th centuries, mainly associated with the Khmer Empire.

The Vat Phou complex is an outstanding example of the integration of symbolic landscape of great spiritual significance to its natural surroundings. Vat Phou exhibits a remarkable complex of monuments and other structures over an extensive area between river and mountain, some of outstanding architecture, many containing great works of art, and all expressing intense religious conviction and commitment.

4. Some Japanese trade ceramics found in Laos

Thanks to valuable expertise of Ms. Naho Shimizu, expert on ceramic who has been involved in 2 case studies that have been identified some Japanese trade ceramics. The first one is under a Pilot Studies for the “Vientiane Road No.1 Renovation Project”, and another one is within the Sepon mining tenement.

The Japanese support project for renovation of Vientiane Road No.1 (2006-2007) has anticipated with the archaeological salvage intervention of the buried cultural property. The total length of the road project is about 25 km connected Vientiane International Airport to the Mekong Lao-Thai Friendship Bridge No.1 which are the two main international check points of the capital. The particular attention for the Buried Cultural Property has focused on the portions which are passing the ancient city. So the total distance of the archaeological intervention is 10,331 metres, which represented 21,075 square metres of the excavated area. As among the findings, there are: 85 features, 140,345 artifacts, including: 76,861 stoneware pieces and 18,742 earthenware pieces; 16,135 Trade Ceramic pieces, that can be classified as follows: 7,895 Thai, 665 Vietnamese, 60 Khmer, 6,825 Chinese, 346 Japanese, 296 European and 48 unidentified. The rests are architectural fragments, metals, slags, bones.

The most unexpected findings were those from Japan, all of them from Hizen area of southern Japan, dating from 17th

to 18th centuries, which could have been brought here by the hands of Chinese and Dutch merchants. Some European ceramics of much later dates were also discovered.

During excavations at the Sepon mining tenement another significant layer of history began to emerge as ceramic products in large quantities from a more recent period began to be revealed. Most of these historical period artifacts were recovered by chance in accordance with stringent UXO (unexploded ordnance) bomb clearance operations. What is particularly interesting to note is that these ceramic collections included an unexpected amount of trade ceramic. That is to say, these ceramics were imported items that were produced abroad. It now appears that these ceramics were imported to the Sepon region over several centuries during Lao's historical period known as the Lane Xang Kingdom that existed from the 14th century until 19th century.

The trade ceramic collection now totals of 82 pieces which were observed to be from various origins. Each specimen can be classified into four categories based on their place of manufacture. For instance, the collection included 68 pieces of Chinese ceramic, ten pieces of Vietnamese, two pieces of Siamese and two pieces of Japanese porcelain. Before this observation, it was unthinkable to expect that Japanese ceramic products would be recovered in this very remote region, high in the mountains of Laos. It is this finding that is considered to be of exceptional significance. It is also of special interest that the Japanese ceramics were found in combination with Chinese, Vietnamese and Siamese wares. It provides new archaeological insights into historical circumstances occurring in the Sepon area, in terms of foreign trade, during the Lane Xang era. In the following sections, the attributes and characteristics of the specimens will be explained contextually based on place of manufacture. It is well established that Japanese ceramics (mainly blue and

Figure 12 Japanese ceramic; (Left) some shards recovered during the road project in Vientiane; (Right) from Sepon

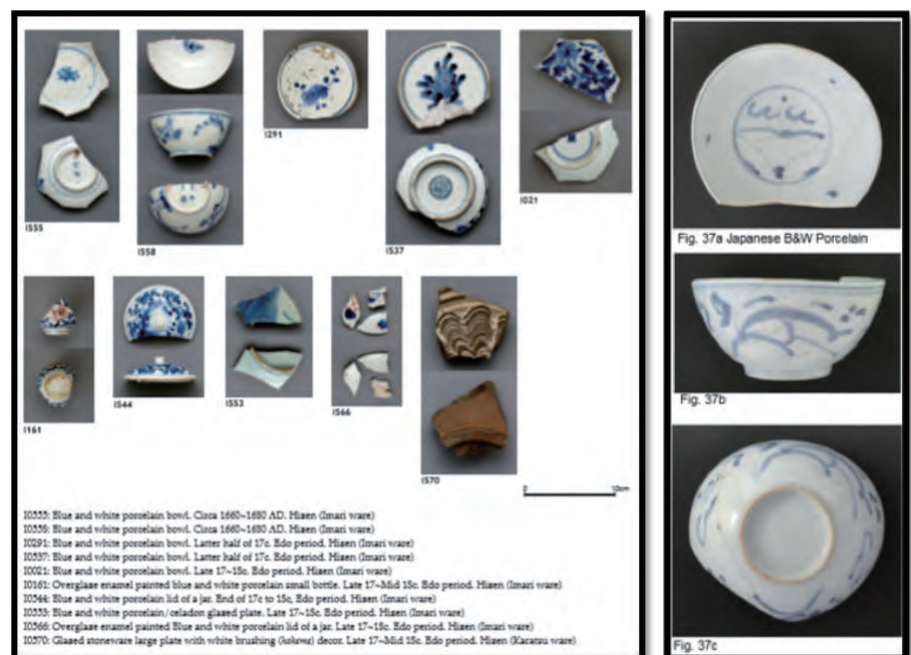




Figure 13 Khaen instrument and khaen music performance



white porcelain or so-called Imari ware) were first exported in large amounts to Southeast Asia, and then to West Asia, Africa, Europe and finally South America, during a period from the middle of 17th century through the 18th century. The types, volumes and periods of exported Japanese wares varied according to each destination. In Mainland Southeast Asia, Japanese ceramic fragments have been recovered amongst other trade ceramics from many archaeological sites in Thailand, Vietnam, Cambodia and the Lao PDR.

The two Vilabouly Complex specimens were both Blue and White porcelain (Under-glaze blue painted White porcelain), which was the predominant type of exported Japanese ware during the 17th to 18th centuries. Both specimens have similar blue painted decorative patterns or motifs on their interior and exterior walls. The painted motif on the interior wall is a specific design of “a carp jumping out of waves”. The painted motif on the exterior wall is a simplified design of “a flying dragon between clouds”. Both motifs were developed from the original Chinese porcelain models and became very specific to, and popular in, Japanese mass-produced ceramics for export exclusively to Southeast Asian countries.

5. Representative Element of Intangible Cultural Heritage

Since 2009 Laos became state party of the UNESCO Convention for Safeguarding of Intangible Cultural Heritage. Under this framework the concerned authorities have mobilized efforts to organize the national inventory and documentation of various ICH domains. One of the popular and symbolic elements of the Lao people is “Khaen music”. Khaen is a typical musical instrument made with bamboo tubes of varying lengths, each with a metal reed. The player blows into the instrument through an air chamber and the sound produced depends on the size of the tube. Khaen music is popular in all regions of the country. It is usually part of village festivals and customary for people listening to it to become active participants in the songs and dances, rather than merely spectators. Khaen music is an integral part of Lao life that promotes family and social cohesion. In 2005, the Association of Khaen Arts was established and various festivals are organized to promote and enhance the art. In 2017 the “khaen music of the Lao people” was inscribed in the UNESCO intangible cultural heritage representative list of the humanity.

6. Conclusion

As part of the ancient mainland Southeast Asia Laos has its own identity and also shared many commonalities with its Mekong sub-region neighbors. From land-locked to land-linked and cross road of Indo-china peninsular Laos will continue to contribute for strengthening future cooperation in deeper and wider scales. Since late prehistory to the early contacts with mainly hindu-buddhist culture from the beginning of the first millennia CE in the Mekong sub-region

have influenced for the adoption of the religions, culture as well as the process of early chiefdom formations. Through the temporal evolution the magnitude of contacts between the newly introduced factors and local population led to acceptance and adaptation as their own traditions. The puzzle on archaeological work in this part of the Southeast Asia region still have to be further fulfilled and developed countrywide in order to explore and establish a deeper understanding on various interrelations on holistic Asia context and beyond through maritime routes with the Mekong valley of Laos as an important cross road and point of exchange since ancient time.

Archaeological Survey for Preservation at Dongphansen Ancient Site in Thakhek District, Khammouane Province, Lao PDR

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He has participant Archaeology excavations in MMG-LXML area of Vilabouly District, Savannakhet Province, Lao PDR in 2013 and participant excavations in Lao Pako archaeological site, Vientiane capital, Lao PDR in 2019-2020. Furthermore, he has participated in the Archaeological Survey in Pha Thad Sampang Stupa in Soukhouma District Champasak Province in 2018, and the Archaeological Survey at Dongphansen Ancient Site in Thakhek District, Khammouane Province, Lao PDR in 2019.

He wrote some paper in Lao and in English including: 1) Drawing and Photograph in archaeology in Hand book, Field technic, Archaeological field practice in 2018 supported by UNESCO; 2) The Pottery Making of Buek Thong Villager, Champhone District Savannakhet Province Lao PDR in Archaeology supported by JICA in 2018; 3) The Way of life of the Meungvan villager in Xam Neua District, Houaphan Province Lao PDR in the collection and Conservation of Local Documents and Oral History in Lao PDR Project (FY 2007-2010) in 2011 Supported by JSPS. He published text book in Lao language Museum Management in 2012, supported by World Bank & Environment Protection Fund.

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Abstract

The aim of the archaeological study of Dongphansen Ancient Site for Preservation in Ban Muangsoum Thakhek district Khammouane province is to survey and collect information of cultural resource in the area of Ban Muangsoum Thakhek district in order to store in an archaeologically cultural database, determine the coordinates and make the archaeological drawing of Dongphansen ancient site. The preservation of this area aims to provide educational evidence to students and the public. The study is conducted by using an archaeological method in order to pinpoint the location and make the archaeological drawing, as well as applying qualitative information collection by interviewing relevant study samples such as village authority, villager representatives and the state agencies concerned. The study found that:

Dongphansen Ancient Site is located in the administrative area of Ban Muangsoum, in the forest whereby the geographical line is 17°20'31"N, 104°48'92"E with 136 metre height above sea level. This site was built after the construction of Sikhottabong stupa; that was the era of Xaysettha's administration the king of LanXang Kingdom.

The study found that the trail of basic construction elements namely stupa and buildings which were perhaps the resting place for monks, sitting in line from the north to the south, surrounded by the forest and mostly covered by the climbings. These constructions can be divided into five zones: A, B, C, D, and E. The appearance of the stupa like stupa in Lanxang architecture, the stupa is under the severely damaged condition. The top of it is covered by the creepers while the bottom is partially covered and surrounded by old bricks. The villagers still have a strong belief in this ancient site especially in the aspect of superstition which is hard to be proved. This information collection leads to an important report for finding a way to develop a preservation plan for this site.

1. Overview

1.1. Rationale

Laos is a country situated in South East Asia. This nation is abundant of cultural heritages, including ancient sites and objects created by human scattering nationwide. These sites and objects contain a great value in terms of arts, culture and history and are highly valuable assets, as well as significant evidence for archaeological studies. They also indicate the history and evolution of people living in this land systematically and continuously, since ancient times until now. One of such important ancient sites is Dongphansen Stupa in Muangsoum village, Thakhek district, Khammuan province. Based upon the narrative of elderly villagers, the stupa was built after the construction of Sikhottabong Stupa under the governance of Sayasettha Thirath, the king of Lan Xang (millions of elephants) Kingdom.

When the time has gone by, as a result of the wars; climate change coupled with the neglect of the relevant state entities, the Dongphansen stupa became disbanded and destroyed by human hands in connection with the pursuit of hunting the ancient treasures, causing the stupa damaged as in the present.

Therefore, the archaeological team (Faculty of Social Sciences, the National University of Laos) realises that this stupa remains important and is linked to the development of ancient cities in Khammuan province especially the Sikhottabong stupa, as well as reflecting the role of the community in this area. The survey of the archaeological team will benefit the local community about the management of the historically ancient sites. Besides, the survey will contribute to the educational information relevant to archaeological sites particularly Dongphansen stupa as crucial evidence for the history of the nation. This is because this survey is in line with the current policies of the government to find ways for planning and managing the historical sites in the future.

1.2. Objectives

- to survey and collect information related to cultural resources in Muangsoum village, Thakhek district to store in the database of archaeological cultural resources.
- to pinpoint the location of the Dongphansen area and make an archaeological drawing.
- to preserve the site as an educational foundation for students and the general public.

1.3. Location and date

- The Dongphansen, the abandoned religious site, located in the area of Muangsoum village, Thakhek district, Khammuan province, Lao PDR.
- The scope of the study is from the date of its establishment until 2019 with a seven-day field operation.

1.4. Methodology

The qualitative and archaeological methods were used for this study by analysing relevant documents, field operating in ways of surveying; observing and interviewing.

Lecturers from the Department of History and Archaeology, Faculty of Social Sciences, National University of Laos; conducted fieldwork with archaeologists from Japan JICA working in the Department, staffed with the Department of Information, Culture and Tourism, Khammouan District, Tourism and Cultural Tourism, Staff from UNESCO office in Laos and Lao local people.

1.5. Results

The results of the fieldwork operation at the ancient site of Dongphansen in Muang Sum village, Thakhek district, Khammuan province, are as follows:

- obtained primarily archaeological information and evidence relating to Dongphansen Stupa.
- obtained information which will be used to create a plan for renovating and preserving this site in the future and that will be developed to be an educational foundation for students and the general public.

2. Fieldwork operation

2.1. Location

The ancient Dongphansen stupa is based in the administrative area of Muang Sun village, Sikhottabong village group, Thakhek district, Khammuan province, Lao PDR. It is seated in the middle of the forest about 800 meters east of the village with the geographical coordinates of 17° 20' 31" N and 104° 48' 92" E, 136 meters above sea level.

2.2. Background

When it comes to the history of the stupa as well as the ruins of Dongphansen temple, as having been studied so far, there is no evidence that it was recorded when this stupa was established. Also, the person who led the establishment and what the name of this original entity is called is a puzzle that needs to be answered by professionals in the relevant division. However, by interviews and recounts of senior elders in the village by word of mouth through generations, saying that: "this stupa was built just a few years after the establishment of Sikhottabong stupa."

As a result of the strong belief of Lao people in Buddhism, they brought together their properties, objects and money to build the Kikhottabong stupa. After the completion, they used the left of those properties to build another stupa in a forest area in the far north of the Sikhottabong, which subsequently called "Dongphansen" and became the name of this Dongphansen stupa until now.

2.3. The current condition of the site

The survey of the ancient Dongphansen temple site finds the basic elements, including a stupa, a shrine and a monastery or a hut which is assumed to be a resting place for monks, scattering from the north to the south, existing in the forest. The stupa is mostly covered by the climbing which prevent the stupa from erosion. At the same time, the covering creepers grow up and their roots get bigger and bigger, they have damaged much of the base of the stupa. The survey results reveal that some of the ruins of the site have been destroyed by human activities in the present. For example, at the lower base of the monastery, a hole dug into the centre of the stupa was found in the north. The villagers said that was pierced since 1970 and there were two jars but what was inside is unknown". Another thing is that the Buddha statue in the upper part of the monastery was torn down to the ground as well.

2.4. Survey techniques

The archaeological survey of the site of the Dongphansen within the operation area there are medium and large-sized trees and shrubs scattered around; creepers are covering alternatively on the top and the ground. To the east, there are village and gold bamboo plantation that the villagers cultivate, as well as fruit trees such as mango and mustard trees.

As regards the collection of evidence and information records during the exploration of the site, the survey team interviewed the local persons and recorded in writings as well as taking photos for further analysis. In this operation, the team strictly followed the archaeological process as the following:

- A daily record which wrote down the detail of daily work in each operation field, the found architectural and archaeological evidence was also jotted down in the drawings and attached notes.
- Photographs are another way of recording the archaeological evidence that this research team has used throughout the fieldwork operation for the benefit of its usage in archaeological reporting.
- Cleaning the site, determining the geographical coordinates, measuring and mapping.
- The result of the survey was the completion of the layout of the building and the explanation of the structure:

2) Drawing B

This drawing B and B1 are the places where bricks eroded to the ground and are the connecting trace between the monastery and the stupa.

3) Drawing C

This drawing is the ruin of the building remaining from the destruction. The appearance of the monastery looks like a rectangle with the length of 13 meters, the width of 7 meters and the height of 50 centimeter the ruin of the stilts and fractures of statues were also found in this zone.

4) Drawing D

The Drawing D is the heap of bricks similar to the base of a small statue, seated to the east south opposite the Dongphansen stupa about 18 meters the bricks found in this zone were put hierarchically, similar to the base of a small statue.

5) Drawing E

The drawing E is the shatter of a kind of shrine with a rectangle shape. It is 20 meters long, 7 meters wide and the base of the shrine was built with bricks; and there exist the traces of polls seated in the appropriate distance around the building base which is covered by the shrubs and bamboo trees. This shatter is located 20 meters from the Dongphansen stupa to the south.

2.5. Belief relating to this ancient site

Through the site exploration and having a conversation with the elders and middle-age villagers, the belief of the people to this ancient Dongphansen is about black magic which is hard to be proofed scientifically. "[he] would be a wild animal like a python which twinkles sometimes", a person said.

One also said that "sometimes he appeared to be a tiger" that showed a power to intimidate the villagers. With this unexplainable belief system, during the exploration of the site, it was noticed that the village authority and relevant state entities were reluctant to and not fully participate in the mission. However, the survey team had followed the traditional practice of the village by organising a ritual to ask for permission before starting the survey, as well as the farewell ceremony after completing the fieldwork.

3. Suggestions

According to the information collection and site exploration, the survey suggests a way for creating a plan to preserve this ancient site in the future as below:

- continue to study and explore this ancient Dongphansen by coordinating with the Department of Heritage, Ministry of Information, Culture and Tourism; and other relevant sectors to obtain clearer information and evidence.
- Public organizations and relevant sectors shall create measures for managing this site by clearly demarcating its borderlines to prevent the invasion and destruction of the villagers and others.
- The state authority shall coordinate with the local communities to establish a network which includes all relevant professionals to jointly create a database of ancient sites around the countries. This would be convenient for accessing and updating information relating to cultural resources.
- The villagers and nearby communities shall be informed about the regulations on cultural heritage management and realize the significance of ancient cultural sites in their villages.
- promote tourism to attract tourists from around the world to visit archaeological places for economic benefits by encouraging local people to engage in preserving and using cultural heritages with high values.

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Survey on Ancient Drainage System of Preah Vihear Temple

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Abstract

The Sacred Temple of Preah Vihear was built on top of Preah Vihear mountain of Dangrek mountain range by different successive Khmer kings in between the 9th and 12nd centuries during the Angkorian period to dedicate to the Hindu god Shiva in his manifestations as the mountain gods Sikharesvara and Bhadresvara. In 2008, the Preah Vihear Temple was inscribed on the UNESCO World Heritage List under criteria (I) as a masterpiece of human creative genius, and also recognized for its outstanding universal value.

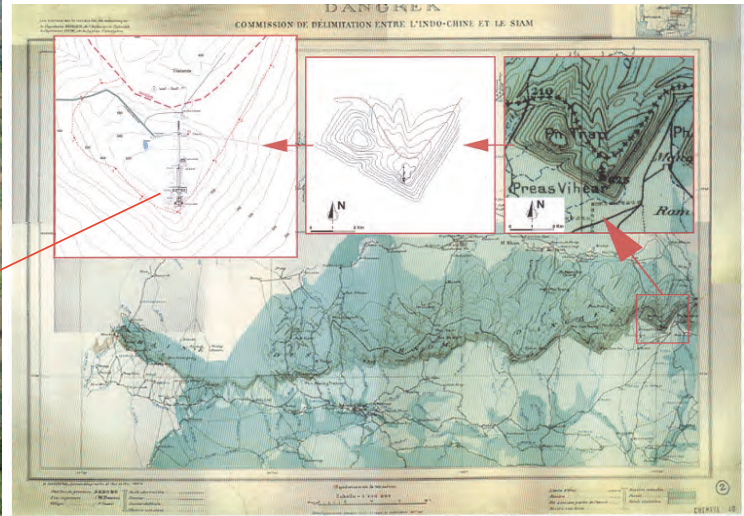
From 2014 onward, the Department of Monuments and Archaeology of the National Authority for Preah Vihear (NAPV) has undertaken studies of the ancient hydraulic structure and its associated components at the Preah Vihear temple to realize function of the drainage system and flow direction of rainwater, and its current status. The primary objective of this study is to rehabilitate and restore the original system for it to function effectively, thus to safeguard the structure's foundation against rainwater infiltration. Restoration of ancient hydraulic system helps strengthen structures and reduce amount of water on surface of the causeway in the rainy season, and so help facilitate tourism activities in the rainy season. The followings are key activities and achievement being made in association with drainage system at Preah Vihear temple:

In 2015, excavation was done at the area surrounding Gopura 5 to identify flow direction of rainwater as well as to understand foundation of the building.

In 2016, restoration of the ancient drainage system along both sides of the causeway between Gopura 4 and Gopura 5 was carried out in order to bring back its function, and mitigate rainwater infiltration into foundation of the causeway.

In 2017, intervention of drainage system along both sides of the northern ancient staircase at, end north of temple complex, was carried out so as to mitigate pressure of rainwater in the staircase.

In 2018, archaeological study of ancient drainage system of causeway between Gopura 3 and Gopura 4 to understand its original function was undertaken. A total of 14 pits was



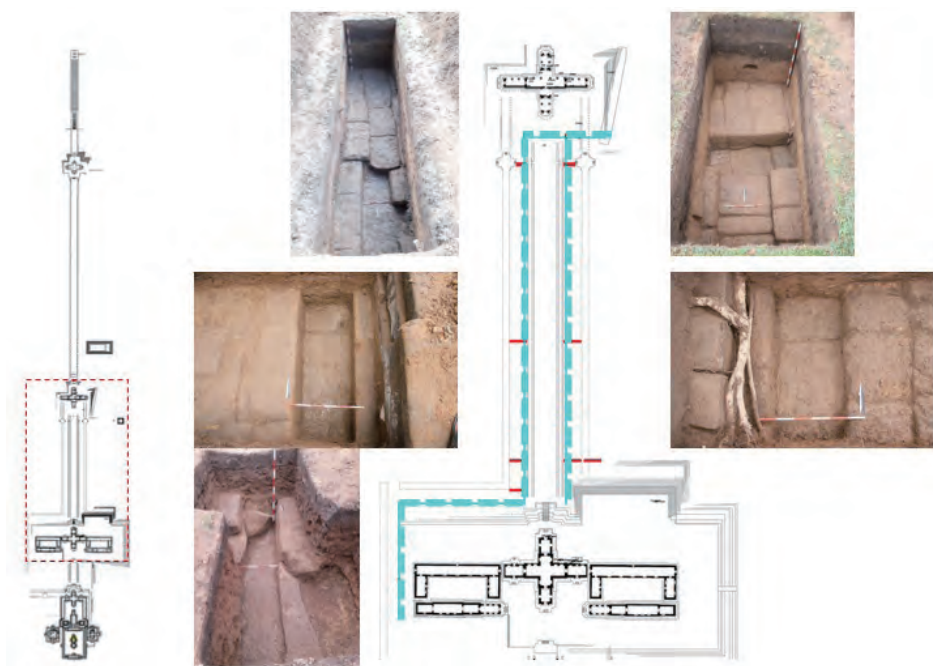
Area of the Temple of Preah Vihear in the Dangrek range of mountains (extrapolation from the map recognized by the International Court of Justice, 15 June 1962)

excavated along both side of causeway and in the area south of Gopura 4, and major preliminary findings have been identified as following:

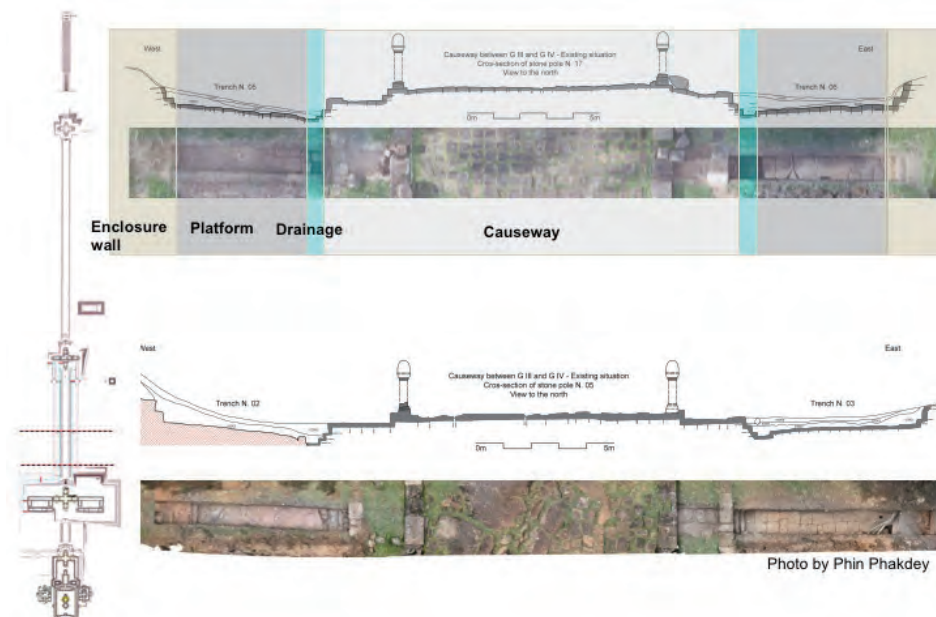
- This ancient drainage system was built alongside with the construction of Preah Vihear temple between the 9th and the 12nd centuries. It played a key role in collecting rainwater from the higher ground to prevent the temple foundation from erosion.
- The study also discovered sandstone pavements, line of sandstone steps built as enclosure wall, earthen enclosure and pole holes.
- The existence of stone platforms on both sides of the causeway, between Gopura 3 and 4 was bounded by earthen enclosure. The original construction was cut into existing bedrock at some parts, and filled in with stone block in some parts. The discovery of these stone platforms is significant as it radically changes the nature of the processional causeway.
- An integrated drainage system between Gopura 3 and 4 collects rainwater from the upper western side of the causeway, and drains to the eastern side in front of Gopura 4. After abandoned for centuries without conservation activities, these drainage systems had been filled by accumulated sediment, resulting in malfunction. Rainwater flushes to the temple during the rain, and cause to irreversible effect to the temple structures by erosion and flooding.
- The canals were filled with sediment at 50-70 cm deep on both sides of the causeway, and it becomes deeper to one meter or even deeper in front of the south facade of Gopura 4. Layers of the sediment can be determined its timeline. There are three layers of accumulated sediment, of which two top layers indicate soil accumulation induced by human action and erosion, and the bottom layer was caused by erosion from the earthen enclosure wall. Brick

and roof tile fragments from the original temple structures were found in this layer.

As a result of excavation research, we can conclude that ancient drainage system which was built along both sides of causeway was to collect rainwater to prevent the temple foundation from damage. We also can understand the methodology and phases of construction of the causeway and related infrastructure of Preah Vihear Temple. NAPV will continue research and removal of all sediment along both sides of the causeway and on platform of Gopura 4 to fully reveal the structure of the original platform as well as to discover the connection of ancient drainage system for future conservation and restoration purposes.



Drainage system



Causeway structure

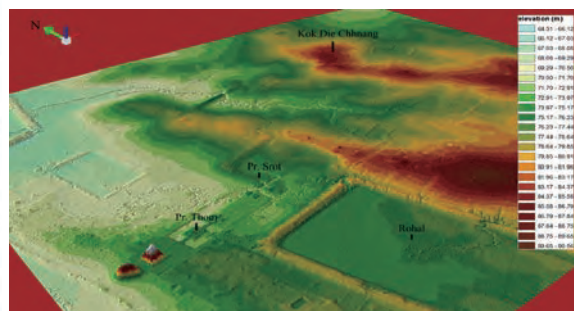
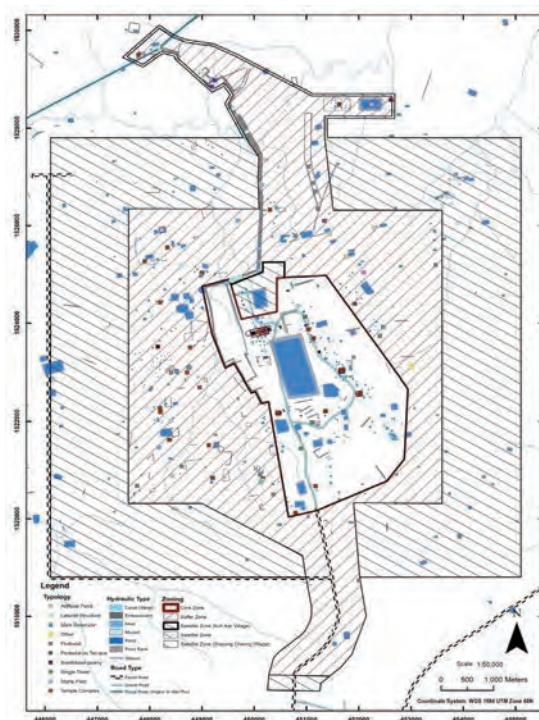
Kok Dei Chhnang Kiln Site, Koh Ker

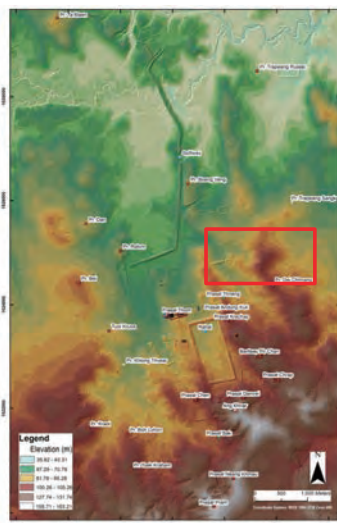
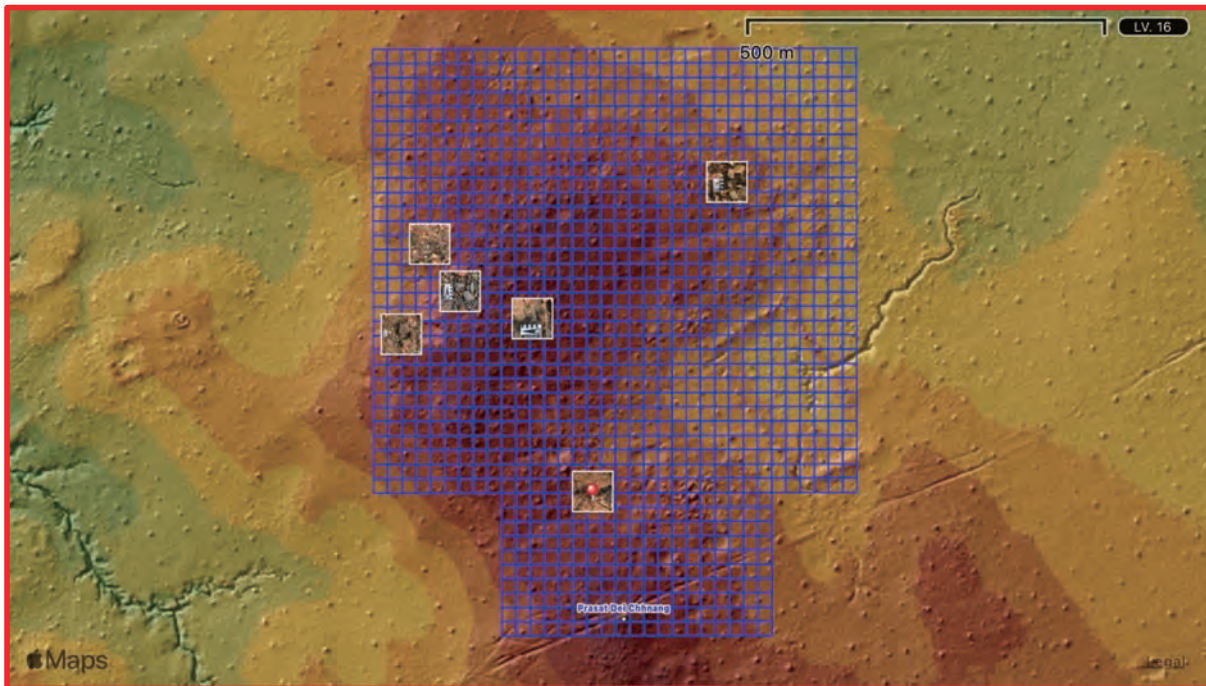
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Abstract

Koh Ker was one of the ancient capital cities of the Khmer empire which was established in the reign of King Jayavarman IV in the early 10th century. It is located in northern Cambodia about 120km away from the Angkor region. In Koh Ker, the site of the Kok Dei Chhnang kiln is located about 2km northeast of the main temple Prasat Thom. At the site there are many fragments of potsherds and rooftiles remaining on the surface. Since early 2018, archaeological staff of National Authority for Preah Vihear (NAPV) started to survey, through on-surface collection, to identify a possible kiln location in Koh Ker site. A few Chinese ceramics and many Khmer ceramics were found, and of significance, a few fragments of kiln wall with glaze were also found on the field. Notably, most Khmer ceramics found were fragments of rooftiles. A comparison between the rooftiles found at Kok Dei Chhnang and the rooftiles from the Angkor region has been studied by a Cambodian ceramics expert to understand

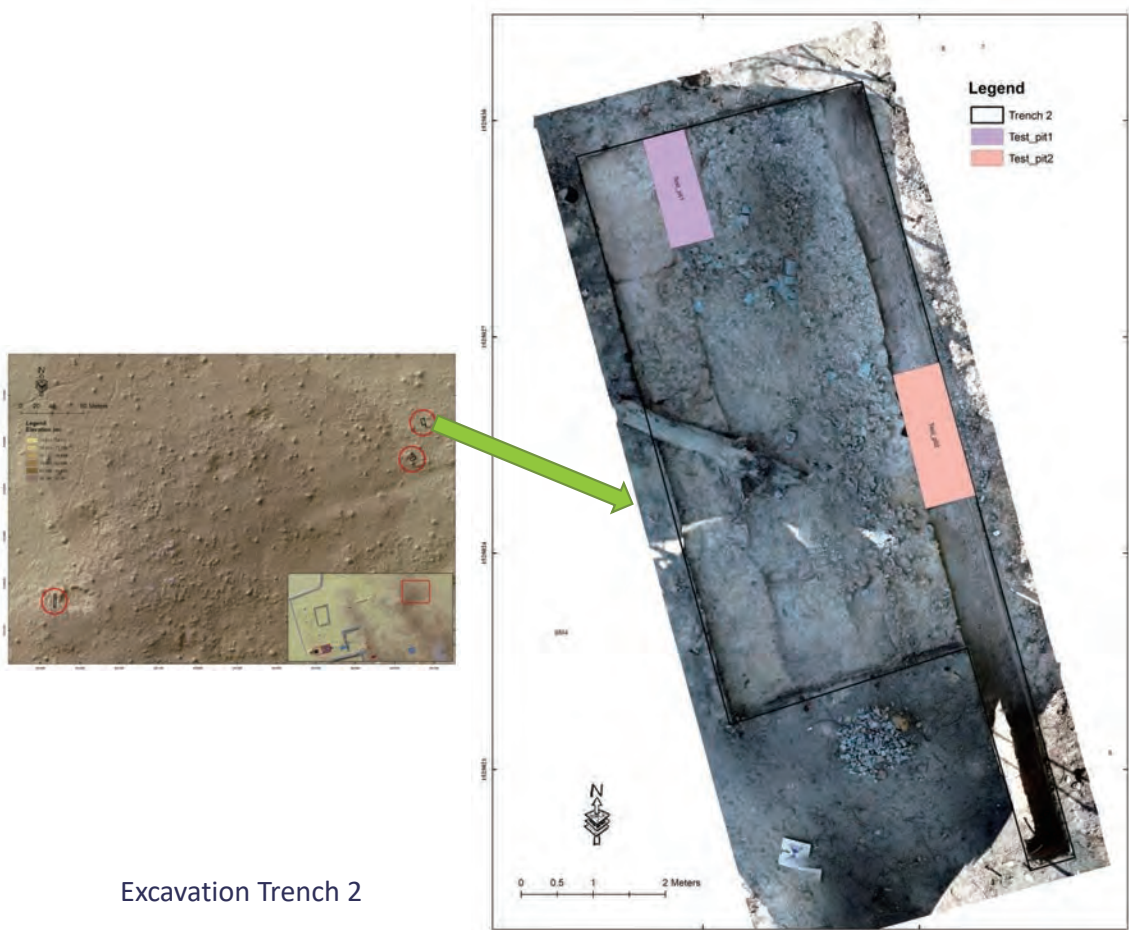




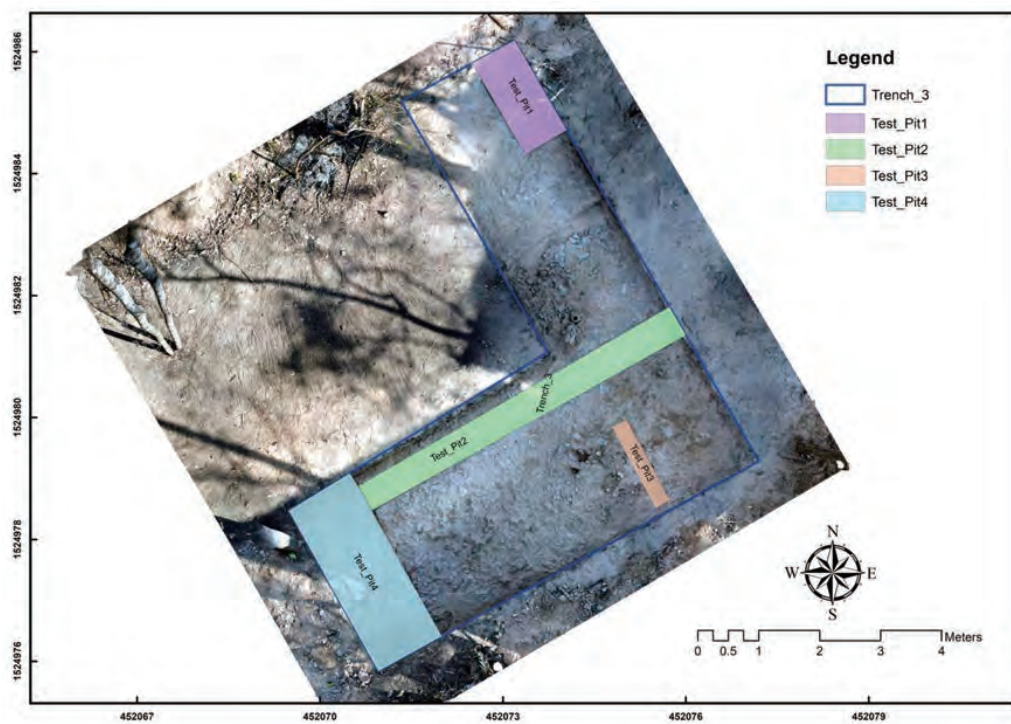
the features, shapes and the mixture of production. According to the analysis, we understand that the rooftiles from Kok Dei Chhnang are bigger in shape than the rooftiles from the Angkor region. Therefore, we suggest that Kok Dei Chhnang may have been a kiln site to produce ceramics in the 10th century when Koh Ker was the capital city of the Angkorian Empire.

Until now, kiln sites in Koh Ker have not yet been studied and researched. Therefore, in March 2019, archaeological staff of NAPV excavated three trenches at Kok Dei Chhnang for a short period to determine the kiln's structure, with funding from the government of Cambodia. The results of the excavation are valuable to research; although we did not find the kiln's structure, we found many peices of kiln wall, both glazed and unglazed and some fired rooftiles which remained on the ground at Kok Dei Chhnang. We further researched using Ground Penetrate Radar (GPR) supported by a team from the University of British Columbia to find the structure of the kiln surrounding the trenches. According to the results of the GPR survey, we can identify several possible kiln locations. In future research, we will collaborate with the Japanese team of the Institute for Cultural Heritage, Waseda University, to further develop our research into kilns at Kok Dei Chhnang site.

This presentation will demonstrate our findings during the excavation at Kok Dei Chhnang to explore an ancient kiln structure used in 10th century in Koh Ker site.



Excavation Trench 2



Excavation Trench 3

The Present State of Conservation of Phimai Cultural Route

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He graduated Bachelor in Architecture from the Faculty of Architecture, Chulalongkorn University, Thailand; Certificat d'Études Approfondies en Architecture (CEAA) "Architecture et Archéologie" from Écoles d'Architecture de Strasbourg, Nancy, Paris-Bellville and the Diplome d'Études Approfondies (DEA) de langues, histoires & civilization des mondes anciens, Université Lumière-Lyon-II, France; and PhD Philosophy Programme in Architecture from Chulalongkorn University, Thailand. He was specifically trained in conservation at the Summer Training Programme at Delos archaeological site, Greece, organized by École française d'Athènes, and the Training Course in Cultural Asset Preservation & Restoration Technology, University of Shiga Prefecture, Japan.

His works include conservation and restoration of several monuments in Thailand, especially sandstone monuments and Buddhist temples e.g. Prasat Sdok Kok Thom, Prasat Phimai, and one of his works, the restoration of Wat Thepthidaram in Bangkok has won the 2011 UNESCO Asia-Pacific Conservation Award. Apart from working at the Fine Arts Department, he has been also the Secretary General of ICOMOS Thailand, and has taken part in the drafting of Thailand Charter on Cultural Heritage Management, the most recent charter prepared by ICOMOS Thailand.

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Thailand had proposed "Phimai, its cultural route and the associated temples of Phanomroong and Muangtam" to the World Heritage Tentative List since 2004. According to the description in the document, Phimai is the important ancient town which linked to Angkor of the Khmer Empire with its ancient road. In addition to Prasat Phimai, the main sanctuary situated at center of Phimai town, there are also two more related large temples, namely Phanomroong and Muangtam, as well as several small buildings, such as arogayasalas, the hospital chapels, and dharmasalas, the travelers' rest houses, along the route built in the reign of King Jayavarman VII in accordance with the inscriptions made during his reign.

Later, during the preparation of the Nomination Dossier, we have realized that the proposed serial cultural property is part of the transboundary ancient route from Phimai to Angkor called "Royal Road". In the area adjacent to the Thai-Cambodian border, there is also an important group of monuments, including Prasat Ta Muean Thom, Prasat Ta Muean Tot, an arogayasala and Prasat Ta Muean, a dharmasala which is the last travelers' rest house in the mountainous area of Phnom Dangrek before descending to the lower Khmer plains. These temples are also the components of the series which should be nominated to the World Heritage list. Furthermore, along this ancient route, there are several archaeological sites, prehistoric and historic ancient towns prior to the Angkorian period, as well as ancient industrial sites that are situated on this ancient route, e.g. iron smelting and pottery kiln sites. Therefore, the property description was revised accordingly, as follows:

"The Cultural Route to Phimai from Angkor had existed at least from late 11th Century at the time of initiating the development of Phimai Angkorian town planning with the orientation faced to Angkor. It was a part of the Angkorian road network, one of the five important routes from Angkor. Phimai was one the most important destination because, from circa 12th century, the royal family from this area became the Kings of Angkor in the pinnacle time until the end of Angkor period.

The property comprises : Mueang Phimai (Phimai town),

an ancient town where evidence of prehistoric burial site also exists along with monuments, infrastructure, reservoirs and hospital chapel that indicate the significance of the town in Angkor period, most important of which is Prasat Phimai, a Mahayana Buddhist temple which is the biggest monument of its category in Thailand; a cultural route that is a testimony of relationship between Phimai and Angkor, the centre of the kingdom, this route passes several ancient communities, iron smelting, salt production and pottery kiln sites, 2 large religious monuments, Phnom Rung and Mueang Tam, and dharmasalas (travellers rest houses) built along the route which are accurately in accordance with the Prasat Preah Khan inscription, 9 rest houses in the Thai territory built by order of the King Jayavarman VII as part of his merit-making according to his wish for enlightenment.

The nomination will, therefore, be a serial nomination including relevant evidences, from Phimai to Prasat Ta Muean, the last rest house before the route proceeds into the territory of Cambodia.”

From the beginning of the route at Phimai town in Thailand, Prasat Phimai is the most important component. Prasat Phimai is a Khmer temple, situated at center of Phimai town in Nakhon Ratchasima province, Northeast Thailand. It is considered the most important and the largest Khmer temple in the country. The place was built circa 1108 CE. An inscription on south gateway of the gallery mentions the making of Trailokayavijaya Image to be the Lord of “Vimaya”, which is interpreted as the Buddha image enshrined in the main sanctuary. The name of the image had become the name of the town “Vimayapura”, which was the origin of the name “Phimai” today. Orientation of Prasat Phimai faces south direction, different from other temples, because the south is the direction towards Angkor. The town was accessible by a road that ran through Pratu Chai (Victory Gate), the main gate of the town. Phimai, therefore, was the termination of the route “Royal Road” that connected Angkor and Phimai in ancient times. The town plan is a clear evidence on Khmer influence, that is, rectangular walled town, 565 x 1,030 metres, surrounded by a ring of moat. Town walls were built of packed earth, the southern part of which still remains. There were 4 gateways built of stones, 3 of which exist in perceptible condition whereas the east gateway remains only the base.

Prasat Phimai comprises outer walls with 4 gateways, or gopuras, the causeway, inner galleries with 4 inner gopuras, 2 libraries, and the main sanctuary. The most important structure, the main sanctuary, is built of white sandstone, facing south. The tower is 28 metres high, square-based, 22 x 22 metres, with 3 porches and a 8 x 15 metres antechamber to the south. The structure is elaborately decorated with carvings, depicting Bodhisattva of Mahayana Buddhist beliefs, and the story of Ramayana. Archaeological evidence discovered in the temple area indicate that the site was used as dwelling site in prehistoric period. In Khmer period, the area was a religious site, with the earliest buildings built of

brick, which later were replaced with the stone edifices that have lasted until the present day. The architecture of the main tower, with galleries and gopuras situated in the four main directions, evidently presents the transitional period of Baphuon and Angkor Wat styles, that is, the main tower is attached with a mandapa, long room in the front as seen in the former style of architecture, for instance, the Preah Vihear Temple, whereas the form and proportion of the tiered tower has changed from Baphuon style, distinguished by decorations of miniature towers or upright Naga heads, to the Naga heads which slant towards the centre, resulting in visually smooth curve of the tower that is not seen as separated tiers as in the earlier styles. This style has become one of the most outstanding features of Angkor Wat as seen today. As for the gopuras and Naga bridge, the style is also the same as that of Angkor Wat.

Prasat Pimai



Prasat Pimai

Later, in the reign of King Jayavaraman VII, 2 important buildings were built namely, Prang Hin Daeng and Prang Phrommathat, situated to the left and right front of the main tower. Prang Phrommathat is the place which houses the statue of King Jayavarman VII, therefore, a complete Buddhist Trinity was created, comprising the Buddha image enshrined in the main tower, the Avalokitesvara Bodhisattva, represented by the image of the King, in Prang Phrommathat, and the Prajnaparamita Bodhisattva, believed to have been enshrined in Prang Hin Daeng.

Although the existence of the route is clearly verifiable by the Preah Khan Inscription made in the period of King Jayavarman VII, the exact delineation of the route is unclear, however, it can be hypothesized from the locations of the dharmasalas, or “vahnī grhani” (house with fire) as they are called in the inscription. From the inscription, the King had 121 houses with fire built along the roads that extended from Angkor, the capital, to important towns in the kingdom, 17 of which were built along the Angkor – Phimai road, and 9 of these 17 dharmasalas are in Thailand. The architectural features of a dharmasala is typically rectangular planned, laid on east-west axis, with entrance to the east. The long side southern wall is installed with openings whereas the northern wall is solid. The west end is tower-roofed, believed to have been the place where Buddha image was enshrined. These distinguished features have enabled the identification of dharmasalas even those which are in ruinous state. Consequently, all 9 dharmasalas have been discovered by survey, namely, Ku Sila, Prasat Huai Khaen, Prasat Samrong Kao, Prasat Thep Sathit (Nong Ta Pleng), Prasat Nong Plong, Prasat Khok Prasat (Nong Kong), Prasat Ban Bu, Prasat Thamo and Prasat Ta Muean. The locations of these dharmasalas have led to a hypothesized delineation of the Angkor – Phimai route, as seen in the following map:

The route, as seen from the map, passes several important cultural heritage sites, the most evident of which are religious

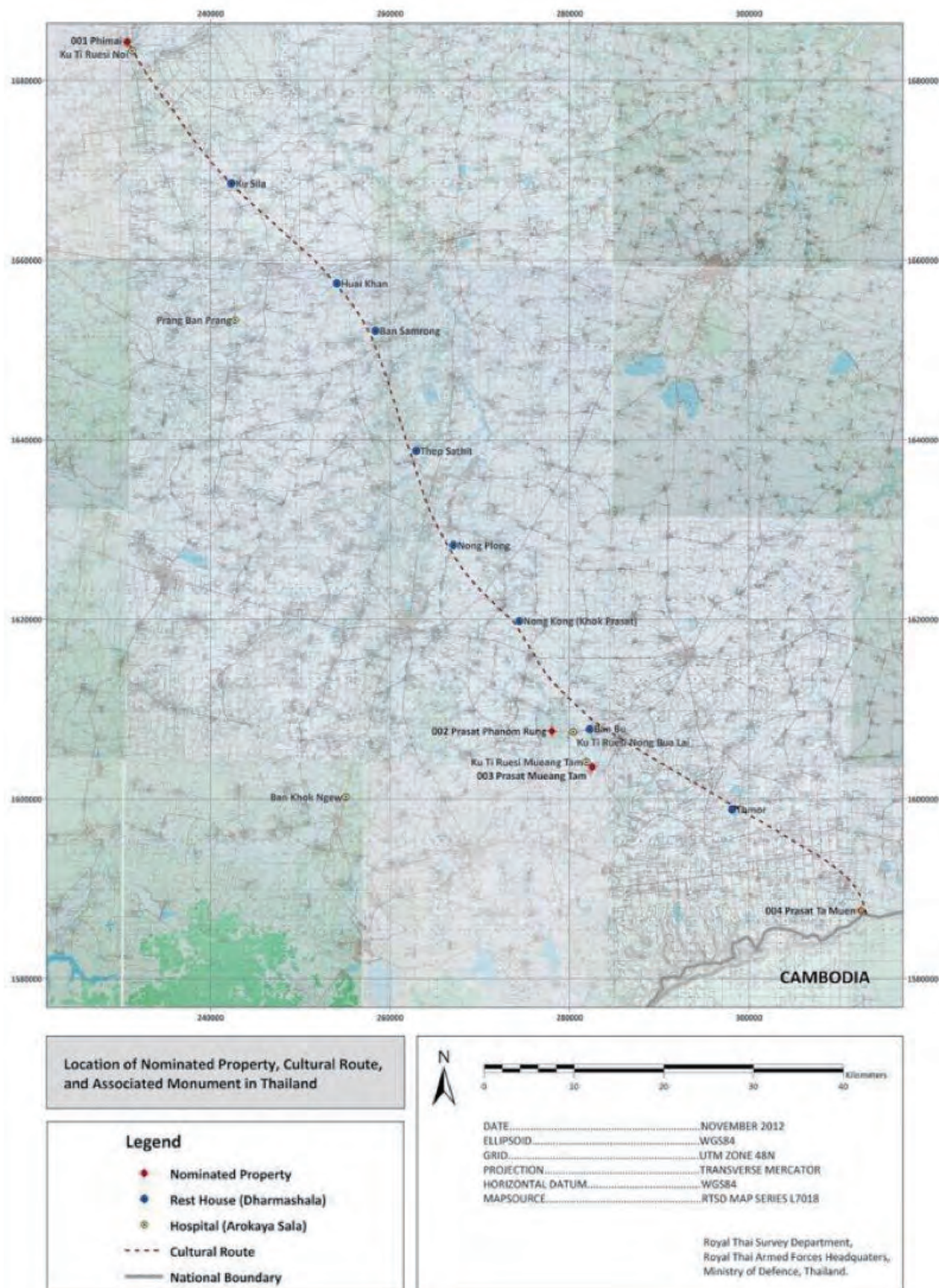
sites which are built of stones, brick, or laterite, which are different from dwellings in the past which were built of wood or perishable materials, of which no evidences remained. It is found that there are 2 groups of religious places situated along the route, firstly, the Prasat Ta Muean group, located at the edge of Dangrek mountain range which serves as the border between Thailand and Cambodia on lower plain. The group comprises Prasat Ta Muean Thom, a large Hindu sanctuary built to enshrine a natural Shiva Lingam. The temple architecture is with mandapa to the front, the same as that of Prasat Phimai, but belongs to earlier date. The main tower is surrounded with a gallery and Gopuras at four main directions. Not far from the temple is Prasat Ta Muean, a dharmasala and Prasat Ta Muean Tot, an aroyasala.

Prasat Ta Muean group

The second group is the Phnom Rung, Mueang Tam, and Plai Bat group of sanctuaries. These

religious sites are situated in the area of an extinct volcano. The outstanding characteristics of this group are not only the sacredness of the mountain where rituals were held in the past, but also the significance of the area that has been inhabited by large community, verified by evidence of water management system, with enormous reservoirs that are capable to serve the population as large as that of Phimai town. This community has Prasat Mueang Tam, a large sanctuary, as its local temple. All 3 religious sites have contemporary structures, however, the remaining structures at Prasat Mueang Tam and Prasat Plai Bat 2, of which the main towers are built of brick, are dated to the oldest period, which belong to the Khleang-Baphoun style. Outstanding elements of Prasat Mueang Tam are galleries, gopuras, 4 Naga-bordered ponds, and boundary walls built of sandstone and laterite. As for Prasat Phnom Rung, the original features were replaced and added by the Angkor Wat style edifices, which have made the place beautifully complete, with landscape designed to





integrate the natural features of the site to enhance the overall sacred atmosphere, especially the access to the temple via stone pathway, flanked with stone posts. From the Naga bridge at the end of the pathway, there is a path which branches to a natural pond, originally a volcano crater, whereas the main path leads to the monumental stairs, the main entrance to the temple complex on top of the mountain. The main complex is surrounded by gopuras and galleries, built mainly of pink sandstone. The durability and fine quality of material have resulted in the well-preserved carvings with

beautiful and elaborate designs, which appear in complete form after conservation by anastylosis method. The anastylosis conservation of Phnom Rung was the 2nd anastylosis project in Thailand after the conservation of Prasat Phimai.

Along the route, not far from locations of the dharmasalas, between Phimai town and Prasat Phnom Rung, there are ancient towns surrounded by moats and levees in round shape, which are dated to bronze and iron age, prehistoric period. These towns are namely, Mueang Phlapphla, Ban Samrong, Mueang Phathairin, and Mueang Fai. Evidences of Dvaravati and pre-Angkorian periods have been discovered in these towns, as well as an unexcavated mound, believed to have been a large brick structure of Dvaravati period. Apart from dharmasalas, the area nearby these towns are located with hospitals built in King Jayavarman VII period, which are called aroayasalas. There are 4 aroayasalas, namely, Kut Ruesi, situated in front of Phimai town; Prang Ban Prang, in Amphoe Huai Thalaeng; Kut Ruesi Nong Bua Rai at base of Phnom Rung mountain; and Kut Ruesi Khok Mueang near Prasat Mueang Tam.

Further south from Mueang Tam, an ancient community existed, marked by Prasat Thong, a local temple. This area is centre of ancient industrial area verified by pottery kiln sites, iron smelting sites, and stone quarry. Furthermore, in terms of natural resources, Phimai is the source of rock salt from ancient times and salt production in Phimai has continued until the present day, therefore, the Angkor – Phimai cultural route, which was the main route of salt transportation, must have been very important in this respect.

Cultural heritage sites which are situated along the Phimai cultural route have different states of conservation, from those which have undergone survey and archaeological study, restored, have well-established management and protection systems, to those which have not undergone archaeological excavation, the non-registered sites, or registered sites without demarcation and announcement of registration area. The sites which are systematically managed are 2 historical parks, namely, Phimai Historical Park, which covers the area inside the old Phimai town, comprising Prasat Phimai, 4 gateways, town walls and moats, ponds, baray, and other monuments in the area, e.g. Men Phrommathat, Kut Ruesi Phimai, Tha Nang Sa Phom (ancient pier). The other historical park is Phnom Rung Historical Park, which comprises the Phnom Rung complex, Prasat Mueang Tam, and 2 monuments on Plai Bat mountain, as well as 2 aroayasalas in the area and Prasat Ban Bu, a dharmasala. Other sites are managed under the Fine Arts Department 10th Regional Office, Nakhon Ratchasima, which is responsible for the southern part of northeast Thailand. Most of the monuments and cultural heritage sites in care of the FAD 10th Regional Office are restored, including the ancient kiln sites which have been restored and founded as site museums. Nevertheless, there still remain some important elements which have not undergone archaeological



Prasat Ta Muean group



Prasat Phnom Rung



Prasat Mueang Tam

excavation including several dharmasalas, iron smelting sites, and ancient towns previously mentioned.

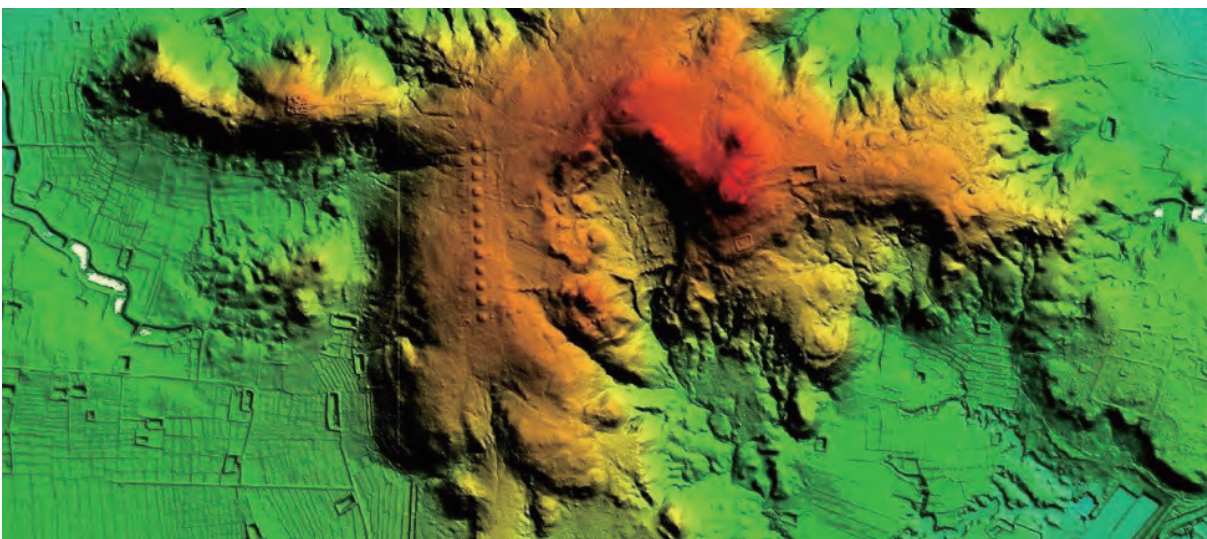
The application of LiDar to the survey of Phnom Rung and Plai Bat mountains has rendered interesting results. Apart from the existing monuments, which have undergone restoration in some parts, the LiDar aerial photographs reveal 12 bases of building, situated in a row which is an unprecedented feature found in Thailand. Furthermore, there are traces of modification of the crater to serve as part of water management system, a testimony of ancient wisdom. These new evidences require further studies in order to learn and verify the values of these newly discovered elements and the overall water management system that connected Prasat Phnom Rung, Prasat Plai Bat and Prasat Mueang Tam in the same network. Recently, an excavation was carried out at the stone wall which functioned to direct water into the Thale Mueang Tam reservoir.

LiDar image of Plai Bat mountain

As for the components which have undergone restoration in recent time, the first of which is Prasat Ban Bu, one of the dharmasalas in Phimai cultural route. Before restoration, there remained only the walls of the building, however, the experimental reassembling of fallen stones resulted in a complete form of the top part of the tower roof. The Fine Arts Department, therefore, decided to reconstruct part of the roof to support the top part as mentioned so that the building would be completed and served interpretational purpose. Nevertheless, there are still arguments on the necessity to restore the roof in complete form, which required large amount of new material. Moreover, there were certain mistakes in the restoration that resulted in the extra 2 layers of stone on the roof which must be corrected.

The second case is the restoration of Prasat Plai Bat 1, one of 2 structures located on Plai Bat mountain. This structure to the east of the mountain is built of mixed materials of sandstone, brick, and laterite. The main tower is built at

LiDar image of Plai Bat mountain



centre of a platform, with entrance to the east. In front of the platform is a long rectangular hall, with entrance to the south. Both buildings have been restored. As for Prasat Plai Bat 2, situated to the west of the mountain, the main tower is built of brick, existing in severely deteriorated condition resulted from illegal digging for antiques. Some of the smuggled archaeological objects from the site are bronze images of Bodhisattva which were detected to have been transferred from Buriram province and have been exhibited in several museums in United States. The area is surrounded by walls built of laterite and volcanic stone from the mountain. Prasat Plai Bat 2 is undergoing archaeological excavation, and, at present, restoration has not been planned for the site.

As for the restoration project at Prasat Plai Bat 1, the excavation prior to restoration revealed that, on the same platform, there are remains of 2 structures situated on each side of the main tower, which was originally thought to be the only structure on the platform. The 2 other structures, however, were made of brick and had completely collapsed until no parts of the walls remained. During experimental reassembling of the tower, parts of the pediments and lintels were discovered, which are comparable to those of the Prang Noi sanctuary on Phnom Rung mountain, therefore, the structure can be dated to Baphuon period. Parts of the finial were also discovered, however, these fragments are not sufficient for hypothesizing a complete form of the finial for reconstruction, therefore, the restoration design was made to restore the building only up to the pediment part. Traces of cutting on stone blocks which were made to fit with the bricks indicate the mixed use of materials, which is a unique construction technique applied in the past and has been used in the restoration as well. The long period of time between excavation and restoration had led to the decision to transfer the lintels which are complete with carvings to be preserved at Phimai National Museum, however, when the restoration work was actually undertaken, the lintels were not allowed to be returned for reassembling in their original locations. Moreover, even the replication of those lintels was not permitted, therefore, new sandstone blocks had to be installed to replace the missing elements.

Another case of conservation is the Pratu Chai (Victory Gate), Phimai town. This is an interesting case on conservation decision-making, which was challenged by the limitation of materials, that is, ancient structures in Phimai were built mainly of 3 kinds of stone, firstly, the white sandstone, which is the most durable type of stone used for building the entire main tower and parts of other buildings which required exceptional durability e.g. lintels, pediments, columns of gopuras, and door and window frames. As for walls and other parts of buildings, red sandstone, the second type of materials, was used, which is of lower quality in terms of durability. It should be noted that red sandstone obtained from the quarry near Phimai is mud stone, which is even less durable than general red sandstone. The third



The Lintel found during the excavation
Prasat Plai Bat 1



Prasat Plai Bat 1

type of materials is laterite, used in foundations, building bases, or buildings of later period, that is, the period of King Jayavarman VII. The difference in material qualities and uses posed a limitation to anastylosis restoration at Phimai, which was the first time that the technique was applied in Thailand (1964 – 1969), to be applicable only to the main tower, the white sandstone edifice. Since that time, several techniques have been experimented in order to find the best means for restoration of the buildings built of mud stone, for instance, the dismantling the original materials and consolidating the structure before reassembling the materials to the original locations by anastylosis method, however, such procedure resulted in failure to reassemble the original materials because the red sandstone blocks deteriorated or crumbled as soon as they were removed. Such problem was, at one time, solved by cutting red sandstone slabs to cover the deteriorated parts, as seen in earlier restoration of Pratu Chai, however, the plastering material, which was Portland cement, was another material which causes problems in conservation.

The initial problem-solving scheme for structural consolidation of Pratu Chai, which was at risks of collapse seen from the slanting of side walls of the gateway, as well as the correction of the past restoration that was made only on the surface as mentioned, including the removal of Portland cement, was decided to proceed by dismantling all elements of Pratu Chai and the laterite walls on both sides of the gateway, making a reinforced concrete foundation to solve the settlement problem, and reassembling the stones to their original locations. Nevertheless, the mentioned procedure may lead to unnecessary loss of authenticity, therefore, I revised the restoration design by, firstly, identifying the parts which are a risks in terms of durability and the necessity in dismantling, which was concluded that the laterite walls are at risks of breaking if dismantled, whereas the examination by expert engineers resulted that the settlements of these walls are not affecting the overall strength of the structure, the joints between blocks of stone are still well-attached, therefore, the planned work on laterite walls will be cancelled, thus the authenticity of these parts are 100% preserved.

As for the gateway with attached chambers on both sides, the top parts of the walls are slanting, which must be disassembled to floor level. The floor and foundation are still



Pratu Chai before restoration



Pratu Chai after restoration

in good condition, no settlements presented, therefore, it is not necessary to rebuild new foundation or add consolidating structure thus the dismantling work of these parts and the making of reinforced concrete structure are cancelled. The only work required is the adjustment of the settled blocks of floor paving stone by removing the blocks and refilling the base with packed soil as the ancient technique. These are working procedures which considerably differ from those of the former times that used hidden reinforced concrete structures for consolidation as applied to the restoration of Prasat Phimai, Phnom Rung and Mueang Tam.

Nevertheless, Pratu Chai has recently suffered flooding and accumulated water resulting from the failure of water drainage system caused by encroachment of town moat, therefore, the ground area of Pratu Chai will be consolidated by making cement columns as supportive underground structures outside the town walls. Changes in working procedures as mentioned have helped preserve the authenticity of the cultural heritage site, even though some new stone blocks have to be added to support the structure at parts which are damaged by dismantling or the original parts which are severely deteriorated.

Pratu Chai after restoration

Prang Hin Daeng is a similar case which is under consideration. The building is situated in front of the main tower. Condition of materials is in such severe state that dismantling is not possible. As mentioned, this structure was built in contemporary period with Prang Phrommathat. These 2 structures, by its size, style, and planning, can be seen as twin buildings apart from differences in colours and materials, which have resulted in their different state of conservation. From structural analysis, however, the Prang Hin Daeng, which suffers the loosening and falling of building stone blocks, is facing the problem of material deterioration, not structural settlements. The structure has been supported by props and reinforced concrete framework since former times, therefore, only the parts which require material replacement or repair will be treated, along with the conservation project carried out at Prang Phrommathat.

Simultaneously, the most recent work is the management of fallen stones left from the first restoration of Prasat Phimai. These stones have long been piled up at the rear of the monument, and, after rearranging, recording information of each block, and categorizing the blocks, it has been found that there are a large number of stones which give valuable information on the architectural features of Prasat Phimai. Furthermore, it is possible to replace some of the restored parts with original stones, for instance, the roof, gopuras, and galleries. Initially, the stones have been arranged by category so that visitors can come and study the elements of the monument. This project will be proceeded and the reconstruction drawings are expected to be made and complete in the near future.



The laterite town wall of Phimai

It is regrettable that, at present, the conflicts on Thai-Cambodian border which has continued from Preah Vihear case has affected the conservation of Prasat Ta Muean Thom, the last temple on Angkor – Phimai cultural route in Thailand, that has suspended for over 20 years, as well as hindering the plan on the preparation of nomination dossier for World Heritage nomination of Phimai cultural route. Such international political problem, as well as the conflicts in the area of Phimai town between the Fine Arts Department and local people who would lose their interests in ownership of lands, which are parts of the National Monument based on the demarcation of monument registration area of Phimai town that covers the entire ancient town and the large baray situated in front of the town, have led the Fine Arts Department to change their decision on World Heritage nomination from Phimai Cultural Route, which had been included in the Tentative List, to Ensemble of Phnom Rung, Muang Tam and Plai Bat Sanctuaries, which are only one part of the entire cultural route. Nevertheless, it is hoped that when the conflicts with local people of Phimai is settled, Phimai town and other related sites will be integrated into the serial cultural heritage sites which reflect the complete cultural values of the route. Furthermore, it is fervently hoped that, when international political problems are solved, Thailand and Cambodia will jointly nominate Angkor – Phimai cultural route as a transnational serial cultural heritage site to be inscribed in the World Heritage List so that the values of this cultural series and the friendship between these 2 countries will be known and strengthened on international circle.

Survival of Religious Heritage in Bangkok

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Abstract

Bangkok is a diverse and living city with a complex heritage structured around its religious pasts. As with other urban centres in South-east Asia, the city's religious heritage; tangible and intangible forms, is undergoing a series of changes in meaning, form and function by pressures of globalisation.

This research investigates the changing dynamics of religious heritage in Bangkok - particularly Buddhist heritage which is a mixture of sub-religions – in view of the various stakeholders engaged with its valorisation, protection and management through using a variety of methods. Interviews were carried out with policy-makers, site managers and leaders of the local communities. Observational research was undertaken at a selection of Royal Monasteries, Civic Monasteries and shrines in the city. Along with document analysis to map the changing uses; religious and profane activities, standards of conservation and adaptation and community engagement of those religious heritage sites.

The research outcomes highlight the important role that social hierarchies play in the management of religious heritage in Bangkok and also selectivity that some sites are promoted and protected relate to patronage and tourism. The work opens up wider discussions about shifting relationships between the sites and local communities.

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She has been professional archaeologist at Office of Archaeology, Fine Arts Department, Ministry of Culture, Thailand since 2004. She has experiences for archaeological research and conservation of ancient monument. She joined numbers of co-international research project such as excavations of Ban Non Wat archaeological site with New Zealand and Australia between 2004 - 2011. She published various academic works, for examples, the Old Community on the Chao Phraya River, the World Cultural Heritage in Thailand, the Large Boundary Mark of Buddhist Monastery (Maha Sema) in Rattanakosin period. She had been the secretary team of Thailand World Cultural Heritage Committee from 2009 to 2014. Currently, she specialises in urban heritage and World Cultural Heritage in Thailand. Her research areas relate to urban archaeology, cultural heritage management, religious heritage and Cultural World Heritage.

1. Introduction: aspects of religious heritage in the global context

The general definition of cultural heritage is as an inheritance that is worth preserving and passing down from previous generations to future generations. A common cultural heritage appears in diverse forms both tangible and intangible (Skeates 2004; Harrison 2010). Religion is a tool for the conduct of socio-cultural idealism and relates to ways of life (Byrne 2001). Religious objects, places and practices have been created to fulfil this need (Howard 2003). According to these board definitions, religious heritage is as a sub-set of cultural heritage that refers to things and places where both spirit and culture meet but has its specific meanings, forms and functions that differ from other types of cultural heritage.



Wat Pho, the First Class Royal Monastery and Reigning Monastery of King Rama I. Epigraphic Archives of Wat Pho are inscribed as UNESCO's Memory of the World.

Religious heritage encompasses tangible and intangible forms – sites and objects that are used for some spiritual and sacred functions including religious worship, practices, rituals, ceremonies, myths and festivals (Akagawa and Smith 2009).

Religious heritage is the largest category of heritage globally and represents the significant cultural diversity of different communities. States have the rights to protect and promote cultural diversity for the benefit of everyone at both domestic and international levels in their territories (UNESCO 2012; UNESCO World Heritage Centre 2018). Globalisation creates a challenging environment for religious heritage in an urban context that rapidly reflects wider social and economic changes and is subject to intense development pressures and tourism. In many cities, religious heritage sites and practices become an important cultural resource associated with their historical and aesthetic values and are used to cross over between religious and secular purposes for parallel audiences of local religious communities and tourists (Graham, Ashworth and Tunbridge 2007; Stausberg 2011). Nonetheless, changes in the use of living religious heritage under urbanism directly impact on relationships between local communities and their religious heritage resulting in a re-generation of belonging and sense of ownership which is contested between the state authorities and local people with questions raised as to what is to be preserved by whom and for whom (Koonce 2000, Smith 2007; Bandarin and Oers 2012). Following various points of crisis in a desire to respect cultural diversity of any culture as cultural heritage, UNESCO has launched the “Initiative on Heritage of Religious Interest” as a framework for protection of religious heritage that aims to protect the spirit of sacred places and contributes this to communities as public heritage in the face of globalisation (UNESCO World Heritage Centre 2018).

2. Research Focus and Approach

This paper deals with a selection of key religious heritage sites across the city of Bangkok and to investigate how these are used and managed within the urban context by different groups of stakeholders and shifting relationships between the sites and local communities. It focuses on the depth and diversity of Buddhist heritage and seeks to draw out the differences between three categories of sites; Royal Monastery, Civic Monastery and shrine. Through a combination of archival and observational research and interviews with the key stakeholders; policy-makers, religious site managers and leaders of the local communities, I have sought to examine the ways and priorities that religious heritage in Bangkok is being valorised, conserved and promoted by which group of stakeholders. This research is based on my PhD thesis titled “Religious Heritage of Bangkok: uses and survival in urban context” submitted to Ironbridge International Institute for Cultural Heritage, University of Birmingham, United Kingdom (Bongsasilp 2019).

3. Diversity and Changing Dynamic of Buddhist Heritage in Bangkok

Bangkok is a mega, diverse and living city with a complex heritage structured around its religious pasts. The majority of the population – over 90% - are Buddhists (National Statistical Office 2014). Thus, the majority of heritage sites in the city - over 250 sites - are categorised as living Buddhist monasteries (Fine Arts Department 2016). As with other rapidly developing and dynamic urban centres in South-east Asia, the heritage fabric of the city is being used both for religious practices and also as tourist attractions for both domestic and international visitors. Although Buddhism is the major religion of Thailand, the “Thai Buddhism” or “Thai Religion” is a combination of Theravada Buddhism, Brahmanism and animism that has a similarity with the other Buddhist countries in South-east Asia (Keyes 2005). Each Buddhist monastery in Bangkok is an embodiment of a mixture of those three religious beliefs.

As part of my fieldwork, I examine nine religious heritage sites across the city that are divided into three categories including Royal Monastery, Civic Monastery and shrine. There have three case study sites in each category. The case study sites of Royal Monastery are Wat Pho, Wat Arun and Wat Kalaya. The Civic Monastery case study sites are Wat Phraya Siri, Wat Bang O and Wat Bang Prathun Nai. While the case study shrines are Erawan, Nak and Khwan-Riam Shrines. Each category reflects patterns of ownership, function, value and utilisation by the stakeholders that all are variously used for both religious and non-religious purposes which I will now discuss.

The Royal Monasteries

Royal Monastery has been constructed under the direction and patronage of the monarch forms an important religious site recognised nationally. All ancient Royal Monasteries in Bangkok are registered as the National Ancient Monument. The heritage fabric of the Royal Monasteries is usually evaluated as ‘high class’ Thai arts which were built by the royal artisans and numbers of them are recognised their values at the international level. All case study sites of this research are important Royal Monasteries located in the inner city centre within a designated historic town conservation zone where heritage fabric has been preserved for the beautification of the city and promoted for tourism. Some of the Royal Monasteries are popular tourist attractions and used as the very symbol of Thailand. These monasteries under the direction of an abbot have the highest ranking as a consequence of their authorities in the religious body and Thai society. There are hierarchies at work giving certain monasteries rank and privilege over others concerning resources for management and conservation.

The Civic Monasteries

Civic Monastery is built and supported by the ordinary people and communicates narratives that the community



Wat Arun is the First Class Royal Monastery and Reigning Monastery of King Rama II. The Principal Pagoda of Wat Arun is a significant symbol of Thailand. Wat Arun is part of the Royal Barge procession that Suwannahong Barge is awarded by World Ship Trust.



The huge Buddha statue is an important symbol of Wat Kalaya, a Royal Monastery, which is promoted for tourism as a sacred place on pilgrimage route and city sightseeing.



Wat Phraya Siri, a Civic Monastery



Erawan Shrine, a leading attraction and sacred place in Bangkok

engages with through religious activities. Generally, the heritage fabric of the Civic Monasteries reflects local and vernacular artistic and architectural styles. In terms of their administration all the Civic Monasteries are dominated by the Royal Monasteries. All case study sites in the category of Civic Monastery are located in west Bangkok outside the city's historic conservation zone and not within the main area of tourist attractions. This is not to say that such these Civic Monasteries do not have heritage value. Indeed, they are recognised as heritage by the authorities and local communities but are notionally lower in the hierarchy for both protection and touristic profile than the heritage fabric of the Royal Monasteries. Importantly however they still retain their religious core function for the local communities and have even adapted their physical heritage fabric and forms of religious activities to meet the needs of their changing busy sub-urban constituencies.

The Shrines

A shrine in this context is a spirit house of god, deity or ghost and can be located on a private property, public space or within a religious place. The sacredness and supernatural power of the spirits are believed to bring success for worshippers and in the context of a busy, highly competitive urban society they have grown in popularity. All shrines which are the case study sites located in east Bangkok outside the city's historic conservation zone. They are not denoted as either heritage sites or as religious places by the state authorities. Therefore, they are not subject to or protected by any cultural heritage legislation. Despite their lack of official protection, a number of these shrines have become popular tourist attractions. Some rituals are recreated as touristic activities. New meanings of these shrines also are created by demands and understandings of the worshippers. Donations and oblations from their worshippers are the main sources of financing for site management. These shrines also reveal their incomes and share benefits to the wider public in various forms of social welfare that reflect increasing numbers of their faith communities both domestic and international.

4. Discussion

In this paper, I discuss some of the findings from my research focusing on the diversity of the three selective categories of Buddhist heritage sites in Bangkok. Broadly speaking we can see a trend across all the sites about ways of valorisation, standards of conservation and levels of community engagement that are varied by hierarchies of the sites and involved people in the urban context of Bangkok.

In the hierarchy of Buddhist heritage, the Royal Monasteries are in a position to capitalise on their patronage, values and locations. They are well-conserved in the historic city and well-defined as a tourist area. There have high priorities of financing for maintenance and conservation of the sites from both the public and private sectors. Therefore, this has

increased the distance between the monasteries and their local communities such that the changes impact on shared benefits between them and the sites. The local communities are less important in the participation in the exercise of heritage management and protection that has been operated by the state authorities through a top-down process. Conservation of these Royal Monasteries is concentrated on the protection of authenticity of their religious heritage including original forms, materials and artistic skills. Therefore, there have been conflicts and tensions among stakeholders in the issues of heritage ownership and power in the exercise of religious heritage conservation.

The Civic Monasteries have more limitations regarding ranks of monastery and abbot to attract supporting infrastructure and location. Therefore, they have a different situation to any religious heritage sites in the city since they are both national heritage and tourist attraction. These Civic Monasteries have a less important and lower priority for financing from the public fund and private sector because their heritage values are evaluated at the local level. This reflects the policies on the conservation of religious heritage site that highlights the participation of the local communities and a bottom-up process. These Civic Monasteries are accepted adaptations of heritage fabric that suit the modern lifestyle and social activities of the city dweller.

In the urban context, these shrines have continued their role as a sacred place and are worshiped by the wider devotees, not only local people but also international visitors which makes its less straight-forward to classify the differentiation between pilgrims and tourists at the sites. There have been adaptations and re-creations of meanings and forms of religious practice to suit the reality of worshippers and for tourism promotion in a rapidly changing megacity such as Bangkok. As these shrines are private properties and not defined as a National Ancient Monument, they are managed by individuals and not related to any official conservation. Worshippers are as faith communities of the shrines in that their power reflects hierarchies of the sites and leads priorities of protection. The relationships between the sites and their faith communities relate to belief in the sacredness of the shrines and appropriated ways of site management. The popularity of these shrines had led to increasing numbers of donations which are the main source of financing for maintenance and conservation of the shrines.

Hierarchies of the religious heritage sites – between the majority religion and any minority religion - and involved people under urban pressures relate to ways and forms of heritage valorisation and conservation of the sites and relationships between the sites and their surrounding communities. The Royal Monasteries are the first priority for heritage protection and tourism promotion by the state authorities but create tensions among stakeholders and distant relationships between the sites and local communities. The Civic Monasteries are lower priority of heritage



Pagoda of Wat Bang O (top) and carve-gilded teakwood pavillion of Wat Bang Prathun Nai (below), the Civic Monastery case study sites



Nak Shrine is a well-known shrine for the local people.



protection by the public sector and need support from the local people that the sites still retain their core function as a community monastery. While the power of popularity of the shrines reflects a higher priority of protection by their faith communities and the private sector. These changes mean for the survival of the city's religious heritage under rapid changes in urban context. In addition, further research should be investigated in aspects of religious heritage in other categories and dynamics.



Khwan-Riam Shrine and its recreated activities at the vintage floating market

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Heritage Management in Vietnam – Current Situation (In the case of Archaeological Heritage)

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Archaeological Heritage in Vietnam

Vietnam is a multiethnic and languages country and considered as a small South-East Asia in Asia with 54 ethnic groups belonging to the 07 language groups: Viet – Muong; Tay – Thai; H'mong – Dzao; Mol – Khmer; Tang – Myanmar; Malayo - Polinesien and Han - Hoa. The diversity of nations leads to diversity of Vietnam traditional culture including many different styles and each one of every groups' style has its own special characteristics. With a long history, the Vietnam is a country with high reserves of heritage types. By the end of 2017, Vietnam has 26 cultural heritage inscribed by UNESCO, 3,447 national heritage; 95 special national heritage; 142 national treasures; 228 intangible cultural heritage inscribed to the list of national intangible cultural heritage. The system of museums has been expanded to 159 museums, including 125 public museums, 34 private museums, where there are over three millions documents and antique objects¹.

Vietnamese archaeology is a nascent scientific branch which came into being and experienced a slight initial development during the period of French Colonization before it was interrupted by the anti-French resistance. It has only been truly active since the 1960s. Since 1954, Vietnamese archaeology was influenced by Soviet archeology and has a common theoretical and ideological basis of dialectical materialism and historical materialism related to Marxist Engels philosophy along with the strong influence of the nationalist spirit in the interpretation of history and culture. The archaeological activities have been managed by the centralized state system in terms of both finances and policy. So far in Vietnam in the field of archaeology research and training, there is neither private sector nor contract archaeology. The division of archaeological culture still follows the traditional Three Ages Division.

But recently, it can see an increase in tendency of decentralization of scientific power and financial support; tendency to modernization of archaeological activities,

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She has conducted numerous excavations, particularly excavation at Bai Lang Port, Champa civilization (1999-2000), Go Dua site, Sa Huynh culture (2001), Thanh Den site, Dong Dau culture (2010, 2012), Vuon Chuoi site, Pre Dong Son cultures (2009, 2011, 2012, 2014, 2019)...

She has published a number of articles in English and French including: *Hoabinhian Culture in the Northern part of Central Vietnam* (co- authors with Trần Quốc Vượng) in *Journal of Southeast Asian Archaeology*, June 1997, *Japan Society for Southeast Asian Archaeology*, p.4-7; *Sahuynh Culture in Hoi An Special Issue Centre for South-East Asian Studies, University of Hull. Netherlands*, 1998; *Sa Huynh Regional and Inter – Regional Interactions in the Thu Bon Valley, Quang Nam Province, Central Vietnam*, BIPPA, Volume 29, p.68-75, 2009; *Central Vietnam during the Period from 500 BCE to CE 500, “Early Interactions between South and Southeast Asia: Reflections on Cross – Cultural Exchange”*, ISEAS Singapore Manohar Publishers & Distribution, India, p.3-15, 2011; *Nouvelles recherches sur la céramique du Champa*, Arts du Vietnam *Nouvelles Approches*, Collection, Collection « Art & Société », Jean-Yves Andrieux et Guillaume Glorieux (Eds), Presses Universitaires de Rennes, p.45-60, 2015.

1. Report on the work of culture, sports and tourism in 2017 by Ministry of Culture, Sports and Tourism in the document 14/BC-BVHTTDL dated 18 January 2018 to the Prime Minister.

the efforts to mobilize the socialization and community involvement in archaeological management, and the increasing of the international collaboration.

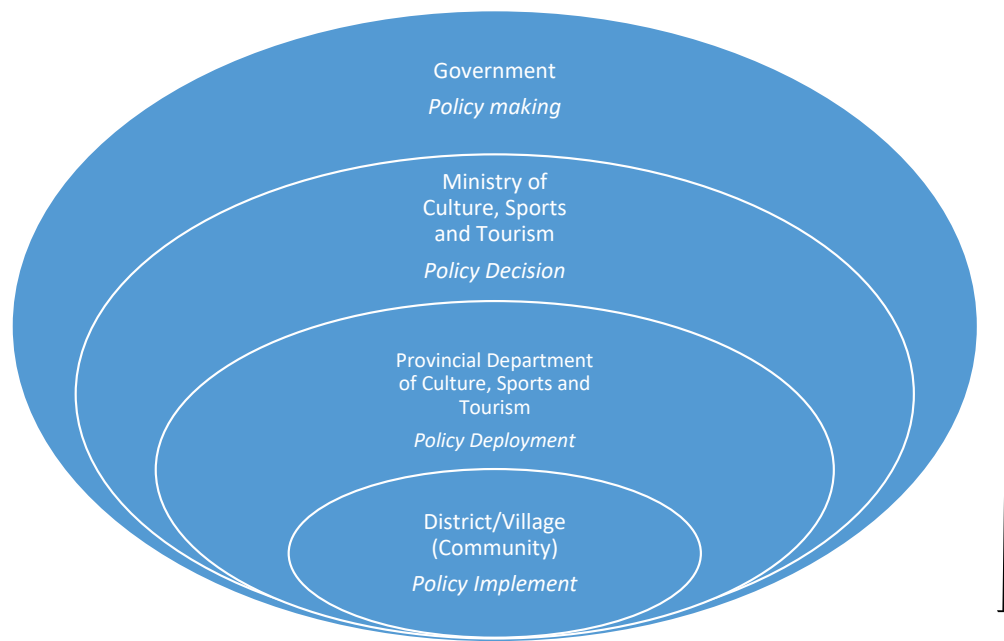
The earliest vestiges of human occupation in Vietnamese lands are considered the early Paleolithic vestiges of *homo erectus* in An Khe site, Gia Lai province, Southern Vietnam. The latest archaeological period is dating to Nguyen Dynasty (19 century). Archaeological sites in Vietnam are very diverse in nature including prehistoric, proto-historic and historical relics. It can be said that in Vietnam, from the mountains to the midlands and plains, from coastal areas to islands, there are many kinds of extremely precious archaeological relics everywhere.

The first relics of many cultures, such as: Hoa Binh, Bac Son, Ha Long, Bau Tro, Dong Son, Sa Huynh ... were researched by French and foreign scholars from the early years of XX century. Up to now, the archaeological activities took place widely in all regions of the country and with a variety of research fields of different periods and cultures. The study subjects can be divided according to the following periods and areas: prehistoric period, historical period, Champa - Oc Eo archaeology and underwater archaeology. These archaeological activities are mainly new findings of relics, artifacts, excavations, surveys, and a number of specialized archaeological projects. All findings and research results are announced at the Conference of New Archaeological Discoveries which is held in September every year and then published in the annually series "*New Discoveries of Vietnamese Archaeology*". Underwater archaeology is a new field of Vietnamese archeology, in the past year there have also been some remarkable research activities. In particular, the Maritime Archeology Research Cooperation Program (VMAP) from 2016 to date has conducted a series of research and survey activities in the sites of Quang Ninh, Hai Phong and Quang Ngai provinces.

Thanks to these studies, many archaeological cultures have been identified and open archaeological exhibition areas have been established. Archaeological results really contribute significantly to shaping and identifying Vietnamese history and culture.

Policy and Agendas

Cultural Governance: The policy of managing cultural heritage belongs to the state management of culture on the principle of democratic centralism. The state management of culture has a number of basic principles, which have been consistently presented in the policies issued so far. The first principle is that the management subject in charge of culture is the State and devolve from top to bottom: Central Level - Provincial Level (provinces and cities directly under the Central Government) - District Level (districts under provinces and districts of a city) - Commune level (communes of districts and wards of districts). The second principle, the objects performing the state management of culture are agencies,



organizations and individuals operating in cultural fields or related to cultural fields. The third principle, the purpose of state management of culture is to preserve and promote the traditional cultural values of Vietnam, to absorb the quintessence of traditional Vietnamese culture, imbued with national identity, and to contribute to raising the material and spiritual life of the people. The fourth principle, the legal basis of cultural management is the constitution, laws and legal documents². However, in cultural state management activities at each level, each locality and each activity, the purpose of state management of culture must be specifically determined in close to the requirements and local circumstances

In the diagram above, the authors schematized the top-down cultural policy and governance in Vietnam (figure 1).

The decree, policy and law: In 1945, right after the country gained independence from the French colony, in the difficult context of the country, President Ho Chi Minh signed Act 65/SL “Assigning tasks for the Institute of Oriental Studies (*Phương Đông Bác cổ học viện*)” to safeguard all the “antiques” in the entire territory of Vietnam. The concept “antique” is equivalent to the current concept of “cultural heritage”. The Act writes: “It is strictly prohibited to destroy temples, communal houses or other worship venues, palaces and tombs, stele’s, objects, conferment, documents and texts, books which bear religious characteristics or not, useful to the history but have not been safeguarded yet”³. Then decree No. 519/TTg (1957) was promulgated for protection and restoration of tangible cultural heritage (historic and cultural relics and revolution monuments).

The Law of Heritage was approved by the 10th National Assembly of Socialist Republic of Vietnam, 9th session in 09/26/2001, and took effect from 01/01/2002⁴. Specifically

Figure 1 The centralized top-down policy system of cultural heritage management in Vietnam (Made by Chu Lam Anh)

2. Vũ Đăng Minh, Nguyễn Thế Vĩnh (2016), *Kỹ năng nghiệp vụ công tác văn hóa xã hội ở xã, phường, thị trấn*, Nxb CTQG-ST, Hà Nội, (The skill and technique of socio-cultural activities in village, town and ward, National Politics Publishing House), available at <http://tuyengiaohungyen.vn/bai-viet/cong-tac-quan-ly-nha-nuoc-ve-van-hoa.aspx>, accessed 09.21.2019.
3. Chủ tịch Hồ Chí Minh với bảo tồn di sản văn hóa dân tộc (Ho Chi Minh president and the safeguarding of national cultural heritage), The State Archive Office, available at <http://www.archives.gov.vn>.

4. National Assembly of Socialist Republic of Vietnam (2001), Law on Cultural Heritage, Available at https://sherloc.unodc.org/res/cld/document/vnm/law-on-cultural-heritage_html/vn_law_cltal_heritage_engtof.pdf

related to archaeological heritage there is chapter 4 with three sections and included articles from 28 to 53. The law contains detailed and specific provisions from the concept of archaeological survey and excavation, criteria for classification of archaeological relics at the provincial, national and special national levels; Organization of archaeological planning in localities (provincial level); archaeological exploration and excavation, financial investment of archaeological excavation; conditions of the person in charge of archaeological excavations; international cooperation in archaeological exploration and excavation; licensing archaeological exploration and excavation...

Subsequently, the system of legal documents have been improved and finalized such as the Government's Resolutions Guidelines in the Implementation of Certain Papers in the Law on Cultural Heritage and the Amended Law, Some Additions to the Law on Cultural Heritage (2010); Guidelines on the Authority, Steps, and Procedure in the Development and Approval of Projects in Safeguarding and Restoration of Historical-Cultural Heritage and Attractions (2012); Guidelines in the Safeguarding and Management of Cultural and World Natural Heritage in Vietnam (2017); Circular by the Ministry of Culture, Sports and Tourism Detailed Regulations on the Safeguarding and Restoration of Cultural Heritage, etc.

In 1976, Vietnam officially joined UNESCO and seriously observed the conventions in protecting heritage, namely, Convention on the Protection of the World Cultural and Natural Heritage (1972), Convention on the Safeguarding of the Intangible Cultural Heritage (2003), Convention on the Protection and Promotion of the Diversity of Cultural Expressions (1975). The UNESCO Conventions contribute to both awareness and the action of the Government of Vietnam, promoting the development and improvement of the system of legal documents and policies on culture. Many historical-cultural heritage and attractions have been restored by the State's budget or from the budget mobilized from other social sources. Many museums, including public and private, have been trying to change the way they are working, aiming at more audience-oriented approach and have met requirements of the society⁵.

5. Từ Thị Loan (2019), Cultural Heritage in Vietnam With the Requirements of Sustainable Development, International Relations and Diplomacy, April 2019, Vol. 7, No. 04, 172-187

Agenda and Institution:

There are major agencies involved in archeological education, research, excavation and conservation.

In 1898, Indochina Archaeological Committee was born. Two years later, the Committee was renamed the Far Eastern Ancient School (Ecolé Francaise d'Extrême Orient, EFEO). The School has a journal (BEFEO) to publish archaeological findings in Indochina. For exhibition and storage of archaeological artifacts, the French also established the agency of Cham Sculpture Museum in 1918 in Da Nang, Louis Finot Museum in 1932 in Hanoi (From 1958 became the Museum of Vietnamese History, since 2012 is the Museum of National

History) and other museums in Saigon, Thanh Hoa and Hue ... After 1954, many museums were established throughout the country.

In 1960, the Archaeology Team was established, followed by important research findings on the pre-Dong Son relics and a new contribution to find the origin of previously discovered Dong Son culture. The discovery of Nui Do is also a first discovery of the Vietnamese Paleolithic of young Vietnamese archaeologists. In 1963, the Archaeological Excavation Team under the Department of Museum and Conservation was established and moved its headquarters to 61 Phan Chu Trinh, Hanoi. In 1966, the Archaeological Team was transferred back by the Vietnam Academy of Social Sciences. In 1968, the Institute of Archaeology belonged to the Social Science Committee (now the Vietnam Academy of Social Sciences).

In 1956, Hanoi University was established including the Faculty of History. Even in the first years of establishment, the Department of Archaeology was formed.

Archaeological Heritage – Challenges, Hazards and Risks

In many our studies, we have identified the causes of quickly disappearing of archaeological heritage, the challenges and threats to existing archaeological heritages⁶. Here are some of the main causes, challenges, and risks.

1. Conflicts of interest, first of all, the conflicts of interest in the way of assessment the values of heritage. Heritage exists in a society with many conflicts of interest that taking place. These benefits are sometimes so contradictory that one party chooses the heritage and the other chooses to eliminate it (justified in development terminology). It can be seen that in order to build and develop, many large and small economic groups, both private and public, domestic and foreign, have defied the current Heritage Law and the International Convention. In many places, local authorities have focused on their local economic interests, so they have made inaccurate decisions about cultural management and are willing to sacrifice archaeological monuments to invest in new construction. New construction are built without any archaeological and ethnological survey. There is a paradox that there are more and more large urban and commercial areas built by big corporations such as Vin Group, FLC, Sun Group ... but fewer areas were surveyed and excavated to enforce heritage laws before construction.
2. The living activity of humans is also hazards for archeological heritage. Often people are interested in industrialization and urbanization activities ... But for archaeological heritage, we need to pay special attention to rural areas and agricultural activities in a modern ways, especially the mechanization of agricultural works, the solidification of rural houses also have a significant impact on the existence of heritage in the ground, in the water

6. Lâm Thị Mỹ Dung, Chu Lâm Anh và Nguyễn Anh Thư (2018), Tài nguyên Di sản Văn hóa trong bối cảnh đương đại (Thách thức, khó khăn trong Bảo tồn và Phát huy Giá trị, Cultural Heritage Resources in the contemporary context (Challenges and Difficulties in Preserving and Promoting Values)), Kỷ yếu HTKHQT Hội nhập Quốc tế về Bảo tồn Cơ hội và Thách thức cho các giá trị Di sản Văn hóa, Nxb ĐHQG Thành phố HCM. ISBN : 978-604-73-6535-7. Tr.15-26,; Lâm Thị Mỹ Dung, Chu Lâm Anh và Nguyễn Anh Thư (2018), Di sản khảo cổ học trong bối cảnh đương đại (Một số kinh nghiệm bảo tồn, phát huy giá trị quốc gia và quốc tế) Archaeological heritage in contemporary contexts (Some national and international experiences in preserving and promoting values), HTKH Hội nhập Quốc tế về Bảo tồn – Cơ hội và Thách thức cho các Giá trị Di sản Văn hoá, Tp. HCM, tháng 10.2018; Lâm Thị Mỹ Dung, Chu Lâm Anh và Nguyễn Anh Thư (2019), Phát huy Bền vững Giá trị Tài nguyên Di sản Khảo cổ học Tiền Sơ sử Lưu vực sông Thu Bồn, Sustainable Promoting the Value of Archaeological Heritage in Thu Bon River Basin, HTKH “Bảo tồn, phát huy giá trị văn hóa Quảng Nam trong thời kỳ hội nhập và phát triển” tháng 9 năm 2019, tại thành phố Tam Kỳ, tỉnh Quảng Nam

and on the ground ... Current aquaculture activities in coastal areas have completely destroyed the landscape and destroyed most coastal and island archaeological sites. The great cemeteries built very solidly and monumentally are increasingly expanded in proportion to the destruction of ancient villages and ancient cemeteries ...

3. The philosophy of conservation is inconsistent, especially the debate about the authenticity of archaeological heritage. There are currently conflicting views on conserving, managing and promoting heritage values, conserving the original or conserving the original elements ... Although culture is considered as a force for social development, due to inconsistencies in the conservation philosophy, the inability to accept the economic value of the heritage, the awareness of the diverse purposes of promoting heritage values and only recognizing it from the perspective of spiritual culture leads to mistakes in the way of management and promoting.
4. Lack of diverse sources of funding, conservation and restoration of heritage relies almost exclusively on the state budget, limited funding and in many cases not being used effectively. The socialization of research and conservation of archaeological heritages largely depends on the interests of economic groups and social organizations, so the phenomenon of "flowing water in the low lying areas" occurred, some sites were invested with big amount of money, other sites have no budget for any conservation work. In addition, when socialized fund is received, it is often necessary to meet the requirements of the grantor and such requirements are not always in accordance with the Heritage Law and in accordance with scientific criteria.
5. The State has many policies and solutions to remove inadequacies and difficulties in the conservation and promotion of archaeological heritage values. In some cases, however, government intervention and the inactivity of local communities have led to the legacy being separated from the community and transformed into unfamiliar. Communities automatically consider work related to heritage as a matter of the state and the government. The phenomenon of being heritage, "World Heritage" syndrome also leads to the deformation of the properties of the heritage.
6. Regarding the Heritage Law. The law details the fields but the sanctions are very general. Heritage law is governed by the laws of ownership, natural resources and land. The law allows private collection of artifacts but there are no detailed rules on conflicts of ownership and the exact source of artifacts in these collections. These limitations and weaknesses lead to the proliferation of antiques, bleeding antiques and the counterfeiting of antiques increase rapidly. Provisions in the heritage law on excavated artifacts must be handed over to local museums for management and exploitation, while most of these museums do not have a proper storing rooms, laboratory, do not have qualified research staff and there is no funding for research, restoration, conservation of artifacts ... all leading to loss and misleading information about excavated artifacts.
7. Salvage archaeology still accounts for a large proportion in archaeological excavations. The main form of this rescued type of archaeological excavation is project archaeology, excavating a large area in a short period of time and not having enough human resources to carry out. This leads to shortage of information processing. After finishing excavation, there is no funding for handling excavated things, not to mention the application of modern and advanced excavation and post-excavation equipment ... in accordance with the standards of modern archaeology. However, the joint archaeological excavation projects with the participation of interdisciplinary experts from different countries have somewhat improved this issue.
8. Regarding the research point of view. Not enough objectively, in some cases, the evaluation of the results of an archaeological relic is also influenced by politics and nationalist spirit. The bias or disregard of each research area, each research topic or each stage of research ... has led to an unfair investment in science and led to deviations in the assessment of heritage values.

Fortunately, in recent years studies have become more objective and academic.

9. Limited human resource. Up to now, only over 100 archaeologists work in areas of archaeological heritage such as research, training, conservation and management all over Vietnam. But the majority of archaeologists are concentrated in Hanoi, in the Institute of Archeology, National University and the National Museum of History, Another minority works in southern Vietnam, in Ho Chi Minh City. ...In particular, the system of local agencies (provincial museums, relics management boards, cultural departments, etc.) has almost no professionally trained archaeologists while the Law of Cultural Heritage stipulates that all excavated artifacts must be left at local museums for research, display purposes, and for preservation and promotion the values. This shortage leads to the situation that post-excavated materials are not being properly preserved and not being effectively exploited.
10. The same goes for the impact of climate change, although our perception is very clear that Vietnam is one of the countries most heavily affected by climate change, but issued strategies and policies only pay attention to the economic aspect, not really paying attention to building plans and strategies from a cultural perspective of dealing with climate change, and globalization.⁷

7. Nguyễn Quốc Hùng (2007), Tác động của thay đổi khí hậu đối với di sản văn hoá và thiên nhiên – những vấn đề đặt ra, tạp chí Di sản Văn hoá số 4 (21), tr. 21-27.

Law in Reality – some cases

The case of Đàn Xã Tắc (DXT)

In 2006, archaeologists selected an area for archeology to be considered the site of the Xa Tac Altar in center of Hanoi. This is the earliest resident relic in the central area of Hanoi. The deepest layer of this relic is the Phung Nguyen relic, which dated about 3,500 years ago. The upper floor is the relics of the period of anti - Chinese Domination (the first century AD). From the Ly dynasty, this area was Xa Tac Altar. In 2007, when constructing Ring Road 1, the managers and some scientists agreed to partially fill an archaeological excavation pit to build a new Kim Lien road and retain a part of the Xa Tac Altar. It is traffic Island grass planting now. To protect the monument, Hanoi has covered the geotextile with the archaeological layer, covered with sand to protect the archaeological layer below.

The case of Vườn Chuối (VC)

VC site belongs to Lai Xa village, Kim Chung commune, Hoai Duc district, Hanoi. Here the archaeological relics have been discovered and researched by archaeologists since 1969. Since then, many research surveys and excavations have been

conducted. So far the results have determined that this is a residence-burial complex developed continuously through Dong Dau - Go Mun periods.- Dong Son periods (Pre Dong Son and Dong Son Cultures. This is an important site for prehistory of Red River Delta.

So far, there have been 09 excavations with a total area of 1499m². The overall result identifies the VC relic as a village that extends along the north-south (210m) and narrow east-west direction (the widest 75m), in which the oldest cultural layers are at the northern end and progressing to the south at later stages. It is the combined residence and burial site continuously existed through the pre-Dong Son - Dong Son and after Dong Son periods. VC is providing tangible and intangible evidences about life, society, natural environment and population. It contributed to study the structure of living space, economic structure, wet rice cultivation, handicrafts, fishing, hunting, breeding ... in the pre-Dong Son and Dong Son periods. VC is also an ideal location to conserve the archaeological heritages and building museums, archaeological parks. This site gives us the materials for interdisciplinary research, especially for international cooperation in archaeological excavation and study.

The VC has not been added to an annual inventory list by cultural management agencies. That's why construction companies often give excuses for not enforcing heritage laws, although, since 2009, scientists have submitted applications to recognize the VC as an archaeological relic at the city level and then the national level. In 2018, there are two constructions here and if they are completed, the archaeological monument of VC will be completely wiped out. Thanks to the fierce determination of archaeologists, media agencies, Hanoi's managers finally made the appropriate decisions. The VC will be excavated at the section of the 3.5 lane passing through (about 6,000 m²) and the rest (about 6,000 m²) will be studied on display in an outdoor museum or building of archaeological park. This is a case of non-compliance with the heritage law in the beginning, but in the process some efforts have been made to change this lawless status, and there is an outcome that is not ideal but possible in the condition of current imbalance between conservation and development.

The VC case is rare; the majority of archaeological sites not listed in the provincial or national archaeological sites list will often be overlooked and will be partially or totally destroyed by constructions. And when most of the provinces have not conducted archaeological reserves survey in their province to make an archaeological map of the province, then compare it with the planning map of population, land and industry, agriculture ... then in the future there will be a lot of lost archaeological heritage.

The case of Hoi An

Predicting the rapid speed of urbanization, since the 90s of the 20th century, people in charge of managing and researching heritage in Hoi An have promptly made a map of the distribution of archaeological relics. Planting landmarks and zoning to protect a certain area. Few places do a detailed and complete archaeological plan like Hoi An. However, under the pressure of rapid urbanization in recent years, some relics have no longer been preserved, typically Ruong Dong Cao site (Early Champa settlement). At present, the entire monument is completely located in the Lam Sa-Tu Le-Xuan Hoa Residential Area Project under the decision approving the detailed planning in the Document No. 283 / QD-UBND dated January 19, 2016 of the Provincial People's Committee. Quang Nam. Due to the previous archaeological planning, this monument has been excavated and researched in accordance with the heritage law and excavated artifacts which are used for display and promotion of the value of the Museum of Hoi An. Other relics such as Trang Soi, An Bang, Hau Xa ... all have protected areas and basically have not been compromised, except for the most recent case in Trang Soi, local people due to lack of understanding, when planting the trees for lunnew year has unconsciously saw some trenches within the area of protection. The case was promptly resolved by the Management Board and local authorities. This is also an experience that needs to be drawn in the protection of monuments that need real understanding and participation of local people.

Conclusion

Vietnamese archaeological relics face many hazards, risks and challenges in the context of a fast-growing country. The hazards factors and harmful components come from many aspects and groups of people, from the most visible things such as road construction, urban construction, industrial zone construction... However, the archaeological sites and artifacts are destroyed by hidden but very dangerous causes, which are activities of people living in rural areas. The mechanization and marketization of farming and animal husbandry activities lead to tremendous changes in rural landscape. Fields turn into farms, into perennial crops, solid housing with city-style architecture, beaches turn into aquaculture farms ... and from so much destruction, archaeological relics disappear...

Cultural management policies and laws on cultural heritage and international conventions that Vietnam has signed have been and are still the official legal instruments to ensure the survival of archaeological heritage. However, when the social context and economic situation are change, these policies also need to be changed accordingly. Policies and laws must be truly authoritative in practice, otherwise they are just pieces of worthless piles of documents and the trio of managers - researchers - owners of the heritage are always arguing, discuss and make impossible decisions and groups of economists and businesses never follow the law.

The Government and state, local regulatory agencies and researchers are aware of the problem that archaeological heritage management is facing, and the heritage law will make necessary changes in the coming time to become closer to reality.

The Variation of Stone Tools at Nguom Rock-shelter and the Potential Researches to Identify the Process of Occupation of Modern Humans During MIS 3, Northern Vietnam

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He is interested in studying the Paleolithic and Neolithic period in Vietnam and mainland Southeast Asia. Besides, he also studies the earliest pottery in Vietnam as well. For publication, he has been co-authors with a few international papers published recently in English (*Quaternary Science Review* 2018; *Antiquity* 2018). In Vietnamese, he has published mainly in *Vietnam Archaeology* from 2008 up to now with many papers on lithic and co-authors of a few books in Vietnam.

For excavation, he has been conducting many surveys and excavations. Some results of such excavations have been published and shared with international scholars during a few international conferences such as IPPA and New Discoveries of Vietnam Archaeology annually. On the other hand, he also has joined a few international fieldworks in Vietnam, Thailand, Cambodia, and Philippines. At present, he is conducting some projects relating to Paleolithic, Neolithic, and the process of dispersion of *Homo Sapiens* in Vietnam and mainland Southeast Asia.

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Ben Marwick³

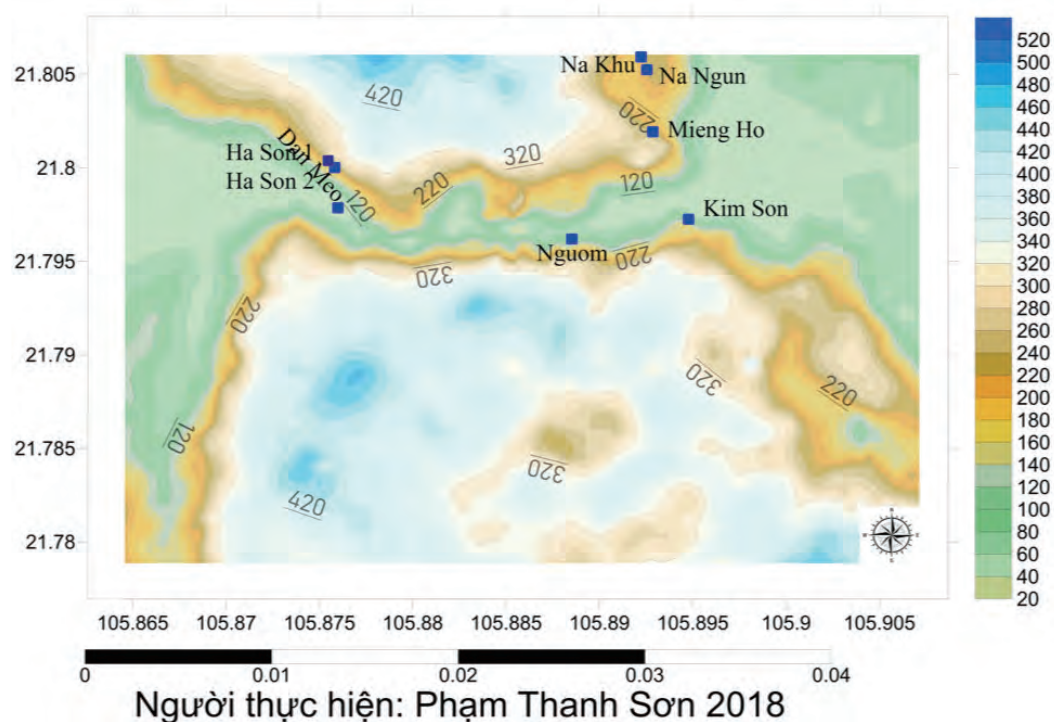
3. University of Washington, USA

Abstract

The Nguom assemblage is crucial for understanding the presence of flake tools before the Hoabinhian, which appeared around in MIS 3 in northern Vietnam. Two other sites of Lang Rong Rieng and Bai Lian Dong distributed in Thailand, and Southern China shares the same characteristics of lithic technologies with Nguomian, dating back to around 50ka to 25ka. These sites may contain evidence of the dispersion of modern humans. In this paper, we will discuss the basic features of stone artifacts from the Nguom site in Thai Nguyen province, northern Vietnam. This rock-shelter site currently has the oldest dates for cultural remains in northern Vietnam, and the earliest retouched flake tools in Vietnam. This finding may be relevant to the dispersion of modern humans into mainland Southeast Asia. However, current evidence needs further work to identify the termination or transition of this industry during the late Paleolithic, and whether its disappearance related to the presence of Bacsonian in other northern provinces of Vietnam.

Introduction

Recent archaeological evidence on the process of occupation by modern humans enable us to understand more clearly the routes of dispersals into Southeast Asia (Bae et al., 2017; Demeter et al., 2012; Détroit et al., 2019; Detroit et al., 2004). However, stone artifacts were not found with human remains from such cave sites (Demeter et al., 2012; Détroit et al., 2019). It has been causing some disadvantages for researchers to trace the routes which modern humans entered. In this paper, we report on a stone artifact collection recovered from Nguom rock-shelter, northern Vietnam. How is variation in the methods of retouched flake tools at the Nguom rock-shelter? What are the relationships between Nguomian with Sonvian, Hoabinhian, and Bacsonian?



The Nguom rock-shelter situated on the mountainside in Than Sa valley, and the front of the site is the Than Sa river (Fig 1). This rock-shelter site has been excavated four times, from 1980, 1981, 1982 to 2017 (Cay, 1994, 1995; Cay et al., 1981; Tan, 1997b, 1997a; Tan et al., 1998). Though a few excavations, a large number of stone artifacts including core tools, unretouched flakes, and retouched flakes, have been recovered. As a result, the characteristics of stone artifacts also received much attention from regional researchers. More specifically, it was compared with other sites to find out the emergence of the flake industry in mainland Southeast Asia (Tan, 1997b, 1997a). The landscape of the site could be very suitable for ancient people to live; until now, more than ten cave sites have been discovered in this valley (Cay, 1994, 1995; Cay et al., 1981; Chinh, 1987; Tan, 1997b; Tan et al., 1998). Alternatively, the availability of raw materials from Than Sa river also would be a good condition for ancient people who decided to live for a long time. This paper aims to introduce the assemblage of stone artifacts in square B at the Nguom rock-shelter briefly to show a unique manufacturing method of stone artifacts in the late Pleistocene, in northern Vietnam. The potential researches are going to discuss that might help to find out the routes and dispersal of modern humans into mainland Southeast Asia in MIS 3 shortly.

The research history of Nguom rock-shelter

Nguom rock-shelter was discovered in 1980 and excavated in the same year with an area of 1m². The stratigraphy contained four cultural layers, comprising of flake tools, core tools, and animal remains. A total of stone artifacts collected from the first time was around 252 stone pieces, including core tools

Figure 1 Map showing the location of Nguom rock-shelter and other cave sites in Than Sa Valley, Vo Nhai district, Thai Nguyen province

and retouched flake tools. A majority of stone artifacts were made of river cobbles, exploited from the Than Sa river (Cay et al., 1981). Based on its appearances, the site was attributed to being a settlement site sharing an aspect of the stone workshop site (Cay et al., 1981).

In 1981, Nguom rock-shelter was excavated for the first time with an excavation trench of 28m². The stratigraphy contained five layers with an average thickness of 1.20m. From the excavation results, the sterile was considered to be a layer of yellowish deposit compacted, and the bedrock can see in some areas (Cay et al., 1981; Tan et al., 1998). The appearance of stone artifacts showed that this was a place occupied by ancient people who created retouched flake tools. Moreover, the presence of Sonvian and Hoabinhian in cultural layers also confirmed that this site occupied by the combination of Sonvian, Hoabinhian, and Nguomian. Besides the Nguom site, another site distributed in the Than Sa valley also discovered, such as Mieng Ho (Fig 1). Both sites shared the same technology of stone making with the presence of retouch flake tools. The term of Than Sa culture was recommended from this excavation (Cay et al., 1981).

In 1982, the site was excavated for the second time by a total area of 44m², with three excavation trenches. Together with a considerable number of stone artifacts unearthed, the evidence of animal and human remains also recorded. After this excavation, another definition of the Nguom industry (Nguomian) also suggested (Cay et al., 1981). One of the most unusual things is that a large number of retouched flakes were uncovered from the site. Moreover, its technological attributes differed considerably from Hoabinhian studied before. Based on stone, technology shows that there were three periods of Nguomian, Sonvian, and Hoabinhian presented at the site (Tan et al., 1998).

The results of those excavations at the Nguom site also raised a few questions about the origin of Sonvian and Hoabinhian in Vietnam. Alternatively, some ideas about the relationship between Nguomian and other sites distributed in Thailand and Southern China were compared (Tan, 1997a, 1997b; Tan, Su, & Chung, 1999; Tan et al., 1998). To identify the existence time of the Nguom industry, another recent excavation has been conducted in 2017 after 35 years. 6m² has been conducted in the two small-scale areas, unearthed around 3,500 stone artifacts. The new series of radiocarbon dating obtained from an upper excavated trench ranging from 41,000 cal BP to 22,000 cal BP. This means that the lower part will be older than the dates obtained from the upper part (Fig 2).

Stratigraphy

Five stratigraphic units have been identified in squares A and B and three units in squares CDEFF. Overall, the depositional sequence reflects episodes of variation in the amount and types of rock originating from the rock-shelter formation. The transition from stratigraphic unit five to four represents a very stark change in conditions, indicated by the change in color, texture, and compaction of the deposit from dense yellow sandy clay, to looser, grey-brown silt. Artifacts are present in both stratigraphic units and several below unit five, so this sedimentary change is not solely attributable to the appearance of humans.

Dating

Based on the dates obtained from charcoal analysis shell samples, the cultural layers divided into three periods, ranging from 23,000 uncalBP to 18 ucalBP (Cay, 1994, 1995; Tan, 1997a, 1997a; Tan et al., 1998). In Vietnam, most archaeologists agreed with the late Paleolithic period for Nguom rock-shelter (Cay, 1994, 1995; Cay et al., 1981, p. 19; Tan, 1997b; Tan et al., 1998). Others predicted that the earliest period would be older than 30ka (Tan et al., 1998).

In squares A and B, the samples collected from cultural layers contain shells and charcoals. Some OSL samples also took from lower trench CDEF to define the earliest period thoroughly at the site. Therefore, a few dates obtained from the upper trench AB reconfirmed the dates gained in the past. Alternatively, those dates also identified the earliest dates at the site from the lower part could be much older than we thought previously, range from 23,000 calBP to 41,000 calBP. Therefore, such new identified dates and the presence of stone tools from lowerest trench also provide new insights into the time existence at the Nguom rock-shelter.

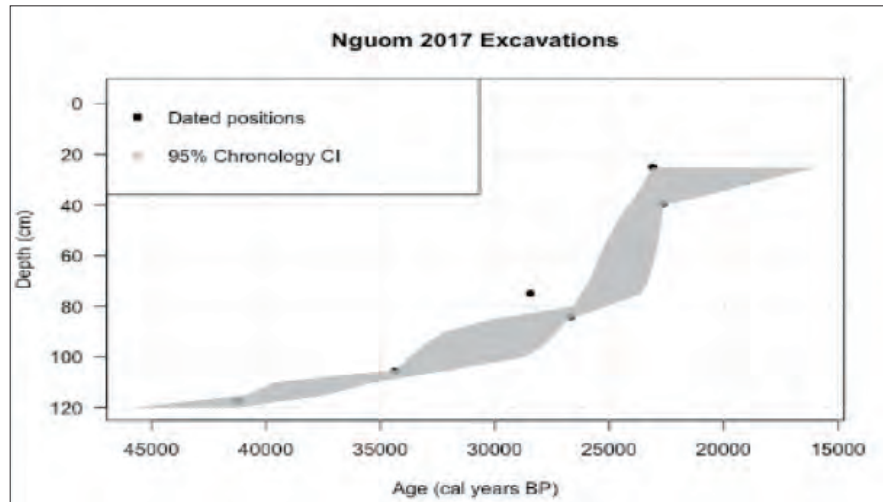


Figure 2 Calibrated dates from squares A and B at Nguom rock-shelter 2017 (Calibrated by Ben Marwick 2018)

Stone artifacts

In this paper, the collection of stone artifacts mostly come from square B, because the square A is being studied. Around 2600 stone artifacts unearthed from square B and flakes were the domination of stone artifacts. Based on their states, stone artifact was divided into a few types such as unretouched flakes ($n = 1252/1600$), retouched flakes ($n = 638/2600$), shatters/debris ($n = 441/2600$), retouched shatters ($n = 165$) and other states ($n = 12/2600$). The total of retouched debitage tools is around 804 pieces, accounted for 32,04% ($n = 804/2600$). However, the level of distribution of flakes varied significantly with different excavation contexts. The localization of retouched areas could be on the dorsal sides, ventral sides, and the combination of both sides of flakes.

Flakes

There was a variation in the striking platforms of flakes at the site. The existence of the dihedral platform, facettted platform, cortical platform, and non-cortical platforms presented continuously from the lower to upper excavation contexts at the site.

On the dorsal side, the orientation of removed flake scars is mainly unidirectional, and only a small number of flakes is bi-directional. The others can be centripetal flakes and mostly appeared from layer 7 to layer 12. It means that they can be detached from unidirectional and centripetal cores. Many types of used raw materials could derive from the Than Sa river, which is very near the site. The components of raw materials contained tuf-rhyolite, biotit, tuff, ruff-rhyodaxit, limestone, and quartz (Son et al., 2018). Flakes removed from the raw material nodules contain many states such as complete flakes, long break right/left, transverse left /right long, proximal end and the distal end (Son et al., 2018).

On the ventral face, two types of flake initiations, including heartzian and bedding identified. About the bending initiation, the shapes of distal ends could be feathered and stepped terminations. This feather existed on the flakes

initiated by the hertzian flakes. Practically, the number of flakes initiated in bending mode is always more significant than the hertzian initiation flakes (Fig 3). Besides, the differences in internal and external platform angles can be seen clearly. The mean of external platform angles measured around 68,980; meanwhile, the internal platform angles tend to be much bigger with an average angle of 103,110 (Son et al., 2018). For dimension, the mean of percussion length of flakes is around 25,43mm, 23,80mm in width, 7,31mm in thick and 9,64gram in mass. A significant correlation between length and width ($r = 0.46$, $p < 0.0000$) can be seen, but there was no difference in the ratio of platform width and platform width from bending and hertzian flakes. The variation only is seen between flakes of each group of flakes.

Flake tools

Flake tools were retouched from complete and fragmented pieces after removing from raw materials. In square B, 803 retouched pieces found and 638/803 produced from complete flakes, and the remains were retouched fragments (Son et al., 2018).

A few types of raw material comprised of tuff-rhyolite, tuff-ryodaxite, tuff-rhyolite, tuff-acid, biotit, and altered acid tuff used to manufacture. The most striking thing is that a large number of complete flakes were prioritized to produce many retouched flake tools. Alternatively, the small number of long break right/left also were also retouched. In some cases, flake shatters also retouched to become tools, but the number is lower than five pieces (Son et al., 2018).

About the striking platform, its various shapes contained cortical and non-cortical platforms. For the non-cortical flakes, they have a few types of prepared platforms such as faceted, overhang removal, non-cortical convergent platforms. According to complete flakes, the external platform angles (55.880) are always much smaller than the internal platform angles (85.980). After retouching, the direction of flake tools could be unidirectional, bidirectional, subcentripetal, and centripetal. In 803 tools retouched, 46,82% of flake tools were marginally retouched tools, makeup 53,18% of flake tools only retouched on the ventral side or dorsal side. The cutting edges could be created at a few positions of flakes; however, the most preferred retouched part was distal end, then followed by left lateral, right lateral and a combination of left and right laterals, distal ends, left lateral with distal end, right lateral distal end, left/right laterals and distal end (Fig 3). Sometimes, the process of retouch could be performed on striking platforms. Some statistical tests showed that there was variation in the ratio of length/width, length/width, and length/mass of flake tools at the Nguom site. It means that the overall trend of detached flakes seemed to be more elongated. The bigger the sizes of flake increased, the more the mass became.

Furthermore, the same locations were also retouched on the ventral sides. There are many flakes retouched bilaterally with the sizes of removed scars typically from 1mm to 3mm long. To produce a cutting edge, a few unique methods were applied. Similar to Quang Van Cay (Cay, 1994; Cay et al., 1981), the pressure flaking and the direct percussion technique used both to create retouched flake tools. It is not, however, easy to distinguish between such kinds of techniques because the extent of flake scars detached from objective raw material nodules are minimal (Son et al., 2018).

Discussion

From the assemblage of stone artifacts studied in square B combined with observations on the previous excavation at the site, the stone industry at Nguom rock-shelter did not share similarities with Hoabinhian or so-called Sonvian in northern Vietnam. On the contrary, the feature of stone artifacts shared fully the same methods and techniques with other sites distributed in Than Sa valley, such as Mieng Ho cave site. It also had some similarities with a few sites of Bacsonian on the ways of preparing striking platforms of flakes presented at Oc cave in Thai Nguyen province. The roles of flake are very significant at Nguom rock-shelter. A large number of flakes were retouched to become retouched flake tools, while the number of core tools is minimal. It indicates that the process of flake exploitation was utilized extensively at the Nguom rock-shelter. The results from the excavations of 1980, 1981, 1982, and 2017 reconfirm that a majority of raw material nodules were exploited to create flake tools. It is opposed to the domination of core tools in Hoabinhian in northern Vietnam.

According to Quang Van Cay (1994), the presence of prepared striking platforms is very



Figure 3 Retouched and unretouched flakes in square B, Nguom rock-shelter 2017

undeniable at the Nguom rock-shelter, but they could not find some evidence related to that process. As a result, they assumed that there were not pyramidal/conical-shaped cores at the site (Son et al., 2018). In the excavation 2017, we have not found cores that could be evidence of prepared cores. However, the processes of a restudying stone artifact of the site at the Thai Nguyen museum showed that the prepared cores presented together with the non-cortical platforms as well. That stone artifact also provides new insights into the formation of prepared striking platforms that no lithic experts could not answer previously (Son et al., 2018).

Another contribution to understanding the technological attributes from flake tools is that the identity of the redirecting percussion technique. Flakes frequently will be removed from the prepared positions on the raw material nodules, but because of a reason, those areas could not be used to be a striking platform. Instead of that, they moved to another place near the previous point percussion to detach such kinds of flakes. It is the first time its technique has been recorded in northern Vietnam. Besides that technique, Ha Van Tan also mentioned the presence of the Levallois method at Nguom rock-shelter. However, that method needs more time to restudy all stone artifacts, which is storing at the Thai Nguyen museum. Additionally, the excavation also should be conducted more to obtain some clear evidence from the cultural layers that correspond to their dates (Tan, 1997b).

Some reasons that need to be continued studying are new recent findings on human remains of *Homo sapiens* in Laos, China, and the Philippines and Australia, which underscore the evolution of the genus *Homo* in these regions. The route of dispersal of *Homo sapiens* is more apparent with discoveries from Africa to Asia (Bae et al., 2017). In contrast, some argued that the dispersal of anatomically modern humans (AMH) into South East Asia and Australia not to be valid and younger than 50ka (O'Connell et al., 2018). In 2012, the first discovery of the fossil at Tam Pa Ling had unearthed human remains from a very secure stratigraphic context, around 50ka in mainland Southeast Asia (Boivin et al., 2013; Demeter et al., 2012). Most recently, the results of the new species of modern humans also dated back to 67ka in P (Détroit et al., 2019; Mijares et al., 2010, p. 2019). However, a few reported sites displayed that there were some *Homo sapiens* fossils, but they could not find the remains of archaeological evidence such as stone tools.

On the contrary, other sites have found stone artifacts without having human remains (Bae et al., 2017). Obviously, Southeast Asia is becoming one of the most promising places to discover the process of dispersal of *Homo sapiens* and other hominin species during MIS3. And also, Nguom rock-shelter is going to be a new site that can contribute new perceptions to international researchers on that issue.

According to Macaulay and others (2005), DNA evidence suggests rapid coastal dispersals by the earliest modern humans into South East Asia (Macaulay et al., 2005). However, the fossil and archaeological evidence of South East Asia is at odds with this coastal dispersal. Recent fossils of modern humans have been found in Laos at 50-60 ka (Corny et al., 2017; Demeter et al., 2012) and other hominin species in the Philippines at 50 ka (Détroit et al., 2019; Mijares et al., 2010). In southern China, modern human remains and stone artifacts also were reported from a few sites such as Huanglong, Liujiang, Fuyan, Zhiren, fluctuating from 120ka to 80ka (Bae et al., 2017; Boivin et al., 2013). Therefore, this led to some alternative hypotheses about what routes did of modern humans take to disperse into South East Asia. For example, did they take a northern, high latitude route suggested by the finds in China, or coastal, hugging southern Myanmar and Thailand?

Furthermore, the full range of ages for early humans in this region means that we are still very uncertain when modern humans first entered into Southeast Asia. Most recently, new evidence from Madjedbebe in Australia indicates modern humans at 65ka, suggesting they were in Southeast Asia at a similar time (Clarkson et al., 2018). However, there is substantial disagreement with this claim, with O'Connell et al. arguing for *Homo sapiens* moving out of Africa did not before 50ka (O'Connell et al., 2018). There are currently no sites in South East Asia with archaeological evidence before 50 ka, so the timing of modern humans entering the Eastern Hemisphere remains hotly debated. For this reason, there are many substantial motivations for us to continue studying Nguom rock-shelter, a promising location in Northern Vietnam for addressing these questions, and also contributing new results of excavation to the international scientific community.

Conclusion

The Nguom rock-shelter shows some unique methods of the stone artifact that existed for an extended period. One of the most noticeable things is the domination of retouched flake tools developed quickly during the period from 30,000 to 26,000 years. The record of stone artifacts reflected the variation in the retouched areas on flakes through time. In northern Vietnam, this model of reduction sequence of flake tools is more complicated than the later period of other cultures such as Hoabinhian and Bacsonian. However, there was some reliable evidence on the relationships between Nguom's industry with Bacsonian about lithic technologies. At present, the dates of the Nguom site is older than Bacsonian around 10,000BP. However, many sites not far from the site have not been studied and dated. Additionally, some recent results from the excavation of the Oc cave conducted in Thai Nguyen 2014 also suggest some links between Nguom and Bacsonian due to a significant number of flakes that have striking platforms prepared also found. Their method and technology did share the same diagnostics with Nguomian. In contrast, based on the appearance of stone artifacts, we do not agree with the ideas on the presence of Sonvian period at the site.

On the other hand, whether or not the presence of Hoabinhian presented in the later period also need to study with plans combining with the studies of excavated stone artifacts storing in The National Museum and Thai Nguyen Museum in the future. Besides, the dataset on the analysis of magnetic susceptibility, pollen and spores, and animal records also helps to find out the context of site formation. To the end, the ancestors who created the Nguomian could be occupied by Homo species or Homo sapiens. If some scientific excavations are conducting more in the future, this site is very promising to follow the routes of Homo sapiens entered into Southeast Asia during MIS 3.

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From Pyu to Bagan - Research Report on Pyu Ancient Cities and Bagan

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I. Introduction

The city structure of Bagan is complicated with a high density construction of religious buildings and seems to be lack of the primary and regulated planning. Considering from the past studies which focused on the planning of Bagan and Pyu cities, the chronological relationship of the city structure and its planning from Pyu to Bagan is not clarified, even there are some folklores show the continuous activities in Bagan since the Pyu period. Because of a city is composed by its various elements, and the architectural planning of each element is affected by each situation even there is a common primary planning for whole city.

II. Point of View

In our study, by giving a comparison between Pyu and Bagan cities from the analysis of the Pyu city structure based on the on-site survey in February 2018 and January 2019, we would like to make a suggestion to understand a common characteristics of the transition from Pyu to Bagan by [1] “Directivity” of city structure and architecture, [2] Analysing the monuments structure of “Stupa”.

III. “Directivity” of City Structure and Architecture

We would like to analyse the primary city planning by focusing on the city structure and its elements from a point of view of “directivity”. The “directivity” means the direction and axis that each city have and its meaning. There is a tendency that city components of Pyu cities, Halin, Beikthano, and Sri Ksetra face “Along the directivity” or “Four directions”.

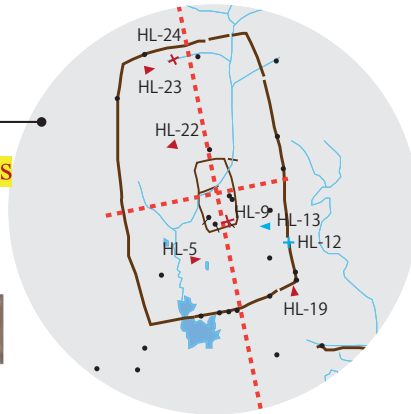
Figure 1 shows the axis of Pyu cities (Halin, Beikthano, Sri Ksetra) and the classification of components into “Along the

Halin

Along the directivity / Four directions

memorial hall,
monastery,
ritural structure

stupa

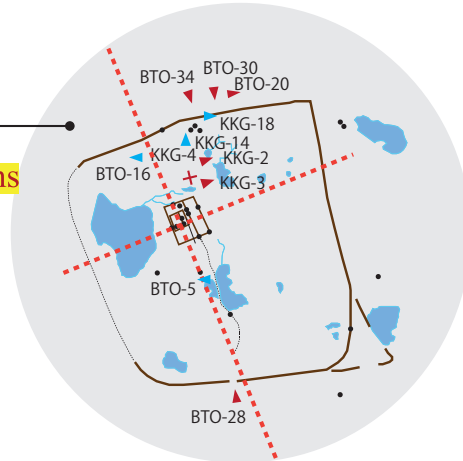


Beikthano

Along the directivity / Four directions

memorial hall,
monastery, (stupa)

stupa



Sri Ksetra

Along the directivity / Four directions

stupa,
ritural structure

temple

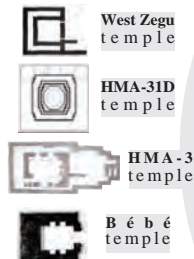
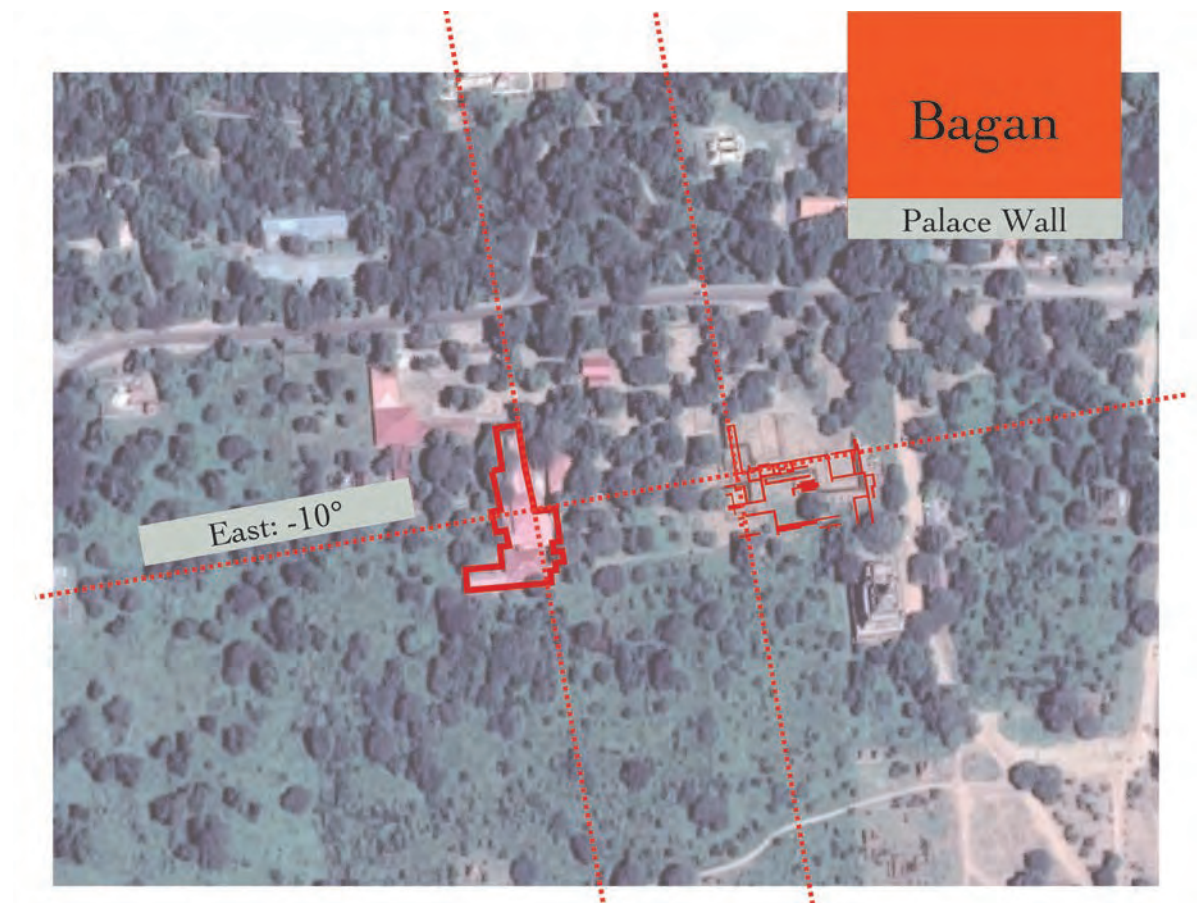


Figure 1 Tendency of "directivity" of the city and architecture
(Some plans of architecture is based on the inventory of Pyu cities offered by Archaeology Museum of Pyu citie)

directivity” or “Four directions”. The angle of city axis is taken by the palace wall inclination (Halin: -11.5 degree, Beikthano: -22.25 degree, Sri Ksetra: -10.25 degree). Considering the facing direction of city elements (temple, stupa, etc.), there is a tendency that some elements follow the “directivity” of city. In Halin, some stupas follow the four directions and other types of building face along the directivity. Also in Beikthano, some stupas follow the four directions and other types of building face along the directivity. However in Sri Ksetra, temples follow the four directions and some stupas especially located in the outer edge of city wall face along the directivity. For Bagan, there is an excavation site of place on the middle of inner wall. At the field survey, we conducted a simplified measurement of direction by using a compass. Both King anouyata and chansitta’s palace has around -10 degree direction. We are now under the processing of analysis of each buildings facing direction at Bagan based on the “Inventory of Monuments at Bagan” by Mr. Pierre Pichard. Using this records and our own measurement survey, to put the each directions on the map to analyse the whole view of Bagan, and the outcome of the analysis will be appeared by layering and classifying the construction age, location and surrounding situation of architecture, and some other factors. Even peripheral of the outerwall of citaadel, will have the same meaning with Pyu cities on our hypothesis.

Figure 2 The city axis direction of “Bagan” measured by palace wall (©Google Map)



IV. Analysing the monuments structure of “Stupa”

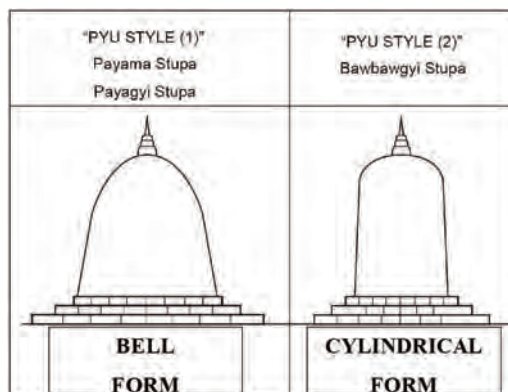
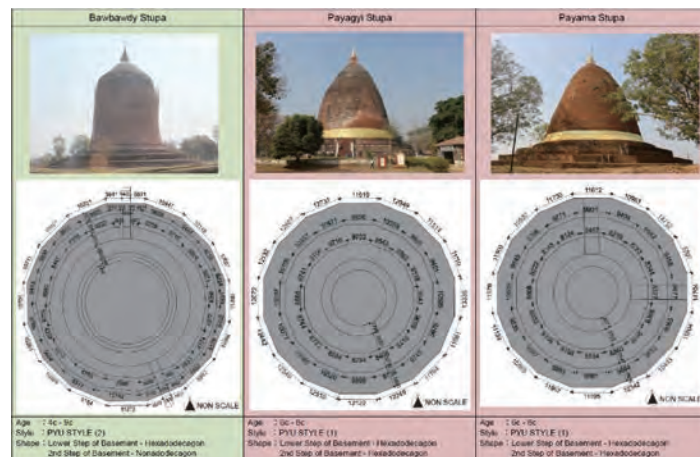
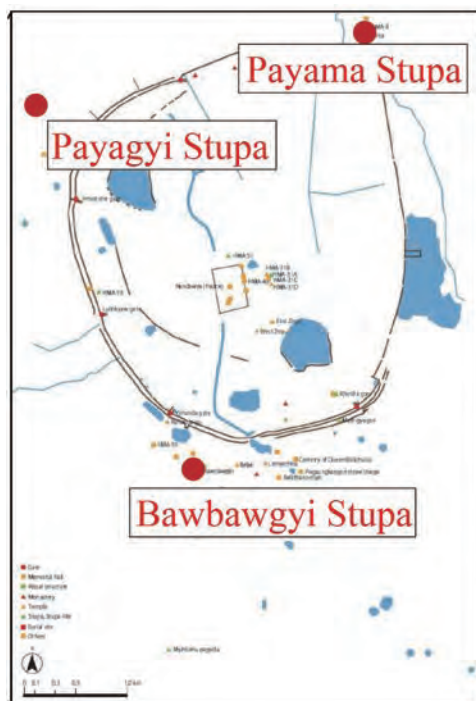
In ancient Myanmar, there are many kinds of religious monuments. We focused on “Stupa” in religious monuments. In pyu cities, many stupas are collapsed and it is not able to confirm whole aspect. In ancient city “Shriksashtra”, the 2 type of architectural forms are confirmed in sutpas of large-scale.

These remains are situated on the map. Each Stupas are classified “Solid Type Pagoda – Pyu Style” in classification of the principal types of Myanmar Pagoda. The feature of “Solid Type Pagoda” is that not bears any shelter space for the image of Buddha and is used as a place of worship. Payagyi Stupa and Payama Stupa are classified “Solid Type Pagoda – Pyu Style (1)”, on the other hand, Bawbawgyi Pagoda is classified “Solid Type Pagoda – Pyu Syule (2)”. The different of these styles is that the form of elevation. The main features of these Stupas are follows. On the other hand, the elevation form, the figure of plan and number of edge is different clearly, between Pyu Style (1) and Pyu Style (2). In addition to that, the tendency of design is different between 2 styles through analyzing the dimensions of plan.

Figure 3 (left) Map of city “Shriksashtra”

Figure 4 (upper right) The overviews of large-scale stupas

Figure 5 (bottom right) The elevation forms of stupas





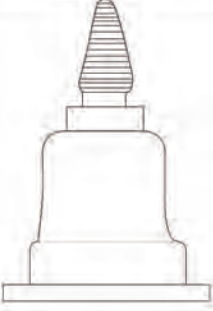
In previous study, some of stupas figured as bulbous shape are pointed out the similarity with pyu style in Bagan. However, the elevation shapes are a little difference between Pyu Style and Bulbous shape. In Bagan stupa, the architectural form translate to Bamar Style and Sinhalese Influence Style.

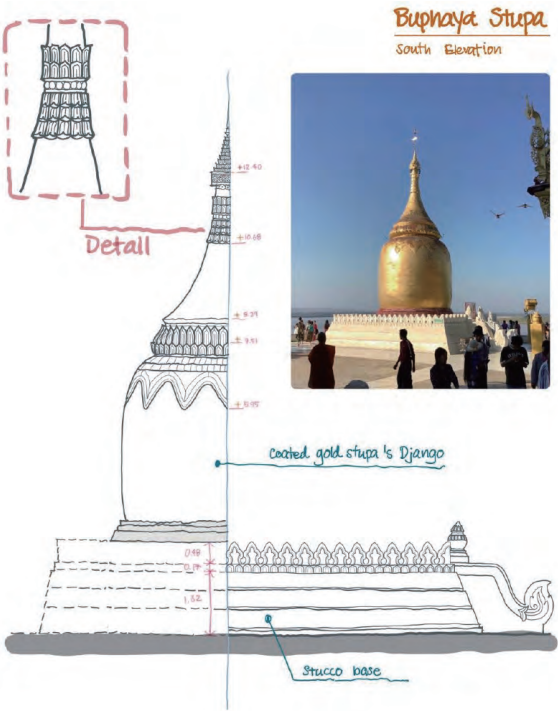
To consider the relevance Pyu Style and Bagan Style, It is necessary to study the translation in Bagan period. We progressed to create 3D model based on survey and compare each other.

Figure 6 (bottom left) The elevation forms of stupas

Figure 7 (upper right) The elevation sketch of Buhpaya Stupa

Figure 8 (bottom right) 3D model of Buhpaya Stupa

BULBOUS SHAPE (As Pyu Style)	BAMAR STYLE	SHINHALESE INFLUENCE STYLE
		



Sambor Prei Kuk Conservation Project

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I. Background of Sambor Prei Kuk Monuments

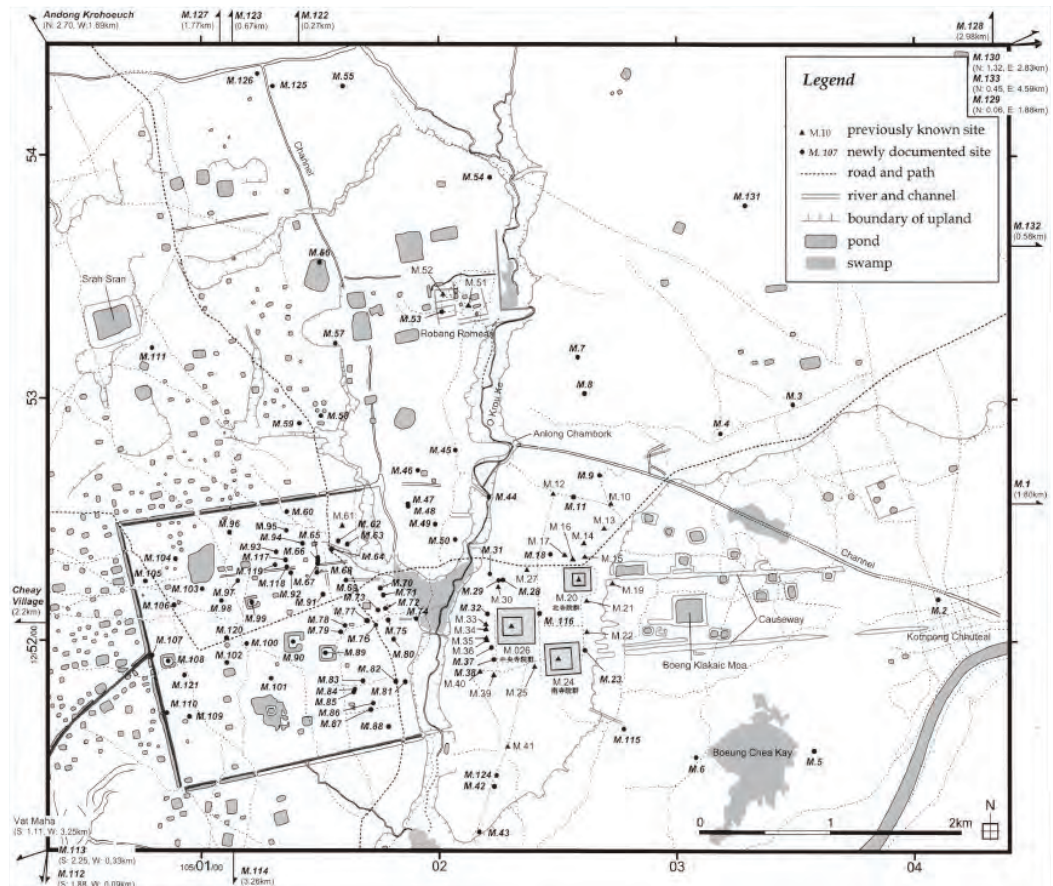
I-1. Overview of the Project and Monuments

Sambor Prei Kuk Monuments are located in Kompong Thom, Cambodia, and known as huge-scale heritage of city. There are a total of 134 archaeological sites, 288 brick or laterite temples scattered in a 12km square area around 105° 2' east longitude and 12° 52' north latitude, and ancient city surrounded by 2km square and natural rivers, waterway, old road, approach road, artificial pond, etc.

Since the existence of the monuments was confirmed by the École française d'Extrême-Orient (EFEO) at the beginning of the 20th century, tree trimming, hypothetical conservation measures for the monuments that are concerns about the dangers were implemented in part.

However, in the 1970s, preservation activities were interrupted by civil war, and the devastation rapidly progressed due to grave robbing and damage to the monuments. Laboratory of Architectural History Waseda University has begun research on the Sambor Prei Kuk Monuments since 1998, and has been conducting research and restoration projects for over 20 years.

In this postar, we introduce the high value of the historical materials of Sambor Prei Kuk Monuments and the main efforts of the laboratory and other organizations to date.

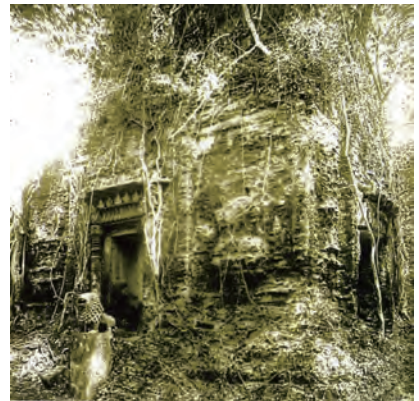


I-2. Sambor Prei Kuk Monuments as ancient city “Ishanapura”

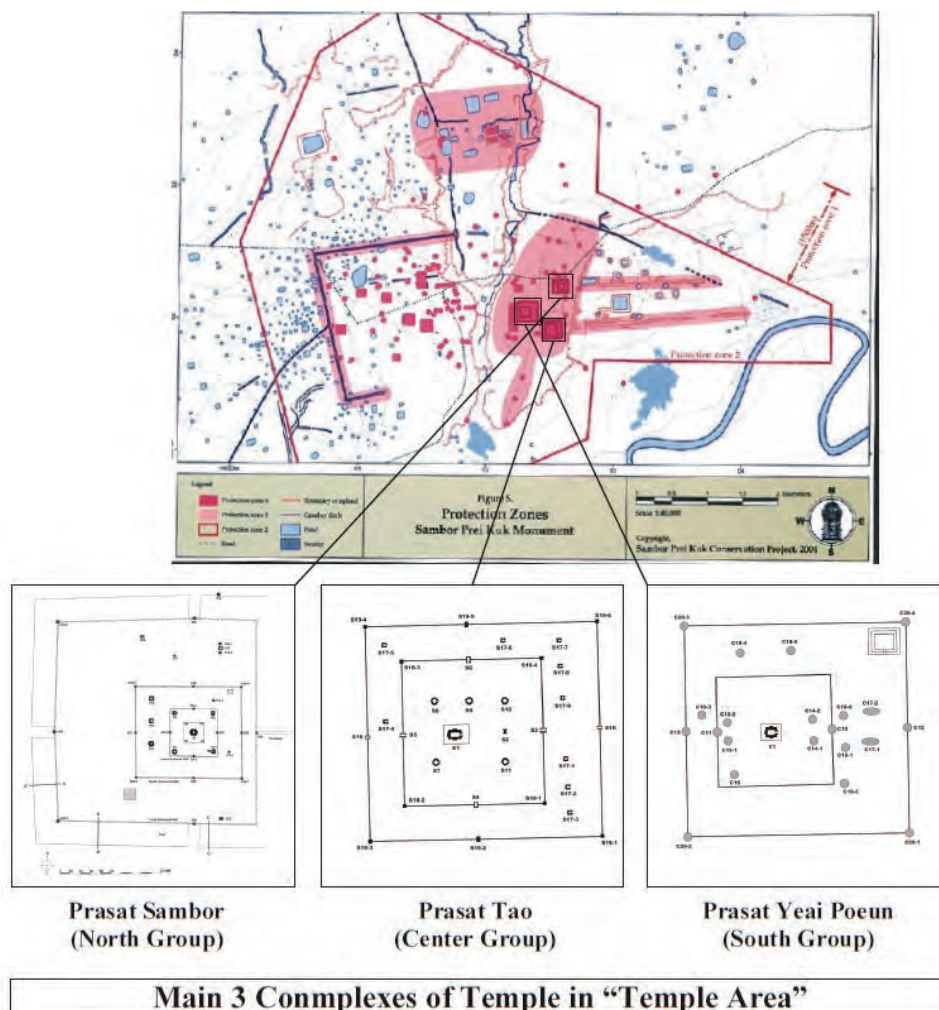
Sambor Prei Kuk Monuments are bisected by the O-Kru-Ker River, and Hindu temple group with a large number of brick remains on the east side (Temple Area). On the west side, there is the City Area that encloses a large number of city traces surrounded on three sides by earthwork and circular moat around 2km. In the temple area, the main monuments are composed of three complex temples: Prasat Sambor, Prasat Yeai Poeun, and Prasat Tao. The period of use of the monuments has been traced back to the reign of Bavavalman I (A.D.598) by inscription, and it has already been confirmed that it had a certain political domain in the 6th century. In addition, since the ancient name in the inscription found in the monuments is almost the same in structure and sound, the capital of Chenla written in the Chinese historical documents. Therefore, it is regarded as Īsānapura, the capital of Chenla, the predecessor of Angkor period.

Among the port city nations built in Southeast Asia along with the propagation of Indian culture from around the era, the most prosperous Hunan was succeeded by the Khmer people, who are said to have moved south from Laos, Champasak, and in the 7th century, Chenla reaches the height of the early centralized nation. Therefore, it can be said that Sambor Prei Kuk Monuments are the most important ruins among Khmer's original arts that blossomed in Chenla.

Map of Sambor Prei Kuk Monuments by SHIMODA Ichita, “Study on the ancient Khmer city Isanapura”, 2010



(upper) Old Photo by EFEO at the time;
(bottom) Photo of Initial Survey in 1998
by Waseda University



Master Plan of Sambor Prei Kuk
Monuments in 2004 by Waeda University

II. Overview of Sambor Prei Kuk Conservation Project

The Works of Sambor Prei Kuk Conservation Project are divided roughly as 3 kinds of works; Architectural Survey, Archaeological Survey, and Restoration Work.

Main works of Sambor Prei Kuk
Conservation Project (1998-2018)

Year	Contents	Year	Contents
1998	Inspection and Architectural Survey in SPK Monuments	2008	Excavation Work in Area of Excavated by Groslier
1999	Measurement Survey using GPS in Sites of M45 and M49		Clearance Excavation Work in N17-1 Site
2000	Architectural Survey in Monuments		Archaeological Excavation Work in N10-West Site
2001	Architectural Survey in Monuments		Clearance Work of Center Terrace in Prasat Sambor
	Excavation Work in Center of Terrace in Prasat Sambor	2009	Archaeological Excavation Work in Dornon Temple in City Area
2002	Architectural Survey in Monuments	2011	Restoration Work of N1 Tower
2003	Creating the Inventory of "Flying Palace"		Clearance Work of Center Terrace and Reconstruct of Brick Structure in Prasat Sambor
	Measurement Survey using GPS	2012	Restoration Work of East Elevation of N1
	Excavation Sampling Work in Monuments (-2007)		Installation Work of Supporter in N7 Tower
	Clearance Excavation Work in N7 Tower		Installation Work of Supporter in S2 Tower
	Measurement Work in Pr. Robang Romeas and Pr. Srei Krup Reak Monuments		Excavation Work in M78 - M79
	Clearance Excavation Work in S1 and S2 Tower (-2004)		Excavation Work for Graps the Traditional Layer in City Area
	Creating the Inventory of the Structures (-2003) and Remains (-2007)	2013	Restoration Work of South Elevation in N1 Tower
	Pertological Survey of Bricks and Stones		Maintenance Survey in Each Brick Structures
2004	Exhaustive Survey in Kampong Cham and South Part of Cambodia times of Pre-Angkor Period	2014	Restoration Work of Upper Parts in N1 Tower
	Clearance Work of N1 Tower		Clearance Work of Center Terrace in Prasat Sambor
	Fixed Point Observation of Old Photos	2015	Restoration Work of Around the Entrance in N1 Tower
	Measurement Work of Temples and Complexes (-2007)		Reinforcement Work of N10-West Site
	Long Trench Excavation Work in Prasat Sambor (-2005)		Development of Human Resources as Expert and Engineer (-2008)
2005	3D Survey in Each Temples (-2007)		Restoration Work of East Elevation in N1 Tower
	Archaeological Excavation Work in Chai Village		Installation Work of Supporter in N7 Tower
	Clearance Work in N8, N9, N10, N11, N14-1, N14-2 Towers		3D Measurement Survey in N1 Tower
2006	Measurement Survey of Section and Elevation		Clearance Survey in N3 and N4 Tower
	Exhaustive Survey in Kratie and Stung Treng States in times of Pre-Angkor Period		3D Measurement Survey of Brock Pavement in Center Terrace in Prasat Sambor
	Survey in O Kru Ker Village	2016	Archaeological Excavation Work in East Area of Center Terrace in Prasat Sambor
	Long Trench Excavation Work in Prasat Sambor		Completion Ceremony of N1 Tower
2007	Archaeological Excavation Work in M45 and M49 Sites		Measurement Survey of Center Terrace in Prasat Sambor
	Research of Excavated Relics in Phnom Penh National Museum	2017	Archaeological Excavation Work of Center Terrace in Prasat Sambor
	Clearance Work of Pedestal in against of N7 Tower		Clearance Work and Measurement Survey in N3 and N4 Tower (-2018)
		2018	Restoration Work of Basement of Center Terrace in Prasat Sambor
			Creating the Inventory of Risk Map in N7, N8, N9, N10, N11, N12, N13 Towers

II-1. Architectural Survey

Architectural survey is constituted as 3 works.

Measurement survey using TPS and GPS machine

- It is necessary to grasp the situation of main sites. At first, the control points is deposited by GPS and the positional relation of the monuments is recorded by TPS using the control points.



Measurement Survey and Guidance by Waseda University

Drawing and Record before Restoration Work

- For restoration work, it is necessary to record before restoration work. Each main records is constituted as plan, elevation plan, section plan, photos, and 3D models.

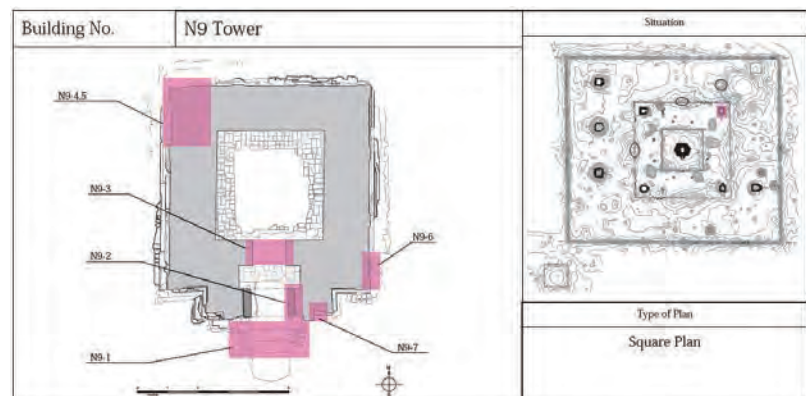
Creating the Inventory of Structures and Building Elements

- The inventory of structures is recorded basic information of monuments and risk map of dangerous places. The inventory of building elements is creating according to purpose for example decoration, lintel, pediment and so on.

Comparing with Other Sites and Monuments

- For academic study, we surveyed other sites and monuments and analyse the technique and relationship.

Risk Map and Inventory by Waseda University



No.	Point	Risk
N9-1	Both side of stairs.	Low Urgency
		Detail Falling of masonry. Damaged moderately and need to record and maintenance. It is need to consolidate by capping brick work or partial dismantling and reconstruction.

No.	Point	Risk
N9-2	Stone at left side of Opening.	Low Urgency
		Detail Breakage of stone element. Damaged moderately and need to record and maintenance. It is need to install the provisional support and bond with constructional reinforcement.

II-2. Archaeological Survey

Archaeological Clearance Work

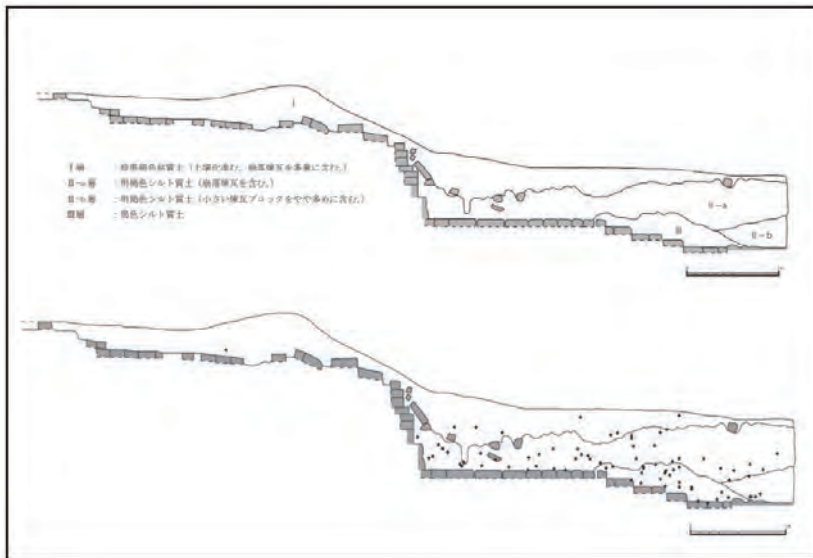
- At the time of discovery of monuments, many of structures were buried by mound and vegetation. It is necessary to do clearance work for conservation of monuments.

Excavation Work based on Measurement Survey

- In archaeological clearance work, the relics are excavated through clearance work. The excavated relics is recorded the situations using the control points.

Analyse the Relics and Comparison of Ages

- The ages of relics are important evidence to consider the age of monuments.



(left) Record of Excavation Work by Waseda University; (right) Excavation and clearance work by Waseda University

II-3. Restoration Works

Temporary Restoration Works

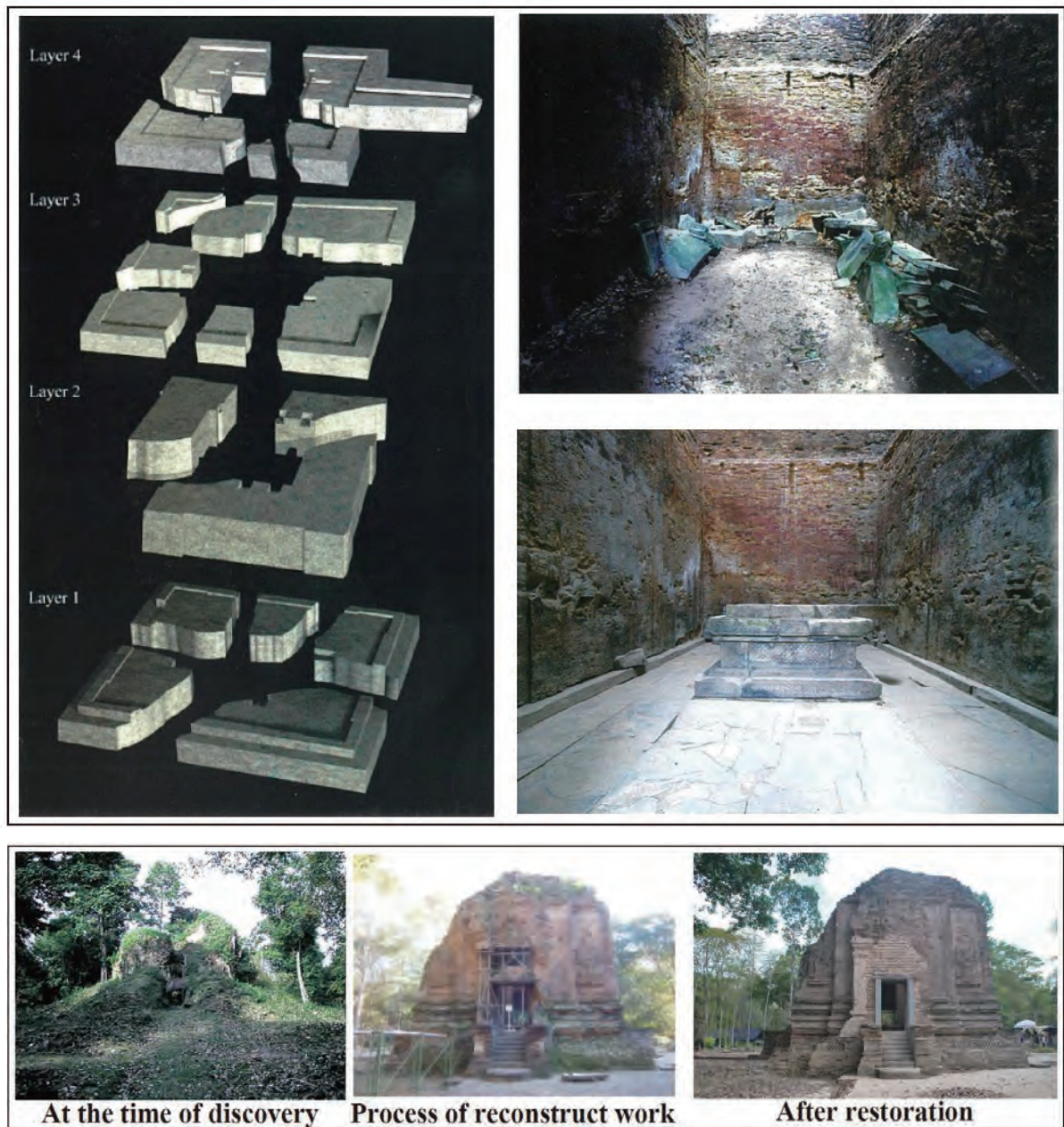
- The temporary restoration work is carried out subjected to monuments faced serious collapse.

Reconstruction

- The reconstruction works are carried out the in monuments of North group and South group. The reconstruction work is include many things, for example of deterioration work, reconstruct the bricks, rebuilding the structure and so on.

Maintenance Work

- The monuments are deteriorated through the time. It is necessary to carry the maintenance work to keep good condition.



(upper) Reconstruction of Pedestal; (bottom) Restoration Project of Main Tower in North Group by Waseda University

Especially, we progressed the restoration work in main tower in North group. At the time that we found the site, almost of the part was buried by mound and it was not confirmed whole aspect. Then, we removed the mound and reconstruct the bricks and each architectural parts. This restoration work is modeled as practice of other restoration projects. In 2016, the completion ceremony was held in main tower in North group and Sambor Prei Kuk Monuments is registered as world heritage.



Completion Ceremony of Main Tower in North Group by Ministry of Culture and Fine Arts

Study of Earthenware from Sambor Prei Kuk in Cambodia

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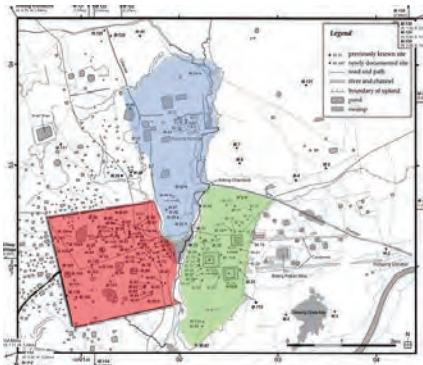
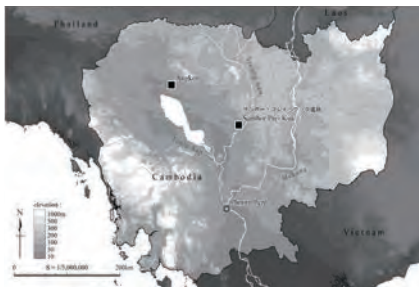


Figure 1 Location of Sambor Prei Kuk (map of Cambodia/map of Sambor Prei Kuk monuments [Shimoda 2010]/N1 tower in temple area/moat of city area)

1. Sambor Prei Kuk

Sambor Prei Kuk is one of the most important pre-Angkor period sites in Cambodia. This site is located in Kampong Thom province and about 130km from Angkor region. Sambor Prei Kuk have 2 areas: city area and temple area. City area is surrounded by 2×2 km moat and it was identified as ISANAPURA, the capital of pre-Angkor period. The name of this city also appears in Chinese historical literature as “伊奢那城” or “伊賞那補羅国”. Then, in temple area, there are 3 Hinduism temple complexes made of bricks and they have Sanskrit and old Khmer inscriptions. In 2017, this site was registered as 3rd world heritage site in Cambodia.

2. Purpose of study

To know Cambodia pre-Angkor history, it is important to study about unearthed artifacts from capital city of those days. Previously, scholars guessed ancient remains dates just only from architecture and art styles. On the other hand, through excavation, we can get raw data about artifacts, soil layers and carbon cores. In these days, study of Khmer and Chinese ceramics in Angkor period are well understood. However, there were no glazed ceramics in pre-Angkor period. In order to promote the understanding of pre-Angkor period, it is necessary to study about earthenware from typical archaeological site at that time.

The purposes of this study are:

- (1) to understand the characteristic of earthenware from Sambor Prei Kuk
- (2) through study of artifacts (especially about earthenware), to clarify the date of Sambor Prei Kuk city area was used

3. Methodology

Due to analysis, I used artifacts from M90 site which excavated in 2015 (Especially, Trench B, C, D*: Those trench have layer data)

Then, research methods were as follows:

1. understand of basic composition of artifacts
2. typological/stratigraphic research of earthenware from M90 site
3. C14 dating

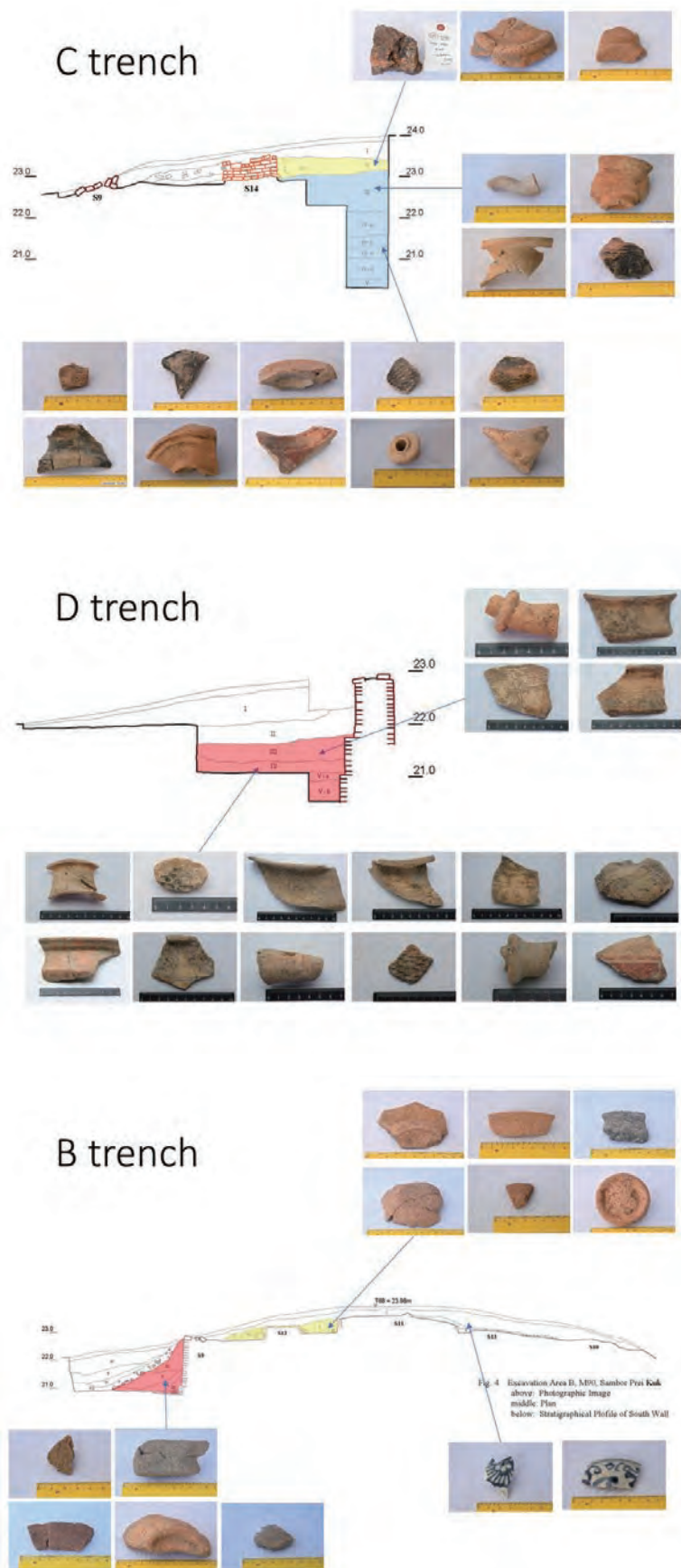
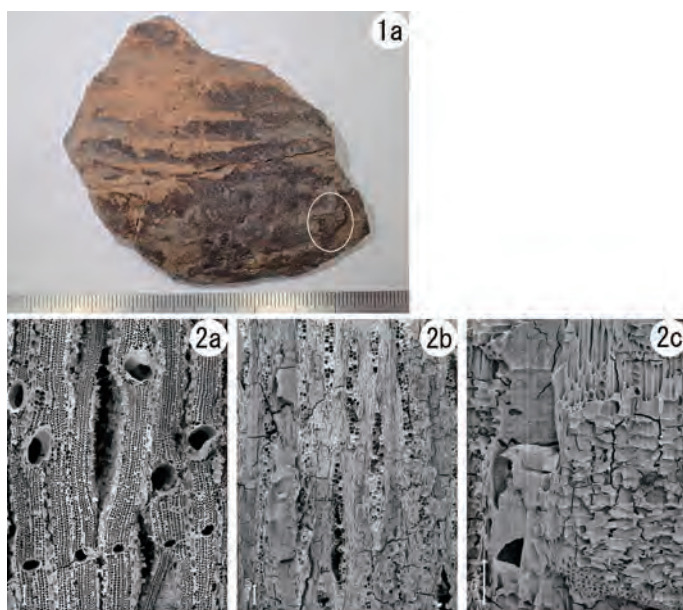


Figure 4 Artifacts excavated from each trench



7. C14 dating

2 carbon cores were collected from M90 site and I conducted C14 dating.

sample 1: surface of earthenware (Trench C)/middle of 5 century - first half of 7 century

sample 2: wood (Trench D)/ middle of 6 century - first half of 7 century

8. Comparison of earthenware in Mekong region

At last, I compared characteristics of artifacts from Sambor Prei Kuk with those from other sites in Mekong region: Angkor Borei, Oc Eo and Wat Phou. They are important sites of pre-Angkor period and these studies are well ahead. Especially about a point of earthenware, they have common characteristics in type, shape, design and size. Then, those are different with Angkor period. They were in a part of pre-Angkor network and connected with each other.

9. Conclusion

From the result of artifacts analysis, city area of Sambor Prei Kuk was used from pre-history or early pre-Angkor period. Then, the peak of this capital was around 7century. In addition, the fact that glazed ceramics were less excavated than temple area suggests that temple area continued to be used as a sacred site after Angkor period, but city area have lost the function as capital and capital of Khmer was changed in Angkor area.

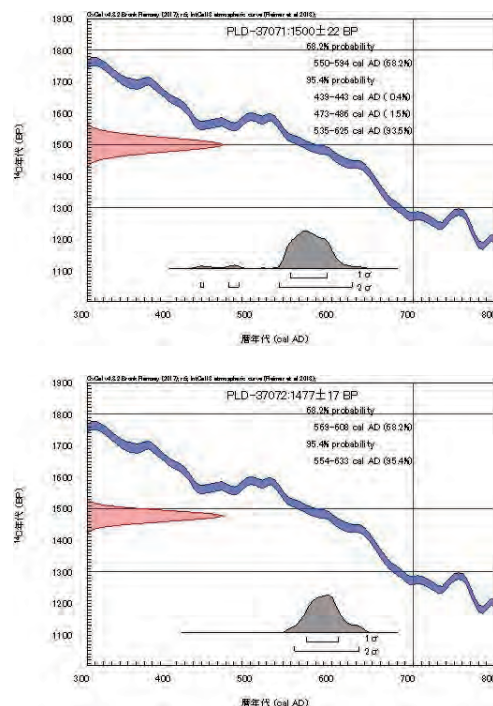


Figure 5 C14 dating [Paleo Labo. co]

	Sambor Prei Kuk	Angkor Borei	Oc Eo	Wat Phou
Kendi				
cup				
miniature				
stove				
Roof tile				
others				

Figure 6 Earthenware in Mekong region (red line shows sites which compared with Sambor Prei Kuk)

	Laos	Cambodia	Vietnam
Neolithic		Laang Spean Samrong Sen Circular Earthwork sites	
Pre-Angkor	Wat Phou	Angkor Borei Sambor Prei Kuk	Oc Eo
Angkor		Angkor	

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Towards the Conservation and Sustainable Development of Ta Nei Temple: Restoration of the East Gate

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Abstract

Ta Nei is an ancient temple with unique architectural features, located in a visually attractive setting in Angkor area (Cambodia), thanks to the rich vegetation surrounding the remains. Since the temple has been exposed to very minor interventions up to the present, it has been facing the risk of decay and structural instability which were causing the unsafe conditions for the visitors. Based on the results of the archaeological survey jointly developed by APSARA Authority and Tokyo National Research Institute for Cultural Properties (TNRICP), both parties agreed to cooperate in the conservation and sustainable development plan of Ta Nei Temple.

This paper introduces the international cooperation project between Cambodia and Japan for the conservation of Ta Nei Temple, with a focus on the process and progress of the restoration works of East Gate. The results of several detailed surveys indicated that the East gate had structural deformations due to aging, lack of maintenance as well as the invasion of tree roots and anthills. In order to fix such structural problems and provide more stability to the structure, the roof and wall stones were dismantled based on the anastylosis principles and the systematic documentation techniques. The repair method of the dismantled stones, problems in the foundation and its reinforcement methods are some of the issues which are planned to be studied more in the future.

Keywords: heritage, restoration, conservation, Ta Nei, Angkor, Cambodia.

1. Introduction

Located in the west of East Baray, Ta Nei is a Buddhist temple which was thought to be built in the late 12th century during the reign of Jayavarman VII. Located on the northeastern side of Bayon, it is one of the few temples in Angkor, which has been exposed to very minor interventions till now.

Surrounded by rich natural resources which create a

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She has been working in the field of architectural heritage conservation, particularly focusing on the built vernacular heritage up to now. Recently, she has been actively involved in the conservation and sustainable development of Ta Nei Temple, which is a cooperative project between APSARA Authority and TNRICP.

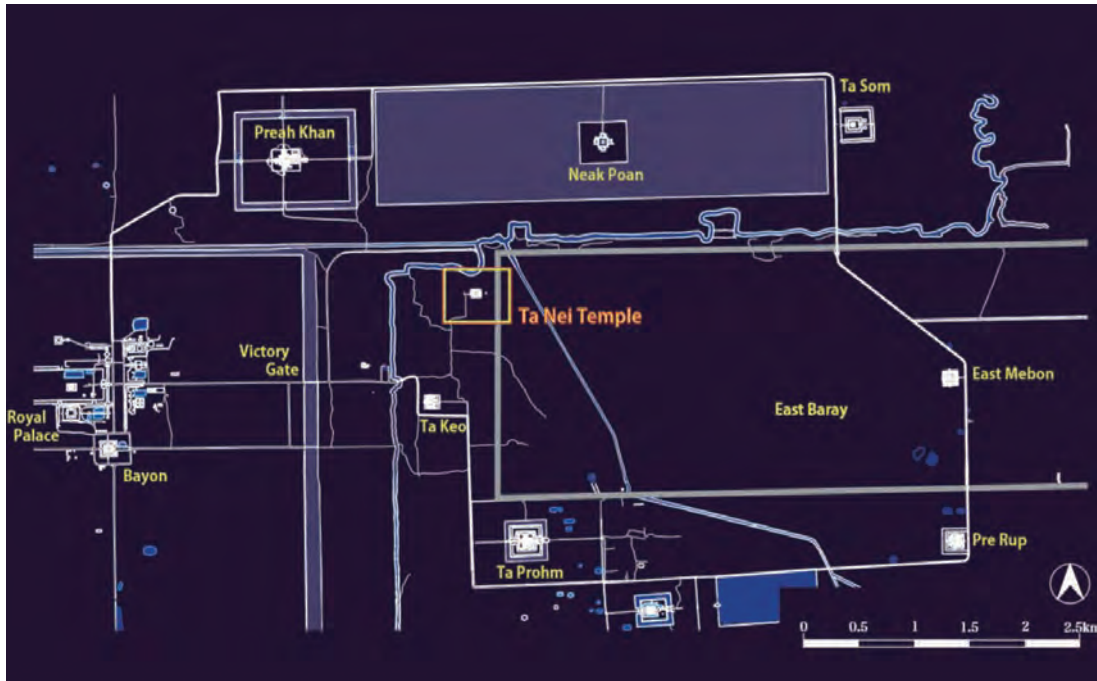
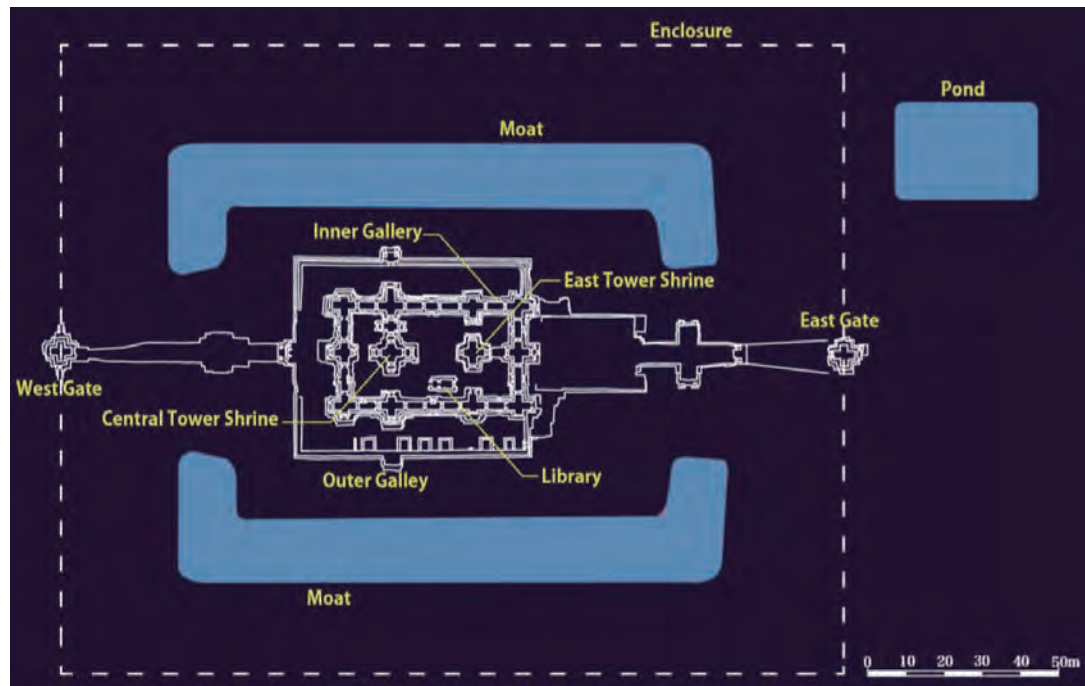


Figure 1 Location of Ta Nei Temple

beautiful atmosphere; the temple complex is accessed by two gates, which are located in the east and west side of the main temple (Figure 1). Originally, the two gates were connected by an outer wall which does not exist anymore. The East Gate was used to be the main access point for the temple, whereas it has lost this function in time. Recently, an unpaved road on the western side of temple complex connecting Ta Nei and Ta Keo Temples is often used as the main approach to the temple complex.

Surrounded by a double gallery, the central temple complex measures 56m from east to west and 47m from north to south (Figure 2). Despite its relatively small dimensions, it represents outstanding architectural features and splendid carvings (Tomoda, 2018). For instance, the east side of the central temple has an unusual configuration, where the inner gallery is extended until the outer gallery. The inner gallery surrounds the inner courtyard where the central tower, east tower and the library are located.

Despite its close location to the center and the unique architectural characteristics, no major restorations were implemented in Ta Nei Temple for many years which resulted in the decay of the structure. Considering the uniqueness of the temple and its current situation, the Authority for the Protection and Management of Angkor and the Region of Siem Reap (APSARA) and Tokyo National Research Institute for Cultural Properties (TNRICP) agreed on working together for the conservation of Ta Nei Temple. Since then, several trainings, workshops and joint researches have been organized. The information shared in this paper indicates the restoration works of East Gate of Ta Nei Temple, which was conducted as a part of “Collaborative Project for the Conservation and Sustainable Development of Ta Nei Temple”.



2. Collaborative Project for the Conservation of Ta Nei Temple

Figure 2 Plan of Ta Nei Temple

The interactions between APSARA and TNRICP towards the conservation and sustainable development plan for Ta Nei Temple were first started in 2014. According to this agreement, APSARA would take the initiative to implement the works and TNRICP would provide the technical assistance in addition to collaborative research (Tomoda, 2018; Martinez, 2018). For this purpose, several preparatory studies and analysis, including the 3D laser scanning, photogrammetric and architectural documentation, were made before the draft of the conservation plan was formed. Also, the risk assessment analyses were implemented to identify the structural problems and failure mechanism of the building. Last but not the least, archaeological surveys were made as a part of the preparatory works before the actual conservation work started. As a result of such studies, the “Conservation and Sustainable Development Plan of Ta Nei Temple” was prepared, which was approved by the International Coordinating Committee for the Safeguarding and Development of the Historic Site of Angkor (28th Technical Session of ICC Angkor) in June 2017 (Martinez, 2018).

As a part of this conservation plan, 4 main principles were set, such as (a) minimum intervention, (b) prevention of further collapse and safety, (c) representation of significance of the site and (d) holistic approach for conservation. The first principle requires to keep the interventions in the minimum level as much as possible to ensure the continuity of the unique atmosphere of the site, which is thanks to the rich vegetation surrounding the remains. The second principle necessitates to take proper precautions to prevent the further collapse of the remains as well as to provide the safety of the

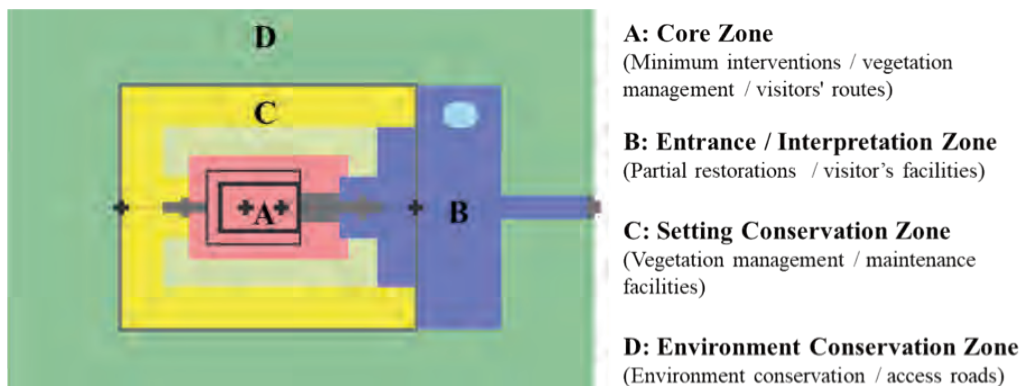


Figure 3 Zones created as a part of the conservation and sustainable development of Ta Nei Temple (Martinez, 2018)

visitors. The next principle requires to provide representations of the significant characteristics of the temple complex to the visitors and the last principle suggests to interpret the site in a holistic framework in the archaeological and ecotourism context.

In the light of those principles, the site was divided into 4 different zones, namely core zone (A), entrance/interpretation zone (B), setting conservation zone (C), and environment conservation zone (D) (Figure 3).

Each zone is considered to have different functions, intervention types and different priority levels. In terms of the conservation of the temple, two high priority topics are identified. In this paper, one of those high priority conservation topics, which is the restoration of the East Gate (Zone B) is introduced.

3. East Gate and Restoration Works

Ta Nei has two gates which are located in the east and west sides of the main temple, with similar architectural features (Figure 4). Formed in a cross-shaped plan with a dome-like topping, the East Gate used to be the first building welcoming the visitors as it used to more frequently as an access point to the temple. The unique carvings on the east pediment of the East Gate could also be associated with this significance. However, the temple is not actively used recently and the visitors access to the temple complex from the western side of the temple in the recent days.

Compared to the current conditions of the West Gate, it is

Figure 4 East Gate from northwest (left) and West Gate from northwest (right)



easily understood that the East Gate had much critical structural deformations and instability, which might have increased the risk of collapse. In order to prevent the decay of the East Gate, to provide safe conditions for the visitors and to revitalize the original access route, the cooperative project for the conservation of the Ta Nei Temple.

For this purpose, various meetings were organized between APSARA and TNRICP to decide the details of the restoration project.

Depending on such interactions, a work plan was prepared (Figure 5). According that, documentation, dismantlement of the roof, cleaning works, and dismantlement of the wall were conducted in sequence. Each activity is explained in more detail in the following sections.

3.1. Documentation Before the Dismantlement

Careful observations and detailed documentation were carried out to record the existing situation of the structure before the dismantlement work started (Figure 6). For this purpose, 3 forms of documentation methods were used, which were 3D laser scanning, photogrammetric documentation and architectural documentation. For this purpose, a 3D laser scanning survey was conducted in March, 2019 with the collaboration of Assoc. Prof. Dr. OISHI Takeshi, from the Institute of Industrial Science, the University of Tokyo. The terrestrial 3D laser scanner, Z+F IMAGER 5010C, was used to record the structure, which helped to create section and elevation images to analyze the structural problems and failure mechanisms of the gate. Being a photogrammetric documentation method, the Structure from Motion (SfM) was also utilized to record the existing condition of the structure from all directions before the restoration work started. Last

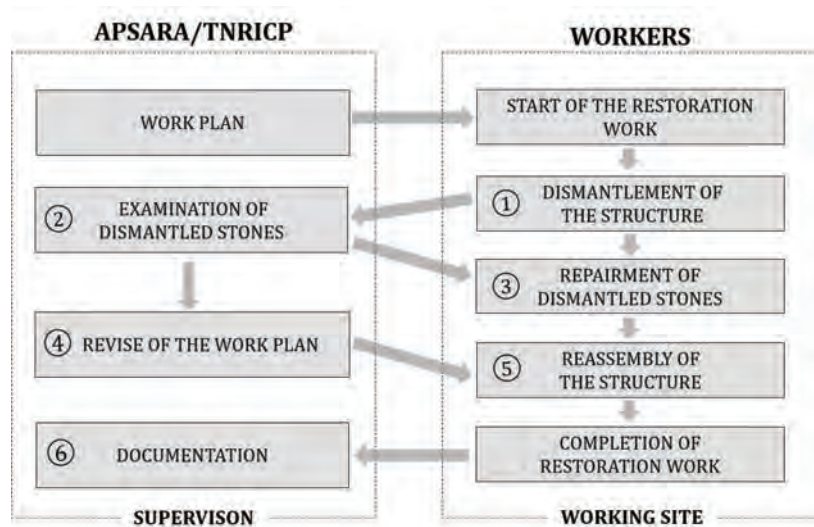


Figure 5 Work flow for the restoration of East Gate

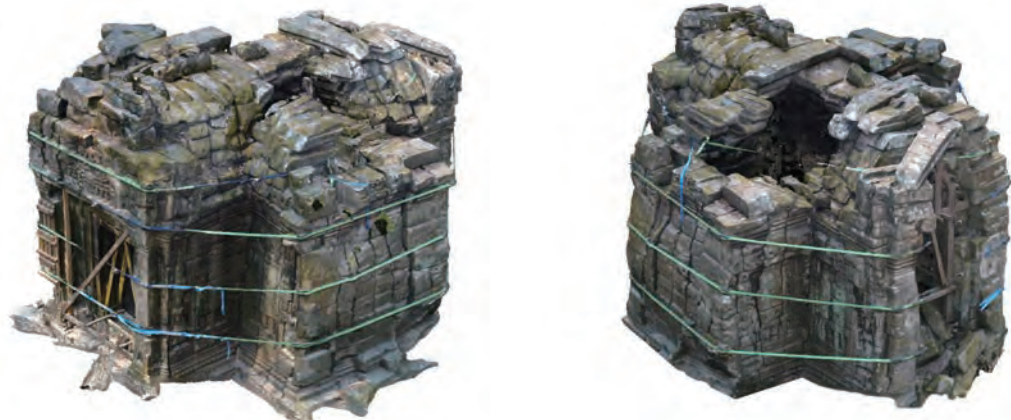


Figure 6 3D Model showing the existing situation of the East Gate before the restoration project started



Figure 7 The debris inside the East Gate



Figure 8 Discovery of the head of a sculpture under the debris

Figure 9 Head of the sculpture found under the debris inside the East Gate.



but not the least, architectural drawings are created on site which were digitized later.

3.2. Dismantlement of the Roof

After the detailed documentation and numbering the stones, the dismantlement of the roof was started from the top of the roof elements layer by layer. Numbered stones were carefully removed by the crane truck with the help of sling ropes and stored in the stone deployment area on the site.

When the dismantlement of one layer was finished, dismantling work was stopped for the documentation. At this stage, the drawing of the new layer was prepared, each stone was numbered and the photogrammetric documentation of the new layer was made which was repeated for each layer. It was confirmed during this process that although most of the roof stones were basically in a good condition, there were some damaged stones which were broke into smaller pieces, cracked and so on.

3.3. Cleaning in the Interior of the Gate

After dismantling the roof, the tree roots and anthills invading the structure were cleaned, and the collapsed stones inside the gate were removed after systematic numbering (Figure 7). During this process, it was understood that the fallen stones, for about 70 in total, which were accumulated in the southern part of the gate, naturally collapsed from the roof or pediment due to aging. In addition to that, a head of a sculpture, approximately 56 cm in height, were discovered beneath the collapsed stones leaning against the western wall of the south wing (Figure 8). The head was presumed to belong to Avalokiteshvara (called Lokesvara in Cambodia) (Figure 9). After the detailed documentation with laser scanner and photography, the head was removed for further investigation (Figure 10). Also, the condition of the interior walls and the floor was documented at this step by using the 3D laser scanner (Faro Laser Scanner Focus) and the SfM method.

3.4 Dismantlement of the Wall

Following the completion of the documentation after the cleaning works, the dismantlement of the wall was started in October 2019. At this stage, the stones were lifted slightly with a stone clamp and were put on the wooden planks for easily replacing the clamp with sling belts. After checking the condition and fixing the length of the belts, the stones were lifted up again and stored in the stone deployment area. The dismantled stones were documented at 3 steps, which were before, during and after the dismantlement work. It was confirmed during this work that tree roots, snails and insects, particularly ants, have had negative impacts on the conservation of the stones.

3.5 Documentation

The documentation works were implemented throughout the whole dismantling work. For example, before starting the dismantling of each layer (both for the roof and the wall), the elevations were recorded from all directions in addition to the plan photo taken with a 4,5m pole for SfM. The documentation was made at 3 steps; before, during and after the dismantlement.

As it was mentioned before, stones were stored in the stone deployment area which was also documented via SfM. The number of the stones was indicated on the SfM of the stone deployment area. Sufficient space was kept between stones for the detailed stone inventory works. Moreover, stone inventory sheets were prepared for every dismantled stone, which represent the size, physical condition, stone fragments and their connecting points, existence of carvings and any other remarks. Such sheets were prepared both in English and Khmer languages.

4. Ongoing and Future Works

The progress of the restoration works and the future work plan was reported at the 33th Technical Session of ICC Angkor, International Coordinating Committee for the Safeguarding and Development of the Historic Site of Angkor, on December 10, 2019.

In the beginning of December, archaeological and geotechnical surveys were also implemented to understand



Figure 10 The 3D scanning of the head before it was removed for further investigation



Figure 11 Numbering of the stones and its reflection on the drawings (left), dismantling work (right)

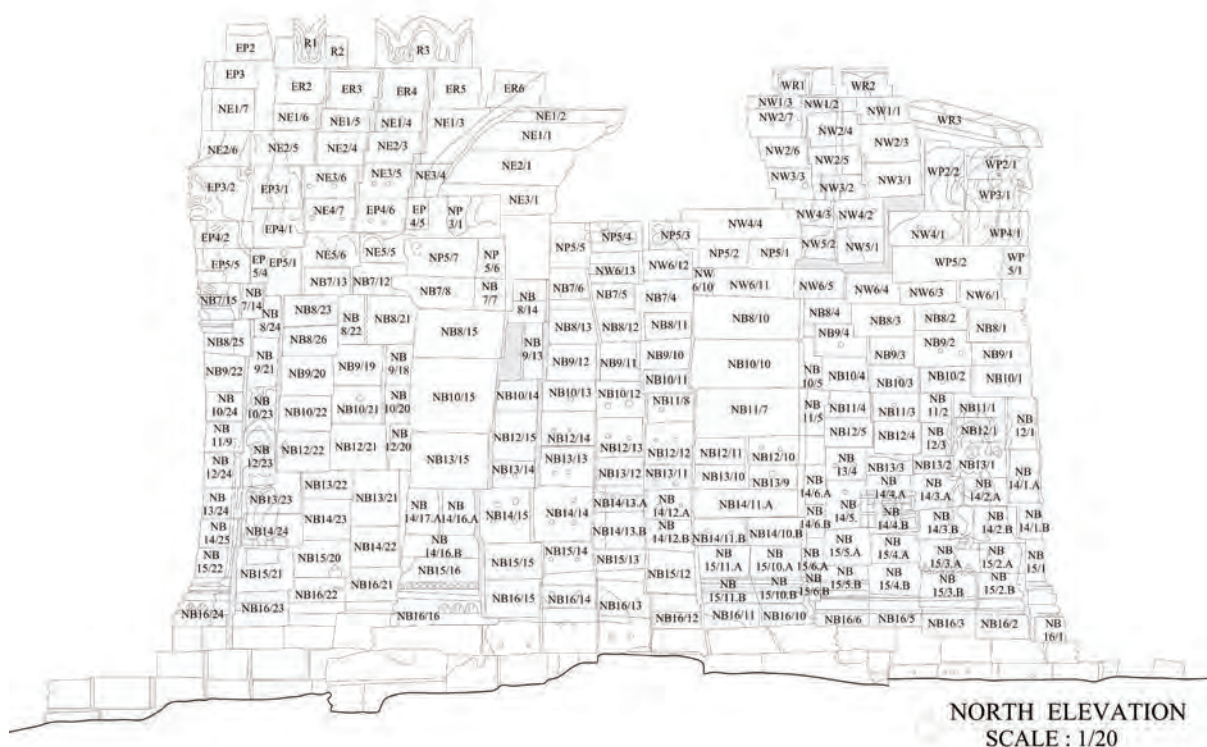


Figure 12 Numbering of the stones on the north elevation

the current condition of the foundation as well as to check the floor and the groundwater level. After conducting such surveys, the collected data will be carefully analyzed and meetings will be arranged between collaborators to exchange opinions on the reinforcement method for the foundation. It is also planned to conduct further geotechnical surveys and analysis after the dismantlement work will have progressed more.

Moreover, the detailed analysis of the dismantled stones will be done by the stone repair teams with the help of stone inventory sheets prepared. In the light of such investigation, APSARA and TNRICP will also have further discussions on the methods for proper stone repairs. After building the consensus on the reinforcement method for the foundation and the repairment method for stones, a proposal will be created which will be reported in the 34th Technical Session of ICC Angkor in June 2020. After the approval of the Ad Hoc Committee, the reinforcement and repairment works will start.

5. Conclusion

The preliminary outcomes of the international cooperation project for the Conservation and Sustainable Development of Ta Nei Temple was introduced in this paper, particularly the ongoing restoration works at the East Gate. The uniqueness of this collaboration project comes from the fact that the financial support of this project is provided by APSARA.

As a result of the several surveys and analysis, it is confirmed that the East Gate has the structural deformations and poses

the safety risks as no major interventions were made for long. That is why, the restoration works have been initiated with the cooperation of APSARA and TNRICP. After the detailed analysis and careful documentation of the current condition of the structure, the stones were numbered and dismantled from the roof until one layer above the floor level. Once the dismantlement of a layer was finished, the architectural and photogrammetric documentation were made. During this process, it was observed that there is an unevenness in the floor and the walls which is assumed to be related to the problems in the foundation. That is why, it is planned to conduct archeological and geological surveys to study the condition under the structure before starting the reassembly work.

Acknowledgement

This paper introduces the cooperation project between APSARA Authority (Cambodia) and Tokyo National Research Institute for Cultural Properties (Japan). I would like to thank TOMODA Masahiko, the Director of Japan Center for International Cooperation in Conservation, and KEN Kanai, the Head of Conservation Design Section of the same center, who have always provided insight, guidance and expertise for this project. Moreover, their valuable comments for this paper have greatly improved the content of the manuscript. It is also necessary to mention that this work wouldn't be possible without the continuous efforts and contributions of my colleagues, ABE Masashi, KANSHA Hiroo, ASADA Natsumi, and MARTINEZ Alejandro.

Furthermore, I acknowledge the continuous support of SUGIYAMA Hiroshi and SATO Yuni from Nara National Research Institute for Cultural Properties; Prof. KUWANO Reiko, Assoc. Prof. OISHI Takeshi and Assist. Prof. OTSUBO from the Institute of Industrial Science, the University of Tokyo. Without their technical expertise and guidance, it might have been difficult to obtain good results in this technical collaboration project.

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Siem Reap / Angkor - The Formative Process and a Sustainable Development as a Tourism Station

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I. Introduction

“Siem Reap / Angkor” is clearly understood by the layout that Siem Reap Historic Area is located on the cross point of 2 roads from Angkor Thom Citadel Ruins and Siem Reap River directly. After Angkor Monuments Area was registered for UNESCO World Heritage Site in 1992, Siem Reap is growing rapidly as an international tourism station. From 1907, after the conclusion of territorial treaty between France and Siam, Siem Reap city structure was formed as the present under the French colonial. However, the whole picture of an idea for the Siem Reap city master planning is not clear.

Siem Reap Historic Area has developed as a tourism station. This paper focuses on the archiving documents in that era to evidence the initial planning of Siem Reap aimed to be a tourism station of the Angkor Monuments. Since 2013, our team started the field survey in the objective area including the measurement of 8 shophouses and some significant buildings constructed in the colonial era in cooperation with APSARA authority, and also researched the old archives at the time.

On the other hand, to consider the future sustainable development of Siem Reap Historic Area, it is necessary to reconsider the condition of the present city issues and the hidden attractive points. This paper introduces two project outlines conducted by our research team.

II. Formative Process of Siem Reap in the Colonial Era

Before Siem Reap enters the French colonial era in 1907, there are colonies of pagodas and dwellings along the Siem Reap River. The map “Carte des Environs d’Angkor” drawn by Ernest Doudart de Lagrée and Francis Garnier in 1866, which was the first Mekong Exploration Commission to Cambodia, shows the surrounding situation of Angkor

Monuments. It also shows the “citadel de Siemreap” which possessed by Siam was located between the colonies and Angkor Monuments. After 1907, this Siamese Citadel was demolished.

The present Historic Area of Siem Reap considered to be formed since 1920s. We found some plans of the initial planning of Siem Reap until 1920s at National Archives of Cambodia in Phnom Penh. There are two drawings that show the site and block planning of a market (the present Old Market) and two blocks of shophouses (Document Number: 4164, National Archives of Cambodia). Considering from descriptions, one is the original plan in 1914 and another is its revision in 1918. In the revision, the location of market has changed to the center block of the city that is planned at the riverside in the original plan. And the composition of lots (shophouses) is also different from the original version. In the city planning drawing in 1920s (Documents Number: 459, National Archives of Cambodia), the detailed block composition and its dimension are described. As same as the drawing of 1918, market and two blocks are drawn. Also administrative facilities including school, post office, military and construction proposed sites of hotel are shown. This drawing has different dimensions from the present so it can say this is the planning and not the measurement after complement of each block.

The location of a market, shophouses, administrative facilities and hotel (proposed site) is densely planned as a compact city, the nature of the present Siem Reap might be determined in this time.

III. Two Projects for the Future Tourism Development in Siem Reap (Figure 1)

Project 1: Fire Prevention Project around Old Market Area

In Siem Reap, large-scale fires happen few times in a year. During conducting an architectural survey at Historic Area, we felt it is necessary to fire prevention of the area. We held workshops for local residents 8 times in total; 4 times was for the town management to maintain local historical buildings, and other 4 times was for disaster prevention under the direction of Dr. HASEMI Yuji. The project will start on April 2020 that aims to reduce risks of fire outbreak and spread in the area through continuous autonomous community activities of fire prevention supported by JICA partnership program in cooperation among the Siem Reap Provincial Administration, provincial fire police department, APSARA authority and local residents. Our goal is a sustainable community development to make a safe town with the revitalization of cultural heritage in Historic Area of Siem Reap as a basetown of tourism for Angkor.

Project 2: Preliminary Research for the Tourism Development Condition

The purpose of our research is to get the idea for the future development of a tourism station around the UNESCO World Heritage Site by capturing the tourism development condition of the comparative cities. The following cases are our focused area at our survey on December 15-17th, 2019. This research is a part of the grants-in-aid program “Investigation of the transformation of the living environment and the challenges caused by the tourism in the historic city centers around UNESCO world heritage” [Principal Investigator: KIRA Moriko, Visiting Professor of Kobe Design University].

#Case 1: Tourism Developing Area

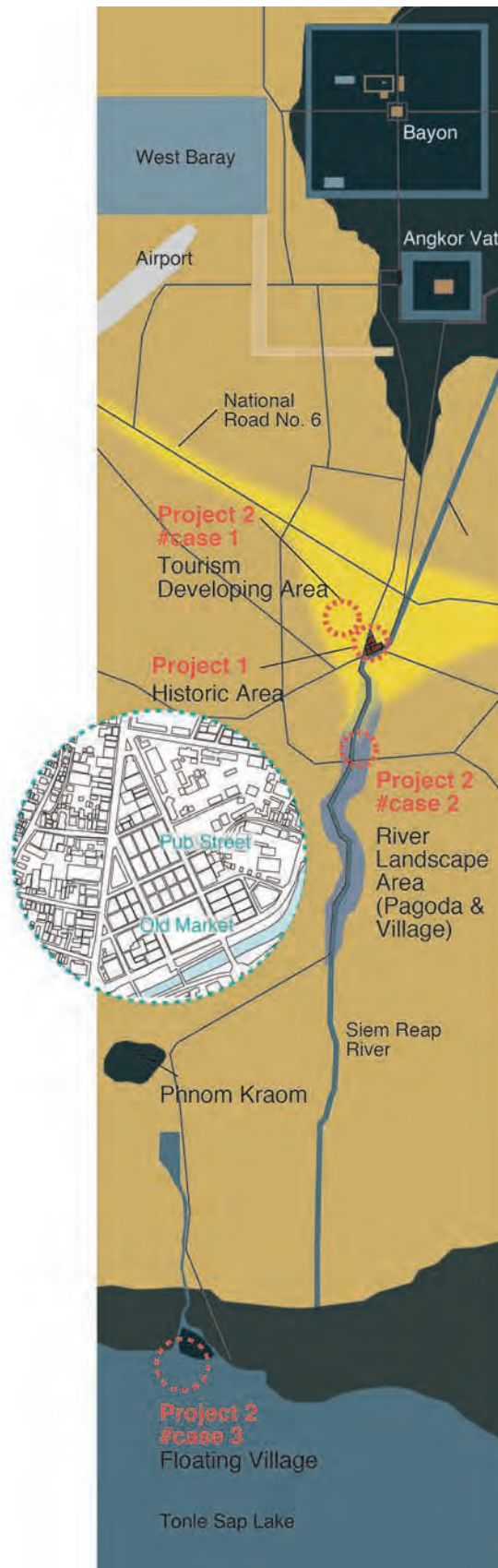
Not only the Historic Area, the tourism is spreading into the surrounding area. We conducted a field survey including interview and plotting of the conditions to know the situation of tourism affection to the lifestyles of the residents. New developing areas around the Historic Area are visually changing the cultural landscape by a densely construction of new buildings including restaurants and small hotels and guesthouses. Even some traditional Khmer style wooden houses are remaining, but the surrounding landscape becomes very different since around 2000s.

#Case 2: River Landscape Area

Along the river, the cultural landscape is remaining as a structure of “pagoda and villages”. In the east riverbank of Siem Reap River, the pagodas are established since 15th century considered from the foundation narrative of each pagoda. Around the pagoda, a school and cemetery are necessarily plotted and dwellings are gathering as a village. This is a very similar situation of drawing in the colonial era mentioned in Section II, that this cultural landscape might be continued before the colonial era.

#Case 3: Floating Village

On the way and on Tonle Sap Lake, the floating village is remaining, which is considered to be a future tourism asset. Some past studies show these villages are changing the location and lifestyles by the situation of a seasonal water level. The lifestyle and its cultural landscape is closely related to the dynamism of water flow of Siem Reap River, which is linking Angkor Monuments Area – Siem Reap Historic Area – The downstream villages.



Project 1

Fire Prevention Project around Historic Area



Fire-fighting training

Project 2

Preliminary Research for the Tourism Development Condition

#case 1: Tourism Developing Area

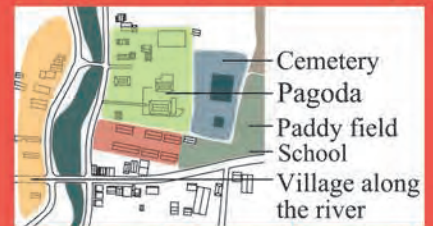


New Area Local House and Hotel

#case 2: River Landscape Area



Pagoda Cemetery Village



Structure of Riverside Landscape

#case 3: Floating Village



Chong Kneas Floating Village

Figure 1 Our survey project map around "Siem Reap/Angkor"



Archaeology Education in Thailand: Its Characteristics and Problems

Hanako SHIRAISHI

(Graduate School of Asian and African Area Studies, Kyoto University)

Objectives

- Understand the present situation of archaeology education in Thailand
- Examine its characteristics and problems, compared with those of other countries

<About THAILAND>

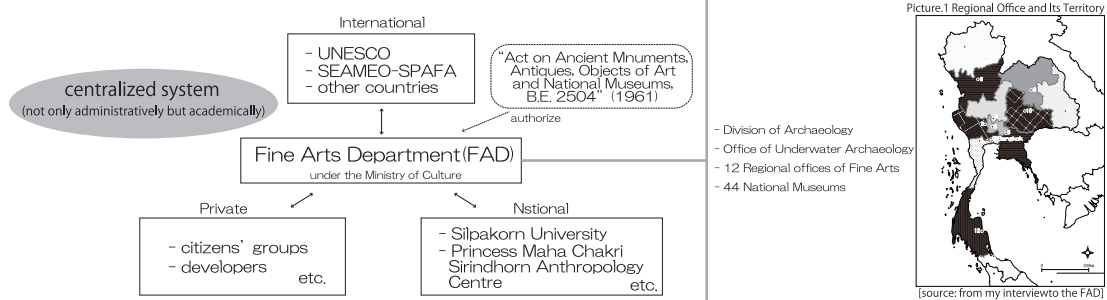
Area : 513,120 km²
Population : 69 million
Government : Constitutional monarchy
Religion : Buddhism (94%)、Islam (5%) etc.

<Fieldwork>

Period : 2016.2, 2017.9
Methodology : Interview (staff from FAD, professors and students from Silpakorn univ.), Collecting documents

1. Archaeology in Thailand

1-1. People and Organizations



2. Archaeology Education

2-1. About Silpakorn University

location : Bangkok
establishment : 1943
faculties : 12 faculties (mainly arts)



Table.1 Statistics concerning archaeology education

	JAPAN	UK	THAILAND
Universities*	80±	30±	1
Professors	300±	600±	20±
Students	2,000±	15,000±	200±

* Universities which have faculty or course of archaeology
[source: (Japan&UK) Matsuda and Okamura 2012, (Thailand) from my interview to Silpakorn univ.]

Faculty of Archaeology

Established to train archaeologists for the FAD in 1955

- | | |
|--|--|
| <p><bachelor></p> <ul style="list-style-type: none"> - archaeology - art history - anthropology - Thai - French - English - local history | <p><master></p> <ul style="list-style-type: none"> - archaeology - epigraphic studies - Sanskrit studies - art history - cultural resource management <p><doctor></p> <ul style="list-style-type: none"> - archaeology - epigraphic studies - Sanskrit studies - cultural resource management |
|--|--|

Only one university which has formal archaeology education program

2-2. Curriculum

Table.2

Core Courses*
Introduction to Archaeology
Archaeology in India
Archaeological Survey
Primitive Technology
Prehistoric Archaeology in Thailand
Historical Archaeology in Thailand prior to the 14th Century A.D.
Historical Archaeology in Thailand from the 14th Century A.D. to the Present
Prehistoric Archaeology in Southeast Asia
Archaeological Excavation
History of Archaeological Thoughts and Theories
Historical Archaeology in Southeast Asia
Research Methodology in Archaeology
Archaeological Analysis and Interpretation
Cultural Resource Management
Individual Study

* Undergraduates take all core courses and some optional courses
[source: syllabus of lectures in 2017]

- Some courses are taught by archaeologists from the FAD.
- CRM has been in the core course from 2015.
- Undergraduates participate in the field-school 3 times in 4 years to learn survey, excavation and scientific analysis.

2-3. Career

- Archaeologist and curator of the FAD
- Professor
- Curator of private museums
- Contract archaeologist

Table.3 The entry to each course

	2013	2014	2015	2016	2017
Undergraduate Course	32	38	37	28	44
Master's Course	15	16	5	7	3
Doctoral Course	4	1	1	1	1

[source: interview to Silpakorn univ.]

The number of students going to graduate school is on the decrease

- Limited job as archaeologist or curator.
- It takes at least 4 years to take the master degree.

Part II

Symposium "To Know and Share about Cultural Heritage"

シンポジウム「文化遺産を知り、そして伝える」

1. Opening Remarks

開会挨拶

HANAI Shunsuke

花井 俊介

Director, Comprehensive Research Organization, Waseda University

早稲田大学 総合研究機構長

Good morning, ladies and gentlemen. Thank you for the introduction. I am Hanai from the Comprehensive Research Organization. I would like to express our heartfelt appreciation to all of you for having taken an interest in this symposium and for attending this symposium. This symposium is co-organized by one of the research institutes under the Comprehensive Research Organization, the Institute of Cultural Heritage of Waseda University, and the Agency for Cultural Affairs. Please stay until the end of the symposium.

Including the Institute for Cultural Heritage, right now, under our Comprehensive Research Organization, there are more than 110 research institutes. We call them Project Research Institutes, and each institute is pursuing its own research project. We at Comprehensive Research Organization assist research projects by Project Research Institutes in administrative aspects and sometimes, although limited, financially so the project can be carried out smoothly.

Waseda University will be celebrating its 150th anniversary in 2032, and towards 2032, we have a plan titled "Waseda Vision 150." Under this plan, for the past few years we have been implementing fundamental reform in every corner of the university. One of the major pillars of that reform is research, of course, and at our university we are promoting unique research that contributes to the well-being and happiness of human beings. And on our university's website, it describes this more specifically that Waseda University will collaborate with research institutions outside of Japan and within Japan and return the research outcomes to

皆さん、おはようございます。ご紹介をいただきました総合研究機構の花井でございます。よろしくお願いいたします。まず、この会場にお越しの皆様、お忙しい中、このシンポジウムに関心を持っていただき、お越しいただきまして、本当にありがとうございます。今日のシンポジウムは、私どもの総合研究機構に所属している文化財総合調査研究所が、文化庁にご協力をいただき、両者の主催という形で行われるイベントでございます。どうぞ最後までよろしく願いいたします。

この文化財総合研究所を含めまして、現在、私どもの総合研究機構には、110を超えるプロジェクト研究所が所属しておりまして、それぞれ自分達の研究プロジェクトを進めているということでございます。私どもの総合研究機構というのは、それらの研究所のプロジェクトが円滑にスムーズに進むよう、事務的に、時には、限界はあるんですけどもお金の面でも支えて、お手伝いをしているという、そういう機関でございます。

さて、私どもの早稲田大学は、2032年に創立150周年を迎えます。そのため、2032年を目標にして「ビジョン150」というプランを掲げまして、ここ何年かですが、大学を全面的に改革していこうということを進めております。その大きな柱の一つが、もちろん研究でして、大学では人類の幸福に貢献する独創的な研究を推進するということを謳っております。より具体的には、大学のホームページを見ますと、国の内外の研究機関と連携を強化して、同時にそ

the international community. And therefore, Waseda University aims to become an international university that can achieve international-level outcomes.

This is an international symposium on "Mekong Cultural Diversity Beyond Borders: Southeast Asian Cultural Heritage Studies Today." I have looked at the program. The Institute for Cultural Heritage, Tokyo National Research Institute for Cultural Properties, Nara National Research Institute for Cultural Property, and with other Japanese research organizations, and the Archaeological Department of the Ministry of Religious Affairs and Culture of Myanmar, and with the National Authority for Preah Vihear of Cambodia, there is collaborative research undertaken to conduct investigation and research on tangible and intangible culture in the Mekong basin region.

Today, the results that have been obtained so far in the research will be communicated internationally. At the Institute for Cultural Heritage, this is the research policy, and the earlier-mentioned Waseda Vision 150's aim, it is consistent with that aim. Waseda Vision 150 is a target, but the Institute for Cultural Heritage is already achieving or implementing that target.

In order to write this speech, I also looked at the website of the Institute for Cultural Heritage. Many theses and publications are published. What I found interesting is a new way of investigating archaeological sites, for example, by using drones. So new methods are proactively introduced. Research investigations are carried out very actively and leading to results in a steady fashion. Once again, I would like to pay my deep respects to my colleagues at the Institute for Cultural Heritage for their efforts.

I hope that during today's symposium there will be fruitful discussion, and I hope that very important archaeological sites from the global perspective in the Mekong basin region will be protected over many years and will be utilized for the benefit of human beings. I hope that important objective will be achieved through this symposium.

With that, I would like to conclude. Thank you very much.

ういった連携から生まれた研究成果を、広く、国際社会や世界に還元するという、そういう国際的な成果を出せる国際研究大学を構築するというを謳っております。

さて、本日のシンポジウムのプログラムを拝見したのですが、文化財総合調査研究所が東京文化財研究所、あるいは奈良文化財研究所などの国内の研究組織と連携しながら、また、マンマーの宗教文化省考古局、あるいは、カンボジアのプレア・ヴィヒア機構など、海外の関係の研究機関とも連携しながら、メコン川流域の遺跡や有形無形の文化財について、調査と研究に一生懸命取り組んでこられたことが分かりました。

今日は、そういう意味で、これまでの取り組みから得られた成果を国際的に発信するという、そういう試みだろうというふうに思っております。こういった文化財総合調査研究所というのは、先程申し上げた早稲田大学の「ビジョン150」で掲げている方向と合致する、あるいは、その目標をすでに先取りして実践しているというふうに思っております。

また、このような挨拶の機会をいただいたので、文化財総合調査研究所のホームページも拝見しましたが、非常に多くの論文や著作が出版されているだけでなく、ドローンを使った新しい遺跡調査など、新しい方法を積極的に採り入れて研究を進められている、ということも知りました。このように積極的に研究と調査活動を進めて、しかも着実に成果に結びつけているという、この研究所の研究姿勢に対して、改めて心から敬意を表したいと思います。

ご挨拶の最後になりましたけれども、今日のシンポジウムで実りある議論が展開され、そして、メコン川流域の世界的に見ても非常に重要で貴重な遺跡を、長く守り、また守るだけではなく、積極的に活用していくという非常に重要な課題に、さらに一歩でも近づくことができることを強く心から期待しております。

簡単でございますが、以上で私の挨拶に代えさせていただきたいと思っております。今日はよろしく願いいたします。ありがとうございました。



2. Management of World Cultural Heritage

世界文化遺産マネージメント

Kong Puthikar

コン・プティカ

Director General, National Authority for Preah Vihear,
Ministry of Culture and Fine Arts

カンボジア文化芸術省プレア・ヴィヒア機構 総裁

Respected dean and professors of Waseda University, esteemed colleagues from the Mekong country region, distinguished guests, dear participants, a very good morning. My name is Kong Puthikar. I am Director General of the National Authority for Preah Vihear from Cambodia, and it is my great pleasure, my great honor, to be part of this symposium on "Mekong Cultural Diversity Beyond Borders: Southeast Asian Cultural Heritage Studies Today." First of all, I would like to express my sincere thanks to the Japan Agency for Cultural Affairs, the Institute for Cultural Heritage, Waseda University for organizing this important seminar and symposium and for inviting me and colleagues from Mekong countries to share our experience in cultural heritage management and present the findings that our archaeologists have done recently.

During the last two days of this important symposium, we were able to gain many useful experiences from a wide range of topics, from tangible heritage to intangible heritage, and to the prehistoric sites shared by our colleagues from the Mekong countries, and we'd had also a lot of discussion and dialogue between the Japanese experts.

Cultural heritage is always in the heart of Cambodian people through all generations. This can be shown through the flag of our country, in which Angkor always represents the Cambodian people. Even if it

同僚の皆様、ご来賓の皆様、ご参加の皆様、おはようございます。コン・プティカと申します。プレア・ヴィヒア機構の総裁を務めております。カンボジアから参りました。この会議に出席をすることができ、大変光栄です。「文化遺産を知り、そして伝える メコンがつなぐ文化多様性」国際シンポジウムへの参加の機会をいただき、光栄です。まず、心より、日本の文化庁に御礼申し上げます。また、早稲田大学文化財総合調査研究所には、この重要な研究会とシンポジウムを組織していただいたことに感謝申し上げます。多くの国からの参加者をお招きいただきまして、どのような文化財を管理しているのか、その研究成果について発表する機会をいただき、ありがとうございます。近年の考古学者たちが行なってきた調査研究の成果を発表する機会をいただき、感謝いたします。

昨日までの2日間で行われた国際研究会では、大変有益な経験の共有を図ることができました。非常に多くの話題が話し合われました。無形から有形の文化財、そして有史以前の遺跡も含めて、数多くの知見が共有されました。メコン流域諸国の同僚との共有も図られました。多くの議論、対話を日本の専門家の皆様とすることができました。

文化財というのは、カンボジアの国民の心の中に常にあります。何世代にもわたってそうです。これは国旗を見てもお分かりいただけると思いま

is sad to say that during the Khmer Rouge they also used Angkor as the symbol of the country. Fortunately, Angkor was inscribed on the World Heritage List in 1992 with the support of the international community, and particularly the Japanese government and the Japanese people.

Today, I am going to present you not only the technical aspects but also I will talk about the management aspects on the cultural heritage sites in Cambodia, and particularly on the World Heritage Site of Preah Vihear. In my presentation, I will focus on five main points. First, I will talk a little bit about the definition of cultural heritage, and secondly, discuss about the core values of heritage management, and third is the mechanism for the management of World Heritage, fourth, the challenges, and the conclusion.

The National Authority for Preah Vihear is in charge of two Cultural Heritages. One is the Temple of Preah Vihear, situated in the northern part of Cambodia, on top of the Dângrêk mountain range. It is considered to be a triumph of arts and the architecture of Khmer civilization. The Temple of Preah Vihear was built from the 9th to the 11th century and dedicated to the god Shiva. This was the center of belief during the Khmer Empire, and it is a place for pilgrimage and worship for the kings and commanders through all time. The temple was inscribed on the World Heritage List in

す。アンコールはカンボジアの国民にとっては象徴的な存在です。悲しいことにクメール・ルージュの時代にも、アンコールは仮のシンボルとして使われました。けれども、幸いなことに、アンコールは1992年に世界遺産に登録されました。国際社会の支援、また、特に日本政府の支援、そして日本の国民の皆様の協力を得て、登録が実現されました。

今日はカンボジアの文化財について、技術的な面についてお話するだけでなく、運営管理の面についても、お話したいと思います。特に、プレア・ヴィヒアという世界遺産について、お話したいと思います。プレゼンテーションの中では、5つのポイントを紹介したいと考えています。まず、文化財の定義について、世界遺産管理の中核的な価値観について、世界遺産の管理のメカニズムについて、そして課題、結論という順にお話を進めていきたいと思っています。

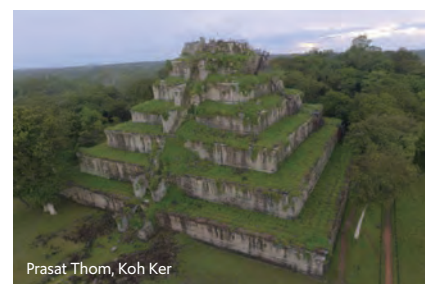
プレア・ヴィヒア機構は、二つの世界遺産を担当しています。プレア・ヴィヒア寺院は、カンボジアの北方の、ダンレック山脈の頂上に位置しています。芸術文化として、クメール文明の粋を表していると考えられています。9世紀から11世紀にかけて建立されたもので、シヴァ神に捧げられた寺院です。クメール帝国時代に建設されました。そして王や上層部の人々にとって、いつの時代にも、巡礼の場、信仰の場となってきました。世界



Location of Preah Vihear and Koh Ker



Preah Vihear temple



Prasat Thom, Koh Ker

2008 under criteria (i). It represents the masterpiece of Khmer, of human creative genius.

Another site is the Koh Ker which is located 120 km from Angkor. Koh Ker is a 10th century temple complex, and it was the former capital of the Khmer Empire. Though it was the capital for about 20 years, many temples were built and many sculptures were carved with distinguishing characteristics of their own, called Koh Ker style.

For better management of the site, the Royal Government of Cambodia has marked zoning for the temple of Preah Vihear. In here, we have four different zones. The first one is the temple zone, which you can see on the top, north, with the red color, and the second zone, zone 2, the conservation area, is the zone with the blue line color, and zone 3 is in the green color, and the rest inside of the yellow line is zone 4 for future development.

In Koh Ker, we also have marked the zoning. In zone 1, we put the core zone. And zone 2 is the buffer zone, just outside the core zone. And zone 3, we have three different places according to the community settlement over there.

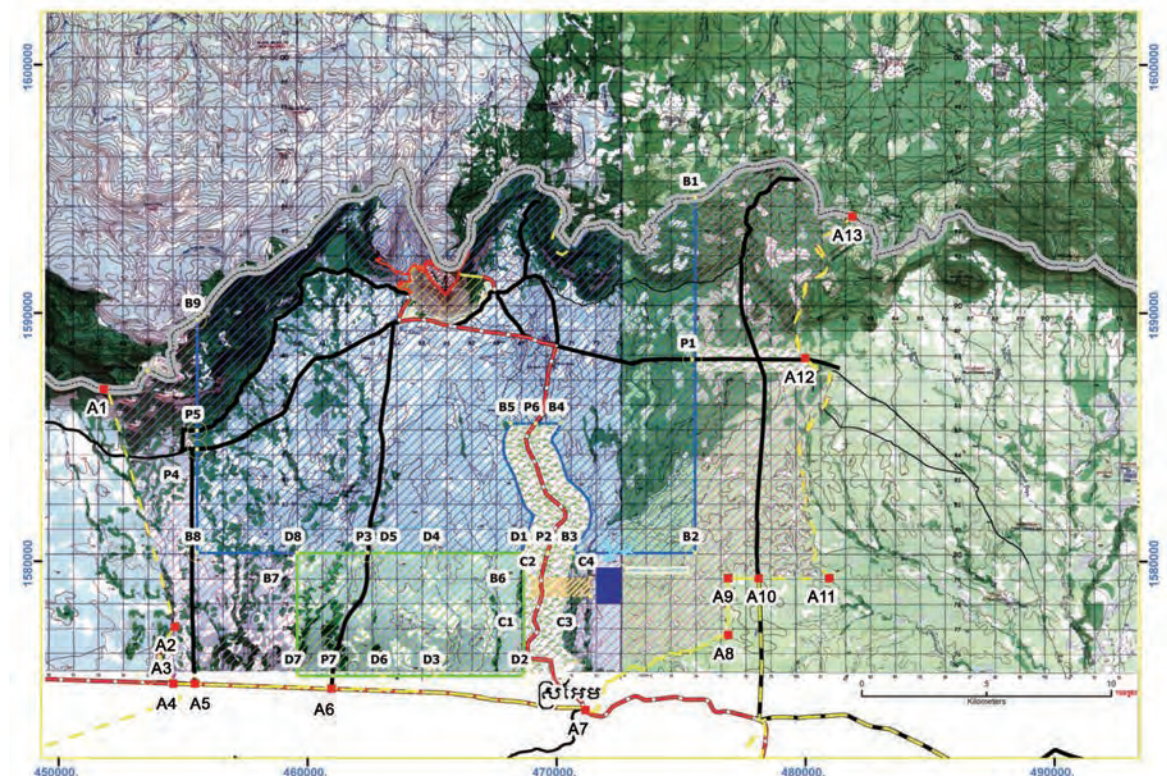
遺産に登録されたのは2008年で、評価基準(i)によります。すなわち、人間の創造的才能を表す傑作として登録されました。

もう一つがコー・ケー遺跡です。こちらは120キロメートルほどアンコールから離れた、10世紀の遺跡群です。建設された当時は、クメール王国の首都でした。20年程の短命な首都だったのですが、その間に非常に多くの寺院が建てられ、彫像も製作されました。これらは、コー・ケー様式と呼ばれる独自の特徴を有しています。

遺跡をより良く管理するために、カンボジア王国政府はプレア・ヴィヒア寺院のゾーニングを行い、4つの区画を定めました。まず、北側の赤で示されている寺院区です。2つ目は、青のラインで示された保全区です。3つ目のゾーンは緑色で示しています。そして、黄色の線内は将来的な開発のためのゾーン4です。

コー・ケーにおいても、同じようにゾーニングを設定しました。ゾーン1がコア・ゾーン、ゾーン2がバッファー・ゾーン、そしてゾーン3というふうに、地域コミュニティの状態に応じて3つの区画に分けました。

文化遺産は人類のアイデンティティーです。さ



Zoning map for the temple of Preah Vihear

Cultural heritage is the identity of mankind. Furthermore, it represents the lifestyle and civilization of one particular group of people and it passes down from one generation to another. It can be in the form of tangible heritage, like paintings, sculpture, manuscripts, or intangible heritage, like the tradition of performing arts and so on. But when we are trying to conceptualize the management of cultural heritage, we may refer to the effort to seek balance between development and conservation of the value of both assets.

However, as far as the Cambodian case is concerned, our efforts have been focusing on three core values: one is the heritage, the second is the surrounding environment, and the third one is the community. In order to achieve this goal, several important tasks need to be carried out, and four mechanisms have been in place, set up by the Royal Government of Cambodia, to make sure of the management of the site: the first one is law and regulation; the second one is the governing institution; the third one is the partnership between the national and international partners; and the fourth one is participation from the local community.

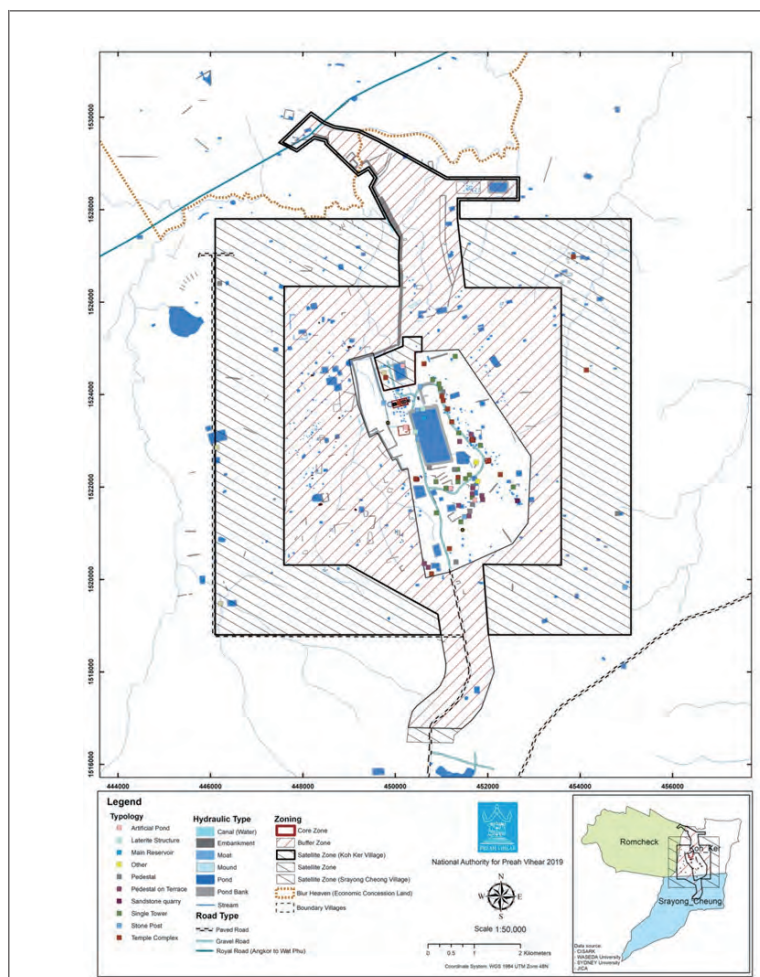
Talking about the law and regulation, the Temple of Preah Vihear is protected under both national and international laws. For the national law we have the Law on the Protection of Cultural Heritage, which was adopted by the Royal Government of Cambodia in 1996, the law on protection of the environment and natural resources, the law on land use management, and other royal decrees and sub-decrees, as well as the legal instruments put forth by the National Authority for Preah Vihear to protect the site.

On the other side, we also have

らに、特定の集団の生活様式や文明を表しており、ある世代から次の世代へと引き継がれています。それは例えば、絵画、彫刻、碑文といったような有形の遺産があれば、伝統的なパフォーマンスアートなどといった、無形の遺産もあります。私たちが文化遺産の管理を概念化しようとするときは、開発と保存という両方の価値のバランスを考えなくてはなりません。

しかしながら、カンボジアに関しては、私たちは特に、中核的な価値に焦点を絞って努力してきました。まずは、遺産そのもの。そして、次に周辺の環境。第3は地域社会です。この目標を達成するために、いくつかの重要な任務を果たさなければなりません。そのために、4つのメカニズムがカンボジア王国政府によって設けられています。まずは法律や規制、次に統括する組織、3つ目が国内外のパートナーシップ、そして4つ目が地域社会の参加です。

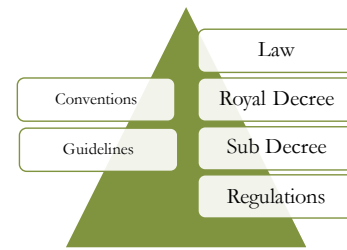
法規制につきましては、プレア・ヴィヒア寺院



Zoning map for the Koh Ker site



Core Values of World Heritage Management



Laws and Regulations

protection from the international conventions, like the convention of 1972 on the protection of world cultural heritage and natural heritage. And the 1970 convention on the protection and prevention of trafficking of artefacts. Also, being a World Heritage Site, we have to follow the guidelines of the World Heritage Committee as well.

So to ensure the implementation of the laws and regulations set forth earlier, the Royal Government of Cambodia established the National Authority for Preah Vihear with two important missions. One is to protect, preserve, conserve, and promote the value of cultural, environmental, and socio-historical archaeological site. The second one is to design and implement successfully sustainable development of tourism for both sites. Having all of these missions in hand, our objective is to ensure the harmonization of the three core values, including culture, environment, and human.

At the National Authority for Preah Vihear, we

は国内法・国際法の両方の下で保護の対象となっています。国内法としては、文化遺産保護法があります。これはカンボジア王国政府が1996年に制定したものです。また、環境保護天然資源保護法、土地利用管理法といった国内法でも保護されています。それ以外にも、政令や閣僚会議令、プレア・ヴィヒア機構が制定した条例によって保護されています。

一方、国際条約でも保護の対象となっています。例えば、1972年の世界遺産条約、世界の文化遺産および自然遺産の保護に関する条約です。1970年の文化財の不法侵入および譲渡の禁止防止に関する条約もあります。また、世界遺産ですので、世界遺産委員会のガイドラインにも従わなくてはなりません。

これらの法規制を実施していくために、カンボジア王国政府はプレア・ヴィヒア機構を設立しました。その大きな使命は2つあります。まずは考古遺跡の文化的、環境的、社会史的な価値を保全・維持し、促進をするというものです。また、2つ



National Authority for Preah Vihear (NAPV)

- (1) to protect, preserve, conserve and promote the value of cultural, environmental and historical archaeological site;
- (2) to design and implement successfully sustainable development of tourism for both sites;

“...to preserve and develop sustainably the cultural heritage through harmonizing culture, environment and human.”

have six departments, and among them, we have five technical departments, including the Department of Monuments and Archaeology, so their role and responsibility is to create the master plan and register the artefacts to preserve the heritage, and so on, as well as educate the community to understand the value of the heritage.

Another department is the environment, forestry, and water. It manages the forests in the conservation areas, fighting against illegal logging, studying the biodiversity, and managing the water and environment in the archaeological site.

The third department is urbanization and community development. The role of this department focuses on collaborating with local authorities to prepare the development plan for the community and to make sure of the land management, land use management, and urbanization in the area. This department also deals directly with community development.

The fourth department is tourism management. It focuses on the flow of tourism, making tourism plans for the site, creating facilities for tourists in the site, and promoting the site.

The fifth one is conservation rangers. It's the intervention department, where the crimes and illegal activities happen in the area. And the last one is the administration and finance to support these organizations.

Apart from our own efforts, NAPV also collaborates and cooperates with local authorities and international entities for better management of the resources and protection of the heritage site. For instance, the collaboration with local authorities, with heritage

目 of the mission is, for the heritage site, to create a sustainable tourism development plan, and to implement it. This is the role of the mission. The mission is a technical department, but our goal is culture, environment, and human, and the three core values are to be harmonized.

プレア・ヴィヒア機構には6つの部局があります。5つは技術的な部局で、記念物・考古局もその1つです。この局の役割は、マスタープランを策定し、遺物を登録すること、遺産を保護・保全することなどですが、同時に、地域社会に対して、遺産の価値を伝える教育活動もあります。

この他には、環境森林水資源局があり、保全区域の森林管理を行なっています。違法伐採を食い止め、生物多様性について研究し、水環境の管理を考古遺跡の現場で行っています。

3つ目の部局は、都市化・地域開発局です。この部局の役割は、地域の当局と協働して、コミュニティのための開発計画を準備し、土地管理、土地利用管理、都市化を進めることです。この局は、地域社会の開発にも直接関わっています。

次が観光管理局です。この局の役割は、観光客の流れを管理し、観光計画を立て、観光施設を整備し、遺跡のプロモーションをしています。

5つ目が、コンサベーション・レンジャーと呼ばれる、犯罪や違法活動に対処する部局です。そして、最後が管理財務部局です。

これらの努力に加えて、プレア・ヴィヒア機構は地元の当局や国際機関と協力し、資源のより良い管理と遺産保護に取り組んでいます。例えば、地方自治体や遺跡警察、観光警察と協力し、文化遺産の窃盗や略奪を防ぎ、訪問客の安心、安全を確保しています。また、土地の効果的な管理や建



Six departments of NAPV



police, and with tourist police enables us to prevent the theft and looting of the cultural properties and provide security and safety to visitors and ensure effective land management and construction on the site, as well as help to fight against the crimes of illegal logging and to go hand in hand with the community development.

In terms of international collaboration, we have a wide range of cooperation with well-known entities, such as the EFEO from France, Waseda University, Nara Institute, JASA, Meijo University, Tokyo University, GACP from Germany, University of Sydney, University of British Columbia, and ISEAS Institute from Singapore. This cooperation has enabled us to conduct archaeological, architectural, epigraphical, historical, and geological studies to collect data about monuments to apply LiDAR technology to scan for the archaeological remains, and to carry out 3D scans for the temples.

Furthermore, following the successful case in Angkor in 2014, the Royal Government of Cambodia, in cooperation with UNESCO, established the International Coordinating Committee for the

設を守り、違法伐採などの犯罪を食い止め、地域社会と手を取り合って発展を進めています。

国際協力の観点では、幅広く、著名な機関と協力をしています。フランスの EFEO、日本の早稲田大学、奈良文化財研究所、JASA、名城大学、東京大学、ドイツの GACP、シドニー大学、英国コロンビア大学、シンガポールの ISEAS などです。こうした協力によって、考古学、建築学、碑文学、歴史学、地質学的な調査研究を進めています。LiDAR の技術を適用して、考古遺跡をスキャンしてモニュメントのデータを集めたり、寺院の 3D スキャンを行うことができます。

さらに、カンボジア王国政府はユネスコの協力のもと、2014 年にプレア・ヴィヒア救済開発国際調整員会、ICC- プレア・ヴィヒアを設立しました。ICC- アンコールについては、おそらくお聞きになったことがあるかと思います。ICC- プレア・ヴィヒアは、3 月と 9 月、年 2 回の会合を開催しています。学者、国内外の専門家、その他の関連機関が集まって、議論し、2 つの遺跡の保存や開発について勧告を出しています。

以上に述べた取り組みや国際支援にもかかわら



International Coordinating Committee for Preah Vihear (ICC-Preah Vihear)



Safeguarding and Development of Preah Vihear. It's called ICC-Preah Vihear. Maybe you have heard a lot about ICC-Angkor. But ICC-Preah Vihear meets twice a year, in March and in September, bringing together scholars, national and international experts, and other relevant institutions to discuss and provide recommendations for conservation and development work at both sites.

Apart from our efforts and the support of the international community, we also have some challenges. The first one is inadequate human resources. NAPV is in great demand for both professional experts and capacity-building of the existing staff to lead in work in the field of architecture, archaeology, art history, hydrology, environment, community development, and the tourism field. In this respect, the Faculty of Archaeology at the Cambodian Royal University of Fine Art has been a nurture place for us to turn to for graduates in this area. Unfortunately, each year it is able to attract just a small pool of students to study the subject, like last year, only six students for one generation in archaeology due to a number of hindering factors. One of these factors is the fact that when it comes to archaeology the market for employment is rather small and offering very little incentive to attract the young generation to pursue it.

In contrast, graduates in architecture and tourism have been generated in greater numbers each year by various universities, corresponding to the needs of the private sectors which offer better wages and working conditions than employment in a cultural heritage site in a remote place far from the city.

The last thing is capacity-building for existing staff. Even though they have graduated from university, I believe that each and every country in the Mekong region will have the same problem, the same issue.

The second challenge is the lack of access to technologies. When it comes to research, our mission has been hampered by a lack of access to advanced technology to enable us to implement research, conservation and land management more effectively and at a higher pace. For example, the electrical engineering and computer science developed by

ず、私たちには幾つかの課題があります。まず、人材が不足していることです。専門家が必要なだけでなく、まさに今、建築や考古、美術史、水利、環境、地域開発、観光といった分野で仕事を進めるスタッフの能力開発、人材育成も必要です。そのような意味で、カンボジア王立芸術大学考古学部はこの分野の人材の養成機関ですので、私たちは卒業生をリクルートしたいわけですが、残念ながら、この道に進みたい学生は毎年数が少なく、昨年の考古学には6名しかいませんでした。様々な理由がありますが、一つは考古学が雇用する市場が比較的小さいこと、そして、若い人たちを惹き付けるだけの十分なインセンティブや魅力に欠けているからと言えます。

それとは対照的に、建築や観光を学んだ卒業生は、様々な大学から毎年、大勢が卒業しています。民間部門にニーズがあるからです。民間部門の場合は、賃金も労働環境も良いですし、都市から離れた場所で文化遺産の仕事に就くよりも、条件が良いのです。

また、現職のスタッフたちの能力開発の問題があります。彼らは大学を卒業していますが、それでも十分ではないと言えます。メコン流域の国々は、おそらく同じ問題に直面しているのではないのでしょうか。

第2の課題は、技術へのアクセスの問題です。調査研究や保存、土地管理をより効果的に実施するための先端技術にアクセスできないことは、私たちのチームにとって一つの妨げとなっています。例えば、日本の技術で発展した電気工学やコンピュータ科学の操作は、高度な技能を有する人材を必要とします。データ解析も同じで、データの保管と解析のためには、専用のコンピュータが必要です。

また、メコン流域の国々では、発掘調査などの成果を十分に分析できる研究所をもっている国は多くありません。現在、私たちは非常に基本的なコンピュータプログラムを使って、寺院の構造や保存を実施しています。このような方法では、調査研究、記録、保存にかなりの時間と労力が要されます。

最後の課題は、地域社会の参加です。昨日の研究会でのベトナムのプレゼンテーションでも、同

Japanese technology requires highly-skilled persons to operate it, and the same applies to the data analysis, which needs a specially designed computer to store and analyze the data.

And also, not many countries in the Mekong region have a laboratory to analyze the results from excavations and so on. Currently, we are able to carry out surveys of the temple structure and implement conservation work with help from a very basic computer program, and this means a lot of time and resources will be needed to spend on the research, documentation, restoration, and conservation.

The last challenge is participation from the local communities, and from the presentation from Vietnam yesterday, I think we have the same problem, but I believe that Thailand and Myanmar may have the same problems with the community, the local community. Their limited understanding of the value of the cultural heritage and participation in safeguarding it have given rise to difficulties for effective management of land and natural resources in the heritage zone.

Forest crime, land clearing carried out by the local villagers to make way for farming are regular occurrences within the conservation area, despite the efforts taken by NAPV to tackle it. Of course we also enforce the law. Sometimes we send them to court. But still, it's happening. Specifically, conservation awareness activities have been regularly conducted for local communities with the aim of encouraging their cooperation and involvement in the protection and promotion of their cultural heritage value. These activities are being done through the local livelihood development initiative to generate income through tourism or employment with the NAPV.

However, rampant economic growth, land pricing, and an increase in local demand that comes along with it, have us constantly struggling to find a proper balance between conservation and development. So when it comes to their needs, I think when it is affordable, I think everyone wants to have a better house, better conditions of living, so it's hard to keep them in the current heritage site with a traditional house without proper supports from technologies.

様の問題があるとうかがいました。タイやミャンマーでも、地域社会をめぐる同じ課題があるのではないのでしょうか。文化遺産の価値や保護への参加に対する住民たちの限られた理解が、遺産地区の土地や天然資源の効果的な管理を難しくしています。

地域住民による違法伐採や農地開拓は、PV 機構の努力にもかかわらず、保全地区において定期的に起こることです。もちろん、私たちは法の施行も行ないます。時には裁判になることもあります。それでもまだ、こういった問題はなくなりません。特に、文化遺産の価値を守り、促進することへの協力と参加を目的とした、地域コミュニティへの保存意識向上のための活動は、定期的に行われています。これらの活動は、PV 機構による観光や雇用を通して収入の増加を生み出すという、地域生活の発展のイニシアティブを通して行われてきました。

ところが、経済が急速に発展し、これに伴って地価が上昇し、地域の需要が増えているため、保存と開発の適切なバランスを見つけ出すことが困難になっています。誰もが、できることならば、もっと良い家に住み、もっと良い生活をしたいと願っているでしょう。ですから、適切な技術的サポートなくして、現在のような遺跡のある場所で、伝統的な家に住み続けてもらうことは困難です。

まとめますと、私の考えでは、文化遺産の管理とは、政府からの強い支援を必要とします。特に、中央政府の強い意志と、地方当局の活動的な関与との両方が必要です。さらに、法律と開発に関する規則、また、保存と開発のタスクを主導する適切な資金源、そして参加が、将来成功する遺跡管理の重要な鍵となります。加えて、国際社会からの参加もまた、異なる視点からの助けとなるでしょう。保存、調査、研究なども同じです。

そのため、遺跡の保存に関する強みと弱みについてお話するならば、私たちは非常に良い法律、規則を持っています。国際社会の参加と実践を可能とする、非常に効果的な機関制度もあります。しかしながら、弱点としては、実施のための資金源が不足している、技術へのアクセスが限られている、そして最後に人材のニーズが増えていること、これは自然の法則との闘いであると感じてい

To sum up, in my view, cultural heritage management needs strong support from the government, especially a strong will from the central government, and especially the active involvement of local authorities. Even though we have laws and development regulations and establishment of a body with clear responsibilities, as well as adequate resources to lead conservation and development tasks, participation is key for the future successful management of the site. In addition, I think participation from the international communities also helps us with the different aspects, including conservation, research, studies, and so on.

So if we talk about the strengths and weaknesses of the conservation of the heritage sites, I can say that we have very good laws, regulations, very effective institutions to implement and participation from the international community, but the weaknesses are a lack of resources for implementation and limited access to technologies, and the last thing is increasing human needs, which I feel we are fighting against the natural laws. By natural laws, I mean the increasing needs of humans, and then we try to curb down their needs.

But I believe that this platform, the symposium on the Mekong countries with the educational institution will help us to complement each other, how the educational institution can fill in with management of the site. So I think at this symposium, we learn from each other and we will together be matching, and I hope in the future we can have something together. Within the Mekong countries, we will keep sharing our studies, and our resources. And with the educational institutions, I believe that we will keep in touch and keep working together on this one.

Thank you very much for your attention.

ます。自然の法則によって、人材のニーズが増えれば、人間の欲求を抑制できるかも知れません。

ただ、このプラットフォーム、つまり、今回のメコン流域に関してのシンポジウムに参加した教育機関によって、お互いに補完し合うことができると思います。遺跡の管理に関して、教育機関がこれをどのように埋められるかということです。今回のシンポジウムで、お互いから学び合うことができると思います。そして、お互いとマッチングできると思います。将来、一緒に何かを実現したいと願っています。メコン流域の国々の中でも、研究や、資源を共有したいと思います。そして教育機関とも、互いに連絡を取り合い、一緒に仕事を続けられると信じています。

ご清聴いただき、ありがとうございました。

3. Bagan; a World Heritage Site of Myanmar **- Art, Architecture and Cultural Landscape -**

バガン：ミャンマーの世界遺産
- 美術・建築・文化的景観 -

Thein Lwin
テイン・ルイン

Deputy Director General, Department of Archaeology and
National Museum, Ministry of Religious Affairs and Culture
ミャンマー宗教文化省考古・国立博物館局 副局長



Good morning, ladies and gentlemen. Before my presentation, I would like to express my thanks to the Japan Agency for Cultural Affairs, and Institute for Cultural Heritage, Waseda University, for arranging this symposium. Also, I would like to express my thanks to all the participants from Mekong countries.

Today, my presentation title is "Bagan: A World Heritage Site of Myanmar." So firstly, I would like to introduce my country.

Myanmar has a long historic country in Southeast Asia region. The evolution of history is developed by the culture of human beings. The civilization of Myanmar is developed from the Stone Age to the civil state. Bagan is a powerful first Myanmar empire, united the whole country after the Pyu civilization.

Myanmar shares borders with India, Bangladesh, China, Laos, and Thailand. Bagan is situated on the east bank of Ayarwaddy River in the central dry zone of the country. This city encompasses approximately 40 square kilometers. About 3,822 monuments in Bagan have been registered by the Department of Archaeology and National Museum, Ministry of Religious Affairs and Culture.

Before Bagan was founded as a capital of Myanmar, at Thandaungkon, east of Nyaungu, along the Ayeyarwady riverside, we had the Anyanthian culture in the Stone Age. Paleolithic implements were found. In 1943, Hellmut de Terra and Hallam L. Movius, Jr.,

おはようございます。お話を始める前に、日本の文化庁および早稲田大学文化財総合調査研究所にお礼を申し上げたいと思います。本日のシンポジウムで発表する機会をいただき、ありがとうございます。メコン流域諸国からの参加者の方々にも、お礼を申し上げます。

本日の私の発表タイトルは「Bagan: A World Heritage Site of Myanmar」です。まず最初に、私の国についてご紹介したいと思います。

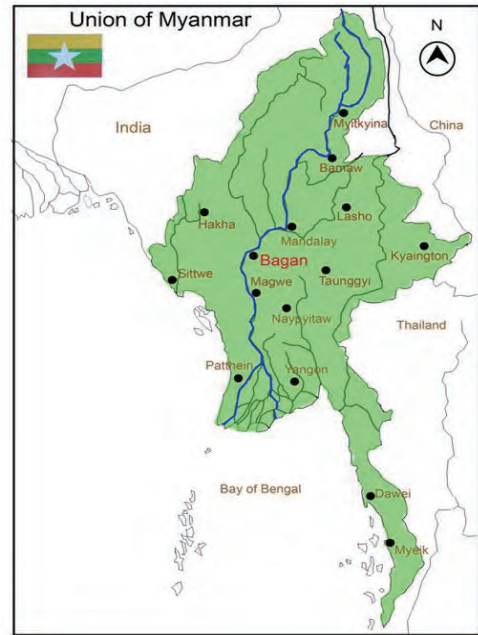
ミャンマーは東南アジア地域の国の一つとして、長い歴史を持っています。歴史は人間の文化によって発展します。ミャンマーの文明は石器時代にはじまり、市民国家へと発展しました。バガンは、ピュー文明に続いて全国を統一した、ミャンマーの最初の強大な王朝でした。

ミャンマーはインド、バングラデシュ、中国、ラオス、タイと国境を接しています。バガンは、中央の乾燥地帯を流れるエイヤーワディー川の東岸に位置しています。都市は約40平方キロメートルの地域に広がっており、約3,822のモニュメントが、宗教文化省考古・国立博物館局によって登録されています。

バガンがミャンマーの首都となる以前には、エイヤーワディー川沿いに位置する、Nyaunguの東のThandaungkonにおいて、私たちがアニャティアン文化と呼ぶ旧石器時代の文化が存在しました。化石木材の道具が発見されました。1943年、アメリカの古生物学者であるDe Terra氏と



Location of Myanmar and Bagan



American paleontologists, mentioned the Anyathian culture in their report. Letpanchibaw, 20 kilometers north of Bagan, also on the riverside, is a Neolithic site where many polished stone implements were found. So humans had settled in the Bagan area from the Old Stone Age to the present time.

Here, you can see the terrace of the Ayeyarwady river. There are totally five stories of terraces. Along the terraces, we found light implements of the Anyathian culture from the Paleolithic Stone Age. We call Anyathian culture. "Anya" means the upper side of the country.

So we are going to Bagan. Bagan is the heartland of the most important historicity Myanmar. It is the largest Buddhist empire of its time, the center of an economic, socio-political, and cultural network in active exchange with other parts of the wider region, like India and Southeast Asia. Its peak period begins from the 11th to the 13th century AD and it was the primary focus of the religious activity in this period. We call it the Bagan period.

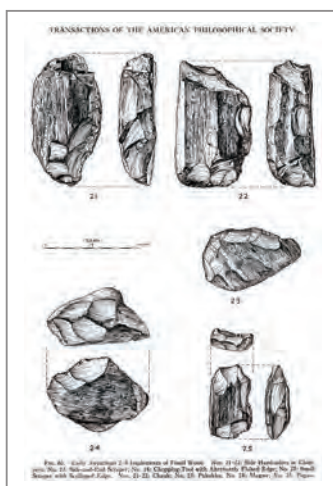
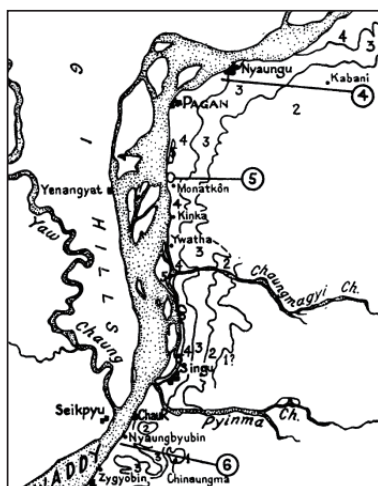
According to the native chronicles, the origin of Bagan dates back to the 2nd century AD, and it gives a long list of the Bagan kings. There were 41 kings reigning in Bagan before the accession of King Anawratha. King Anawratha (1044-1077 AD) started

Movius 氏が、アニャティアン文化について報告しています。バガンから北へ 20 キロメートルに位置する Letpanchibaw もまた、同じく川沿いにあり、研磨された新石器の道具が数多く発見されました。つまり人類は、旧石器時代から現代まで、このバガン地域に住み続けてきたことがわかります。

これは、エイヤーワディー川の段丘です。段丘は全体で 5 層からなっています。この段丘に沿って、旧石器時代のアニャティアン文化の道具が発見されました。私たちはアニャティアン文化を「アニャ」と呼びますが、「アニャ」とは国の上方（北方）を意味しています。

それでは、バガンを見ていきましょう。バガンは、ミャンマーの歴史において最も重要な心臓部です。当時の最大の仏教国で、経済的、社会・政治的、文化的ネットワークのセンターであり、インドや東南アジアといった広範囲で活発な交流が行われていました。その最盛期は 11 世紀から 13 世紀で、この時代に宗教活動も盛んに行われました。これをバガン時代と呼んでいます。

年代記によりますと、バガンの起源は 2 世紀に遡ります。歴代の王名を記した長いリストがあり、バガンを築いたアノーヤター王 (1044-1077 AD) の即位より前に、41 名の王がいたことがわかります。アノーヤター王はバガンだけでなく、ミャン



(Left) Part of a map showing geological and archaeological sites investigated between Pauk and Magwe in Upper Burma; (Middle) Early Anyathian implements of fossil wood; (Upper-right) Underlying alluvium

(Source: H. de Terra & H. L. Movius Jr., Research on Early Man in Burma, American Philosophical Society, 1943)

the period of the historical king, not only of Bagan but also the Myanmar country, who was the founder of the first Myanmar empire. In 1044, Anawratha ascended the throne as the ruler of Bagan, and became the 42nd sovereign on the list of Bagan kings.

The Buddhist tradition of merit-making was a powerful force in the creation of Bagan. It was during the Bagan period that merit-making became integral with Myanmar Buddhist culture. It remains central to Myanmar Buddhism today. This includes support of sangha (monastic community), as well as festivals, celebrations, rituals, and contributions made to the maintenance, repair, and reconstruction of the monuments successively.

According to the Nomination Dossier, Bagan has a serial property of the one major component and seven smaller components. The property includes all the attributes needed to express the potential Outstanding Universal Value (OUV) of Bagan. Spreading over a vast plane, the river and the hills frame the landscape. The major component is the heart of the ancient city, and it includes the most property attributes, including two of the corner stupas located in the river's edge.

The property is nominated under criteria (iii) testimony, (iv) typology, and (vi) association for Bagan cultural heritage site. These are the components of

マー国の王でした。ミャンマーで最初の帝国を築いたのです。1044年にアナーヤター王は、バガンの統治者として王位につき、バガンで42代目の王となりました。

仏教の伝統としての功徳を積む行為が、バガンの創建において強大な力となりました。功徳はミャンマーの仏教文化に不可欠ですが、それはバガン時代から始まり、今日のミャンマーにおいても仏教文化の中心に位置付けられています。例えば、サンガ（檀家）による様々な支援や、祭事・式典・儀式、モニュメントの継続的な維持・修繕・再建にも貢献しています。

世界遺産の推薦書には、バガンは1つの主要な構成要素と7つの小規模な構成要素からなるシリアル資産として記述されています。潜在的なOUV（顕著な普遍的価値）を表す、全ての必要な属性が含まれています。広大な平野に点在しており、河川と丘とが景観のフレームとなっています。主要な構成要素は旧市街の中心部にあり、ここに多くの属性が含まれています。川沿いの2基のコーナーの仏塔も、ここに位置しています。

世界遺産としてのバガンは、評価基準 (iii) (物証)、評価基準 (iv) (類型)、そして評価基準 (vi) (関連性) の観点で評価されました。これらは私たちが推薦書で提案した、バガン考古地域の主要な構成要素です。図は資産の周辺地域と、主要な構成

the Bagan archaeological area that we proposed to the Nomination Dossier. This is the immediate region of the property, and then some parts are associated with that major property.

According to criterion (iii), Bagan is an exceptional and continuing testimony on an impressive and unprecedented scale of the significant cultural tradition of Buddhist merit-making, and also as the pre-eminent testimony to the peak of the Bagan civilization in the 11th-13th centuries AD, as the capital of a powerful and influential regional empire.

Criterion (iv) mentions that Bagan is outstanding as the most extraordinary, rich, and creative ensemble of monumental Buddhist architecture in the region, reflecting the strength of religious devotion and wealth of this early major Buddhist empire, and to centuries of continuous religious commitment.

According to criterion (vi), Bagan is a supreme example of the fundamental historical and living Buddhist tradition and beliefs associated with merit-

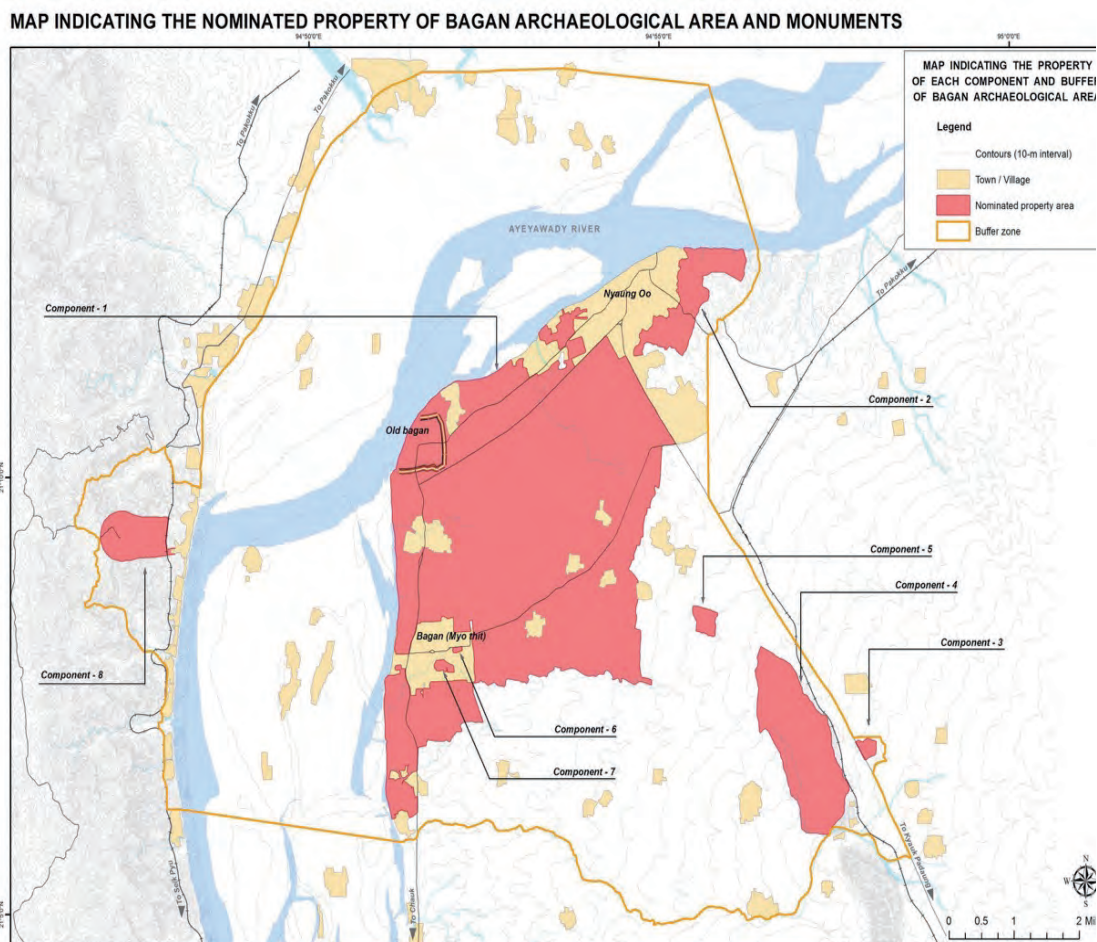
要素に関連する部分を示しています。

評価基準 (iii) としては、バガンは仏教の功德という文化的伝統の印象的、かつ前例のない規模での特別な存在で、継続的な物証であり、かつ 11 世紀から 13 世紀における強大で影響力のある地域の帝国の首都として、卓越した物証であると評価されました。

評価基準 (iv) については、バガンは、この地域において並外れて豊かで、かつ創造的な仏教建築のモニュメンタルな群であり、初期の主要な仏教帝国の宗教的な篤信と、豊さを反映しているものとして評価されました。

評価基準 (vi) に関しては、バガンは功德に関連する基本的な歴史と、今もなお生きている仏教の伝統と信仰の卓越した例であり、仏塔や寺院、僧院、そして継続的な宗教活動から構成される建築と考古学の集合体としての驚くべきスケールと、その数、密度による表現として評価されました。

それでは、再びバガンを見てみましょう。ここには多くの寺院や仏塔、僧院が存在しています。





Evening twilight of Bagan (photo by Kyi Moe)

making, expressed through the remarkable scale, number, and density of Bagan's architectural and archaeological ensemble consisting of surviving stupas, temples and monasteries, and continuing religious activities.

You can see Bagan. There are a lot of temples, stupas, and monasteries, as merit-making of the belief in Buddhist.

Here is a corner stupa of the Bagan, from the Sri Lanka king. Another type of stupa is the 11th century stupa type. The Bagan period continued from 11th to 13th centuries. During such a very long period, maybe 250 years or over, there was changes of the architectural and artistic style. You see this, also the landscape of Bagan, and then we have also the sunset.

Bagan has five palace sites. We call them Yon Hlut Kyone Palace, Kyauk Saka Gyi Palace, Thiri Pyit Saya Palace, Tan Pa Waddy Palace, and Pyin Pyar Min Palace.

Bagan architecture mainly consists of basically solid types (stupas), hollow type (temples), monastery, cave for the meditation, Ordination hall, and others.

Most of the monuments in the Bagan Period can be divided into four types, according to the construction period: before 11th century, 11th century, 12th century, and 13th century.

Actually, the chief distinction of the Bagan monuments lies between temples and stupas.

Stupas are solid monuments around which people can walk, but which has no public access to the interior. Stupa was concealed relics or precious consecrated objects ritually deposited at the time of the

それらは、功徳を積むという仏教の信仰から生み出されたものです。

コーナーの仏塔は、スリランカの王から寄進されたものです。別の仏塔は、11世紀の形式を示しています。バガン時代は11世紀から13世紀まで継続しました。250年以上にもおよぶ、非常に長い時間の中で、建築様式、美術様式も変化してきました。バガンの景観、そして美しい夕日の風景もあります。

バガンには、5つの宮殿の遺跡があります。それぞれ、Yon Hlut Kyone 宮殿、Kyauk Saka Gyi 宮殿、Thiri Pyit Saya 宮殿、Tan Pa Waddy 宮殿、Pyin Pyar Min 宮殿と呼ばれています。

バガンの建築には、主に、仏塔（ストゥーパ）と呼ばれる、中心の詰まった形式と、寺院と呼ばれる、空洞の形式とがあります。さらに、僧院や、瞑想のための洞窟、戒壇堂、その他の建物が存在しています。

これらのモニュメントの殆どは、バガン時代のもので、時代によって4つの形式に分類することができます。すなわち、11世紀以前、11世紀、12世紀、そして13世紀の形式です。

バガンの遺跡において、寺院と仏塔には、違いがあります。

仏塔とは、中心の詰まっているモニュメントで、人々はその周囲を歩くことはできますが、中に入ることはできません。仏塔が建立されたとき、聖遺物や宝飾品が収納されています。ですから、仏塔はいわば、宝物殿のようなものです。これらの仏塔は、たいていは釣鐘形のドームの形状をしていて、段状になったテラスの上に載せられています。外階段が付き、円錐形の尖塔を冠しているも



Corner stupa of Bagan

construction. A stupa is therefore a reliquary. These stupas usually appear in a bell-shaped dome, resting on the receding terraces, sometimes accessible by exterior stairways and crowned by conical spires. An interesting group of the stupas are those called encased stupas. This means stupas had been progressively encased in another stupa to create an even larger structure. It is assumed that such processes may have been undertaken as part of merit-making, where a donor funds the enlargement of an earlier stupa by building a new layer.

Now you can see the different types of stupa according to the long time period. Before the 11th century type, it means it was concerned with Pyu civilization. The Pyu civilization is also a very long civilization in our country. It belongs to the 1st to the 10th centuries AD. It is a very principal civilization compared with the Khmer empire in Cambodia, Champa in Vietnam, and Dvaravati in Thailand.

The last architectural style of the Pyu civilization can be seen in Bagan. The elongated shape stupa we call the Pyu style.

In the 11th century, the Bagan period started. At that time, there was little change in the stupa style. The Pyu type stupa has a round basement, but from the

のもあります。興味深い形式の仏塔としては、入れ子状をした仏塔もあります。つまり、ひとつの仏塔の中に、別の仏塔が内包されているということです。既存の仏塔の外側を覆うようにして、より大きな仏塔を建てる、という構造です。このようなプロセスは、おそらく新しい覆い屋を建てることで、既存の仏塔を増広するという功德のひとつであったと考えられます。

次に、時代による仏塔の変遷について見てみましょう。11 世紀以前の仏塔の形式は、ピュー文明に関連しています。ピュー文明も私たちの国では非常に長く続いた文明でした。1 世紀から 10 世紀まで続きました。カンボジアのクメール王国や、ベトナムのチャンパ、タイのドヴァーラヴァティなどといった、非常に重要な文明とも比較されるものです。

ピュー文明の最後の建築形式は、バガンにおいて見ることができます。縦に長い形状の仏塔で、これを私たちはピュー様式と呼んでいます。

11 世紀から、バガン時代が始まりました。このとき、仏塔の形式も少し変化しました。ピュー様式の仏塔は、円形の基壇をもっています。これがバガン時代、すなわち 11 世紀になると、正方形の基壇の上に、円形の仏塔が建てられるようになります。シンハラ様式、すなわち、スリランカ様式

11th century, we erected a round-base stupa on a square basement. Sometimes we can see the Sinhalese type stupa, the Sri Lanka style stupa. Sometimes elephant heads around the basement.

Another one is the temple. It has an accessible interior space, which is sometimes complex, like an entrance hall, an ambulatory corridor, shrine, et cetera, housing one or more images of the Buddha. In the other site, the Buddha image is in the niche. Temples, whose central shape consists more or less of a cube topped by tiered terraces, are classically crowned by a square tower with a curved profile, which is known as sikhara in Bagan. It was first used to describe the convex tapering tower that is a characteristic of Hindu and Jaina architecture of India. Many of the stucco carving elements were formed in moulds and attached to the temple exterior.

The temples also changed the style from the 11th to 13th centuries. In the 11th century, there were only one-story temples, with tapering stupa.

In the 12th century, temples had two or three stories. In the 13th century, we can identify different characteristics of the temple style.

At a glance, all of them seem very similar, but their plans and decorations are very different. You can see the very prominent temple called Htilominlo. The temple of Htilominlo was built by a king. Monuments built by a king, a minister, a general are larger than those by ordinary people. According to ancient records, we had over 4,000 monuments in the Bagan region. Now we can trace 3,822. That is also a very famous temple, looks like pyramids, called the Dhammayangyi temple.

This is also the finest temple in Bagan, called the Ananda Temple. Ten years ago, ASI, Archaeological Survey of India repaired the whole temple. The stucco carvings decorating the exterior, the entrance and windows are also covered by stucco carvings.

The green plates are glazed panels, depicting the 550 stories of the Buddha's previous lives, called Jataka. One story is depicted on one panel.

Here is a monastery. We have two or three types of the monastery. This monastery is an ancient type,

の仏塔も見られます。基壇の周囲に象の頭の装飾が施されることもありました。

もうひとつは寺院です。寺院は、中に入ることができる建物です。複合的な構造をしているものもあり、入口の広間や回廊、祠堂などが組み合わされて、1 体または複数体の仏像を祀っています。仏像が壁龕の中に安置された寺院もあります。寺院の中央部分は立方体に近い形状で、多重の基壇の上に載っています。曲線的なシルエットの方塔を冠しているものは、バガンでは「シカラ」して知られています。インドのヒンドゥー教・ジャイナ教の建築の特徴である、ふくらんだ形状の塔を表現するものとして使われた言葉です。寺院の外部には、多くのスタッコの彫刻が施されていました。

寺院の形式もまた、11 世紀から 13 世紀にかけて変化しました。11 世紀の寺院は 1 階建てで、通減する仏塔を載せています。

12 世紀になると、2 階建て、3 階建ての寺院も建てられました。13 世紀には、異なる特徴をもつ寺院も見受けられます。

これらは一見、似ているように見えるかも知れませんが、平面や装飾は、かなり異なっています。バガンの中でも、傑作のひとつであるティーローミンロー寺院は、王が建立した寺院です。王や大臣、将官によって建てられたものは、一般の人が建てた寺院よりも大規模です。ミャンマーの古い記録によれば、バガン地域には、4,000 を超えるモニュメントが存在したとされます。今日、私たちは 3,882 を確認できます。有名な寺院のひとつとして、ピラミッド型をした、ダンマヤンジー寺院も挙げられます。

アーナンダ寺院もまた、バガンにおいて最上級の寺院です。10 年前、インド考古局（ASI）が寺院全体の修復を手掛けました。外部にはスタッコの彫刻が施されており、入口や窓もスタッコの彫刻で覆われています。

緑色のプレートは、釉薬がかかった板で、ここに 550 の仏陀の物語、ジャータカが表されています。1 枚の板に、ひとつの物語が描かれています。

僧院には、2～3 種類の形式があります。古い形式は、おそらく、インドのマハーボディー寺院と関連しています。



Dhammayangyi temple



Ananda temple

maybe related to Maha Bodhi temple in India.

Most monasteries in Bagan are simple rectangular brick buildings with a flat roof. In front was usually an extension in wood with a tile roof, used by the monks to deliver the sermon to the lay population. However, these extensions generally do not survive apart from the brick platform.

You can see before reconstruction of a wooden structure. Roof lines are seen. Here also you can see stucco carvings remaining partly.

A library called “pitikat-teik” in Myanmar is a brick building designed to hold, either literally or figuratively, the pitika or “baskets” of the Buddhist scripture. There are two libraries at Bagan. Inscriptions of the Bagan period record that manuscripts were donated to the monastery libraries.

Ordination halls are, as the name suggests, buildings specifically used for the ordination of monks. This is an important element in Buddhism, as ordination is something that links the present generations of monks to the past ones. The ordination hall is called “thein”

バガンの多くの僧院は、煉瓦造のシンプルな長方形のかたちで、陸屋根の建物です。正面には、通常、木造の拡張部分があり、ここには瓦屋根が葺かれていました。僧侶が民衆に説法を行う場所であったと考えられています。しかし、木造部分はすでに失われていて、たいていは煉瓦の基壇が残されるのみです。

木造部分を再建する前の状態では、煉瓦の壁に屋根のラインの痕跡を見ることができます。スタッコの彫刻も部分的に残っています。

経蔵は、ミャンマー語では「ピタカッタイ」と呼ばれています。煉瓦造の建物で、文字通り、あるいは比喩的に、経典を保管する場所です。バガンには2例しかありません。バガン時代の碑文には、経典は僧院の経蔵に奉納されたことが記録されています。

戒壇堂は、その名が示す通り、僧職の授戒が行われる建物です。授戒は、現代の僧侶が過去の僧侶と繋がるという意味で、仏教にとって重要な場所です。戒壇はミャンマー語で「テイン」と呼ばれています。「シーマ」と呼ばれる結界石によって、



Brick monastery



Pitikat-taik or Library

in Myanmar, characterized and defined by a surround of marker stones called “sima.” The ordination hall is off-limits to women. The building has no other formal function.

We have a lot of threats, but now I want to mention only the two biggest threats.

The first one is flood. When we had hurricane, the Bagan region got a lot of rain. At that time, after ten or fifteen days-long raining, a flood happened there. The flood came inside the ancient city, going also inside the temple. According to the flood, some parts fell down, but now it looks like this.

And then the other biggest threat is earthquakes. In 1975, an earthquake happened in the Bagan region, the biggest earthquake. The stupa was damaged like this. The Pyu style stupa was cracked by the earthquake.

After the 1975 earthquake, in 2016, on September 26, we faced an earthquake again in the Bagan region. At that time, very beautiful Sulamani Temple was damaged in the upper portion. The upper portion fell down and destroyed the corner stupa and another part.

The Sinhalese Sri Lanka style stupa was also damaged by the earthquake. One part fell down, and still remaining like this. The upper portion of Pyatthatgyu Phaya also fell down after the earthquake. Narathihapate Phaya also. Because the upper portions

周囲の結界が示されています。戒壇堂は女人禁制で、建物にその他の機能はありません。

多くの脅威がありますが、遺跡にとって大きな2つの脅威についてお話したいと思います。

まずは、洪水です。私も一度、ハリケーンを体験しましたが、10日から15日ほど雨が続き、遺跡のある古い都市も水没しました。寺院の中も水浸しになったのです。洪水によって崩落した箇所もあり、修復を行なっています。

もうひとつの大きな脅威は、地震です。バガン地域では、1975年に大地震が発生しました。多くの寺院や仏塔が被害を受けました。

ピュー様式の仏塔にも、大きな亀裂が生じました。

1975年の地震から時代を経て、2016年9月26日にも、バガンには大きな地震がありました。これによって美しいスラーマニ寺院の上部は、被害を受けました。上部が崩落し、隅部の仏塔や他の部分も損傷しました。

スリランカ様式、シンハラ様式の仏塔でも同じように上部が崩落しました。現在もそのままの状態です。Pyatthatgyu Phayaも地震で上部が崩落しました。Narathihapate Phayaも上部が崩落しています。上部は建築構造的に非常に弱いので、崩れやすいのです。

2016年の地震で、389の遺跡が被害を受けまし



Flood in Bagan



Sulamani Temple, before the 2016 earthquake



Sulamani Temple, after the 2016 earthquake

are very prominent and weak as architectural style.

After the 2016 earthquake, 389 monuments in total were damaged. Based on the preliminary survey, three degree of priority were decided. 300 monuments in total were classified as the Priority 3. During one year, we had to take emergency measures for all of them. Priority 1 means the most serious damages at the biggest temples. For four years, only 11 monuments among them remain to conserve. International teams came to support us, such as Mr. Tomoda's group, Germany, Italy, and Korea. Japan also collaborated with the conservation of the monument.

485 temples at Bagan contain in-situ mural walls paintings, which have survived to varying degrees. They illustrate stories from Buddhist texts, sharing the lessons, and rewards of merit-making. The early murals

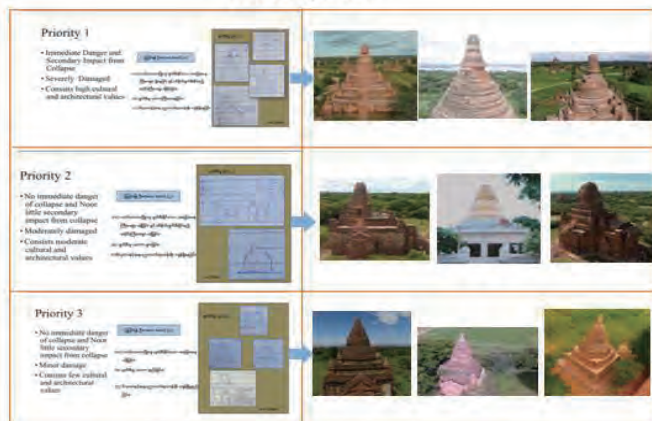
た。予備調査に基づいて、3段階の優先順位が付けられました。優先度3は、さほど被害が大きくないもので、300ほどがこれに該当します。これらに対しては、1年間で、緊急的な対処をすることができました。優先度1は、大規模な寺院で、被害も甚大であったものが該当します。これについては、4年間で11のモニュメントしか修復できていません。友田先生のチームをはじめ、国際的なチームが協力して下さっています。ドイツ、イタリア、韓国などです。日本には遺跡の修復にも協力していただいています。

バガンには、485の寺院に壁画が残されていて、残存状態はそれぞれ異なっています。これらの壁画は、仏典の物語を表現しており、教訓や功德について描かれています。バガンの古い壁画は11世紀に遡りますが、様式的にはインド北東部、海

2016- Earthquake

PRIORITY LIST OF PRELIMINARY SURVEY

Priority Edit



Visual Rapid Condition Assessments

- Priority -(1) ----- 36 Nos

- Priority -(2) ----- (53) Nos

- Priority -(3) ----- (300) Nos

-Total ----- 389

at Bagan, which are dated back to the 11th century AD, had strong stylistic similarities with the pictorial art of northeast India, the Bihar-Bengal region, notably Nalanda-Bodhgaya. The stylistic influence of the Pala India on Bagan's Buddhist sculpture is well described and called ink inscription.

In the early 12th century, it had changed to the Myanmar style. This painting depicts the Buddha's descends from the tower in the heaven. The paintings in the 13th century show some change. In the 11th and 12th centuries, we can see very big monuments in the paintings. But in the 13th century, most of the buildings are small.

In the early 11th century, the arrangement called the "Eight Great Events" was shown in the mural paintings. "Eight Great Events" means eight miracles from the life of Buddha.

This is also a painting of the 11th century, related to the King Ashoka from India. He arranges the Synod, pays homage to the Buddhist monks. The previous life of the Buddha also seen on the paintings.

This is a glazed plate depicting the Jataka 550 stories. Jataka was seen not only on the plates but also on terracotta and mural paintings.

There is a very prominent Buddha footprint. A lot of arrangements of the Buddha footprints are seen. The gods, floral designs, and Buddha figurines are also seen in the decorations, such as on the pillars or arches of the temples.

After the 13th century, the Bagan started to decline, but people were still living in the region. They believed

岸沿いのビハール=ベンガル地域、特にナーランダ=ボドガヤの美術様式との類似性が指摘されます。バガンの仏像表現には、パーラ朝インドの様式的な影響が見られ、墨書も確認できます。

12世紀になると、壁画もミャンマー様式に変化していきます。天国の塔から降りてくる仏陀のモチーフは、13世紀になると、いくらか変化を見せます。11世紀、12世紀の壁画には、非常に大きな建物が描かれていますが、13世紀になると、殆どの建物は小さく描かれます。

11世紀初頭の壁画には、「八相成道」と呼ばれるモチーフが描かれます。「八相成道」とは、仏陀の生涯の中で起きた8つの奇跡のことです。

11世紀の壁画には、インドのアショカ王に関連するものもあります。王は仏教会議を開き、仏教徒に敬意を払いました。仏陀の前世もまた、壁画に描かれています。

先程もお話しましたが、ジャータカの550の物語を描いた、釉薬をかけた装飾板があります。同様の表現は、テラコッタや壁画にも見られます。

仏足石を描いた傑作もあります。仏足石の壁画は多く見られます。その他に、神々や花のデザイン、小さな仏像などが、寺院の付柱やアーチといった装飾の中に散りばめられました。

13世紀以降、バガンは衰退を始めましたが、人々は、なおもこの地に住み続けていました。彼らは仏教を信仰し、寺院や仏塔をつくり続けていました。寺院の内部の壁画には、バガン時代のものでなく、15世紀から18世紀前半といった、後の時代のものも見受けられます。バガンの壁画には、様々な時代が混在しています。



Mural paintings inside the temples in Bagan

in Buddhism, and built temples and stupas, and also painted inside the temples, not only in the Bagan period but also the later period, from the 15th to the early 18th centuries. Inside the temples, you can see the different types of mural paintings in Bagan.

Sometimes they recorded their donations in ink writing, sometimes in poetry. Sometimes they depicted the horoscopes.

Not only the mural painting, stucco carvings were also very prominent in the Bagan period. Outside the temples and stupas, there is a lot of stucco carvings. In the early Bagan period, sculptures drew on the Pala Indian models, but by the early 12th century, a distinctive Burmese style emerged. Narrative imagery associated with the life of the Buddha was popular from early in the Bagan period. Free-standing stone sculptures were placed in specially designed niches of temples. Now we have removed that stone sculpture from the previous temple.

The style of the Buddha imagery also changes during the Bagan period. There is also a bronze Buddha image.

The teak wood of Myanmar is very prominent in the world. There were wooden buildings with woodcarvings in the Bagan period. Also, you can some trace the paintings on the carvings.

寄進に関する墨書が残されていることもあり、詩の形で記されていることもあります。ホロスコープを描いたものもあります。

壁画だけでなく、スタッコの彫刻もまた、バガン時代は非常に傑出していました。寺院や仏塔の外部には、多くのスタッコの彫刻が施されました。バガン時代の初期の彫刻は、パーラ朝インドをモデルにしたものが見られますが、12世紀前半になると、明らかなミャンマー様式が登場します。仏陀の生涯の物語は、バガン時代の初期から人気があり、よく描かれました。石製の丸彫りの彫像は、寺院の中に設けられた壁龕に安置されました。現在、これらの彫像は、もとの寺院から移動されています。

仏像の様式もまた、バガン時代の間に変化を見せました。青銅製の仏像もありました。

また、ミャンマーのチーク材は世界の中でも傑出した存在です。バガン時代の本造建築にも、木彫が施されていました。これらの木彫には、彩色の痕跡を確認することができます。

石碑は、バガンの歴史を刻んでおり、非常に重要です。例えば、功德を積んだ行為、歴史上の重要な人物の活動、建造年代、といった文明のあらゆる証拠を私たちに伝えてくれます。重要なのは、それが寄進の公的な記録であることです。バガンでは、800を超える碑文がこれまでの調査で発見



Tharabha Gate

Stone inscriptions are very important for recording the history of Bagan. They convey information about merit-making activities, the actions of important historical figures and construction dates – all evidence of the civilization. Importantly, they are a public record of merit-making endowments. Over 800 inscriptions of the Bagan period have been found so far throughout the reasearches of the Bagan Empire.

This is only one remaining entrance of the city. We call it Tharabha Gate. There are two spirit gods of the gate, and local people believe and offer to them when they purchase a car or something. Then the shaman tells them, in the next three years you will increase your business, or something like that. This kind of belief has been continuing since the Bagan period.

These pictures show the festival. We celebrate like this.

In Bagan, as in other ancient cities of Southeast Asia, the only surviving buildings are the religious monuments built of solid material, bricks mostly in Bagan, Sukhothai and Ayuthaya, stone in Angkor or in Rakhine. All dwellings, from simple houses to royal palaces, were built of wood and have disappeared long ago, leaving at most traces of their substructures. Mural paintings were also present in other historical monuments of the region like Angkor, Sukhothai or Thanjavur, but only few traces remain today because of the highly humid climate. The mural paintings of Bagan are therefore an exceptional testimony on the artistic achievements of a highly productive period,

されています。

城門の遺構はひとつだけ残されています。私たちは「タラバー門」と呼んでいます。門には2柱の精霊神がおり、地元の人々に信仰されています。人々は、車などの高価な買い物をしたときに、精霊神にお供えをします。すると、シャーマンを通して、3年のうちに仕事で収入が増えるとか、そのようなことが伝えられるのです。こうした信仰は、バガン時代から続いているものと思われます。

お祭りの写真もお見せしましょう。私たちのお祭りは、このように人形をつかって行われ、行進をします。

バガンでは、東南アジアの他の国々と同じように、耐久性のある材料で建てられた宗教的なモニュメントだけが残存しています。バガンやスコタイ、アユタヤでは、殆どが煉瓦造です。アンコールやラカインでは石造です。簡素な住宅や王宮などの居住施設の全ては、木造で建てられていました。そのため、下部構造の痕跡だけを残して、失われてしまいました。壁画にはまた、アンコールやスコタイ、タンジャブールといった地域の歴史的なモニュメントも描かれています。しかしながら、非常に湿気の高い気候であるために、現在はそれらの痕跡は殆ど残されていません。バガンの壁画は、そのため、12世紀末から13世紀に至る、高度に生産的な時代の芸術的達成の非常に重要な証拠なのです。

バガンは現在、仏教の巡礼地として、再び活力を取り戻しています。多くの寺院で祭事や仏教の伝統が伝えられています。例えば、授戒の式典、



Festivals (Intangible cultural heritage in Bagan)



from the 12th to the end of the 13th century.

Bagan is now undergoing a reinvigoration as a major site of world Buddhist pilgrimage. For those living at Bagan today, the many temple festivals and Buddhist traditions such as the ordination ceremonies and libation rituals, can trace their origins back to the Bagan period when Theravada Buddhism was fully integrated into Burmese culture. For Myanmar Buddhists, the site is 'living'. Pilgrims visit Bagan's many temples to pay respect to the Buddha and his teachings.

Bagan is clearly the exceptional testimony to the peak of the Bagan civilisation in the 11th-13th centuries CE. It has by far the largest collection of monuments and other attributes related to this civilisation, and it was the political and cultural centre of this empire.

Bagan is a supreme example of the cultural tradition of Buddhist merit-making and the associated beliefs. Through monuments, artistic and architectural features, inscriptions, festivals and Buddhist rituals, it represents a significant part of world Buddhist history and the development of karmatic Buddhism. The all artistic elements that dominate at Bagan support merit-making and donation as the central belief of Bagan's Buddhist practice.

Bagan was inscribed as a 2nd World Heritage site of Myanmar at the 43th Session of World Heritage meeting in 4th July 2019.

Before closing, I want to show my video also about Bagan. Thank you.

献酒の儀式なども、それらの起源はバガン時代に遡ります。上座仏教は、完全にビルマの文化の一部となっています。ミャンマーの仏教徒にとって、これは遺跡ではなく、「生きている」のです。人々はバガンの多くの寺院に巡礼として訪れ、仏陀とその教えに敬意を払います。

バガンは、11世紀から13世紀までのバガン文明のピークを明快に物語る傑出した証拠です。非常に大規模なモニュメントと、その他の関連遺物の集合体であり、政治と文化の中心地でした。

仏教の功德を積むことなど、仏教の文化的伝統が非常によく表されています。これらのモニュメント、その芸術的・建築的な特徴、碑文、祭事、仏教の儀式などを通じて、仏教の歴史と発展の重要な部分を表現しています。バガンを占めている全ての芸術的要素は、バガンにおける仏教の実践の中心的な信仰として、功德と寄進を支持しています。

2019年7月4日、第43回世界遺産委員会において、バガンはミャンマーの2つ目の世界遺産として登録されました。

本日のお話の最後に、バガンに関するビデオをお見せしたいと思います。ありがとうございます。

4. Cooperation Projects in Southeast Asian Countries by Tokyo National Research Institute for Cultural Properties

東南アジアにおける東京文化財研究所の
文化遺産国際協力

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Good afternoon, ladies and gentlemen. Thank you very much for your introduction. My name is Masahiko Tomoda. I am from the Tokyo National Research Institute for Cultural Properties, or TNRICP. I would like to thank the organizers for inviting me and giving me this opportunity to speak here today.

My presentation is on the TNRICP's international cooperation activities in cultural heritage at Southeast Asia. While we do conduct a variety of activities, I rarely have an opportunity to outline them, so I am extremely grateful for this opportunity today.

I would like to cover these topics today. I would like to start with introducing us. I would like to brief you on TNRICP's organization and its system for international cooperation activities. Next, what is international cooperation in the field of cultural heritage? This may be new for some of the audience today, so I would like to outline the kind of cooperation we are undertaking. Next is the main subject; I would like to present examples of cooperation projects that we have implemented, in particular, some examples of our activities in Southeast Asia.

First, let me introduce the TNRICP. It is a part of an independent administrative institution, namely the National Institutes for Cultural Heritage. In this system, there are four national museums, two research institutes in Tokyo and Nara, and the newest organization, the International Research Center for

皆さん、こんにちは。ただいまご紹介いただきました、東京文化財研究所の友田正彦と申します。まず、本日はこのような場にお招きいただき、発表の機会を与えていただきました主催者に深く御礼を申し上げます。

私のお話は、「東南アジアにおける東京文化財研究所の文化遺産国際協力」というタイトルを付けました。これからご紹介するようにさまざまな活動を行っていますが、それについてまとまったお話をする機会がなかなかありませんので、そういった意味でも今日のこの場を与えていただいたことを非常に有難く思っております。お話する内容ですが、まず我々が何者かということで、東京文化財研究所とそこにおける文化遺産国際協力活動をどのような体制で行っているかについて簡単にご説明します。それから、文化遺産国際協力とはどういうことをやるのかについてあまり馴染みがない方もいらっしゃるかもしれませんので、その協力の形について若干のお話をいたします。その後、これが中心ですが、私共が行っているさまざまな協力プロジェクト、特に東南アジア地域において行っている活動の例を幾つかご紹介したいと思います。

まず、東京文化財研究所、東文研と言っておりますが、これがどういう組織かということから始めたいと思います。先程のご紹介にありましたように、法人としては独立行政法人国立文化財機構という組織で、この下に皆さんよく御存じの国

Intangible Cultural Heritage in the Asia-Pacific Region.

Hence, these seven organization comprise the national institute. Each organization is involved in some way in international cooperation. The museums, in particular, exchange collections frequently. For example, the Kyushu National Museum has close ties to the National Museum of Thailand. While various international activities are conducted within these organizations, only our center is titled with "international cooperation." Along with other research sections, the Japan Center for International Cooperation in Conservation is one of the departments under the TNRICP that conducts and provides international cooperation.

Both Tokyo and Nara have research institutes. The Nara Institute will be giving a presentation after me. While the Nara Institute's activities are centered on archaeology and architecture, the Tokyo Institute, which started from studies on fine arts, covers mainly movable and intangible heritage, as well as conservation science fields. However, with regard to international cooperation, we are named the Japan Center. This means that, although a part of the TNRICP, our center is also expected to play the core role in international cooperation in this area of Japan.

In 1990, a small research section called the Section for Research of Asian Cultural Properties was established. This later developed into the Japan Center for International Cooperation in Conservation. Our missions include the collection, dissemination, and utilization of information about cultural heritage on a global scale. We promote partnerships and networks with international and Japanese organizations related to the protection of cultural heritage. Additionally, we conduct international cooperation projects such as those I will speak about today.

As was mentioned earlier, there is an organization named the Japan Consortium for International Cooperation in Cultural Heritage. Our center has been commissioned as the secretariat of this consortium. Not only the TNRICP and the National Institutes for Cultural Heritage, but also a variety of organizations including government agencies, other international

立博物館4館、東京と奈良の文化財研究所、さらに、これが一番歴史は浅いですが、アジア太平洋無形文化遺産研究センターが大阪の堺にあります。これら7つの組織が一つの法人のもとにぶら下がっているという形になります。それぞれの組織がいずれも何らかの形で国際協力活動を行っています。特に博物館分野においては、展示の貸し借りとか、例えば九州国立博物館はタイの国立博物館との間で非常に親密な関係にあると思いますが、色々活動をされている訳です。けれども、これらの組織の中でも、文化遺産国際協力という名前を冠しているのは、私共のセンターだけかと思っています。

東文研というのは幾つかの研究部門からなっていますが、その中に国際協力部門としてあるのが文化遺産国際協力センターで、英語では Japan Center for International Cooperation in Conservation という名称です。東京と奈良に文化財研究所があって、奈良からはこの後ご発表がありますけれども、奈良文化財研究所は考古学を中心に考古・建築を主に扱っておられるのに対して、東文研はもともと美術研究から始まっていますので、主には動産、無形遺産、保存科学といった部門を持っています。ただ、この文化遺産国際協力部門だけは、ジャパンセンターという名前が付いているように、東文研の一部門であると同時に、日本が行うこの分野の国際協力における中核を担うべし、という構想のもとに作られたセンターということになります。

そもそもは1990年に発足したアジア文化財保存研究室という一つの小さな研究部門だったのですが、これが段々と発展して、今現在はこのような国際協力センターという形になっています。国際的な文化遺産に関する情報、これは東南アジアに限らず全世界的な情報の収集・発信・活用、それから関係分野間や文化遺産保護に関する国際的な協力に関係する機関同士、国際機関と国内機関の別を問わず、そういうネットワークづくりを行うこと、そして今日ご紹介するような具体的な協力事業の実施、こういったことを私共の職務として行っています。

実は、先程の紹介の最後にありましたが、私ももう一つの名刺を持っていまして、文化遺産国際

cooperation agencies, universities, and private bodies are involved in Japan's international cooperation activities in the area of cultural heritage. Instead of being segregated, all these activities should be well coordinated and promoted for effective collaboration. This concept to establish a network for cooperation was based on the late Professor Hirayama Ikuo's idea. Therefore, with Southeast Asia, for example, our center actively held a variety of workshops during the early stages. Currently, the consortium plays a central role in the collection of regional information and PR activities. For example, in 2015, the consortium held an international forum with the ASEAN+3 countries, namely the ASEAN countries and Japan, China, and Korea, on the subject of cooperation in the area of cultural heritage.

Now, what kind of cooperation do we provide in reality? Cultural heritage is a diverse subject encompassing built heritage, archaeological remains, and movables or intangibles. Therefore, everything could be subject to international cooperation. In our case, we lack experience in cooperation with regard to a cultural landscape. However, in other areas, although intangibles are handled by a different sector, our center deals with every type of tangible heritage across the borders of the TNRICP and the Nara Institutes. Of late, activities on built heritage in particular, which is related to my area of expertise, have been increasing.

There are many types of cooperation. The restoration or repair of objects may be the easiest example to understand. Technical cooperation is provided for that purpose along with support to develop human resources. Joint research with experts or institutes of the counterparty on a specific theme is also a type of cooperation. Of course, financial assistance or the provision of equipment is another type of cooperation, but that is not what we are doing. Japan International Cooperation Agency (JICA) and other support initiatives by the Japanese government fall under this. Additionally, workshops and symposia like the one today are an example of cooperation activities.

Moreover, this cooperation does not always occur only between two partners. There are cases in which

協力コンソーシアムというものがあり、2006 年からその事務局を私共のセンターがお預かりしています。このコンソーシアムというのは、東文研や文化財機構に限らず、国際協力機関、官庁や大学、民間も含めたさまざまな組織が文化遺産国際協力活動に色々な形で関わっておられる訳ですが、それぞれがばらばらに協力を行うのではなく、それをネットワークとしてうまく日本全体で連携しながら進めていこうという、もともとは故平山郁夫先生が構想された中から生まれた組織です。そのコンソーシアムの事務局も私共が担当していますので、例えば東南アジア地域についても初期にはセンターが色々と研究会などを盛んに開いたりしていたのですが、そういった地域情報の収集や広報活動といった部分については、むしろコンソーシアムの方が中心となって行っているのが現状です。例えば、もう5年程経ちますが、2015年には「アセアン+3」ということで、アセアン各国と日中韓がどのように文化遺産分野で協力できるかをテーマに国際フォーラムを開きました。

では、実際どのように協力活動を行っているのか。まず対象になる文化遺産というのは、もうありとあらゆるものです。建造物から考古学的な物件、動産から無形遺産まで、何でも文化遺産国際協力の対象となり得る訳です。私共はというと、文化的景観については今のところあまり協力事例がなく、無形遺産は別のセクションが扱っていますが、それ以外の有形物に関してはひととおり私共のセンターが扱う対象になります。ですから、先程の東文研・奈文研という垣根を越えて活動を行っています。特に、建造物や考古、これは私の専門性との関係も若干あるのですが、そういった分野の活動が近年多くなっています。

協力のあり方にも色々な形があります。実際にものを直すというのが一番分かり易い例かもしれませんが、そのための技術的な協力を行う、人材を育成する、これは非常に重要なことですね、さらには、あるテーマについて相手国の専門家あるいは機関と共同で研究を行うということもあります。もちろん、資金を支援するとか機材を供与するとかいう形もありますが、これについては私共の仕事の内容ではなく、日本政府の文化無償協力であるとか JICA であるとか、そういった別々

several countries collaborate. Sometimes, recipients of cooperation cover multiple countries, particularly to provide training. Our experts sometimes visit other countries to provide training. Similarly, experts from different countries are sometimes invited to Japan to receive training. Sometimes, training courses are conducted in countries near the recipient country instead of the country itself. While we have not conducted such a program in Southeast Asia, we have conducted this type of training project in other regions of the world.

As I mentioned, there are approximately six types of cooperation. Of course, not every activity is neatly categorized into one of these six types. Many projects cover several aspects, such as restoration, conservation, and the development of human resources. I think that is the norm for cooperation now.

I believe many of you are familiar with the process of conservation. The first step is to survey the cultural heritage and conduct various studies. Subsequently, the value of the cultural heritage is evaluated, and based on that, the necessary and appropriate manner of conservation, repair, and management is planned. These are the steps from the conservation to the utilization of cultural properties. Knowledge of various fields is needed for this. Although the required fields of specialty for a single project could be several, we have only about 20 staff members at my center. Moreover, when we lack human resources for the required sectors, we invite outside experts, comprising mainly university researchers and experts from private companies, and request for their assistance with these cooperation projects.

I mentioned that we conduct global activities; however, our achievements are limited in Europe, Latin America, and Africa. Our activities are primarily centered in Asia, from East to West Asia in particular. The map shows the eastern half of Asia. As you can see, we continuously conduct activities in Southeast Asia, and there are many projects in this region. We have conducted cooperation projects with five of the ten ASEAN member countries so far. Among the attendees here, we still do not have any cooperation projects with

のスキームで行われていることになります。先程言ったような研究会や本日のようなシンポジウムの開催、こういったことも協力活動の重要な要素になってくると思います。また、必ずしも一対一の協力だけでなく、複数の国がある分野で共同、連携して行うということもありますし、あるいはその協力の対象が複数国ということも当然ながらあり得る訳です。特に研修事業においては、向こうに専門家が行って行う場合もあれば逆に相手国の専門家を呼んできて日本でトレーニングを受けってもらうという形もあります。また場合によっては、はるばる日本まで来ないで近隣の国を使って研修を行うという形も、私達は今のところ東南アジアでは経験がないのですが、他の地域では行った事例があります。

先程六つほどのカテゴリーを挙げましたが、協力事業の全部がどれかに当てはまるということではなく、ほとんどの場合は一つのプロジェクトの中にこの中の複数の要素が含まれていて、修復を行いながら人材育成を行うとか、共同研究を行いながら技術支援を行う、そういった形で進んでいくのがむしろ普通だと思います。

皆さんも色々と携わられている中でお分かりだと思いますが、まず調査を行い、様々な研究を行うことで遺跡、これは遺跡の場合の話に限らないですが、文化遺産の価値評価を行い、それに基づいてどういう形で保存し、修復し、活用するかという計画を作っていく、という流れのそれぞれの段階で、色々な専門分野の知識が必要になってきます。例えば建築遺産についても、多分これで全部ではないと思いますが、ここに挙げたように様々な分野が関わってきます。大抵は一つのプロジェクトで扱うのはこの中のいくつかの分野に限定されると思いますが、それでも、例えば私のセンターでも20人ぐらいのスタッフでやっていて当然こんな広い分野をカバーできる人材はありませんので、外部の専門家、主には大学の研究者の方々にご協力を仰ぐ、あるいは民間の企業の方に技術的な協力を仰ぐというような形で事業を進めることになります。

全世界で活動していると言いましたが、やはりヨーロッパやアフリカ、中南米ではあまり実績がなく、主にアジア地域を対象に活動しています。

Laos unfortunately. However, we have had cooperation projects in other Mekong region countries, so I believe many of the colleagues here from these countries might be familiar with some of those projects.

We have listed some of the major cooperation projects conducted in Southeast Asia from 1991, when the former organization of our center was established nearly 30 years ago. Regarding the types of projects listed below, at the beginning, the main type of projects conducted were smaller-scale joint research projects that were conducted over a long period and on a specific theme. They are indicated by the long green bar. After that, however, we shifted more towards human resources development and conservation assistance. Additionally, in cases of disasters like earthquakes, which affected cultural properties, we would also provide emergency support and surveys. One reason for this change was that, in 2001, the Great Buddha of Bamiyan, Afghanistan, was destroyed by the Taliban. This led to Japan believing that we should be engaged more actively in the protection of cultural heritage. After that, we enhanced our organization at the center. In fact, we decided to be more proactive by going to the sites to conduct our activities. Therefore, in recent years, along with conducting research, we also go to the actual site to conduct activities.

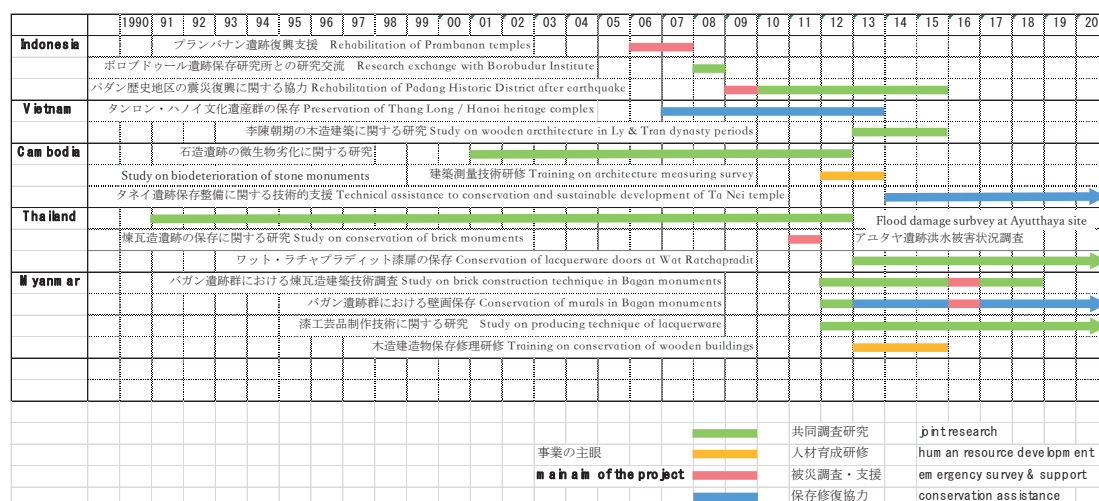
Following that long introduction, permit me to present you with actual examples now.

This project was concluded many years ago. When the former organization of the center was created, the

東アジアから西アジアまで活動していますが、東南アジアは活動場所として継続的に行っていますし、案件数も多いということになります。東南アジアのうち、アセアン10か国のちょうど半分、5か国で私達が協力活動を行った実績があります。今回来日されている方々の中では、残念ながらラオスとだけまだ協力事業の実績がないのですが、他のメコン流域4か国についてはそれぞれ今までに協力を行って、私もよく存じ上げている方が多い訳です。

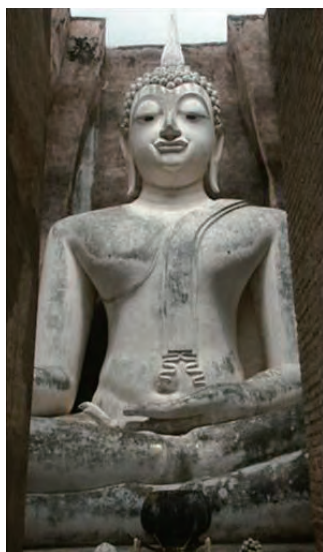
私達のセンターの前身組織ができた1991年から今まで30年ほど経つ中で、東南アジアで行った主な協力事業をここに挙げています。下に類型別の凡例を付けましたが、最初の頃は、期間は非常に長いけれども割合に小規模に特定のテーマについての共同研究を行っていたこの緑色を中心としたところがある時期から、人材育成や保存修復そのものに対する支援、あるいは文化財が何かの理由で、地震のケースが多いですが、被災した場合の調査であるとか、そういった事業が増えてきます。これは何故かと言えば、2001年にアフガニスタンのバーミヤンの大仏がタリバーンによって爆破されるという事件があり、これを機に、やはり日本としても海外の文化遺産の保護にもっと積極的に取り組むべきだということになりました。そのあたりから、当センターも体制を強化すると同時に、もう少し積極的に実際に現地に出ていって色々な活動を行う方向に変わってきたという背景があります。ですので、近年は、研究ベースの事業も行いつつ、実際に現場で汗を流しながら

History of TNRICP's major projects in Southeast Asian countries



Survey and research on the deterioration and conservation of Great Buddha statue of Wat Sri Chum in Sukhothai

Internal funding project



Investigation of the stucco surface covered by significant growth of bryophytes

Study on preservation of lacquerware objects in Wat Ratchapradit

Project entrusted by Wat Ratchapradit



On-site observation of the lacquerware fixtures decorated with mother-of-pearl decorations



Inspection by the Thai delegates on the condition of a panel after finished a pilot conservation at the TNRICP

first partners for project cooperation were Thailand and China. We studied the types of algae and bryophytes on the surface of the Great Buddha in Sukhothai with Thailand and analyzed their effects with regard to the preservation of the object. We used our internal funding, with Thailand using their budget as well.

Here is another more recent example of cooperation with Thailand. The location is at one of royal temples in Bangkok that was built in the 19th century. Japanese-looking lacquerware fixtures with mother-of-pearl decoration have been used in its main hall as a motif. Hence, some people believed that they might have been made in Japan. It recently became necessary to repair this building. Since the funds were provided by the royal household, Thailand provided funding and requested our cooperation. We signed a contract with the temple to commence this activity. We conducted

ら、という仕事が徐々に増えてきているのが現状です。

前置きが長くなりましたが、具体的な例を挙げていききたいと思います。

これはもう随分前に終わった事業です。センターの前身ができた時の、一番最初の協力相手国が中国とタイでした。タイとの間で、このスコートイにある大仏の表面に生えている苔や藻類といった微生物にどういうものがあり、どのような影響を及ぼしているのかというテーマについて、かなり長いこと共同研究を行っていました。これは自前の運営費交付金という予算を使って、タイ側はタイ側で芸術局の予算を使って行われていた事業です。

次はもっと近年のタイとの協力の例です。バンコクにある、王家と非常に関わりの強い寺院の19世紀に建てられた建物ですが、漆塗りの建具がた

a scientific analysis, brought some objects to Japan to analyze them, and concluded that they were made in Japan. We also studied how to repair those objects, and the technology was then transferred to Thailand. Now, conservation is conducted mainly by the experts in Thailand.

This is another example of a training project in Myanmar. It is about traditional wooden architecture. Myanmar has much rich wooden architecture, and the director of the Department of Archaeology requested us to cooperate in their conservation. Hence, we first started with the development of human resources. We dispatched experts working on the conservation and repair of Japanese historic wooden architecture for a three-year project using funding from the Agency for Cultural Affairs. They conducted training on the examination, restoration, and preservation of such wooden architectural heritage. Additionally, some of the trainees visited Japan to see how wooden architecture is actually repaired in Japan.

As Mr. Thein Lwin mentioned earlier, we have had cooperation projects for a long time in Bagan as well. These projects started in 2012. During this period, there was a large earthquake and the temples we were studying were damaged by it. Among the major themes of our cooperation here is the conservation of murals. As you can see, even if we repair the murals, rainwater could seep in from behind if the building itself is damaged. That is why we included measures to prevent water seepage. We repaired the murals and the building as well. Moreover, the relevant technology was transferred to the local staff. This conservation project is ongoing, with funding coming from various sources. We use not only our own funding source, but also a budget from the Japanese Agency for Cultural Affairs, and assistance from the private sector foundation.

Next, we have an example of a country that is not from the Mekong area, Indonesia. Like in Bagan, a large earthquake and tsunami occurred in Sumatra in 2009. A city in the island, Padang, was heavily damaged. Soon after the disaster, the UNESCO Jakarta office requested us to assess the damage, and we sent in experts to the field. Then, we did research

くさんあって、そこにこのような螺鈿の装飾が施してあります。一見して非常に日本的なモチーフが描かれているので日本で作られたものではないかと言われていたのですが、それを修理するということになって、お寺、実際には王室財産局というところがお金を出しているのですが、とにかくタイ側から日本の当研究所が協力を求められて受託した、お寺さんと契約して行った事業になります。サンプルを日本に持ってきて色々と科学的な分析をしたりした結果、やはり日本製だということが明らかになりました。ではそれをどういう風に直すのかということについても検討を行い、そうした技術をタイの方にも技術移転して、実際の修復事業は目下、タイ側の専門家が主に手がけられている状況です。

次はミャンマーでの研修事業です。ミャンマーには洗練された木造建築、非常に豊かな木造文化がありますが、それを何とかしたいという相談が考古局長からありました。これをうけて、ではまず人材だろうということで、日本の木造文化財建造物の修理に携わる専門家を講師として派遣し、木造建築遺産の修理、主には修理に先立つ調査の仕方についての研修を3年間ほど、文化庁から予算をいただいて行いました。その中では、日本にもミャンマー人専門家をお呼びして、日本の修理現場で実際の様子を見てもらい、また現場の方と意見交換するというようなことも行っています。

先程、テイン・ルインさんからご紹介がありましたバガンでも、もう随分長いこと協力をしています。2012年ぐらいから協力を始めたと思いますが、その間に大きな地震があって、私達が調査していた寺院も多かれ少なかれ被災しました。ここでの協力の大きなテーマの一つが壁画の保存です。そのまま壁画を直しても、建物本体が傷んでいると背後から水が入ってきて表面だけ直しても意味がないということで、結局その防水のための措置を含めた建物の修理と壁画の修理を両方行っていて、その中で現地スタッフへの技術移転も行い、現在も継続しています。この事業には色々な資金が入っていて、自前の運営費交付金もあれば文化庁からの予算も使っていましたし、あるいは民間の財団からのご協力をいただきながら行っています。

Training on the research and conservation of traditional wooden architecture

Project entrusted by Agency for Cultural Affairs of the Japanese Government



An example of the richly ornamented traditional wooden monastery buildings in Mandalay



Trainees from the Department of Archaeology of Myanmar visited a restoration site of the historic temple structure in Japan

Conservation of murals at Bagan archaeological Zone

Through different sources of funding including internal, Japanese governmental and private funds



Pilot conservation of the murals inside a temple built in the 12th century



Local staff members from the Department of Archaeology participating in training program on the conservation of murals

on the rehabilitation of the historic district of the city that was affected by the earthquake, conducting studies mainly in the areas of architecture and urban planning. In cases where cultural heritage is affected by disasters, emergency measures become the first priority. Simultaneously, however, we must define the values of the cultural heritage that should be retained. Therefore, along with the emergency measures, research and evaluation of the value of the heritage must be also conducted. The local people believed that those were Chinese-style shop houses. However, when we researched the area, it became clear that it was a unique type of shop house that was built and resided in by the Minangkabau people. These shop houses were a mix of the Malay and Chinese style. Unfortunately, this architecture type has now been lost and only a few structures remain. However, we hope that they can

これはちょっとメコン流域から離れますが、インドネシアの例です。先程バガンでも地震があったと言いましたが、スマトラ島でも 2009 年に大きな地震と津波があってパダンという町が大きな被害を受けました。その直後にユネスコのジャカルタオフィスから被災状況を調査してほしいという依頼が来たのに応えて、調査団を派遣したのがそもそものきっかけです。その後も、この被災した歴史地区をどのように復興していくのかについて、建築や都市計画の分野を中心に様々な調査を行いました。このような被災文化遺産の場合は、まずその緊急的な保存が課題になるのは当然ですが、やはりその文化遺産の価値、何を残すのかということをきちんと踏まえて行う必要がありますので、緊急的な要素とは別に、並行してその遺産の価値評価についての研究を色々行わなければなりません。パダンの場合も、この町並みを作っ

Assistance for rehabilitation of historical district of Padang damaged by earthquake

Through different sources of funding including UNESCO and Japanese governmental funds



Many of traditional shop houses were severely damaged by the earthquake in 2009



A shop house featuring a unique architectural style to this town, which was demolished later

rehabilitate the area by maintaining such characteristic regional features.

I would like to touch upon two other major projects.

So far, I briefed you on the projects that focused on specific themes or subjects. The two that I am going to speak about now are about the overall conservation and management of the cultural heritage. They are comprehensive projects.

One is the Thang Long Imperial Citadel site project in Vietnam. It is in the middle of Hanoi, the capital of Vietnam. The Thang Long Imperial Citadel site is located across the Ho Chi Minh mausoleum. Hanoi, formerly known as Thang Long, has been the capital of Vietnam for 1,000 years now, although Hue was temporarily the capital. It has long been known that the ancient palace site is located here. When the Parliament House was supposed to be rebuilt, a pre-excavation survey was commenced in 2002. Many archaeological relics were found then. They were revealed to be the remains of the first palace built 1,000 years ago, when the Vietnamese people gained independence from China for the first time and established their own country.

The Vietnamese Academy of Social Sciences conducted an emergency investigation of the area. The rebuilding project of the Parliament House made this a difficult dispute, but it was finally decided to preserve most of these remains. At this juncture, the Vietnamese government requested Japan to send an investigation team comprising mostly the Nara Institute's experts to

ているのは中国風のショップハウスだと地元の方は皆言っていたのですが、色々調べてみるとこのパダンに独自の形式があって、ここはミナンカバウ族という非常に特徴的な民家を作るマレー系の人が多い地域ですが、そのミナンの文化と中国のショップハウスが混合して非常に独特なショップハウスの形ができたというようなことが我々の調査の中でわかってきました。ただ、残念ながらこれがどんどん失われていって、今は本当にわずかしかなかったのですが、何とかそのような地域の特性を生かして復興していただければ思っているところです。

大きな事業をあと二つほどご紹介したいと思います。今までのはかなり特定のテーマ、特定の対象に絞った形での協力でしたが、これからご紹介する二つは、文化遺産の全体をどのように保存管理していくかという課題に総合的に取り組んだ事業の例になります。

一つはベトナムのタンロン皇城遺跡という遺跡です。これは首都ハノイのど真ん中と言っていて、ホーチミン廟の真向いにあります。ハノイは千年も前からベトナムの首都で、一時フエに移りますけれども、そのハノイの旧名をタンロンといいます。そのタンロン城がここにあるということは以前から知られていたのですが、そこにある国会議事堂を建て替えるために2002年に事前発掘調査が行われたところ、非常に多くの考古学的な遺構が出土し、千年前に中国から独立をして初めてベトナム民族の国を作った時に最初に築いた都の宮殿の跡が残っていることが分かった訳です。

this particular site. Subsequently, an investigation was conducted, and it was found that these were highly significant remains. Mr. Koizumi, the then prime minister of Japan, also went to the site later during his visit to Vietnam, and promised the Vietnamese government that Japan would extend its support for the conservation of this site.

Thang Long capital has a prehistory. Prior to the establishment of the independent country in 1010, a political center called the Annam protectorate was located here. It was a Chinese Imperial outpost, and Abe no Nakamaro was its chief. In actuality, this particular place is related to a famous historical Japanese figure. However, since this is an unpleasant period in Vietnam's history, they do not speak of it much.

Nevertheless, cooperation commenced, and it was bilateral cooperation at the time. In particular, the Agency for Cultural Affairs provided funds to send experts, and the equipment was provided through the Japanese government's grant aid program. Assistance was provided through the bilateral cooperation framework from 2006 to 2010. A joint committee was established to extend expert knowledge for this site. This committee comprised expert working groups from fields such as archaeology, history, conservation science, and other relevant areas. Thus, the multifaceted value of this site came to be revealed.

In 2010, this site was inscribed on the list of World Heritage Sites. However, I believe it may have been a bit too early, because there were still a lot of things that we needed to do. Even though it was listed a World Heritage Site, there were many incidental opinions on this resolution. Cooperation was then further extended under the UNESCO / Japanese Funds-in-Trust project. With regard to the evaluation of the site, conservation and management are important as well. We cooperated in all these efforts, including the formulation of the management plan.

Finally, this is Angkor. The Nara Institute's presentation after this will also mention Angkor, but we have been working on the Ta Nei Temple area. During the initial period encompassing over ten years, the

現地の社会科学院考古学研究所を中心に緊急調査が行われ、最初は国会議事堂の建設との絡みで色々議論がありましたが、最終的にこの遺跡を残そうということになった時に、日本の調査団、特に宮殿遺跡に関しては世界有数の知見を有する奈文研の専門家を中心に、調査団を送ってほしいという要請がベトナム側からありました。これを受けて調査を行った結果、非常に大事なものであるということで、当時の小泉首相がベトナムを訪問された時にも現地に行き、この遺跡の保存に日本が協力しますよという約束をベトナム側とされた、というのが協力の発端になります。

実は、タンロン城には前史があって、1010年にこの都ができる以前、この場所には当時の中国の南方支配拠点である安南都護府という役所が置かれていたと考えられます。その安南都護府の長官を務めていたのが阿倍仲麻呂です。ですから、日本とも非常に縁が深い遺跡なのですが、タンロン城の前身が安南都護府だというのはベトナムではあまり都合のいい歴史ではありませんので、大きな声では言わないですが、おそらくそうだろうと私も考えています。

協力が始まってからしばらくの間は、二国間協力ということで、主に文化庁の予算で専門家を派遣し、あるいは文化無償で機材を供与し、2006年から2010年ぐらいまでそういう形での協力を行っています。日越合同委員会というものを作り、その下に考古学とか歴史学、保存科学まで様々な分野の調査班を作って両国専門家が協力しました。

その中でこの遺跡の正確な価値についても様々なことが分かってきたということで、2010年に世界遺産になります。ただ、これはちょっと早かったなという感じが実はして、まだやるべきことがたくさんあったのです。実際、世界遺産にはなりましたが、色々な注文が付いたのでまだまだやらなきゃいかんということで、登録に前後して、今度はユネスコ日本信託基金という日本からユネスコに拠出している資金を使って行く、ユネスコの事業のもとで、さらに協力を継続してきました。遺跡の価値についての研究と同時に、その保存や管理、マネージメントプランを作るところまで色々協力をした経緯があります。

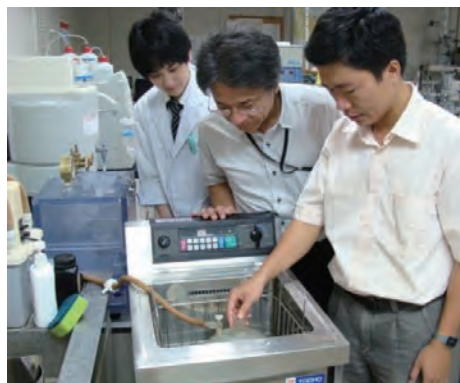
最後はアンコールです。このあと奈文研のご発

Project to support the preservation of Thang Long Imperial Citadel Site

Through different sources of funding including UNESCO and Japanese governmental funds



Monitoring of underground water movement



Experience for preservation of excavated wooden objects



Training of GIS skills and formulation of the management plan for local staff members of the Heritage Preservation Center



Training of the archaeological excavation survey skills for investigating the wooden palace remains

microorganism deterioration of the stone monuments was investigated as a joint study project. The remains were not touched during that time, and after some years of human resources training, which has increased in recent years, actual intervention for the conservation and sustainable development of the site started.

Although this is an assistance program, Cambodia's APSARA National Authority is the main body that conducts conservation and sustainable development activities. Our experts extend the required technical assistance. Since the Cambodian budget is higher, we cannot necessarily take the lead in conducting this particular project, but we collaborate closely with them.

Ta Nei is located in the middle of the jungle and has been relatively untouched by scientific investigation nor conservation activity. This is good, because it is like a concealed area. Therefore, we are only organizing it so that people can visit in a safer manner and understand

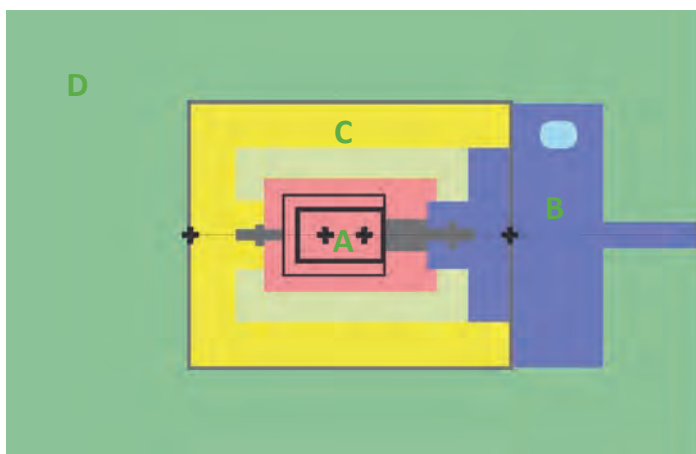
表でもアンコールが出てくると思いますが、タネイという遺跡で私共が長年協力をしています。ここでも最初の十何年かは専ら、微生物による石材劣化の研究をやっていて、もの自体をいじることにはなかったのですが、その後人材育成の研修を行った何年間かを挟んで、近年になって遺跡の整備事業に実際に取り組み始めたことになります。

これは私共の協力事業なのですが、この保存整備事業を行う主体はアプサラ機構というカンボジア政府の組織で、カンボジア政府が行う事業に対して私共が技術的に協力をするという形を取っています。予算的にもカンボジア側の方が大きな額を支出していますので、主導権についてはなかなか難しい部分もありますが、色々彼らと相談をしながら進めています。

タネイというのは、ジャングルの中であってあまり整備がされていない、密林の中にある廃虚的な景観が魅力になっている遺跡なので、これはあまり変えないで、もう少し遺跡の性格が分かりや

Technical assistance for the conservation and sustainable development of Ta Nei temple

Internal funding project



A: Core zone

Minimum interventions / vegetation management / visitors' routes

B: Entrance / interpretation zone

partial restorations / visitor's facilities

C: Setting conservation zone

vegetation management / maintenance facilities

D: Environment conservation zone

environment conservation / access roads

Ta Nei temple and the basic zoning plan for its conservation and sustainable development

the site better, without altering the existing atmosphere too much. Past visitors would probably know that there used to be a reservoir during the Angkor period on the east side of the temple, though it has now dried up. This temple's main entrance was originally on the east side, or the side with the lake. However, the back is currently being used to enter the site. Therefore, the major objective of our work is to change the approach route by opening the side with the main gate.

We opened the jungle along the main axis towards the bank of the reservoir, and excavated the area above it. A large terrace made of laterite was found. That was the original entrance to the temple. From there, the approach path to the temple expands and reaches the main gate, the East Gate. It was in a decrepit condition. The roof should have actually been higher, but it had

すいように、また安全に見学できるようにしようというのが趣旨です。行かれたことのある方は大体分かるかと思いますが、すぐ東側に、今は干上がって田んぼになっていますが、アンコール時代の大きな貯水池があります。本来、この寺院の入口は、この池のある東側が正面なのですが、今は裏側から入ってくるような形になっていて非常に分かりにくい。ということで、この正面側のアプローチを復活させようというのがこの事業の大きな目的になります。

入口は先程の貯水池の土手の上であって、今まで全く知られていませんでしたが、ジャングルを切り開いて発掘をしてみると、ラテライトで作った大きなテラスが出てきて、これが本当の入口だろうということになりました。そこから参道を経て寺院に入る正面の門が東門という建物で、本来



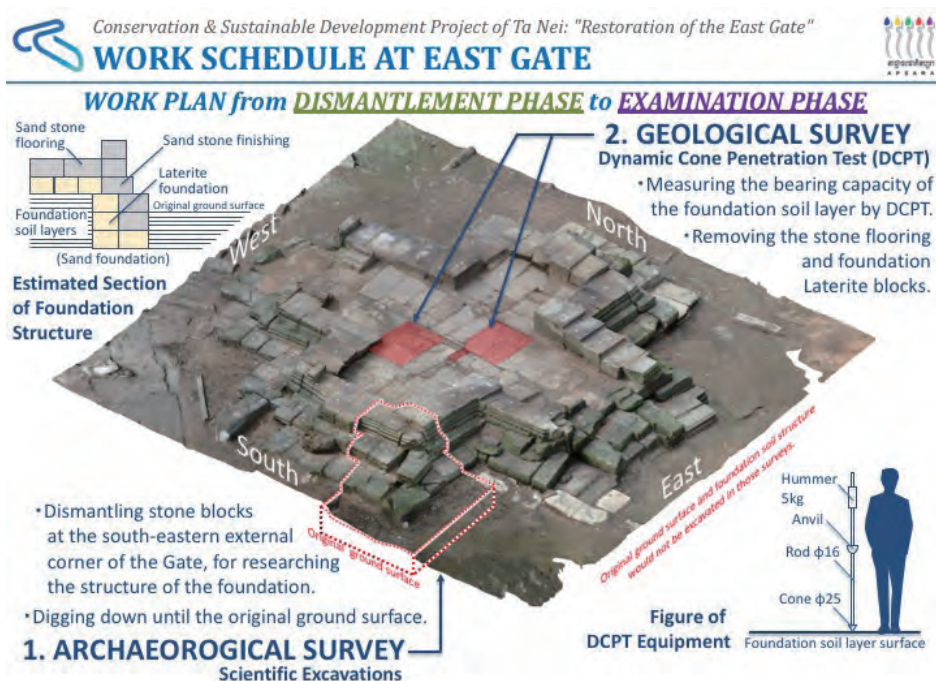
East Gate of the Ta Nei temple during the dismantling process

collapsed to this level. We wanted to reorganize it so that people could pass through safely. Therefore, we planned to restore only this particular structure properly.

In fact, restoration started last year. We prepared the documentation and collated documents on the kind of restoration work that would be needed. We checked with the expert group of the International Coordination Committee, and subsequently, it was decided that dismantling would be needed. Therefore, the dismantling process started last year. Currently, only the foundation structure remains, and we have been examining the inside of the foundation. We are currently analyzing how we are going to reinforce and

はもう少し屋根が高いのですが、崩れかけて非常に危ない状態になっているものをきちんと安全に通れるようにしようということで、この遺跡についてはなるべく手を付けないと言いましたが、この建物だけは修復をすることになりました。

実際に修復に取り掛かったのは昨年からです。事前にドキュメンテーションを行い、どのような直し方が適切なのかについて国際調整委員会の専門家にも諮った上で、解体が必要だということになりましたので、その解体工事を昨年から行っています。現在は基壇の部分だけが残っている状態で、基壇の内部の調査を行い、どのようにこれを補強してまた組み立てるのかという検討を目下行っているところです。この事業の場合は、先程



reassemble the overall structure.

In this case, as I mentioned earlier, Cambodia is funding the labor and materials, while we are sending experts from Japan, as well as bearing some of the costs related to the equipment to be used there. Cambodia wants to restore it as soon as possible, stating that it should not be taking so much time since it is not a very large structure. However, we insist on conducting a proper investigation and proceeding with the restoration carefully. That is a struggle.

Various types of cooperation are currently being conducted. They are not limited to just Southeast Asia, but I would like to raise some points.

First, there is often a discrepancy between their expectations and the service we can provide. Especially when we work on actual material objects, the available funding from Japan, the public budget in particular, is extremely limited. Hardly any budget is allocated for this purpose. In case of UNESCO-funded projects, more of these kinds of projects can be undertaken. However, funding from the Agency for Cultural Affairs is allocated more towards human resources development, and funding from the Ministry of Foreign Affairs is directed towards providing equipment. It is very difficult to obtain funds for the actual construction. Therefore, the usable budget is extremely limited. As I mentioned at the outset, there are certain restrictions on how we can proceed. We cannot formulate the structure they wish for so easily.

Second, it happens quite often that an immediate effect is expected. However, things such as human resources development take time. Effects are not immediately visible despite taking the required time. Therefore, continuing tenaciously with such a project can be a challenge, especially when not just the host country, but also Japan or the funder sometimes criticizes the amount of time being taken. We need them to understand that this kind of project takes time.

Third, as was mentioned earlier, is the application of the latest technology. The latest technology is quite often expected, particularly in developing countries. This expectation is often met. However, it is questionable if it is really the best technology. It

言ったように、カンボジア側が人件費や材料費といった部分を全部負担していて、我々の側は専ら日本人の派遣と調査にかかる機材も含めた費用の部分を分担しています。ですから先方からは、とにかく早く直そう、小さい建物だからそんなに時間がかかるはずはない、という風にいつも言われるのですが、我々としてはきちんと調査をしながらか直していきたいということで、早くやってほしいという向こうの意見と、ゆっくりやりたいという我々の意見がなかなか噛み合わない。けれどもお金は向こうがたくさん出しているということで、難しいやり取りを迫られる場面も多いのが正直なところですよ。

そろそろまとめにかかりたいと思います。色々なところで国際協力を行っている中で、東南アジアに限らない話になりますが、常々感じていることをいくつかお話ししたいと思います。

まずやはり、向こうから求められることとこちらができることとがなかなかうまく噛み合ってこないというのは事実です。例えば、実際にものをいじることに使えるお金というのは、日本の予算、特に公的な予算の中では非常に限られます。ほぼないと言ってもいいと思います。ユネスコの事業だとそういうことができるのですが、文化庁の予算は基本的には技術移転とか人材育成といった部分がメインで、あるいは外務省でしたら機材の供与はできるけれども実際に工事を行うことはなかなか難しい訳です。ですから、そういう部分で使えるスキーム、あるいは予算が限られるということがあります。これは最初にも言いましたが、体制の部分でも限界があって、向こうが求めるような体制がなかなかこちらで組めないということもあります。

次に、すぐに効果を期待されることが多いのですが、当然ながら、特に人材育成に関して言えば、非常に時間のかかる話になります。時間をかけてという面と、時間がかからざるを得ないという面と両方ありますが、そういう部分でやはり効果がすぐには見えてこない。そこをいかに粘り強くやっていくかということで、これは相手国に限らず、逆に日本側でもお金を出してもらって側からすると何か延々とやっているのに全然結果が見えてこないじゃないかという御批判を受ける場合もありま

would be fine if the provided equipment were fully utilized. However, if a piece of equipment is brought in temporarily, and people are trained to use it, its utility is questionable because once that equipment is gone, it cannot be used at the location and the people cannot be developed any further. The equipment cannot be used if it breaks as well. Therefore, it is more feasible to use technology that can be adopted locally. In some cases, combining the proper locally available technology, including some traditional technology, with the latest technology could be a good solution. Therefore, we need to carefully consider the kind of technology that should be transferred depending on the location. In this way, I believe we will be able to make the cooperation project more sustainable as well.

Another point is the philosophy of conservation and preservation. Since the Euro-centered conservation philosophy has been formulated traditionally, these gaps in ideology exist between Japan and Europe or the West. There are gaps in ideology between Japan and Southeast Asia as well. For example, the term “living heritage” was mentioned earlier. It is challenging to make the intangible value and aspects of heritage sites that are used religiously and where people conduct their daily activities compatible with its tangible aspects.

There are also historically sensitive issues with which to contend. For example, the Thang Long Citadel Site is built at a former Chinese outpost, making it a sensitive topic in Vietnam. It is a symbol of Vietnam's independence, which is something the Vietnamese would like to focus on, both emotionally and politically. That cannot be avoided. Hence, the cultural identity of each country or people depends on the place itself. The question is how to negotiate such identity issues since it is not a case of simply supporting them. If we feel that there could be conflicting interests, we need to consider both sides and find a balanced approach or some common ground.

The next crucial point is about the human resources to undertake these activities. We need assistance from various sectors for this. However, not many people like to go overseas and engage in these projects, particularly

すが、やはり非常に時間のかかることだという点についてはご理解をいただきたいところです。

先程も少しお話がありましたが、最新技術を求められることが、特に途上国において非常に多いのですが、それが本当に一番いいのかと言う問題です。機材を与えて、それを使いこなせるようにして、というところまでできればいいのですが、一時的に何かを持ち込んでトレーニングをしてということだと、その機材がなくなったらできないとか、壊れたらもう使えないとかいうことが起きますので、もう少し地道な、現地でもフィージブルな技術と、場合によっては最新技術とをいかに組み合わせながらやっていくか。その中では当然、伝統的な技術の掘り起こしも重要なのですが、そういう意味でそれぞれの場所場所の状況にあった形でどのような技術を移転すべきなのか、ということをごきちんと考えることが私達の側にも求められていますし、それが持続可能な協力ということにも繋がっていくのだと思います。

さらに保存の考え方ですね。国によっても随分考え方が違います。特にヨーロッパ中心に保存の理念というものが作られてきた部分が多いので、これはヨーロッパと日本との間でもそういう問題がありますが、当然日本と例えば東南アジアの国々の間でも色々考え方が違うところがあります。特に、リビングヘリテイジという言葉が先程もあったかと思いますが、今も生きている、特に宗教的な活動に使われているような場所でそういった意味での無形的な価値と文化遺産としての無形的な側面、それから有形的な側面も含めた遺産価値というものをいかに両立して行くのかということが、常に向き合わされる課題になってきます。

それと同時に、やはり歴史的な機微に触れる部分というのがあります。例えば先程のタンロン城で例に挙げましたけれども、この場合そこが元々中国の支配拠点だったということはなかなかその国では言いにくい。やはりそれをベトナムの民族自立のシンボルとして使っていきたいという思いがある訳です。これは感情的にもそうですし、政治的にも非常に大きな意味合いを帯びてしまう。これは避けられないことですので、そういった、それぞれの国々や人々の文化的なアイデンティ

among the younger generation. We want young people to go abroad to engage actively in cooperation activities in the field of cultural heritage. Since these people should be able to make a living through these activities, we should be providing opportunities for them to be engaged in international cooperation in cultural heritage. For example, when we repair important cultural property buildings in Japan, it is critical that they be repaired consistently so the required traditional techniques for repair work can be sustained. The same thing can be said about international cooperation. It should be sustainable, not temporary. The development of such a system will be crucial.

The final point is the necessity of collaboration between different projects. We can have greater collaboration among the different activities in the cultural heritage conservation field. Additionally, it is also possible to link our activities with projects such as those by JICA in Angkor and Bagan. JICA is involved in various projects, particularly regarding tourism development or urban planning. Maintaining balance between the preservation of cultural heritage and tourism development is often a significant problem in many parts of the world, especially at places like World Heritage Sites. We need to consider both sides to solve this problem. Both sides should collaborate with

ティという部分にどのように寄り添っていくのか。単純にそこに合わせるだけではやはりいけないと思うのです。我々から見て、そうではないあり方があるだろうということはやはりきちんと主張しながら、最終的にどう折り合いをつけていくのかということが重要だろうと思っています。

次は非常に重要な課題なのですが、このような活動を行う人材、色々な分野からご協力を常々いただいているのですが、なかなか海外に出てやろうという人が多くないのが現状だと思います。特に若い人ですね。若い人材にもっともっと積極的に海外での協力活動に、こういう文化遺産分野においても、参加してほしいと思っています。そのためにはやはり、そういう人達がきちんと生活ができる手立てを立てることが何より重要ですので、そのような活躍の場、機会を継続的に作っていくことが重要だと思います。日本で文化財を修理する上でも、例えば重要文化財の建物を修理し続けることが伝統的な技術を継承するという意味でも非常に重要な訳ですが、それと同じようなことが文化遺産国際協力に関しても言えると思います。やはり一過性ではなくて、継続的にできる体制をいかに維持していくかということが重要だと思います。

最後に事業連携について。これは同じ文化遺産保存分野の活動同士でもそうですし、あるいは、

望ましい文化遺産国際協力の「あり方」とは？

What is desirable manner of international cooperation in cultural heritage?

- 需要と供給のミスマッチ： 援助スキーム/予算/体制の限界
a mismatch between demand and supply
- 支援の即効性と持続性： 対象国における体制構築
immediate effectivity vs. sustainability
- 最新技術と適正技術： 期待される効果と現地における持続可能性
latest technology vs. proper technology
- 保存理念の国際規範と国ごとの伝統： 文化的アイデンティティの問題
international norm vs. local tradition of conservation approach
- 国内人材の不足： 活躍機会の継続的提供
shortage of domestic human resource
- 事業連携の必要性
necessity of collaboration between different projects

each other while working on their projects. Moreover, I consider this very important when we work with cooperation partner countries as well.

We are engaged in these projects to contribute internationally. However, I am personally invested as well. What is the driving force or motivation for me? It is pleasurable to be able to appreciate various cultural properties. By encountering different cultural properties, we are able to discover previously unknown things as well, which is a thrilling aspect of our research. Therefore, it is not simply about conducting a cooperation program; learning from each other is enjoyable as well.

Personally, since my expertise is architecture, my specific interest is, as I mentioned with the Ta Nei project earlier, realizing heritage values through conservation and utilization. Simultaneously, another challenge is to reveal not just the tangible areas, but also the hidden technology behind the form. What kind of technologies or lines of thought resulted in those forms or structures?

I am particularly interested in Southeast Asia's wooden structures. Unlike Angkor Wat, which can last for thousands of years, wooden structures need to be properly taken care of, otherwise they could easily collapse in a few score years. Moreover, it is difficult to sustain traditional techniques. Therefore, I think it is crucial to apply any remaining traditional knowledge and technologies to the conservation of these remarkable properties.

This is why we have been holding a series of seminars on wooden architecture in Southeast Asia over the years. The next seminar in this year will focus on repair work. If you are interested, please check our website.

Japan is skilled in many areas besides wooden architectural heritage. While I spoke mostly about the architectural side of our activities, we have various traditional Japanese techniques that can be applied to conservation as well, such as Japanese washi paper or lacquerware. The further utilization of these technologies is important. Not just the technologies, but also our concept of preservation, what should be preserved, is important. What we have been doing in

例えばアンコールとかバガンとか色々なところで JICA が活動をしていて、主には観光開発とか都市計画といったプロジェクトがありますが、そういうものと文化遺産分野の私共が関わるような協力活動をいかにリンクさせていくかという課題です。観光開発と遺産保存というのは、どこでも、特に世界遺産になるような場所では非常に大きな問題です。そういう問題を解決する上で、協力をする側でも、やはりどちらかの立場だけでやっているのではなく、お互いに連携をしながら取り組んでいくことが、相手国との関係においても重要だと思っています。

このように国際貢献ということでやっていますが、そういう活動を継続する原動力と言うかモチベーションとして、やはり、様々な文化遺産に接することができるというのが、何より楽しい訳です。その中で色々未知の事柄が明らかになっていくという、研究的な意味での醍醐味のようなものが非常に大きな意味合いを持っていると思います。ですから、ただ単に協力するというのではなく、それを通じて色々なことが学べるというのが非常に楽しいところです。

特に私は建築をやっていますので、先程タネイの例を出しましたが、保存活用を通じていかにその遺跡や遺産の本来の価値が見える形にしていくかということに大きな関心があります。それと同時に、形だけでなく、その背景にある伝統的な技術、どのような技術や考え方の下にものが作られてきたのかということについて明らかにしていくことも非常に大きな課題です。

特に関心を持っているのは東南アジアの木造建築です。アンコールワットのようなものは放っておいても千年それなりにもつものに対して、木造建築はきちんと手当てをしないと何十年経ったら崩れていってしまいます。ですから、なかなかこういう伝統的な技術が継承されにくい部分もありますが、わずかに残っているものの中からでもいかに伝統的な技術知識を掘り起こして、それを今後の保存に役立てていけるかということが非常に重要だと思っています。

そういう意味で、東南アジアの木造建築に関してはセンターでもここ何年か連続で研究会を行っていて、また今年もこの木造建築の修理に関する

Japan could be utilized in the conservation activities with our overseas counterparts. It should not be imposed, of course. However, we do these things in Japan because they are backed by sound logic. Hence, this perspective should be theorized. As we do that, what is and is not applicable to the conservation of cultural heritage overseas should be considered so we can contribute further.

I have outlined some of our international cooperation activities in cultural heritage conservation. Thank you very much.

研究会を予定しています。ご関心のある方はホームページ等をご覧頂ければと思います。

建造物に限らず、日本が得意とする文化財保存の分野は色々あります。我々が行っている活動の中でも、今日は建築の話ばかりでしたが、例えば和紙とか先程の漆といった日本の伝統的な技術が保存の中でも色々活かされていて、こういったものを今後もどのように活かしていくのか、そして技術だけでなくコンセプト、何を残すかという考え方の部分についても、日本で行ってきたものをいかに海外の活動の中で普及していくか。決して押し付けになってはいけませんが、日本がやってきたことというのはそれなりに裏付けを持って私達も行っているのですから、それをこういう考え方でやっているときちゃんと理論化していくことが必要ですし、その中から適用できるもの、できないものを見極めながら、海外での文化遺産保護に少しでも貢献ができればと考えています。

以上、私共が行っている文化遺産国際協力活動について御紹介させていただきました。どうもありがとうございました。

**5. International Projects on Cultural Heritage Studies
in the Mekong Countries by Nara National Research
Institute for Cultural Properties**

奈良文化財研究所の文化遺産国際協力
：メコン流域諸国を中心に

SATO Yuni
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Expert, International Cooperation Section, Planning &
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Thank you for the introduction. I am Yuni Sato from Nara National Research Institute for Cultural Properties, or Nara Institute. Thank you very much for giving me this opportunity. I would like to express my heartfelt appreciation for the organizers.

The previous speaker, Mr. Tomoda, introduced this already. Nara Institute also belongs to the National Institute for Cultural Heritage, as is the case for Mr. Tomoda's Tokyo National Research Institute, so depending on the project, we conduct joint research. As for our Nara Institute, Nara Institute is more focused on archaeology and excavations survey, and architectural remains and artefact conservation and preservation. And in the Mekong Region of Southeast Asia, we are engaged in activities utilizing our expertise.

This is the outline of my presentation today. About Nara Institute, Mr. Tomoda already explained that it is part of the National Institute for Cultural Heritage, so I will quickly give you an outline of Nara Institute and its activities, and then I would like to discuss our projects in the Mekong Region one by one.

Before that, as an introduction, the Mekong Basin, the topic of the symposium is the Mekong region, so I would like to touch upon the Mekong region just a little. I think you already are familiar with the Mekong region. This is the Indochina Peninsula, the continental part of Southeast Asia. The Mekong River comes from the south of China to mainland of

皆さん、こんにちは。ただいまご紹介いただきました奈良文化財研究所の佐藤由似と申します。本日はこのような発表の場を頂戴いたしまして、主催者の皆様、そして関係者の皆様に心より御礼申し上げます。

先ほど、東京文化財研究所の友田さんのご発表にありましたように、私が所属する奈良文化財研究所も同じ国立文化財機構に属しておりまして、ご一緒に調査することもあります。ですが、私たちの奈良文化財研究所は、どちらかという考古学の分野や発掘調査で出土した建物跡や遺物の保存などを専門としておりまして、東南アジアのメコン流域でも私たちのこれまでのノウハウを生かすべく、それぞれの地域で活動しています。

今日の私からのお話は、大まかに5つに分けています。まず、奈良文化財研究所の活動の大枠をお話して、その後、各地域の事例を順番にお話ししていきたいと思います。

私たちの活動のお話をする前に、メコン流域について少しだけお話ししたいと思います。メコン川は中国南部に源流があり、ミャンマー・ラオス国境、タイ、カンボジア・ベトナムへと注ぐ大河です。メコン川の地図はいつまで遡れるのかなと思って、探しておりましたら、例えば、この17世紀のヨーロッパ人による地図に「メコン」という名がはっきり書かれていることが読み取れました。

19世紀になると、フランス人探検家がメコン川を周った時の写真や絵が残されています。チベッ

Southeast Asia through Myanmar, Laos, Vietnam, and Thailand. And how old a map of Mekong River can we find? Personally, I was curious. This is from the 17th century, a map made by a European. It's little and maybe difficult to see, but it says "Mecon" (Mekong). Maybe there are older maps than this that show the name of Mekong, but at least from the 17th century, the name Mekong was known outside of the region.

This is from the 19th century. A French adventurer traveled around the Mekong River, and photographs and paintings from the adventure are shown here. To your left, this photograph is the Mekong River near its source in Tibet and the South of China, and the right side picture, this is the Mekong River where it has a steep rapid flow near Laos, and this is more downstream, near Phnom Penh. This is a French steamship.

Nowadays national border demark the borders, but in the Mekong region, many ethnic groups have been living. After the 19th century, they lived through colonization and modernization while protecting tradition, and there were also minority ethnic groups and it must have been a difficult time. But even today, we have to understand that there are various diverse ethnic groups living in the Mekong region when we conduct a survey of the region.

トを流れるメコン川の写真は、ほぼ源流に近い地域だと思います。ラオスの急峻な流れの場面や、ずっと下流域のプノンペン近郊での汽船の様子も確認できます。

今でこそ国境線で区切られていますが、もともとメコン地域には、多くの民族が暮らしていました。19世紀以降は植民地化や近代化など、伝統を守り生きていた民族にとっては大変な時期だったと思います。それでも、今もそれぞれの地域に多様な民族が暮らしていることを前提に、私たちは調査を進めています。

さて、私ども奈良文化財研究所が普段何をしている研究所か、というところでして、なんで奈良の研究所が東南アジアの調査やってるんだい、とよく言われます。奈良文化財研究所はもともと国立の組織で、奈良時代の都、平城宮跡や飛鳥藤原の都の調査を1950年代より進めております。実際、今も一年中発掘調査をしていて、当時の歴史をひも解こうと日々活動しています。

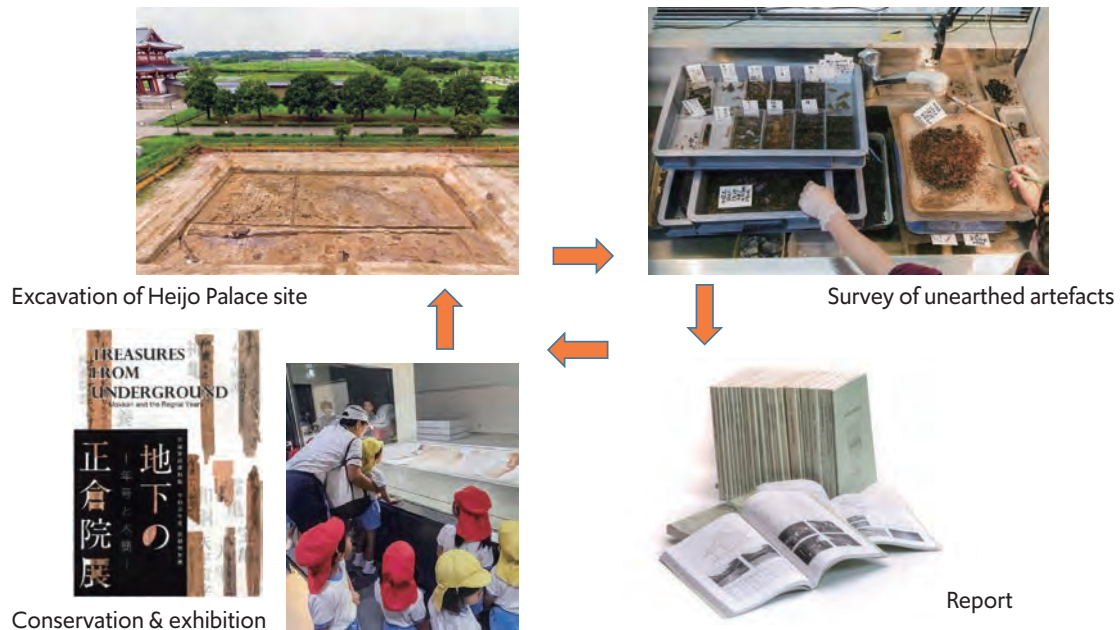
研究所の仕事としましては、発掘して終わりでなくて、実際その後がものすごく大変でして、出土品の整理作業と調査、分析をして、その調査成果を報告書にまとめます。ただ、これだけでは研究者の目に留まるだけです。ですので、出土した遺物を保存処理して、それを付属の資料館で展示公開し、一般の方に広く見て頂き、奈良時代の



"Mecon. R." seen in a European map from the 17th century (Source: Carte du Royaume du Siam et des pays circonvoisins, R. P. Placide, 1686)



The Mekong at Kampon Lamasery, Tibet border, 1930 (Source: Le Bassin du Mekong, edited by Diagonale, 1996)



Role and method of research projects of Nara National Research Institute for Cultural Properties

Now, as for Nara Institute, what does Nara Institute do? And why is Nara Institute of Cultural Properties conducting a survey in Southeast Asia?

Nara Institute is part of a national research institute and has been conducting a survey and research of Nara City or capital during the Nara period, including the Heijo Palace site in Asuka Fujiwara since the 1950s. And we are excavating throughout the year to unravel the history. As shown here, at the research institute, excavation is not the end of the story. After excavation, the research afterwards is quite burdensome. We have to sort out unearthed artifacts and survey them and analyze them, and then compile a report of the results of the survey, but if it's only a report, it will be noticed only by researchers, so the artefacts will have to be conserved and will have to be exhibited so the general public can see them. And by doing so, we hope that Nara period, Asuka Fujiwara period, can be conveyed to the next generation. These four items, four processes, are basic processes in the survey research, but outside of Japan, for example in the Mekong Region, when we engage in a project, we follow as much as possible these same four processes. So we discuss with the counter partners in the region about these processes.

As for international projects that Nara Institute

姿を次世代に伝えられるよう活動しています。この4項目は、とても基本的なことではあるのですが、海外でプロジェクトを進める際もこのルーティーンを目指して活動できるよう、現地のカウンターパートナーと相談して方針を決めています。

さて、その奈良文化財研究所の国際プロジェクトですが、大きく分けて2つの予算をもとに活動しています。1つが国から頂く予算で、2つ目が外部からの助成金です。1つ目の国からの予算のうち、1件目は中国や韓国で、当時の奈良の都を理解するための共同研究を進めています。二件目はカンボジアです。こちらは1993年の内戦終了直後から日本が積極的にカンボジアの内戦復興を支援する流れの中で、私たちが文化財の面から協力していこうと始まったプロジェクトで、かれこれ25年も続けておりまして、私もカンボジアの仕事をメインにさせて頂いています。そして、もう1点が、西アジア相手のプロジェクトで、かつてはバーミヤンの調査にも参加しておりましたが、中東情勢が不安定ですので、現地調査は取りやめておりまして、アフガンなどから若手の専門家を招聘して研修事業を行ってまいりました。

2点目は、外部からの助成金についてです。個人研究で科研費を頂き、私もカンボジアやタイ、ミャンマーで調査させていただいています。その

participates in, we mainly use two types of budget. The first is the grant from the national government, and the second is the contribution from outside. As for a national-government-based budget, the first is on Chinese and Korean projects. Nara Capital was influenced by Tang China and in order to understand the Nara period, we conducted joint research with China and Korea. In the second project that was undertaken with the national government budget is the Cambodian project.

Immediately after the end of the civil war, in 1993, Japan has been very active in supporting Cambodian post-war reconstruction, and from the cultural side, we started to provide cooperation, and that is why the project was started, and it has been almost 25. And I also mainly focus on Cambodian projects.

We also have projects with West Asia. As Mr. Tomoda mentioned earlier, we also participated in the excavation and survey of Bamiyan, but because of instability in the Middle East, on-site research is now suspended, and instead, we invite young experts from Afghanistan and other countries to give them training.

As for external subsidies, researchers may received grant-in-aid on an individual basis, and for example, I also receive grant-in-aid to conduct surveys in Cambodia, Thailand, and Myanmar, and from private foundations we may receive contributions or donations, and we also receive donations from private companies, as I will discuss later.

And based on external subsidies, we conduct activities, and I would like to discuss cultural heritage international exchange program that is carried out with a subsidy from the Agency for Cultural Affairs in Myanmar, Vietnam, and Cambodia, and I would like to talk about this program today. That brings me to the main topic today, which is the project Mekong region.

The three countries that I've mentioned just now, Myanmar, Vietnam, Cambodia, are the main targets of the project, but in reality we also have to conduct surveys in the neighboring countries across the national border, so this involves the whole of the Mekong Region.

First is a project in Vietnam, about Thang Long

ほか、民間の財団からも助成金を頂いたり、ご寄贈頂いたりもしておりまして、こちらについては後程ご紹介したいと思います。今日は、外部資金のうち、文化庁からの文化遺産国際拠点交流事業で、ミャンマーやベトナム、カンボジアなどでの活動の際に助成していただいた事業についてご紹介したいと思います。

本題のメコン流域諸国とのプロジェクトに入りたいと思います。先ほど述べた3か国が主な対象国ではあるのですが、実際のところは国境をまたいで隣国でも調査などをおこなっておりまして、やはりメコン地域全体にかかわってくるお話になります。

まずひとつめ、ベトナムとのプロジェクトについてです。1件目のタンロンにつきましては、先ほど友田さんから詳しいお話がありましたので、遺跡の概要につきましては皆さんご承知のとおりだと思います。タンロン遺跡は現在のハノイの中心にあり、古代から政治の中心地でした。大変重要な遺跡でして、都市の遺構が幾重にも重なって発見されておりました。

この際に、文化庁や東文研に音頭を取って頂いて、私共の奈文研は、考古学の面からご協力をさせて頂きました。というのも、最初にご説明申し上げました通り、奈文研は奈良の都平城宮跡で50年以上調査研究をしてまいりましたから、都や宮殿施設に関する経験がありましたので、調査方法などについてベトナムの現地の調査担当者の方々と共に調査することによって技術移転を図ろうと取り組みました。

実はその調査の中で、一つ課題として浮き上がったのが、タンロン遺跡から大量に発見された出土木材でした。平城宮跡でも、柱の跡や井戸枠などをはじめ、有名なのが木の板に文字の書かれた木簡など、発掘調査から意外に多くの木材が出てくることは多いのです。

そのため、私たちの研究所では、木材の保存処理に関する専門家もおり、彼らがタンロンに出向いたところ、出土木材の保存方法を大々的に調査する必要があることが判明しました。そこで新しく、立ち上げることとなったのが「出土木製品の保存」事業です。

布で覆ってあって少しわかりにくいですが、タ

Citadel. Mr. Tomoda already discussed in much detail about the remains, I think you already have good knowledge. Thang Long Citadel is at the center for Hanoi today, and it has been the political center since ancient times. It is a very important archaeological site. Many layers of ancient structures of the cities were found.

The Agency for Cultural Affairs and Tokyo Institute led the effort, and at Nara Institute, we provided support from archaeological aspects. As I explained earlier, Nara Institute has conducted survey research for more than 50 years at the Nara Ancient Capital, Heijo Palace, and therefore we have much experience researching old capitals and palaces, and therefore, about the survey method, we were able to work with the Vietnamese researchers, and we also hoped to realize technology transfer, technical transfer as a result.

And through the survey, Mr. Tomoda said he did not have enough time to discuss this, but one of the challenges that emerged is the large amount of wood that was excavated in Thang Long Citadel. In the Heijo Palace site, there were piles used as pillars and the planks used as frames of a well were excavated, and wooden tablets (Mokkan), narrow strips of wood with messages written on them were also excavated, but these wooden artifactsartifacts are found in large numbers, so at Nara Institute we have experts on the conservation of wooden artifactsartifacts. And they visited Thang Long and found out that they had to do a full-fledged survey on how to conserve this waterlogged wood, and so we decided to start a project on the conservation of wooden artifactsartifacts that were excavated.

It's difficult to see, but the central photo, this is covered with cloth so it is difficult to see, but these are piles that were excavated from Thang Long. Once excavated, because of a change in water content from when it was underground and when it's exposed to outside air, it may deteriorate rapidly or may be deformed rapidly, so it's very difficult to handle. The types of trees used in Vietnam are different from those in Japan, so the liquid to conserve, the chemicals



Survey on the waterlogged wood in Vietnam



Survey on the waterlogged wood in Thailand



Scientific analysis on the excavated wood



Symposium on the waterlogged wood

to conserve wood in Japan may not be applicable in Vietnam, so we also had to research tropical wood or wood in Southeast Asia.

As shown in this photograph, we researched various wood excavated in various parts of Vietnam, and we also visited Thailand, a shipwreck made of wood. Research is underway where more fast research is being done on waterlogged wood. Vietnam National University of Forestry and researchers from Vietnam, we conducted analysis together.

The photograph top right shows the young researchers from Vietnam who are studying waterlogged wood using the equipment of Nara Institute to conduct analysis. To share the results of the research, we held seminars and symposia in Vietnam, Thailand, and Indonesia.

In Southeast Asia, including shipwrecks, many wooden relics were found, so waterlogged wood, cultural property conservation I think is an issue that should be addressed by all of Southeast Asia.

Next, I would like to turn to a project with Myanmar. With Myanmar, Nara Institute has a long history and relationship. Even before democratization, we had been engaged in research exchange, since the 1990s. At the time, counterparts from Myanmar, the young archaeologists at that time, are now promoted to director general class, and Dr. Thien Lwin also visited Nara, as I understand, after a little hiatus. From 2013, Tokyo Institute led a cultural heritage protection project, and we supported from the archaeology side.

The bottom photographs show hands-on school,

ンロン遺跡から出土した木製の柱の跡です。実は木材は発掘されると水分量に変化して、急激に劣化したり変形してしまい、非常に取り扱いが難しいのです。

しかもベトナムの場合、日本とは木の種類が違いため、日本の木材保存溶液がそのまま使えるとは限らないことから、いわゆる南洋材、東南アジアの木材の調査をすることから始めました。ベトナム各地から出土した木材を調査したり、出土木材の調査が進んでいるタイの調査に出向くこともしています。ベトナム林業大学をはじめとしたベトナム人研究者の方と共に分析をおこないました。

ベトナム人の木材を研究する若手の研究者の方は奈文研の機材を用いて出土木材を分析しました。この調査成果を共有するため、ベトナムやタイ、それにインドネシアでも研究会やシンポジウムをおこないました。現在、東南アジアでは、沈没船など木材を使用した遺物が多く発見されておりまして、そのような出土木製文化財の保存技術に関しては、今後も東南アジア全体で検討すべき課題なのだろうと思います。

次に、ミャンマーとのプロジェクトです。実はミャンマーと奈文研とのかかわりは古く、民主化するずっと以前、1990年代から研究交流を行っています。当時、ミャンマー側の担当者だった若手考古学者の方々は、もはや局長クラスにまで上り詰められていて、午前中にお話しされた Thein Lwin さんも奈良にお越しになられています。

その後、少し間が空いて 2013 年度からは東文研に音頭を取って頂いた文化遺産保護事業に、考



Projects with Myanmar



Lecture of measuring survey at FSA



XRF analysis on ceramic sherds found in Myanmar



Survey of unearthed artefacts

field school, archaeology field school, hand-on classes. These are also called visiting lectures. Nara Institute researchers have given classes in hands-on classes about measurement methods of earthenware and other topics, but we were not able to cover everything in the three years, and there were many requests from the Myanmar side, so we received a different budget from the Agency for Cultural Affairs to conduct another three-year project.

One of those projects that was included in the project was the field school of archaeology in Pyu and a visiting lecture there, training there, and also a program in Japan where we invited researchers to Japan to conduct more specialized classes.

This is my personal view, but the Field School of Archaeology is a very functional organization. Myanmar staff of the Ministry of Religious Affairs and Culture and other staff who handle artefacts can learn archaeology at this Field School of Archaeology in a very specialized fashion. And one of the requests from the field school was that they wanted to study measurement survey methods. The school had purchased advanced measurement equipment but was not able to effectively use the equipment, so we conducted training in Myanmar and training in Nara Japan.

Another was the survey of a kiln site in lower Myanmar. This is ceramic training. In Myanmar, as it was discussed in the morning, there are many cultural heritage sites, including Pyu and Bagan, which are



Study of the storing method

古学の面から協力をさせて頂きました。それが、考古学フィールドスクールでの実習授業です。よく「出前授業」なんて言われますが、私どもの研究所の研究員が、土器の実測方法などを実習方式で教えていきました。その3年間ではすべてを伝えきれなかったのと、様々な要望が現地側からありましたので、私共はまた別のプロジェクトを立ち上げて文化庁から予算を頂いて、3年間、活動しました。

その一つが先ほどもあった考古学フィールドスクール（Field school of Archaeology）での出前授業と日本に招聘して、さらにその専門性を高めてもらう研修でした。この考古学フィールドスクールは、とても機能的な組織で、文化財を実際に取り扱う宗教文化省の職員、スタッフがより専門的に考古学を学ぶための施設です。現地サイドからのリクエストの一つが、スクールが割と良い測量機器を何年か前に購入したにもかかわらず、有効に活用できていないので、測量方法を教えて

World Heritage sites. And it's not very well known but Myanmar produced a lot of ceramics, especially in southern Myanmar or lower Myanmar. Many kiln sites were discovered recently. I participated in this project myself, but the project was started, triggered by a project conducted by a Kyoto University professor under grant-in-aid. There is this Google map, and there was an ancient road that crossed the Indochina Peninsula, and this was a project to study this ancient road.

During the survey we found that there was an ancient road that connects Martaban and Mawlamyine. There was a road that connected the old port town to the other side, toward the Thailand side, and near the ancient road, kiln sites, ancient kiln sites were found where ceramics were made. And that is called the kiln site.

At the center of the screen is Martaban, old port town, and today's Mawlamyine is at the center. And near this, to the Southeast, the (Kor Tar) kiln site was discovered, and we felt that we should use the archaeological survey processes of Nara Institute. So excavation and analysis and survey of the excavated artifacts, report and exhibit, this whole process was implemented with young archaeologists from Myanmar. The preparations for exhibition were also carried out jointly so that they would be able to go through the process, including exhibits, in the future by themselves. And the Myanmar Ministry of Religious Affairs and Culture and the Ministry of Education selected experts, young experts, on earthenware and ceramics, but to participate in this research, and they were very enthusiastically participating in the project.

These young researchers were invited to Japan to give advanced course training or one level higher training. When these young researchers were invited, and it so happens that they were women, they were beginning to teach at university, so I hope that Myanmar university students today will be able to learn from these young experts what the experts learned through the project.

Lastly, I would like to discuss a project with Cambodia. This is going to be a longer story. The

ほしいという、具体的なリクエストでした。そのため、このようなミャンマー現地と日本での研修をおこないました。

もうひとつが、ミャンマー南部での窯跡調査を通じた陶磁器研修でした。ミャンマーにはピューやバガンといった世界遺産にもなった文化遺産が有名ですが、実は、非常に多くの陶器を生産していた地域でもあるのです。特にミャンマー南部では、近年、いくつもの窯跡が発見されているのですが、ほとんど調査されていません。この事業には私も参加させていただいたのですが、そのきっかけは、京大の先生の科学研究費補助金でのプロジェクトで、現在のインドシナ半島を横断していた古代の道を研究するプロジェクトでした。実は、この調査の際に、マルタバンという古代から続く港町とタイ側とをつなぐ古代の道の存在が分かってきて、この道のほど近くから、陶器を作っていた窯跡が発見されたのです。

それが、コーター窯跡です。マルタバン、モラミャインの港町で、そのすぐ南東で窯跡は発見されました。

ここで、奈文研式の考古学調査を実施しない手はないということで、発掘調査、出土遺物の調査、レポート、その展示公開までのプロセスを、ミャンマー人の若手考古学者と一緒におこないました。調査に参加していただくメンバーの人選も、ミャンマーの宗教文化省、教育省の方々が、土器や陶磁器を専門とする若手の方をきちんと選抜してくださって、皆さん非常に熱心に取り組んでくださいました。

その若手研究者のみなさんを日本に招聘して、アドバンストコースというか、ワンランクレベルを上げた研修も行いました。招聘した彼女たちはすでに大学で教鞭を取り始めている世代でしたので、彼女たちから現役のミャンマー人学生にこのプロジェクトで得たものを伝えていってもらえることを願っています。

さて、最後に、カンボジアとのプロジェクトについてです。カンボジア事業は実はメコン流域諸国とのプロジェクトの中では一番歴史が長くなっています。それというのも最初に少し触れましたが、カンボジアは1970年代以降続いた内戦により遺跡も被害を受けましたが、それと同時に多く

Cambodia project has the longest history among the Mekong Region projects. The reason is, as a I mentioned at the outset, after the 1970s, Cambodia suffered from civil war and archaeological sites were damaged, and at the same time, many Cambodians were massacred, so there is a very tragic, difficult, historical background.

And during this age, not only in Cambodia but in neighboring countries, there were many who suffered. And immediately after the civil war, Japan provided support to Cambodia, including various experts who are here today. Many Japanese researchers went to Cambodia. Nara Institute is also engaged in conservation and protection of Angkor as one of the cultural property research institutes. And until today, for more than 25 years, we have been continuing this activity.

And another is protection of Udong and Longvek archaeological sites. This is done under the subsidy of the Agency for Cultural Affairs. Maybe you will not be so familiar with Udong and Longvek archaeological sites. After the fall of the Angkor dynasty, the seat of the government was relocated to a totally different region, and after relocation, in the surrounding archaeological sites, using buried cultural properties, the site preservation is carried out in this project.

So first, starting from Angkor. In the beginning of our project in Angkor, Nara Institute participated in a Banteay Kdei archaeological site research that was done by Sophia University, but after 1997, this Kiln mound A4 of Tani Kiln site that was found outside of Angkor was the site of an excavation survey by Nara Institute. We pushed a report and then a museum was built on site.

And the museum was not built by Nara Institute. At the time, Cambodian archeologists who participated in the excavation applied for a grassroot grand-in-aid project of the Japanese Ministry of Foreign Affairs, and the grant was given, and as a result Angkor's ceramic museum was built.

Tokyo Institute is also active at the Angkor site. After the end of the civil war in 1992, Angkor was inscribed on the World Heritage List, but it also was listed in

のカンボジア人が虐殺されるという大変つらい時代背景があります。この時代はカンボジアだけでなく、隣国でも大きな被害が出ています。

内戦終了直後から日本はカンボジアの支援に乗り出しまして、ここにいらっしゃる多くの先生方をはじめ、多くの日本人研究者が現地へ赴きました。奈文研も国を代表する文化財研究機関のひとつとして、アンコールの保全に向けた活動を始め、現在に至るまで続けております。もうひとつは、ウドン・ロンヴェーク遺跡の保存に関する拠点交流事業でして、こちらは文化庁からの助成を受けています。アンコール王朝が滅亡した後に、首都機能が全く別の地域に移転したのですが、その移転した先の周辺遺跡の埋蔵文化財調査を通して遺跡の保存を考えようという新たな事業でした。

まずはアンコールのお話から。アンコールでの事業を始めた当初は、上智大学が当時すでに始めておられたバンテアイ・クデイ遺跡での調査に参加する形でした。その後、97年からはアンコール郊外で発見されたタニ窯跡の発掘調査をおこない、報告書を刊行し、現地に博物館が建てられました。というのも、これはもちろん奈文研が建てたのではなく、現地のカンボジア人考古学者が、日本の外務省の草の根無償資金援助というプロジェクトに、応募したから実現したことです。

さて、アンコール遺跡群は内戦終結直後の1992年に世界遺産に登録されましたが、同時に危機遺産にも登録されました。そのため、日本だけではなく世界各国が、自国の予算を使うなどして人類共通の遺産であるアンコール遺跡群を守るために動いたわけです。おそらくこの国旗の数を見ると少し驚かれるかもしれません。

日本からも4チーム、早稲田大学を中心として編成される日本国政府アンコール遺跡救済チーム、上智大学のチーム、先ほどの友田さんがリーダーを務めておられる東京文化財研究所、そして私たち奈良文化財研究所です。ただ、私たちとしては、アンコール遺跡群はもともとカンボジア、クメールの文化遺産なので、最終目標は彼ら自身の手で守ってってもらいたい、と思い、日々活動しています。

その活動場所が、西トップ遺跡です。実は私たちの研究で、この遺跡はアンコール王朝の中でも



Western Prasat Top site (Theravada Buddhist temple site in the end of Angkor period), Cambodia

World Heritage in Danger, as you may know, so not only Japan but various countries in the world are using their own budgets to protect human heritage, human common heritage, Angkor.

Looking at the national plaques, you may be surprised that many countries are participating, and from Japan, four teams are participating, including JSA, a Japan government team for safeguarding Angkor led by Waseda University, a Sophia University team, and Tokyo Institute led by Mr. Tomoda, and our Nara Institute. So four teams are active. And I think all of the teams feel the same way: that Angkor sites are cultural heritage of Cambodia or Khmer, so the ultimate objective is protection can be done by Cambodians themselves.

And the site of Nara Institute, for its activity, is the Western Prasat Top Western Prasat Top site. Based on our research it was found that the Western Prasat Top site was built towards the very end of the Angkor period. This is a temple that was built at the end of the Angkor period. From 2002, together with APSARA

ほぼ最後の時期に作られた寺院であることが分かりました。

西トップでは2002年から現地の文化財保護組織である APSARA 機構と考古学・建築史・保存科学の面から調査を続けていました。その当時向かって左の写真にあるように塔の上に1本大きな木が生えていたんですね。それを現地側が邪魔だろう危なだろうと気を利かせて切ってくれたのですが、2008年、切られたことによってその木の根っこが抱えていた屋根の石材もろとも落下しまして、塔の状態が急に不安定になりました。そのため、私たちは急きょ早稲田大学を中心に組織されている日本国政府アンコール遺跡救済チームから足場をお借りして、そして研究所として西トップ遺跡の修復に乗り出すことになったのです。2011年から現在に至るまで調査修復事業を進行させています。

修復をどうやって進めるかと頭を悩ませていた時に、ひとつ背中を押されたのがこのクレーンの存在でした。とある、香川県にあるクレーンメーカーさんがこの16tのラフテレーンクレーン1台、

authority, we have conducted research on archaeology, architectural history, and conservation science.

At the time, towards the left, as you see in the photograph, there was a huge tree at the top of the tower, and based on good intentions, Cambodian side cut down the tree because it might get in the way and it might be dangerous, but after the tree was cut in 2008, the roots of the tree and the stone materials held by the tree root fell together and the tower became very unstable, so we asked JASA to lend us scaffolding, shown on the right side, and Nara Institute decided to restore the Western Prasat Top. And from 2011 until today, restoration work is continuing.

And we were wondering how we should restore this site. Encouragingly, we were able to use this crane. A certain crane manufacturer in Kagawa Prefecture, TADANO co.Ltd., donated this 16-ton rough-terrain crane and cargo truck that is also in the picture, and Super Deck, a tower wagon, that is often used in electrical work for utility poles. They were very generous to donate these three vehicles. And at Nara shrine and temple and Takamatsuzuka Ancient Tomb, restoration work was done by a famous Japanese mason, Mr. Sano, and this person also helped us in the restoration of the Western Prasat Top. So we have received a lot of support from the private sector to restore the Western Prasat Top site. But also not only to restore, but our basics are to restore the site as a whole.

And also, excluding weekends and holidays, we were working together with dedicated Cambodian experts and the stone mason from the village and

後ろに映っているカーゴトラック1台、電柱などの電気工事なんかでよくみられる高所作業車1台の合計3台を、ぜひアンコール遺跡の保護のためにつかってくださいと、奈良文化財研究所にご寄贈していただきましたのです。さらには、奈良の寺社仏閣や高松塚古墳などの修復などで有名な石工さんも、ひと肌ぬいでやろうと、いってくださり、西トップ遺跡の修復に大きな貢献をしてくださいました。

というわけで、私たちは民間の皆様からも大きなサポートを得て、西トップの修復に乗り出すわけですが、単なる修復工事にはせず、きっちり調査をして遺跡の修復をおこなうことを基本精神としています。現地では土日祝日を除き、専属のカンボジア人専門家と近所の村出身の石工さんをはじめとした作業員さんたちが毎日西トップ遺跡の修復に文字通り汗水流して働いてくれています。遺跡の修復チームとしては、おそらく最少人数の小さなチームですが、その分、チームワークは良いと思っています。

西トップ遺跡は、仏教寺院でしたので、発掘調査から仏像が出てくることがあります。その際は、作業員さんも敬虔な仏教徒ですから、現場は結構大盛り上がりになります。

実際の修復作業はと言いますと、まず最初に取り組んだのが、西トップに3つある塔のうちのひとつ、南祠堂です。修復前、この上部の塔の部分は大きく傾いていました。解体調査によって、基壇の中に入っている砂が外に漏れ出したことで、このように傾いてしまったことが分かりました。

南祠堂の修復前、修復後の写真をお見せします。



Unearthed head of Buddha statue



16-ton rough-terrain crane

other workers. As a restoration team, it is a very small team with a minimum number of people, and we had very good teamwork in conducting the work. And the Western Prasat Top temple is a Buddhist temple, so from the archaeological excavation we could find such Buddha statues. And then, Cambodia now has many devout Buddhists, so the workers got very excited when they found those statues.

And the actual restoration work, first we started with this one. Out of the three sanctuaries, one of them, which is the South Sanctuary, this is before restoration. The upper part of the sanctuary, as you can see, is greatly tilted to the left-hand side. And after dismantling and researching, we found out that the base, the sand inside the base, leaked outside and caused the collapse. Now this is after restoration. So before and after. And by doing so we could conclude the restoration work.

This is another one. After the South Sanctuary, we worked with the North Sanctuary. Compared to the south stupa, the state was worse, as you can see. And the local Cambodian staff of Nara Institute worked very hard to reconstruct it and were able to restore to this level.

And on the right-hand side, this is a so-called walking Buddha, a Buddha statue that looks like the Buddha is walking, and this was also reconstructed and restored.

In the North Sanctuary, there were great discoveries. During the restoration of the North Sanctuary we found an underground chamber. This was the first time that such a chamber was discovered in Angkor, and from the underground chamber, we also found gold and other artefacts. Many gold artefacts were discovered. So this looks big in the photograph, but actually the size was like the size of fingernail. They were broken into fingernail sizes, and the reason is, for example, this crystal was shattered because of the heat. It means that gold and crystals, some ritual burning of gold and crystals was taking place in that underground chamber.

And about this site, there are many new discoveries, so we will further continue with our research.

At the moment, we have a lot of large work

こちらは北塔の修復前の様子ですが、南塔よりさらに状態が悪く、大きく崩れていました。これも奈文研が誇る現地カンボジア人スタッフたちが、がんばって再構築してくれまして、修復作業が完了しています。

この北祠堂の修復作業中に、大きな発見がありました。解体中に地下から地下室状の遺構が発見されたのです。これはアンコールでは初めての発見で、しかも、この地下室遺構からは金製品などが一緒に発見されたのです。

出土した金製品は、大体指の爪くらいのサイズくらいに割れてしまっていました。なぜ割れているのかというと、例えば、この水晶も熱を受けて粉々に割れてしまったことが分かったのです。つまり、地下室では、これらの金や水晶などを燃やす何らかの儀礼をおこなっていたと考えられます。この遺構に関しては、今後さらに調査を続けるつもりです。

さて、現在の西トップはといいますと、最後の大事な、中央祠堂の修復作業を行っています。外装、外側の石は、砂岩と呼ばれるグレーの石です。

解体をしたら、中から別の塔の基壇が出てきました。これはラテライトという種類の石からできているのですが、ロシアのお人形マトリョーシカのように、塔の中にもうひとつの塔が眠っていたことが判明したのです。つまり、このラテライトの建物は、外側に見えていた砂岩の塔より古いわけですね。ということで、私たちはこの古い塔は解体せずに保存して、再構築、組み上げ作業に移る予定です。

西トップ調査修復事業では、ひとつ、良い効果が生まれていて、例えば、石工班で言えば、ベテランから若手へと技術が受け継がれていっています。ここはこうやって叩くんだよという風に、カンボジア人スタッフの中で教え合える環境が出来ていました。

私たち奈良文化財研究所のカンボジア事業も25周年を迎え、つい先月、12月に西トップ遺跡で記念式典を行うことが出来ました。これはまだひとつの通過点に過ぎませんが、これも多くの方々の支えがあってこそであり、またここに写っている現地のカンボジア人スタッフ一人ひとりが、してくれたからこそこのプロジェクトだと思います。



Underground brick chamber beneath the north sanctuary



The 25th anniversary of the NNRICP's Cambodian project

remaining. The central sanctuary, the dismantling and restoration work is now going on, and as you can see, the Western Prasat Top temple, the outer side stone is a gray stone called sandstone. When dismantled, we could find the base of a different platform from inside, which means that this is a stone called laterite, just like the Russian doll matryoshka, there was one sanctuary inside a sanctuary, so this base made of laterite means it was made sometime before the sanctuary that we can see outside.

So we decided to preserve and reconstruct this old base and then move on to the restoration work. There were good effects, like the stone mason team, we had experienced and young workers passing over their skills, and the Cambodian staff are teaching each other, for example, how to knock the stones. And the Nara Institute Cambodia Project, is now celebrating the 25th anniversary, and in December last year we were able to hold a commemorative ceremony for the Western Prasat Top temple.

This is not the end but this is just a steppingstone, but thanks to the support of many people and the support of Cambodian staff, we are now able to continue with this project.

I mentioned that we had a donation from a private crane manufacturer, and by collaborating with private companies in many areas, instead of depending only on support from the government we are able to proceed this project in Cambodia with cooperation between industry, government, and academia.

And during this process, for example, the Cambodian staff of Nara Institute also had opportunities to explain

さきほど、民間のクレーンメーカーさんからのご寄贈の件を述べましたが、他にも様々な面で民間企業とコラボすることによって、国からの支援だけではなく、まさに産・官・学の連携でカンボジアにおけるこのプロジェクトを進める事が出来ているのです。

この過程の中で、例えば奈文研のカンボジア人スタッフが、現地で考古学を学ぶ大学生に遺跡の説明をする機会も時々あります。

この彼、私たちのプロジェクトには欠かせない存在なのですが、内戦の時に教師だったお父さんや兄弟を亡くされるなど大変な過去をお持ちです。カンボジアだけではなく、ベトナムやラオスなどでも、彼のような過去を背負った研究者が多く、それだけに自分たちの手で遺跡を守ろうとしているわけです。少しでもその手助けができていればと思い、活動を続けています。

そのひとつが、招聘プログラムで、活動初年度の93年から行っています。これまでに招聘した人数はのべ70人を超えました。若手の考古学者



Study program in Japan for young Cambodian archaeologists

to the local university students who study archaeology about the site. He is here. He is a very important person in the project. He actually lost his father, who was a teacher, and his brothers during the civil war. And not only Cambodia, but in Vietnam and Laos, there are many researchers who have had a similar experience, so they are eager to maintain and preserve their heritage by themselves. So we will continue with these activities so that we can continue to support them as much as possible.

And one such effort is a study program in Japan. The first year of the Nara Institute, in 1993 we started with this program. So far, in total we had invited more than 70 students. Young archaeologists are invited to Nara and they are trained based on actual examples of archaeological surveys, and we conduct these every year. And actually, there was one trainee who became vice minister of the Ministry of Culture and Fine Arts, and we are maintaining very good relations even now.

Last but not least, I'd like to talk about sites of the era after the Angkor dynasty perished. This is located in Cambodia, but this is related to the whole Mekong region, so let me introduce this project.

This project aims at protecting cultural heritage which is invisible from the surface. So looking back at what we were discussing this morning, there were introductions of a variety of cultural heritage and sites, and many of them were very big buildings and temples, and the case that I'm going to introduce to you now is entirely different in nature. Actually, this was a site which was discovered as a result of illegal digging.

Before starting the program, a villager notified the Ministry of Culture and Fine Arts, and members from the Ministry of Culture and Fine Arts went to the site together, and we found a lot of holes in the ground, as you can see in the photograph. And many ceramics were scattered on the ground. By collecting those scattered ceramics, we found out that quite a lot of them could be well restored.

And from that, we were sure that these were ceramics buried in graves. In this village, they don't have large stone-made temples like Angkor or Bagan. This is an ordinary village. But underground in the village

を奈良に招き、考古学調査の事例を研修を通して学んでもらい、本国で活かしてもらえよう、毎年続けています。研修生の中には文化芸術省の副大臣にまでなられた方がおられて、現在もとても良い関係を続けさせていただいております。

さて、最後になりましたが、今度はアンコール王朝が滅んだあとの時代の遺跡についてです。この遺跡は、カンボジアにある遺跡の話ではあるのですが、メコン諸国全体にかかわるお話ですので、少し紹介させてください。このプロジェクトで何に取り組んだかと言いますと、目に見えない遺跡を、文化遺産を守るか、という問題でした。

みなさん、ちょっと今日一日を振り返って頂きたいのですが、朝から様々な文化遺産や遺跡が紹介されましたね。とっても立派な建造物や寺院群が多かったと思います。今からお話する遺跡は、それらとは全く違う性格の遺跡です。それは実は、盗掘をきっかけとして発見された遺跡でした。

このプログラムを始める前、村人からの通報を受けた文化芸術省の担当者と一緒に現地に行くと、地面にたくさん穴があけられていて、非常に多くの陶磁器が地面の上に散乱している状態でした。それらを拾い集めるとかなりの割合できれいに復元できることが分かりました。その様子から、おそらくお墓に副葬された陶磁器に違いない。そう確信しました。

この村には、近くにアンコールのような大きな石造寺院があるわけでもありません。一見すると普通の村なのですが、その地下には古い時代の重要な遺跡が眠っている。つまり、日本でいうところの埋蔵文化財が、盗掘され、危機的状況にある。このような埋蔵文化財をどのように守るべきなのか、日本の文化庁の助成を受け、カンボジア文化芸術省と、地元自治体のコンボンチュナン州、王立芸術大学の考古学部と共に活動を始めました。まずは村人へ遺跡の重要性や遺跡の保護などを理解してもらうために説明会を行いました。さらには、これは私たちが地方の村々で活動する際には必ず行うことなのですが、地元の子供たちへ遺跡の事を学んでもらう機会を作りました。

このような中、発掘調査を進めたのですが、もちろん、村人にとっては発掘調査は初めて見るものです。しかも盗掘との違いを説明せねばなりま



Krang Kor site, Cambodia

there were very ancient important archaeological sites and archaeological graves. In other words, this is a buried cultural property which was dug illegally and was now facing a critical situation. So how to protect the buried cultural property? Based on a subsidy of the Agency for Cultural Affairs of Japan jointly with Cambodia's Ministry of Culture and Fine Arts and local government of Kompong Chhnang and the Department of Archaeology of Cambodia Royal University of Fine Arts, we started this activity together.

First, we had to explain to the villagers about the importance of the site. It's not that they were the ones who dig illegally, but to tell the local people the importance of the site. We had such presentations for them. In Angkor and Bagan and others, and not these well-known areas, but in other regions, when we conduct our activities, we also tell the local children about the archaeological sites that exist in their villages so the children can learn about them.

The survey was started. And then for the villagers it's the first time for them to see an archaeological excavation. And we had also to explain to them what is different from illegal digging because this is not illegal. And after the meeting, the villagers were so interested. They all surrounded us working.

せんでした。説明会の後の村人は興味津々で発掘の様子を見守ります。

発掘調査から出てきたのが、やはりお墓の跡でした。ここからは在地のカンボジアの土器と中国陶磁、タイ陶器、鉄製の刀にイヤリング、それにガラスビーズが発見されました。これらの出土した陶磁器の年代から 15 世紀後半のお墓であることが分かりました。

こちらは村内から発見された陶磁器群で、要するに、盗掘者が盗掘に失敗して、割れてしまった陶磁器をそのままほっぽりだしていった状態です。つまり良い状態で盗掘したものは、ブラックマーケットへ流れて、それを世界中の骨董マーケットに流れ、中には日本にも違法に持ち込まれることもあるのです。私たちはこのクラン・コー村で放置された陶磁器を集め、調査をおこないました。

興味深いことに中国陶磁器、タイ陶器だけではなく、ミャンマー陶器、中部ベトナム陶器、もちろんクメール陶器も発見されたのです。

つまり、このクラン・コー村で発見されたお墓と陶磁器群は、盗掘がきっかけではあったけれども、実はこの 15 世紀ごろの今日のテーマであるメコン流域諸国で作られた焼き物が一堂に出土した遺跡となったのです。



Ceramics found from Krang Kor site, Cambodia

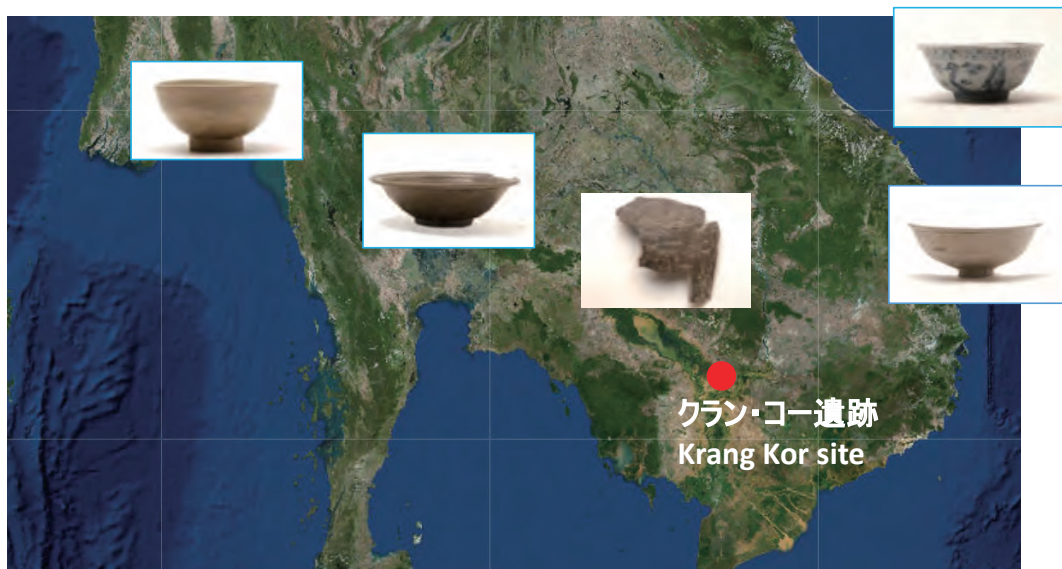
This is what we found as a result of excavation. This was a tomb. And now, from here, we found Cambodian earthenware and Chinese ceramics, Thai ceramics and iron swords, earrings and glass beads, which were necklaces, and from the age of the ceramics, we assumed that this was a tomb from the late 15th century. This was discovered from this village. It means that the thief failed in trying to dig illegally and ceramics were broken, so they left them on the ground. So what they found here would go to a black market and that would be sold in the global ancient goods market, and some of them might have been brought illegally to Japan. For us archaeologists, these are artefacts that we have to survey, so we collected those for further research.

It was interesting that there were Chinese ceramics and Thai ceramics but also those made in Myanmar

色々と煩雑な話をしてまいりましたが、今日ご紹介させていただいた私たち奈良文化財研究所が進めてきたプロジェクトだけ見てみても、様々な文化財の形があります。また各地域が抱えている問題もそれぞれです。

最後の埋蔵文化財の問題などは、カンボジアだけでなく、東南アジア全体、そしてかつて、戦後高度成長期以降の日本も共有していた文化遺産保護に関する共通のトピックだと思います。ただ、その盗掘を契機に発見されたクラン・コー遺跡からメコン流域諸国の焼き物がまとも出土したことからもわかるように、このメコン流域の各地域は古くから交流が盛んだったことがもう皆さんお分かりだと思います。

多様な文化遺産、多様な民族、多岐にわたる問題それぞれありますが、今後も私どもの研究所もそれぞれの地域と調査を進め、また国の枠組みを



and in Champa in central Vietnam. These were also discovered. In addition, of course there were Cambodian Khmer ceramics. So it means that the tomb where the pottery was discovered in Krang Kor village was discovered as a result of illegal digging. But ceramics made in the Mekong region countries, which is a theme today, which were made around the 15th century, were discovered.

I am sorry for speaking so long but looking at the project of the Nara Institute as I have introduced today, there are many forms and types of cultural properties. Each region has its own problems. And about the illegal digging of buried cultural properties, this is a problem not only in Cambodia but Southeast Asia as a whole. And also, after the war, during the high economic growth period in Japan, Japan also shared the same issue and this happened in common for the protection of all cultural heritage. The Krang Kor site was discovered as a result of illegal digging, but we could unearth large volumes of ceramics in the Mekong region, which means, as you can see, there was active exchange since ancient days in this region.

Diverse cultural heritage, diverse ethnic groups, and diverse problems existed, but we would like to continue with our survey in this region, as our institute, and I hope we can have a project crossing national borders. I think I am the most junior among the speakers here today, but I hope we can take after the friendly relationship built between Japan and Southeast Asia so far by our seniors so that we can continue to work together in the future.

Thank you very much for your attention.

超えたプロジェクトが出来たらよいなと考えています。そして、おそらく今日の登壇者の中では私は一番の若輩者ですが、これまで日本の、そして東南アジアの先輩方が築かれてきた友好関係をがんばって引き継いで、ともに歩んでいきたいと思っています。

ご清聴ありがとうございました。



6. The Charm of Khmer Classical Dance

カンボジア古典舞踊の魅力

YAMANAKA Hitomi

山中 ひとみ

Presidency of Cambodian dance planning and production school
"SAKARAK"/Lecturer of Yomiuri Culture Center, Concurrent
Lecturer of Ibaraki Christian University

カンボジア舞踊企画制作・教室「SAKARAK」主宰、よみうり
カルチャー講師、茨城キリスト教大学兼任講師

Good afternoon, and thank you for the introduction. I am Hitomi Yamana. Thank you very much for watching our performance. I would like to speak a little about Cambodian dance.

First, I would like to do a Cambodian style greeting together with you. The Cambodian greeting, Sampeah, means to pay respect. Hands are put together in front of you, and nod a little, without bowing like Japanese do. To greet a king, sometimes knees are bent. And where the hands are put together shows the degree of respect to the other person. The top photograph is for god and the second is for kings and priests at eyebrow height, and to people who are senior to you, the tip of the nose, the third photograph. And for friends and people of the same age, hands will be at the same level as the mouth. And for people who are junior or children, hands are put together in front of the chest, like in the very bottom photograph.

So let's do middle height at the height of the nose. At the tip of the nose, put your hands together at the same level at the tip of your nose, and hello in Cambodian. Morning, afternoon, evening, anytime this can be used to say hello.

And once again, we would like to look at the map. Cambodia shares borders with China on the north, and with India on the East and there are adjacent major countries, and it shares borders with Thailand, Laos, and Vietnam.

こんにちは、山中ひとみです。ただいま舞台をご覧いただき、有難うございました。それでは少し、カンボジア舞踊について、お話しさせていただきます。

最初に皆さんと一緒に、カンボジア式の挨拶をしたいと思います。カンボジアの挨拶（ソンペア）は、敬意を表する、という意味で、両手を胸の前で合わせ、腰を曲げずに軽く頭を下げます。王様などに挨拶をする時は、膝をまげることもあります。また、手を合わせる高さによって相手への敬意の程度を表し、写真の一番上は神様に、王様やお坊さんには眉毛くらいの高さに（上から2番目の写真）、自分より目上の人には鼻の頭の上に手の先がくる高さに（真ん中の写真）、親しい人もしくは同年代の人には口くらいの高さに（下から2番目）、自分より年下や子どもには胸の前（一番下）で手を合わせます。

ご一緒に、今は無難な真ん中の高さで手を合わせ、カンボジア語で「こんにちは」と言ってみましょうか。「**ជំរាបសួរ** チョムリアップ スゥオー」有難うございます。

それでは、皆様、ご承知だと思いますが、もう一度地図を見たいと思います。カンボジアは、北は中国、西はインドという大国に挟まれており、タイ、ラオス、ベトナムと国境を接しています。今は面積 18.1 万平方キロメートル（日本の約半分）、人口 1,600 万人程度で、1,000 年前はインドシナ半島の殆どを支配する大きな国で、文化も栄

The land area is about 181,000 square kilometers. The population is 16 million. About 1,000 years ago, it was a large country that had most of Indochina from Myanmar to Laos under its control. It was a great power and it prospered culturally as well.

About Cambodian dance, what kind of dance is Cambodian dance? In a nutshell, it is a dance that is passed on in Angkor Wat. Angkor Wat is the biggest stone temple in Southeast Asia, one of the biggest. The Cambodian capital is in Phnom Penh and there is only a Royal College of Dance in Cambodia. I studied there for five years, and the teachers say that all performing arts in Cambodia are religious, and the religion in Cambodia is similar to Japan in the sense that it's loose and it's hybrid, Hinduism from India, Buddhism, and animism. Respect for nature and ancestor worship included.

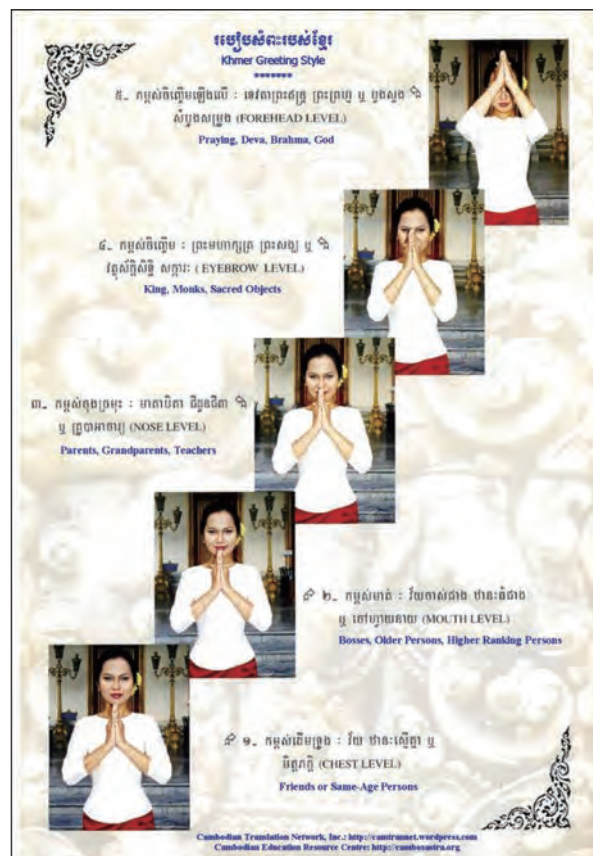
I will now talk about the types of Cambodian dance.

Popular dance. Any Cambodian can dance it. It's a fun dance. And in Cambodian new years in April, everyone will dance together. The second is folk dance. This one is, for example, the coconut dance. A coconut shell is beaten. The dance evolved from daily life in agriculture. There are also dances related to rice-milling. And then the bottom line is classical dance to be devoted to the gods, and a dance that was conducted in the Royal Palace.

To pray for bountiful crops and to celebrate harvest, popular dance was born. Anyone can dance this popular dance, and over many years and by many people, the dance became more refined and around the 8th century it became a palace dance, and now it is a classical dance. And for its spirituality and artistry, in 2003, it was inscribed as intangible cultural heritage by UNESCO.

I will now talk about the history of the dance.

Cambodian classical dance is practiced in this way, and it dates back to the 8th century Angkor dynasty. During the Angkor dynasty, in religious ceremonies in the palace, in the atria of temples and palaces, dance and music were devoted to gods and kings who are the same level as gods, and the dancers



えました。

カンボジア舞踊とはどんな踊りか、ということですが、一言でいうと「アンコール・ワットに伝えられる踊り」といえます。皆様ご存知の通り、アンコール・ワットは、東南アジアで最大級の石造寺院です。カンボジアの首都はプノンペンですが、そこにカンボジアで唯一の王立の舞踊学校があります。私はそこで5年間学びましたが、先生方は「カンボジアのすべての芸能のほとんどは宗教だ」とおっしゃいます。そして、その宗教は、日本と同じく緩やかで複合的な要素を持つもので、インドから伝わってきたヒンドゥー教、仏教、そして自然や祖先を敬うアニミズムの信仰と習慣が結合したものです。

次に、カンボジア舞踊の種類についてお話しします。

①民衆舞踊：カンボジア人なら誰もが踊れる楽しい踊り。4月のカンボジア正月などに皆で踊ります。

②民俗舞踊：人々の暮らしや、農作業の中で生まれた踊り。ココナツダンス、米搗き棒の踊りなどです。

③古典舞踊：神々にささげるために宮廷で伝えられてきた踊り。

はじめに、豊作を祈願したり、収穫を祝ったりする

were all women. And they worked as intermediaries between human beings, gods, and heaven. But in the 14th century, the Angkor dynasty was defeated by Ayutthaya dynasty of Thailand. The golden age of dance ended, and teachers and dancers were abducted to Thailand according to a monument.

And classical dance went through an existential crisis one after another, but in all ages, under the protection of the royal palace, it was passed on as the palace dance. Then it was revised during King Ang Duong in the 19th century. Cambodia became a colony of France and there was stability in the country. King Ang Duong combined Thai palace culture and what was passed on in the Cambodian palace to revive classical culture in Cambodia. From the 19th to the early 20th century, dancers lived in the palace and danced in the ceremonies for the royal family and for diplomacy.

After the end of the second world war, the then-Prince Norodom Sihanouk led Cambodia to independence and culture was emphasized, and classical dance was revived once again.

But after 1975, under Pol Pot's repressive rule that continued for four years, most of the dancers and teachers, close to 90 percent, were lost.

In 1980, after the collapse of the Pol Pot government, dancers who survived revived the dance putting the pride of the nation at stake.

Next, I will discuss the characteristics. The basic motif in the dance is the plant life cycle, which was explained earlier, and the sacred snake Naga, and celestial men and women in the Pure Land or heaven. About the way the hand and feet are used. The fingertips have to be bent outside, and like a knife, every part of the body is used, connected inside and rotated. And force is concentrated at the tip of the finger or in the stomach and pushed down. And there is also a repulsion force which is felt, which is called isometric. That is a characteristic way of using the body in Cambodian dance. The snake is deeply related to Cambodian culture, and Cambodian teachers say that the Snake Princess Nagi appears in the Cambodian myth of nation-building, and the teachers say that we are snake people.

ための民衆舞踊が生まれました。その民衆舞踊が、長い時間と多くの人々により洗練され、8世紀頃、宮廷舞踊となり、現在は古典舞踊となりました。そして、2003年にその精神性と芸術性が高く評価され、ユネスコの世界無形文化遺産に登録されました。

次は、その歴史についてお話しします。今日、このように踊られているカンボジア古典舞踊の歴史は、8世紀後半から隆盛したアンコール王朝まで遡ります。アンコール王朝時代、宮廷での宗教儀式の際に、吹き抜けの寺院や宮殿で、神々、そして神と同じような立場にある王に、舞踊や音楽が奉納されていました。踊り手はすべて女性で、人間と神、天の媒介の役割を担っていました。

しかし14世紀、アンコール王朝がタイのアユタヤ王朝に敗れたことにより、この舞踊の黄金期は終わり、舞踊教師と踊り手たちはタイに連れ去られたと、碑文にあります。その後、古典舞踊は幾度となく存続の危機にさらされながら、いつの時代も王室の保護を受け、宮廷舞踊として伝えられてきました。そして、その文化が再興されたのは19世紀、アンドゥオン王の時代です。カンボジアがフランスの植民地となる事で国内の平和を得た時代、アンドゥオン王はタイの宮廷文化と、カンボジアの宮廷で伝えられていたものを合わせ、カンボジアの古典文化を再興しました。19世紀から20世紀前半、踊り手は宮殿の中に住み、王族の儀式や外交儀礼で踊っていました。

第二次世界大戦後、シハヌーク殿下がカンボジアを独立させた時代には、文化に力が入れられ、古典舞踊が興隆しました。

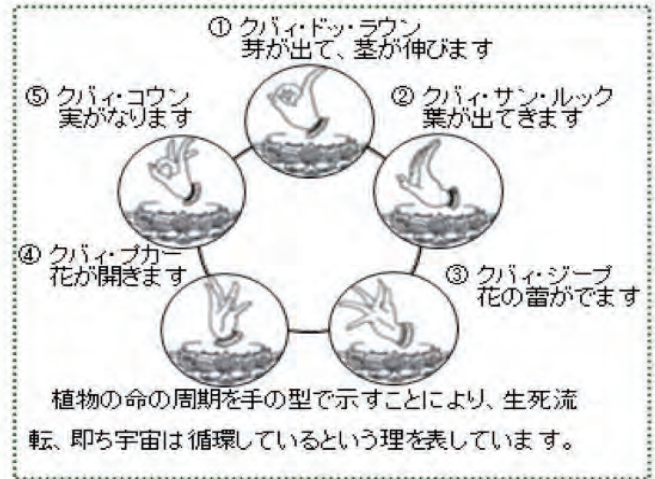
しかし、1975年から4年間続いたポル・ポト政権の圧政により、伝承者のほとんど（約9割）が失われてしまいました。

1980年のポル・ポト政権崩壊後、生還した舞踊関係者達が、民族の誇りをかけて復興に取り組み、今日まで続いています。

次に、その特徴をお話しします。舞踊の基本的なモチーフは、先にお話しした植物の命のサイクルと、神聖な蛇ナーガ、そして浄土にいるとされる天男天女です。それらを表現する為、次のような特徴的な身体の使い方をします。まず、①手足の指先を反らす。②身体のすべての部分を内部



Apsara dance performed in Angkor Wat, in the 1980s
(Photo: Cambodian Dance Denise Heywood)



Symbols of Life Circles

Cambodian dance expresses a grandiose view of the universe of Cambodian people. The main motif of the dance is "Reamker." It is a Cambodian literature for Ramayama. This is one of the scriptures of Hinduism, and Prince Rama tries to take back his kidnapped life, Sita, and will lead a large army to fight the "yaksha" demon.

So the noble main player, that is the male role, although this is danced by a female dancer. And a gentle female role and then the yaksha demon and the sacred monkey, that is Hanuman monkey. All of them were danced or performed by women before, but the hermit and monkey roles are now danced by men these days. And, for example, the lower left side is a gesture by crying by all of the players. And the right side is showing the direction, that way.

And apsara is a water fairy spirit in the myth, and there are many reliefs of apsara in Angkor Wat.

Musical instruments are made of bamboo, wood, and bronze that are produced locally, and played in ensemble together with a xylophone and other instruments. They sound very soft, and if you listen to it on a stage in the atrium, it mixes with sound of tree leaves rustling and it feels like melting into a forest. The ensemble is called pinpeat and dedicated to spirits or performed in weddings and funerals, and it evolved further.

This boat-shaped xylophone is roneat thung. This is a drum that is beaten by a drumstick, "skor thom," and

で繋げ、回転させる。③ソンコット（お腹や手足の先に、力を入れて押し付け、反発する力を感じる）ということです。手や足、胴体などは組み合わせられ、4千以上ともいわれる型があります。また、手指では植物の命のサイクルを表現しますが、踊り手は、手そのものが生きているように「生命ある手」を持たなければなりません。指が反り返るのは、大蛇ナーガの尾を表していると言われていいます。

そして、肩甲骨下の筋肉を使うことにより、肩を回転させ、大蛇ナーガが這う様子を模し、「ひそやかに息をするように」動いていきます。蛇はカンボジアの文化と深い関わりがあり、先生は、カンボジアの建国神話にも蛇姫ナーギーが登場することを取り上げ、「我々は蛇人間だ」と語ります。

カンボジア舞踊が表現するものは、カンボジア民族の壮大な宇宙観です。舞踊の主要なモチーフ「リアムケー」は、カンボジア版ラーマヤナ物語です。これはヒンドゥー教の聖典のひとつで、ラーマ王子が、誘拐された妻シーターを奪い返すために、大軍を率いて夜叉に挑む姿を描いた叙事詩です。

踊り手には高貴な主人公、柔和な女主人公、夜叉、聖なる猿の4つの役があります。以前はすべて女性により演じられていましたが、現在は猿と劇中の仙人の役は男性により演じられています。因みに、画面左半分は「泣く」という動作を、右半分は「あちらへ」という意味を、それぞれの役柄で演じたものです。また、天女アプサラは神話



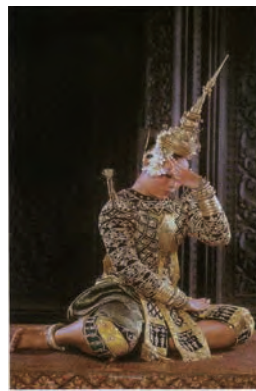
Each of the four character types uses his own code for the presentation of appropriate action and emotion.

Here, presented in their different poses of flying, are a royal couple, a yak and a monkey.



To Fly

To Love



To Cry

To Show



Cambodian Classical Dance, World Intangible Cultural Heritage

(Source: Centre culturel francais)

a recorder, "sralai." Including these, seven instruments are used in the ensemble, and there are also women and men singers, three singers.

The ritual "Sampeah Kru" is held before performances and every Thursday. "Sampeah Kru" means to dedicate appreciation to the soul of the dance masters and gods. It is believed that musical instruments and crowns and masks have a spirit, and incense sticks, candles, jasmine flowers and fruits are offered. The respect is offered not only to the good but also to the evil, and offerings are laid out in two rows, on the right and the left. For example, the head of swine is here, and these also. On this side there is a mask of yaksha, the demon, and there is uncooked pork and chicken, which is the evil side. And here are the offerings which have already been cooked for the good.

An offering called "Baysay" is made of banana leaves and stems. On top, a beeswax candle is placed, and also incense sticks are placed here, as you can see. So there is a lot of smoke. And a fire is lit, and the waving shadows would illuminate the surroundings, and we can also feel the scent of incense sticks. The dancer will offer the offerings to all directions and pray, and the ritual bearer and the master, called "Achar," will spray secret water to the crown and the dancers and dedicate a dance. And the dance performance always should be a happy-ending story. It is believed that the wish for good to beat the evil is entrusted to the dancers.

And also, the costume, crown, accessories, express the sense of view of a universe of Cambodia. The Meru Mountain, where the gods live in the center of the universe, and the land where the humans live is surrounding here. And going below, there is a world, this is hell, and at the very end, this is surrounded by an ocean. So this is expressed through this. And for instance, it is always like this. This expresses the large snake Naga to protect what is sacred.

And in Cambodia, it is believed that the days of the week have unique colors. Until the early 20th century, a traditional costume of the color of the day of the week was worn in court. At the left-hand side, this is red, Sunday, and the right-hand side is Saturday. So



Performance with an ensemble of pinpeat

に出てくる水の精で、アンコール・ワットなどに沢山のレリーフがあります。

ここで、再び音楽を聴いて頂きます。楽器はこの地域特産の竹や木または青銅でできたものが多く、木琴などからなる合奏音楽が中心です。その音色は柔らかく、吹き抜けの舞台できくと葉擦れの音などとあいまって、森の中に溶け込んでいくような感覚を呼び起こします。この合奏はピン・ピアットといい、精霊に供養を奉げたり、婚礼やお葬式などで演奏されていた音楽が発展したものです。舟形をした木琴ロネアト・トン、ばちで叩く大太鼓スコー・トム、縦笛のソロライなどの7つの楽器による合奏に、男女3人の唄い手がつきます。

「ソンペア・クルー」という儀式が公演の前や毎週木曜日に必ず行われます。「ソンペア・クルー」とは代々の舞踊の師匠の魂や神々へ礼を捧げるという意味で、楽器や冠、お面には魂が宿ると信じられ、お線香、ろうそく、ジャスミンの花、果物などの供物が並びます。その敬意は良いものだけでなく悪いものにも捧げられ、供物は右と左の二列に並びます。それは善と悪、知性と荒ぶる力が永遠の闘いを繰り広げるという、彼らの宇宙観に



Traditional crowns expressing the Meru Mountain
(Source: Pich Tom Kravel, *Khmer Dances*, Toyota Foundation, 2001)



Colors of the day in Cambodia

this is from Sunday to Saturday. Today is Saturday, so this is here, the day of black color or slightly purple black. And these colors express the Sun, the Moon, other myths and plants.

Holy Thursday is the day to conduct the ritual to thank the ancestors and the masters, so this is dark green, just like the leaves of agricultural products. So in dance, hands express the life cycle of plants. Sowing seeds and leaves growing, and flowers flowering, but not only that, even seeing a calendar of the week, as the view of the universe of the Cambodian people you can feel the story from death to resuscitation.

And the costume of dance, you can also see the thoughts about the color, for example. Green, yellow, orange are the colors of the protagonist, and these are the lucky colors also considered to be important in Hinduism, and green is the color of trees, orange and yellow are the color of the Sun in the morning and noon (1). A white costume is the color representing prayer (2), and blue, represents water, which is important for farming, so in dancing about the water spirit, this color is used (3).

Now lastly, let me introduce the traditional costume in Cambodia. Kben on the left-hand side (4). It is a 3.6-meters' long cloth. It is rolled to the front, here, and then this is turned to the back. When we introduced the dance earlier, this costume was worn. These are Cambodian style trousers, or a skirt. Both men

基づいています。

バナナの葉や茎で「バイサイ」というお供え物が作られ、その上に蜜蝋のろうそくとお線香が立てられ、火が付けられると、ゆらゆらとした灯影が辺りを照らします。また、お線香の香りも立ち込めます。踊り手が供物を四方に奉げ、お祈りをします。「アチャー」という儀式的担い手や先生方から、冠や踊り手達に聖水がかけられ、踊りも奉納されます。そして舞台上演じられる舞踊劇は必ずハッピーエンドで終わらなければなりません。それは、善が悪に打ち勝つよう、踊りに願いを託しているからだと考えられます。

衣装、冠、装身具もまた、カンボジア民族の宇宙観、即ち、宇宙の中心に神々の住む須弥山（メール山）があり、その周りに我々人間の住む大地があり、その果てを大海が取り囲むという神話や、聖なるものをお守りする大蛇ナーガを表現しています。

また、カンボジアでは曜日にも固有の色があると考えられ、20世紀初頭まではその曜日の色の伝統衣装を、宮廷などでは着用していました。この図は、一番左が日曜日、右が土曜日を示しています。例えば今日は土曜日なので、紫または黒の日です。これらの色は、太陽や月、そして植物などを象徴していると考えられます。

例えば、先ほどお話した「師匠すなわち祖先に礼を奉げる儀式」を執り行う聖なる木曜日は深い緑で、よく茂った農作物の葉のようです。つま

and women will wear it as performers of traditional performing arts, and also in the royal family and a groom at weddings would wear.

And Sampot, the second one (5), is a Cambodian wraparound skirt worn only by women. The gorgeous ones with gold thread would be worn by the dancers and also by brides in weddings. It is decorated with spangles, beads, and gold and silver threads which emit light. And the third one, Sampot in modern style (6), which is also a wraparound skirt. This is what I'm wearing. Compared to those, this is shorter, and now it is just like a skirt, which is easier to wear, so this is use as a uniform of schools, by schoolteachers or as uniforms of civil servants. This one, hol, which is a patterned silk, is worn when people attend rituals in temples. And this one with gold and silver threads, and this one also. This would be worn by those who attend a wedding.

So animism, worshipping ancestors or nature, is the basis of belief in Cambodia, and this was introduced into Hinduism and Buddhism and became a traditional religion in Cambodia. Cambodian classical dance is a performing art made to decorate the religion, so these are dances of prayer born from basic beliefs in Cambodia, which are backed by the story of death and resuscitation.

り、舞踊の中で植物の命のサイクルを手で表現する、ということだけでなく、一週間の暦の中にも、カンボジア民族の宇宙観として「死と再生」の物語を感じる事ができるのです。

そして、踊りの衣装にも、この色に対する考え方を見る事ができます。例えば、黄色・緑・オレンジなどは主役の色ですが、それは、ヒンズー教でも大切にされる吉兆の色で、緑は木々の色、オレンジや黄色は朝と昼の太陽の色とも考えられます(1)。また、白は純粋さを象徴する祈願の色(2)、青は農作物にとって大切な水の色(3)で、よく踊りの衣装に使われています。

それでは最後に、カンボジアの伝統衣装について、ご紹介します。

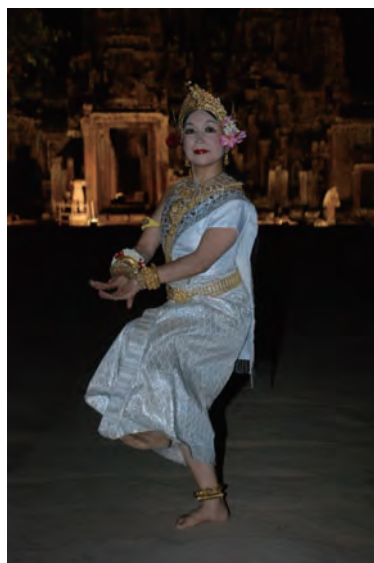
クバン(4)は、3.6メートルくらいの長さの布で、前を巻いたものを後ろに渡し、カンボジア風ズボンにします。男女ともに着用し、伝統芸能の演者や、王族、結婚式の新郎なども着用します。

ソンポット(5)(踊りの衣装、新婦の衣装)は、カンボジア風巻スカートで、女性のみ着用します。金糸などの入った豪華なものは、舞踊の演者や結婚式の新婦が着用します。スパンコールやビーズ、金銀糸が多用された衣装は、プルプルと光を放ちます。

ソンポット(6)(晴れ着として、現代でも着用するもの):簡素なものは、学校の先生や公務員



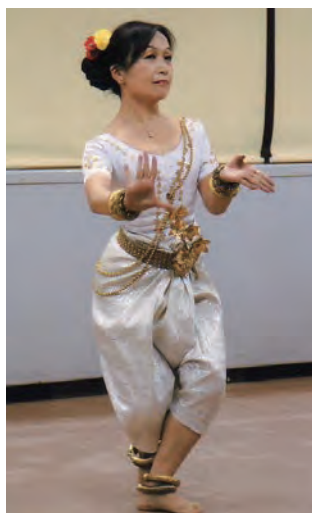
(1) Tep Monoroum



(2) Robam Taye



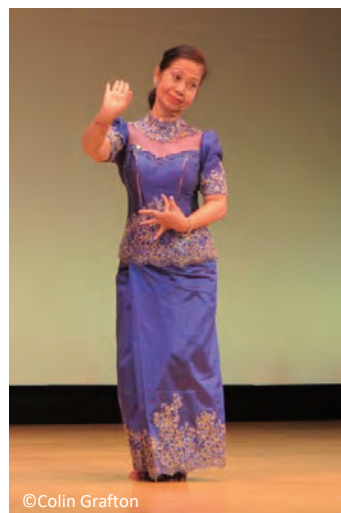
(3) Robam Moni Mekhala



(4) Kben



(5) Sompot



(6) Sompot

Of course, if you look around at world history, the basis of all performing arts is related to religion, but later, performing art develops into a performing art of beauty with the development of modern state and the development of anthropocentrism, and it turns into stage art, which is a Western modern stage art. And it's also different from Thai dance, which influenced each other. Because the Cambodian classical dance is an offering from a prayer, which continues until now.

The scents and sounds and light and color would enclose people, and this wakes up our basic memories and primitive sense, and these are devices considered to be prayers. And this is also important as a ritual to offer our thanks to ancestors and masters.

And not only intangible cultural heritage like dance, but the stages of a dance, like temples, sites, and sculptures, tangible cultural heritage, also express the longing for the Pure Land within one's reach in Cambodia, and this expresses this concept.

The teacher of a dancing college which I attended, for more than a decade after the war said there wasn't sufficient food or things to wear, but was proud about it and said, there are three types of dance: one is a very primitive one, like the ones danced to celebrate a good harvest in ancient days; two is a modern Western dance, which expresses the beauty challenging the limits of human physical capability; and three, are the spiritual ones, and Cambodian dance is within the third category.

の制服としても着られています。ホールという模様のある絹絣は、お寺の儀式でも着ます。また、金銀糸が入った少し現代的な形の衣装は、結婚式の参列者などが着ます。

以上をまとめると、自然や祖先崇拜などのアニミズムがカンボジアの基層信仰となり、ヒンドゥー教や仏教に取り込まれ、カンボジアの伝統的な信仰となりました。カンボジア古典舞踊とは、その信仰を荘厳するために作られた芸能、即ち、カンボジアの基層信仰から生まれた「祈願の舞踊」であり、その背後には「死と再生の物語」があります。勿論、世界の歴史を見渡せば、あらゆる芸能の根源に宗教は関係しています。しかし、後に芸能が人間中心主義思想の発展や近代国家の成立に伴い、「美の為の芸能」、「芸術の為の芸能」に特化していった西洋近代の舞台芸術、また互いに影響し合った隣国のタイ舞踊とも異なり、カンボジア古典舞踊は「祈りの為の奉げもの」としての要素を、今日まで頑なに伝えています。それは、香りや音、光や色が人を包みこみ、私達人間の原始的な感覚や根源的な記憶を呼び覚まし、祈りの効果をあげる「装置」として機能している、「師匠や祖先に礼を奉げる儀式」を今日でも重要視していることから、明らかです。そして、踊りという無形文化遺産だけでなく、その舞踊の舞台であった寺院・遺跡・彫刻等の有形文化遺産もまた、カンボジア民族の「手の届く浄土」への憧れを表現する、巨大な「装置」であったのではないかと私は思っております。

When we look from a Western perspective, Cambodian culture is based on animism, and it may look as if it is a minor culture, a pre-modern minor culture, but when we think of the people who inherited this culture throughout their long history, Cambodian people chose this culture and these performing arts for themselves.

The traditional culture that we have inherited throughout history is something that we are all proud of, and that creates the dignity of humans and the state, and these are deeply related to our own identity.

The economy or military power can be quantified, and these are sources of power, but sometimes these also cause conflict between people. In other words, unquantifiable culture, in particular minor traditional culture, should be understood and cherished. This is an expression of mutual respect. It will lead to co-existence, co-prosperity, and global peace.

Of course time passes, and globally, with globalization and the changes in generations, just like Japan, in Cambodia also, traditional culture may not be that powerful as it used to be, and that is clear even from my point of view as a foreigner.

And going forward, the difference between classic culture made by the privileged classes in each country and popular culture, on an international standard may become a big issue. But if popular culture is the same in all countries in the world, then that may not be able to satisfy our pride. So, even in modern culture, I am sure there is always the influence of traditional culture.

And that's not limited only to Cambodia but that also can be said with regards to the situation in Japan.

Thank you very much for listening to me for such a long time.

私の卒業した舞踊学校の先生が終戦を経て十数年後 まだ衣食住も満ち足りず余裕のない中、誇らかに語っていました。「踊りには、3つの種類がある。一つ目は、非常に原始的なもの。例えば、古代、収穫を祝うために踊られていたもの。二つ目は、近代西洋のもの。それは、人間の身体能力の極限に挑みながら『美』とは何かを追及するもの。そして、三つ目は精神的なもの。カンボジアの踊りは、西洋中心主義から見ると、カンボジアの文化はアニミズムに彩られた、単なる前近代的なマイナーな文化なのかもしれません。

しかし、この文化を継承してきた人々の言葉を使う時、長い歴史を通じて、カンボジアの人々はあえてこのような芸能の在り方、文化の在り方を選んできたのだと、思わざるを得ません。

長い歴史を通して受け継がれてきた伝統文化は私達一人一人の誇りであり、ひいてはそれが人間や国の品位を形作り、私達のアイデンティティに深く関わっていると、私は考えます。経済や軍事力は数値化できるもので、力の源ではありますが、時として、人々の間に争いを生みます。従って、数値化できない文化、特にマイナーとされる伝統文化を理解し大切にすることこそが、お互いへの敬意の表明であり、共存共栄、ひいては世界平和につながると、私は強く信じております。

勿論、時は移り変わり、全世界的にグローバル化や世代交代が進む中、日本と同じようにカンボジアでも、伝統文化が以前ほど力を持っていない事は、外国人の私の目にも明らかです。これからむしろ、各民族の特権階級が形作ってきた古典文化と、国際標準の商業的な大衆文化の隔たりが、大きな問題となってゆくのかもしれません。しかし、それぞれの大衆文化も、もし世界のどの地域でも変わらないとしたならば、きっと私達の自負心が満足できないのではないかと、現代文化といえども、必ずどこかに伝統文化の影響があるのではないかと私は思う次第です。そしてそれは、唯カンボジア一国の問題ではない、日本においても同じことが言えるのではないかとと思うのです。

長い間、御静聴有難うございました。

7. Closing Remarks

閉会挨拶

TABATA Yukitsugu

田畑 幸嗣

Director, Institute for Cultural Heritage, Waseda University

早稲田大学文化財総合調査研究所長

At the closing, on behalf of the organizer, I would like to express our deep appreciation of your participation to this symposium. This symposium is under the support of the Agency for Cultural Affairs and Waseda University Institute for Cultural Heritage, jointly organized. And Nara Institute and Tokyo Institute and many other organizations related to cultural heritage provided us a lot of support. I would like to thank you all for that.

And before the symposium, for two days, from all the five countries of the Mekong region we invited experts, and we had a research workshop with only experts participating. We had many participants traveling to Japan to attend the three-days' session on a variety of subjects about cultural heritage. Among those, there are some things we felt strongly about. First is about the Mekong River. The Mekong River is the longest river in Southeast Asia, and the Mekong River has created very diverse cultural diversity. And the Mekong River is also a symbol. What I mean is that within the Mekong area, people related to the cultural heritage in this area, this is a symbol of their exchange and their ties. I am very honored to have this opportunity.

And this exchange or the ties is not only for the five Mekong region countries, but also, we should not forget there is also a linkage with Japan, exchange with Japan. The Mekong River pours into the sea, and then the water of Mekong River might have been coming even to Japan.

The exchange between Japan and Southeast Asia

閉会にあたり、主催者を代表してご挨拶申し上げます。シンポジウムへの参加いただき、深く感謝しております。本企画は、文化庁・早稲田大学文化財総合調査研究所が共同で開催いたしました。また実施にあたり、東京文化財研究所、奈良文化財研究所をはじめとする、文化遺産関連の諸機関にご支援賜りましたことを改めて感謝いたします。

実は本日のシンポジウムに先立つ2日間、メコン地域の5か国すべてから専門家をお招きし、専門家による研究会を開催しておりました。文化遺産に関するさまざまなテーマについての3日間のセッションに参加するために、多くの参加者が日本を訪れました。この間、私たちが強く感じたこと二つあります。それはメコン川についてです。まず、メコン川は東南アジアで最も長い川であり、非常に多様な文化的多様性を生み出しました。また、メコン川は一種のシンボルでもあります。つまり、メコン川は、この地域の文化遺産に関係する人々の交流と絆の象徴でもあるということです。このような実りある研究会を開催できたことを大変光栄に思います。そして、この交流や関係は、メコン地域5か国だけでなく、日本との間にもあることも忘れてはなりません。メコン川はやがて海に注ぎますが、そのメコン川の水が日本にも届いているのです。事実、日本と東南アジアの交流の歴史は非常に古く、17世紀頃まで遡ります。つまり日本と東南アジア諸国の研究者の交流は、こうした非常に長い歴史と伝統の上に成り立っているのです。しかし、そうは言いながらも、文化

is quite old. It started around the 17th century. Japanese researchers and researchers of Southeast Asian countries are based on a very long history and tradition.

But having said so, when we said culture of heritage, this is a new concept. Research and international cooperation on cultural heritage is something that started in the last few decades.

Looking at the people who we invited to this event, we have leading experts, authorities, and also younger researchers. The title of the symposium is to know more and share about cultural property, so cultural property itself, heritage, is something that we must hand over to future generations, but people related to cultural heritage, their activities must also be linked to future generations. The title today has these two meanings.

The cultural heritage does not only mean the tangible ones. Among the tangible ones, there is also intangible value, and in the intangible heritage, there is a tangible place to perform. This is why we invite Ms. Hitomi Yamanaka for the performance today. Of course, it might be easy to invite performer from the Southeast Asian countries. But we did not it because we would like to show that there are Japanese trying to study Southeast Asian tangible and intangible culture.

A one-day symposium might be too short to communicate everything that we wanted to say, but I hope we can have another opportunity to hold this symposium again. Finally, I hope this symposium today was helpful in deepening your understanding about Southeast Asia and its cultural heritage. Thank you very much for your attendance.

遺産という言葉に限って言えば、これは新しい概念です。文化遺産に関する研究と国際協力は、過去何十年のことにすぎません。

今回お招きした方々は、これまでこの分野をリードしてきた方から若い研究者まで様々な世代が含まれます。これはシンポジウムのタイトルである「文化遺産を知り、そして伝える」とも関係します。文化遺産は私たちが未来の世代に引き継がなければならないものですが、同時に文化遺産に関わる我々は、その活動も未来の世代に繋げなければなりません。今日のタイトルには、これら2つの意味があります。

さらに文化遺産は、有形だけに限ったものではありません。有形のものの中には、無形の価値もあり、無形の遺産には、実行すべき具体的な場所があります。そうした思いから、本日は山中ひとみ先生にカンボジアの伝統舞踊を御公演いただきました。もちろん、東南アジア諸国からパフォーマーを招待するのは簡単かもしれません。しかし、私たちは、あえてそうしませんでした。東南アジアの有形および無形の文化を真剣に研究し、そして伝えようとしている日本人がいることを示したかったからです。

一日だけのシンポジウムでは、私たちが言いたいことすべてを伝えることは難しかったかもしれません。将来機会がありましたらまた同様の企画を立ち上げたいと思います。このシンポジウムが東南アジアとその文化遺産についての理解を深める一助となれば幸いです。ありがとうございました。

About the Speakers

Kong Puthikar

Director General, National Authority for Preah Vihear, Ministry of Culture and Fine Arts, Cambodia

Born in 1980 in Phnom Penh. He studied English education at the Royal University of Phnom Penh, received his master's degree from the International Cooperation Policy Master's program, the Graduate School of Ritsumeikan Asia Pacific University. From 2007 to 2012, he was a member of the Council of Ministers, the National Special Committee for Preah Vihear. He has been working for the National Authority for Preah Vihear as Director of Tourism and Development from 2012, and as Director General from 2015 to the present. He takes responsibility for the research and restoration of the Preah Vihear site, which was inscribed on the list of World Heritage in 2008, and the Koh Ker site. He is engaged in the promotional activities to link the local community with global society.

Thein Lwin

Deputy Director General, Department of Archaeology and National Museum, Ministry of Religious Affairs and Culture, Myanmar

Born in Yangon in 1962. He got the B.A and M.A degree and recently received Ph.D from the Department of Myanmar, Yangon University. He received the Post Graduate Diploma in Archaeology from Institute of Archaeology, New Delhi, India at 2001. Former his responsibility was a Compiler, Myanmar Language Commission. He joined to Department of Archaeology as Research Officer since August 1996. Now he is a Deputy Director General of Department of Archaeology and National Museum since 2012 at Present. He has conducted numerous excavations, particularly excavation at Rakhigiri, Harappa Civilization and Srawasti, Buddhist site in India, Kanbawzathardi Palace, Beikthano and Sri Kshetra of Pyu Civilization sites and Bagan palace site in Myanmar. He has been published about 60 articles and research papers on Myanmar Literature and Archaeology. He published Ganesh (Maha Peinne Nat) and Myanmar Culture (in Myanmar, 2017, won the Tun foundation Literary award for Research) and The ancient Ink Writing poems from Bagan Region (2018), Forth coming research book are Shin Malae (Prah Malai) in Myanmar related with South East Asia and The dated Buddha images in Myanmar.

講演者一覧

コン・プティカ

カンボジア・プレヴィヒア機構 総裁

1980 年、プノンペン生まれ。プノンペン王立大学で英語教育を学んだのち、立命館アジア太平洋大学大学院国際協力政策専攻において修士号を取得。2007 年から 2012 年まで閣僚評議会プレア・ヴィヒア国家特別委員会メンバー、2012 年からプレア・ヴィヒア機構観光開発部部長を歴任し、2015 年から現職。2008 年に世界遺産に登録されたプレア・ヴィヒア遺跡をはじめ、コー・ケー遺跡等において調査修復を進めるとともに、地域と国際社会をつなぐための広報活動にも力を注いでいる。

テイン・ルイン

ミャンマー宗教文化省考古・国立博物館局 副局長

1962 年、ヤンゴン生まれ。文学・考古学博士。1991 年から 1996 年 8 月までミャンマー語委員会編集担当、1996 年 8 月よりミャンマー政府文化省考古局調査官、2012 年より現職。インド・ハラッパー文明遺跡、ミャンマー・バゴー管区カンボーザタルディ宮殿、ピュー文明遺跡（ベイトノー、シュリークシェトラ）、バガン王宮遺跡等で発掘調査に従事。ミャンマー語及び考古学に関する著書多数。代表作にガネーシャとミャンマー文化に関する研究（2017 年トン財団文学賞受賞）、バガン地域の墨書詩歌（2018 年）、東南アジアにおけるミャンマーのシンマーレー（ブラフマー）及び仏像に関する研究など。2019 年に世界遺産に登録されたバガン遺跡の推薦書作成チームを主導した。

TOMODA Masahiko

Director of the Japan Center for International Cooperation in Conservation, Tokyo National Research Institute for Cultural Properties, National Institute for Cultural Heritage

Born in 1964. Master of Engineering, registered as Senior Architect and Professional Engineer in Civil Engineering. Being specialized in architectural history and cultural heritage conservation, he started the carrier in this field from 1993 by participating in the Japanese Government's project for safeguarding Angkor monuments, in which he took responsibility for the restoration of the Northern Library of Bayon Temple as the field director. Then, he has been working extensively with the planning, design and supervision of many conservation / development projects for archaeological and architectural heritage in and out of Japan. He joined the TNRICP in 2008 to engage in the international cooperation projects in cultural heritage, and became at the present post in 2019. His work field covers the academic research, technical assistance for the heritage conservation and the relevant human resource development in various countries such as Indonesia, Vietnam, Cambodia, Thailand, Myanmar, Bhutan and Nepal. He also serves currently as the Secretary General of Japan Consortium for International Cooperation in Heritage and a Board Member of Japan ICOMOS National Committee.

SATO Yuni

Expert, International Cooperation Section, Department of Planning and Coordination, Nara National Research Institute for Cultural Properties, National Institute for Cultural Heritage

Born in 1981. MA in Archaeology. Her research area is Southeast Asian Archaeology. Her first filed work in Cambodia was in 2004. She has been involved in the Cambodian project lead by Nara National Research Institute for Cultural Properties as a project staff 2007-2011, as a research assistant 2011-2015, as an expert 2016 to the present. She is engaged in the research and restoration project of Western Prasat Top. She is conducting research project on the royal capitals and the Japanese settlement in the middle period of Cambodia and also collaborative project with Myanmar, Thailand and Vietnam.

友田 正彦

独立行政法人国立文化財機構東京文化財研究所
文化遺産国際協力センター長

1964年生まれ。工学修士、一級建築士、技術士（建設部門）。専門は建築史及び文化遺産保存。1993年よりアンコール遺跡救済事業に参加、日本政府チームの現地事務所長としてバイヨン寺院北経蔵修復等に従事した後、国内外の考古・建築遺産保存整備事業に関する計画策定・設計・監理等を数多く手掛ける。2008年より東京文化財研究所にて文化遺産国際協力事業を担当、2019年より現職。インドネシア、ベトナム、カンボジア、タイ、ミャンマー、ブータン、ネパールほかにて調査研究、保存修復支援、人材育成等に携わってきた。文化遺産国際協力コンソーシアム事務局長、日本イコモス国内委員会理事。

佐藤 由似

独立行政法人国立文化財機構奈良文化財研究所
企画調整部国際遺跡研究室専門職

1981年生まれ。考古学修士。専門は東南アジア考古学。2004年よりカンボジアにおける考古学調査に参加。2007年より奈良文化財研究所カンボジアプロジェクトスタッフ、2011年より奈良文化財研究所企画調整部国際遺跡研究室研究補助員として、アンコール遺跡群の西トップ寺院調査修復事業に専属的に従事する。2016年度より現職。アンコール王朝以降の中近世カンボジアにおける王都や日本人町のほか、ミャンマー、タイ、ベトナムにおいて現地の研究者らと共に調査研究を行っている。

YAMANAKA Hitomi

Presidency of Cambodian dance planning and production school "SAKARAK" / Lecturer of Yomiuri Culture Center, Concurrent Lecturer of Ibaraki Christian University

She was received her B.A. in Aesthetics and Art History from Ochanomizu University. After completed the auditing course of the Chiang Mai Performing Arts School in Thailand in 1995, she was received her B.A. in Classical Dance from the Royal University of Fine Arts, Phnom Penh, in 2003, for the first time as a Japanese student. She was granted permission to teach classical dance by Princess Bopper Devi. She has been dancing on the stages in the Angkor site in Cambodia, at Embassies, at the Expo 2005 in Aichi, etc., and awarded at the World Dance Festival, held at the National Theater of Japan in 2014. When Cambodian King Sihamoni and Prime Minister Hun Sen visited Japan, she was invited to the Prime Minister's Office for the lunch and dinner parties. In recent years, she is also creating Cambodian dances based on Japanese classical literatures, teaching at the Yomiuri Culture Center and the Cambodian dance school "SAKARAK" for future generations.

山中 ひとみ

カンボジア舞踊企画制作・教室「SAKARAK」
主宰、よみうりカルチャー講師、茨城キリスト
教大学兼任講師

お茶の水女子大学哲学科美学美術史卒。タイのチェンマイ舞台芸術学校聴講生を経て、日本人として初めてカンボジア王立ブノンペン芸術学校古典舞踊科を卒業し、ボッパー・デヴィ王女より古典舞踊を教える許可を得る。アンコール遺跡、大使館、愛・地球博などで舞台を務め、世界舞踊祭（於：国立劇場）で技能賞を受賞。シハモニ国王やフンセン首相来日時には、首相官邸昼・晚餐会に招かれる等、各界との交流も深い。近年は、日本古典文学を題材にしたカンボジア舞踊を創作しながら、よみうりカルチャーセンターやカンボジア舞踊教室 SAKARAK（サカラッ）で教え、定期的に自主公演や発表会を開き後継者の育成にも力を入れている。

Outline of the Seminar & Symposium 研究会・シンポジウムの概要

1. Seminar on Southeast Asian Cultural Heritage Studies Today

国際研究会「東南アジア文化遺産研究の現在」

Date: Thursday, 23 and Friday, 24, January, 2020

Venue: Waseda University, Toyama Campus

(Seminar) Seminar Room No. 10 (16F, bldg. 33)

(Poster Session) International Seminar Room (6F, bldg. 33)

Language: English

日 時：2020 年 1 月 23 日（木）、1 月 24 日（金）

会 場：早稲田大学 戸山キャンパス 33 号館

（研究会）16 階 第 10 会議室

（ポスター会場）6 階 国際会議室

言 語：英語

First day : Thursday, January 23, 2020 13:00 ~ 17:30 (Open 12:30)

1 日目：2020 年 1 月 23 日（木）13:00 ~ 17:30（開場 12:30）

13:00-13:15	Opening Remarks 開会挨拶	NAKAGAWA Takeshi (Honorary professor, Waseda University) 中川 武（早稲田大学 名誉教授）
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13:15-14:30	Myanmar Session ミャンマー・セッション	Coordinator : OTA Sho-ichi (Kyoto Institute of Technology) コーディネーター：大田 省一（京都工芸繊維大学）
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Teak Wood Architecture and Its Conservation at Myanmar

Zar Chi Min (Professor, Department of Architecture, Technological University, Mandalay)

「ミャンマーのチーク材建築とその保存」ザー・チ・ミン（工科大学マンダレー校建築学部 教授）

Cultural Heritage Sites in Myanmar

Soe Soe Lin (Deputy Director, Bagan Branch, Department of Archaeology and National Museum, Ministry of Religious Affairs and Culture)

「ミャンマーにおける文化遺産」ソー・ソー・リン（宗教文化省考古・国立博物館局バガン支局 副支局長）

15:00-16:15	Laos Session ラオス・セッション	Coordinator : TOSHIHARA Kayoko (Showa Women's University) コーディネーター：歳原 佳世子（昭和女子大学）
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Preserving and Inheriting Cultural Heritage of Laos

Viengkeo Souksavatdy (Deputy Director General, Dept. of Heritage, Min. of Information, Culture and Tourism)

「ラオス文化遺産の保存と継承」ヴィエンケオ・ソックサヴァティ（情報・文化・観光省遺産局 副局長）

Archaeological Survey for Preservation at Dongphansen Ancient Site in Thakhek District, Khammouane Province, Lao PDR

Ladtanaphim Souvannahong (Lecturer, Department of History and Archaeology, Faculty of Social Sciences, National University of Laos)

「ラオス・カムアン県ターケー地区ドンファンセン古代遺跡保護のため考古学調査」ソヴァンナホン・ラタナピン（国立大学考古歴史学部 講師）

16:30-17:30 Q&A, Discussion
質疑応答・討論

Second day : Friday, January 24, 2020 10:00 ~ 17:30 (Open 9:30)
2 日目 : 2020 年 1 月 24 日 (金) 10:00 ~ 17:30 (開場 9:30)

10:00-11:15 **Cambodia Session** Coordinator : TABATA Yukitsugu (Waseda University)
カンボジア・セッション コーディネーター : 田畑 幸嗣 (早稲田大学)

Survey on Ancient Drainage System of Preah Vihear Temple
Pheng Samoeun (Director, Department of Monument and Archaeology, National Authority for Preah Vihear, Ministry of Culture and Fine Arts)
「プレア・ヴィヒア寺院の古代排水システムに関する研究」ベン・サムオウン (プレア・ヴィヒア機構考古記念物局 局長)

Kok Dei Chhnang Kiln Site, Koh Ker
Phin Phakdey (Staff, National Authority for Preah Vihear, Ministry of Culture and Fine Arts)
「コー・ケーのcock・デイ・チナン窯址」ピン・ペアックダイ (プレア・ヴィヒア機構考古記念物局 局員)

13:00-14:15 **Thailand Session** Coordinator : HARADA Ayumi (Kyushu National Museum)
タイ・セッション コーディネーター : 原田 あゆみ (九州国立博物館)

The Present State of Conservation of Phimai Cultural Route
Vasu Poshyanandana (Architectural Conservation Expert, Office of Architecture, Fine Arts Department, Ministry of Culture)
「ピマーイ文化の道の保存の現状」ワス・ポーサヤナン (文化省芸術局建造物課 建造物保存専門官)

Survival of Religious Heritage in Bangkok
Bongsaslip Bhadravarna (Archaeologist, Professional Level, Office of Archaeology, Fine Arts Department, Ministry of Culture)
「バンコクにおける宗教遺物」パッタラワン・ボンシン (文化省芸術局考古課 考古学者)

15:00-16:15 **Vietnam Session** Coordinator : TABATA Yukitsugu (Waseda University)
ベトナム・セッション コーディネーター : 田畑 幸嗣 (早稲田大学)

Archaeological Heritage Management in Vietnam: From the Law to Reality
Lam Thi My Dung (Director, VNU University of Social Sciences and Humanities, Vietnam National University, Hanoi)
「ベトナムにおける考古遺産マネジメント：法律から現実へ」ラム・ティ・ミー・ズン (国家大学人文社会科学大学人類学博物館 館長)

The Variation of Stone Tools at Nguom Rock-shelter and the Potential Researches to Identify the Process of Occupation of Modern Humans in MIS 3, Northern Vietnam
Pham Thanh Son (Junior Researcher, Department of Prehistoric Archaeology, The Institute of Archaeology, Vietnam Academy of Social Sciences)
「グオム岩陰における石器とベトナム北部 MIS 3 における現生人類の居住プロセス特定のための潜在的な研究」ファム・タイン・ソン (ベトナム社会科学院考古学院先史考古学部 研究員)

16:30-17:30 Q&A, Discussion
質疑応答・討論

17:30-17:40 Closing Remarks TABATA Yukitsugu (Waseda University)
閉会挨拶 田畑 幸嗣 (早稲田大学)

Poster Session

ポスター・セッション

1. From Pyu to Bagan: Research Report on Pyu Ancient Cities and Bagan
KUROIWA Chihiro, NARUI Itaru, KOIWA Masaki, and NAKAGAWA Takeshi
2. Sambor Prei Kuk Conservation Project
NARUI Itaru, YOKOYAMA Miku, NAKAGAWA, TABATA Yukitsugu, KOIWA Masaki, and So Sokuntheary
3. Study of Earthenware from Sambor Prei Kuk in Cambodia
YOKOYAMA Miku
4. Towards the Conservation and Sustainable Development of Ta Nei Temple: Restoration of the East Gate
Elif Berna Var
5. Siem Reap/Angkor: Formative Process and Sustainable Development as a Tourism Station
KUROIWA Chihiro, KOIWA Masaki, and NAKAGAWA Takeshi
6. Archaeology Education in Thailand: Its Characteristics and Problems
SHIRAISHI Hanako

2. Symposium "To Know and Share about Cultural Heritage" 国際シンポジウム「文化遺産を知り、そして伝える」

Date: Saturday, 25, January, 2020 10:00 ~ 16:40 (Open 9:00)

Venue: Ono Memorial Hall (B2F, bldg. 27), Waseda University

日 時：2020 年 1 月 25 日（土） 10:00 ~ 16:40（開場 9:00）

会 場：早稲田大学 早稲田キャンパス 27 号館 地下 2 階 小野記念講堂

主 催：文化庁・早稲田大学文化財総合調査研究所

協 力：文化財保存計画協会

後 援：東京文化財研究所、奈良文化財研究所、文化遺産国際協力コンソーシアム
日本イコモス国内委員会、東南アジア考古学会

言 語：日英同時通訳

- | | |
|-------------|--|
| 10:00-10:10 | Opening Remarks
開会挨拶
HANAI Shunsuke (Director, Comprehensive Research Organization, Waseda University)
花井 俊介（早稲田大学 総合研究機構長） |
| 10:10-11:00 | Management of World Cultural Heritage
「世界文化遺産マネジメント」
Kong Puthikar (Director General, National Authority for Preah Vihear, Ministry of Culture and Fine Arts)
コン・プティカ（カンボジア文化芸術省プリア・ヴィヘア機構 総裁） |
| 11:00-11:50 | Bagan; a World Heritage Site of Myanmar - Art, Architecture and Cultural Landscape -
「バガン：ミャンマーの世界遺産 - 美術・建築・文化的景観 -」
Thein Lwin (Deputy Director General, Department of Archaeology and National Museum, Ministry of Religious Affairs and Culture)
テイン・ルイン（ミャンマー宗教文化省考古・国立博物館局 副局長） |

- 13:30-14:10 Cooperation projects in Southeast Asian Countries by the Tokyo National Research Institute for Cultural Properties
「東南アジアにおける東京文化財研究所の文化遺産国際協力」
TOMODA Masahiko (Director, Japan Center for International Cooperation in Conservation, TNRICP)
友田 正彦 (東京文化財研究所・文化遺産国際協力センター センター長)
- 14:10-14:50 International Projects on Cultural Heritage Studies in the Mekong Countries by Nara National Research Institute for Cultural Properties
「奈良文化財研究所の文化遺産国際協力：メコン流域諸国を中心に」
SATO Yuni (Expert, International Cooperation Section, Planning & Coordination, NNRICP)
佐藤 由似 (奈良文化財研究所・企画調整部国際遺跡研究室 専門職)
- 15:30-16:30 Khmer Classical Dance Performance & Workshop
カンボジア古典舞踊パフォーマンス・解説
YAMANAKA Hitomi (Dancer & Instructor)
山中 ひとみ (カンボジア古典舞踊家・講師)
- 16:30-16:40 Closing Remarks
閉会挨拶
TABATA Yukitsugu (Director, Institute for Cultural Heritage, Waseda University)
田畑 幸嗣 (早稲田大学・文化財総合調査研究所 所長)

Secretariat

事務局

TABATA Yukitsugu (PhD in Area Studies, Professor, School of Culture, Media and Society, Waseda University / Director, Institute for Cultural Heritage, Waseda University)
SATO Katsura (PhD in Architecture, Part-time Lecturer, Waseda University / Project Researcher, Japan Cultural Heritage Consultancy)
MIYAMA Emily (PhD in Literature, Visiting Researcher, Institute for Cultural Heritage, Waseda University)
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佐藤 桂 (早稲田大学非常勤講師、文化財保存計画協会特任研究員)
深山 絵実梨 (早稲田大学文化財総合調査研究所招聘研究員)
横山 未来 (早稲田大学大学院文学研究科博士後期課程)

