

SPAFACON2021

Papers from the SEAMEO SPAFA International Conference on SOUTHEAST ASIAN ARCHAEOLOGY AND FINE ARTS 13 - 17 December 2021

Editor: Noel Hidalgo Tan

SPAFACON2021 is published by SEAMEO SPAFA, the Regional Centre for Archaeology and Fine Arts established by the Southeast Asian Ministers of Education Organization. SEAMEO SPAFA focusses on archaeology and fine arts in Southeast Asia, and promotes awareness and appreciation of the cultural heritage of the region. Its member-countries are Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Vietnam; and its associate member-countries are Australia, Canada, France, Germany, the Netherlands, New Zealand, Spain and the United Kingdom.



SPAFACON2021

Papers from the SEAMEO SPAFA International Conference on

SOUTHEAST ASIAN ARCHAEOLOGY AND FINE ARTS

13 - 17 December 2021





2021 SEAMEO SPAFA

ISBN: 978-616-7961-55-2

ISBN (e-book): 978-616-7961-54-5 DOI 10.26721/spafa.pgcnu8815a

Publisher

SEAMEO SPAFA Regional Centre for Archaeology and Fine Arts 81/1 Sri Ayutthaya Road, Dusit Bangkok 10300, Thailand

Tel: +66 (0) 2280 4022 to 9

Fax: +66 (0) 2280 4030

www.seameo-spafa.org

E-mail: spafa@seameo-spafa.org

Editor

Dr Noel Hidalgo Tan

Organizing Committee

Mrs Somlak Charoenpot

Ms Vassana Kerdsupap

Mr Kanal Khiev

Mr Ean Lee

Ms Gabrielle Anne Mangaser

Dr Hatthaya Siriphatthanakun

Ms Ratchaporn Tesjeeb

Mr Patrick Xia Linhao

Dr Noel Hidalgo Tan



Copyright in the volume as a whole is vested in SEAMEO SPAFA, and copyright in the individual chapters also belong to their respective authors and licensed under Creative Commons CC BY-SA 4.0. To view a copy of this license, visit https://creativecommons.org/licenses/by-sa/4.0/

The papers in this publication have not been peer-reviewed and may thus contain preliminary findings, errors, or information that has yet to be endorsed by the relevant academic community. The views expressed in the publication do not necessarily reflect the opinions or policies of SEAMEO SPAFA.

CONTENT

| Title | Author | Page |
|---|--|------|
| Introduction | | |
| A Historiography of Settlement Archaeology in Southeast Asia, with Emphasis on the Pre-industrial State Formations | Gyles Iannone | 1 |
| Ocean Imperatives: analysing shipping infrastructure for the study of maritime networks in Southeast Asia | Veronica Walker Vadillo | 17 |
| Forms of government and local community participation in the management of cultural World Heritage sites in Southeast Asia | Vithaya Arporn | 24 |
| Cultural interaction between Việt Nam and Southeast Asian nations in the 15 th -16 th centuries: An overview of pottery items from ancient shipwrecks on display at the Museum of History in Hồ Chí Minh City | Phạm Ngọc Uyên, Nguyễn Thị Tú Anh | 29 |
| Sequential Least-Cost Path Sailing Model for Early 17 th Century South China Sea: Digitally Navigating the Selden Map of China | Wesa Perttola | 40 |
| The Prevailing Art and Tradition of Intentional Dental Modification in Prehistoric Southeast Asia | Maria Kathryn N. Purnell | 56 |
| The Still Unexplored Parts of Southeast Asian Archaeology: Colonial Archaeology Singapore | Sxuann Sim | 74 |
| Khao San Dam: The Archaeological Evidence of Burnt Rice Festival in Southern Thailand | Pakpadee Yukongdi | 83 |
| Before Bagan: Using Archaeological Data Sets to Assess the Traditional Historical Narrative | Scott Macrae, Gyles Iannone, Kong Cheong, Pyiet Phyo Kyaw | 96 |
| The Rock Art in Kinta Valley, West Malaysia: A synthesis | Chaw Yeh Saw Hsiao Mei Goh | 114 |
| New Archaeological Discoveries: Gates and Turrets of 16 th Burmese Royal Capital of Hamsāvatī | Thaw Zin Latt | 131 |
| A preliminary survey of Chinese ceramics in Champa archaeological sites | Do Truong Giang | 148 |
| A Study on the Structure and Significance of the North Sanctuary at Western Prasat Top | SATO Yuni, TAMURA Tomomi, SUGIYAMA Hiroshi, LAM Sopheak, SOK Keo Sovannara, LOEUNG Ravattey, ROS Visoth | 166 |
| The funeral cave of Laang Spean | Valéry Zeitoun, Heng Sophady, Hubert Forestier | 173 |

| Title | Author | Page |
|--|---|------|
| The Bronze Age People of Ban Kao: A Preliminary Analysis of the Human Remains from Ban Ta Po Archaeological Site, Western Thailand | Naruphol Wangthongchaicharoen, Supamas Duangsakul, Pira Venunan, Sukanya Lertwinitnun, Siriyupon Tubpenthai | 187 |
| The Mt. Popa Watershed and Bagan's Bronze-Iron Age | Elizabeth Moore | 195 |
| After 30 Years and During a Pandemic: Pottery Production and Distribution in Bagacay, Talibon in the Island of Bohol in the Philippines | Rhayan Gatbonton Melendres | 205 |
| Heritage Education in Myanmar – developing resilience and sustainability through community engagement | Su Su, Win Thant Win Shwin, Ohnmar Myo, Charlotte Galloway, Elizabeth Moore | 220 |
| As my father said: Traditional boatbuilding in Pasuruan, East Java | Agni Mochtar, Putri Taniardi, R. Ahmad Ginanjar Purnawibawa | 234 |
| Tangibility-Intangibility on UNESCO World Heritage Baroque Philippine Churches: the Spirit of Place and Its Collective Memory | Hee Sook Lee-Niinioja | 241 |
| Myinkaba village Bagan: The Resilience of Traditional Knowledge and Culture | Theint Aung | 254 |
| Thai Carpentry Knowledge Transmission: Development of Traditional Apprenticeships in a New Context | Nichamon Hiranpruek | 262 |
| The Factors of Market Success and Failure of Contemporary Artists from ASEAN countries | Dr Rémy JARRY | 268 |
| The Forgotten Women: Investigating the Absence of the Female Artist from Traditionally Male-Centric Southeast Asian Contemporary Art Historical Narratives | Vasanth Narayanan | 279 |
| As One With Nature: Southeast Asian Aesthetic Expressions | Victor R. Savage | 289 |
| The Series Of Archaeological Dances: A Historical Study and Dance Moves Recording With Labanotation | Dharakorn Chandnasaro | 309 |
| Musical Instruments on the 16th century bas reliefs in the North Gallery-East Wing of Angkor Wat: Dating and Significance | Arsenio Nicolas | 324 |
| Photography in Indonesian Archaeology of the 19 th to the Early 20 th Century | Ahmad Kholdun Ibnu Sholah | 356 |
| Old Burmese weights were not opium weights. They were weights. What else do we know about them? | Bob Hudson | 369 |
| Religious Object' Exhibition in the Context of Cultural Change and Covid-19 Social Distancing (Case studies of Khmer's Nagar boat in the South of Vietnam) | Phạm Thị Thủy Chung | 381 |

| Title | Author | Page |
|--|--|------|
| Creativity and Innovation in Cultural Heritage Management in Plunturan Village, Pulung District, Ponorogo Regency, East Java Province of Indonesia Towards Tourism Village | Ria Kusuma Wardani, S.Pd. | 392 |
| Beyond the artefact : promoting technology | Cécile de Francquen | 407 |
| Indonesian Museum after New Order Regime: The Representation that Never Disappears | Ayu Dipta Kirana, Fajar Aji Jiwandono | 416 |
| Geological Museum Innovations to Dealing with Covid-19 Pandemic | Ifan Yoga Pratama Suharyogi, Agustina Djafar, Rahajeng Ayu Permana Sari, Paradita Kenyo Arum Dewantoro | 424 |

INTRODUCTION

This volume contains the extended abstracts from the papers presented at the SEAMEO SPAFA International Conference on Southeast Asian Archaeology and Fine Arts, which was held online from 13 to 17 December 2021. Also known as the SPAFACON2021, this conference was organised online due to the pandemic. Despite the disruption brought about by Covid-19 to our in-person events, training programmes and field research, it is heartening to see that archaeology and cultural heritage has continued under new modes of communication and collaboration.

This fourth iteration of the SPAFACON is also scheduled a year earlier than our usual triennial cycle to commemorate the 50th anniversary of SEAMEO initiating a centre dedicated towards archaeology and the fine arts. Over the past year, SPAFA has also been highlighting this legacy of international cooperation and capacity-building by sharing our photographic archives on our social media.

I am delighted by the high level of enthusiasm and intellectual curiosity brought by the participants to the conference. During our call for papers we received close to 90 submissions, but owing to the pressures of time and the online format, we were only able to accept 34 papers for the conference. The variety of papers present here, although a small set compared with our usual proceedings, reflects the breadth of the centre's ambit – covering not just archaeology, but also performing arts, visual arts, museum studies, and other aspects of Southeast Asian cultural heritage.

I would like to thank all the participants, without whom this conference would not be possible in its present form, in particular, our Governing Board members who represent every country in Southeast Asia, and to the Ministry of Culture, Thailand and the Ministry of Education, Thailand for their long-standing support of SEAMEO SPAFA and its activities.

Mrs Somlak Charoenpot

Centre Director SEAMEO SPAFA

The funeral cave of Laang Spean ល្អាងបញ្ចុះសពនៃស្ថានីយល្អាងស្ពាន

10792/pqcnu8815a-14 Valéry Zeitoun UMR7207, CR2P-CNRS-UPMC-MNHN, Paris, France pythecanthro@gmail.com

Heng Sophady Ministry of Culture and Fine Arts, Phnom Penh, Cambodia hsophady@yahoo.com.

Hubert Forestier UMR7194 MNHN-CNRS-UPVD, Paris, France hubforestier@gmail.com

Abstract

Discovered in 1965 by Cécile and Roland Mourer in the limestone massifs of the Battambang region in Cambodia, the Lang Spean cave is a karstic cavity with three main chambers with a floor area of about 1000 m² and a vault height of thirty metres. The archaeological sequence of Laang Spean now includes several meters thick level of ancient activity dated between 71,000 and 26,000 years ago surmounted by a Hoabinhian occupation (11,000-5,000 BP), with a third summit level characterized by Neolithic tombs. Cemeteries and funeral spaces are major sites in Southeast Asia still used to reconstruct the chrono-cultural sequence of the region. However, their studies present a failure to take into account the funerary nature of the studied sites. Archeothanatology, although partly known by colleagues working in Southeast Asian has not been developed sufficiently leading to numerous problems linked to the real nature of the sites. A burial site where individuals chosen by a community have been placed presents an altered vision of the population, whereas a study of funerary gestures and recruitment makes possible to understand these choices. Thus, the discovery of Neolithic burials at Laang Spean was the opportunity to implement an excavation protocol that follows the principles of archeothantology including to determine the positioning of the defunct at the time of burial in order to illustrate the funerary practice carried out by its original population. Despite the fragility of the bones we carried out observations and measurements useful for determining the biological characteristics, including sex, age, stature or pathologies of the individuals uncovered and, direct dating were successful. Finally, the Laang Spean cave appears to be a Neolithic funerary cave according to its dating but showing some characteristics found in the Metal age on the nearby Khorat plateau.

Cécile and Roland Mourer គឺជាបុរាណវិទូបារាំងដែលបានរកឃើញស្ថានីយល្អាងស្ពាននៅ តំបន់ភ្នំថ្មកំបោរ ស្ថិតនៅក្នុងខេត្តបាត់ដំបងនៃប្រទេសកម្ពុជា កាលពីឆ្នាំ១៩៦៥។ ល្អាងនេះ ចែកចេញជាបីផ្នែកសំខាន់ៗគឺខាងមុខ កណ្តាល និងផ្នែកខាងក្រោយ ដែលមានផ្ទៃដីសរុបប្រហែល១០០០ម៉ែត្រ ក្រឡា។ រីឯកម្ពស់ពីផ្ទៃដីក្នុងទៅដំបូលល្អាងគឺមានប្រវែងប្រហែល៣០ម៉ែត្រ។ តាម រយៈលទ្ធផលនៃការធ្វើកំណាយថ្មីៗនេះ អ្នកស្រាវជ្រាវបានពិនិត្យឃើញថាស្រទាប់ដីបុរាណវិទ្យានៅ ល្អាងស្ពាននេះ មានជម្រៅពីបួនទៅប្រាំម៉ែត្រ ដែលបង្ហាញអំពីវត្តមានសកម្មភាពរបស់មនុស្សសម័យបុ រាណ មានអាយុកាលចន្លោះពី៧១០០០ទៅ២៦០០០ឆ្នាំមុន។ នៅពីលើស្រទាប់នេះ គឺភស្តុតាងនៃការ តាំងទីលំនៅរបស់សហគមន៍មនុស្សនៃវប្បធម៌ហាវចិនញៀណដែលមានអាយុកាលចន្លោះពី១១០០០ ឆ្នាំទៅ៥០០០ឆ្នាំមុន។ ចំណែក ស្រទាប់ទី៣ ដែលស្ថិតលើបង្អស់គឺជាទីបញ្ចុះសពស្ថិតក្នុងយុគថ្មរំលីង ។

ស្ថានីយបញ្ចុះសពផ្នូរសពជាច្រើននៅក្នុងតំបន់អាស៊ីអាគ្នេយ៍ ត្រូវបានគេសិក្សាស្រាវជ្រាវក្នុងការបង្កើ តឡើងវិញនូវកាលប្បវត្តិនៃវប្បធម៌នៅក្នុងតំបន់។ ការសិក្សារបស់បុរាណវិទូមួយចំនួននៅតាមទីបញ្ចុះ សព គឺពុំបានបង្ហាញនូវភាពមិនច្បាស់លាស់ ដើម្បីយល់ដឹងអំពីលក្ខណៈដើមនៃកិច្ចបញ្ចុះនៅលើស្ថានី យទាំងនោះទេ។ យ៉ាងណាក៏ដោយ ការសិក្សាតាមបែបបុរាណវិទ្យាអំពីការប្រែប្រលស្ថានភាពដើមរបស់សាកសពក្រោយពេលបញ្ចុះ គឺមានអ្នកស្រាវជ្រាវនៅក្នុងតំបន់អាស៊ីអាគ្នេយ៍មួយចំនួនតូចប៉ុណ្ណោះ បានយល់ដឹងខ្លះៗ ប៉ុន្តែមិនទាន់នៅបានធ្វើទំនើបកម្មឱ្យបានច្បាស់លាស់ ដើម្បីដោះស្រាយបញ្ហាជាច្រើនដែលជាប់ទាក់ទងជាមួយនឹងស្ថានភាពដើមនៃស្ថានីយមុនពេលក្លាយជាកន្លែងបញ្ចុះសព គឺបានឆ្លុះបញ្ចាំងអំពី ការផ្លាស់ប្តូរទស្សនៈវិស័យរបស់មនុស្សនៅក្នុងសហគមន៍សម្រាប់ជាកន្លែងបញ្ចុះសព គឺបានឆ្លុះបញ្ចាំងអំពី ការផ្លាស់ប្តូរទស្សនៈវិស័យរបស់មនុស្សនៅក្នុងសហគមន៍នោះ។ ម្ល៉ោះហើយការសិក្សាអំពីឥរិយាបថរបស់សព និងកន្លែងបញ្ចុះសព គឺអាចជួយឱ្យអ្នកស្រាវជ្រាវមានការយល់ដឹងកាន់តែប្រសើរថែមទៀត អំពី ការជ្រើសរើសទីតាំងសម្រាប់បញ្ចុះសពនាសម័យនោះ។

ហេតុដូច្នះ ការរកឃើញផ្នូរសពស់ម័យថ្មរំលឹងនៅស្ថានីយល្អាងស្ពាន គឺបានផ្តល់ឱកាសក្នុងការ អនុវត្ត ការធ្វើកំណាយដោយអនុឡោមតាមគោលការណ៍នៃបុរាណវិទ្យាសិក្សាអំពីរបៀបកប់សព រួមទាំងការវិ ភាគអំពីស្ថានភាពរបស់សពនៅពេលដែលគេបញ្ចុះលើកដំបូង ដើម្បីបង្ហាញអំពីពិធីបញ្ចុះសពដែលប្រ តិបត្តិដោយសហគមន៍មនុស្សរស់នៅតំបន់ល្អាងស្ពាន។ គ្រោងឆ្អឹងសពដែលបានរគឃើញនៅល្អាងស្ ពានមានសភាពពុកជុយខ្លាំងម្ល៉ោះហើយទើបអ្នកជំនាញសម្រេចធ្វើការសិក្សាវិភាគនិងវ៉ាស់វែងដោយផ្ទា ល់នៅលើទីតាំងផ្នូរសពតែម្តង ដើម្បីកំណត់អំពីលក្ខណៈជីវសាស្ត្រសំខាន់ៗដូចជា ភេទ អាយុ កម្ពស់ និងរោគសាស្ត្រ របស់សពនីមួយៗ ព្រមទាំងកំណត់កាលបរិច្ឆេទទៅលើឆ្អឹងដោយផ្ទាល់ទទួលបាន លទ្ធផលគួរជាទីទុកចិត្ត។

យោងទៅលើលទ្ធផលនៃកាលបរិច្ឆេទទៅលើឆ្អឹងសព រួមជាមួយវត្ថុផ្សេងៗកប់ជាមួយសព ដែលអ្នកស្រាវជ្រាវបានរកឃើញ អាចឱ្យពួកគេសន្និដ្ឋានបានថា ស្ថានីយល្អាងស្ពានគឺជាទីបញ្ចុះសពស្ថិ តក្នុងសម័យថ្មរំលីង។ ក៏ប៉ុន្តែទន្ទឹមនឹងនោះ គេក៏បានសង្កេតឃើញមានលក្ខណៈមួយចំនួនស្រដៀងគ្នា ទៅនឹងការបញ្ចុះសពស្ថិតក្នុងសម័យលោហៈ ដែលគេបានរកឃើញនៅក្បែរតំបន់ខ្ពង់រាបកូវ៉ាត់។

Keywords

Cambodia; Archaeothanatology; Neolithic; Burial កម្ពុជា; បុរាណវិទ្យាសិក្សាអំពីសាកសព និងកិច្ចបញ្ចុះសព; យុគថ្មរំលីង; ផ្នូរសព

Introduction

Discovered in 1965 by Cécile and Roland Mourer the Lang Spean cave is a karstic cavity with three main chambers with a whole floor area of about 1000 m² and a vault height of thirty meters which was excavated from 1965 to 1971 (Mourer & Mourer 1977) (Figure 1).

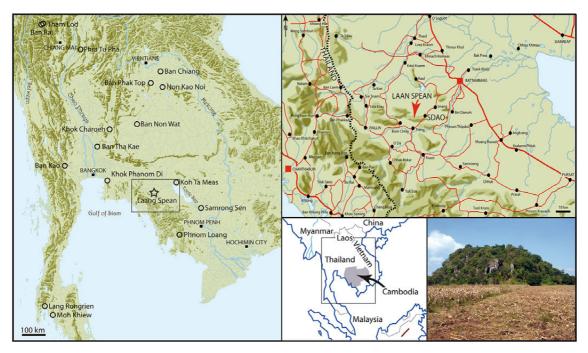


Fig. 1 Location of Laang Spean's cave. Source: Zeitoun et al. 2012.

The excavation at Laang Spean was interrupted during 50 years because of the dramatic Red Khmer events of which occurred in the country and could be resumed only in 2009 by a new team called French-Cambodian Prehistoric Project. The archaeological sequence of Laang Spean now includes 13 meters thick level of ancient activity dated between 71,000 to 3000 years ago which represent 12 000 archeological items including Hoabinhian occupation (11,000-5,000 BP) and around 3000 faunal and lithic remains for a third summit level characterized by Neolithic tombs (Figure 2) (Forestier et al. 2015). We describe here the typology of the tombs according to the archaeothanatological approach which allows us to reconstruct the initial position of the bodies when they were buried. Indeed, it is this initial position that is the most direct reflection of the funeral practices desired by the population that buried its dead according to the norm of the society of the time.

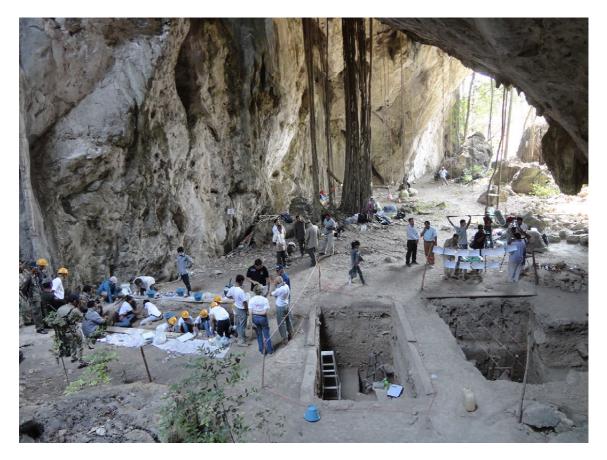


Fig. 2 Excavation of Laang Spean's cave in 2009. Source: H. Forestier.

Main section

Isolated human remains had been found during the initial excavations made by Cécile and Roland Mourer (Mourer 1994). In 2009 our research revealed new fragments of human bones, which once collected and analysed in terms of nature, ages and different apparel, showed that at least five different individuals had been interred in the second Laang Spean chamber (Sophady 2016). Moreover, in the first year of renewed excavations on the site, a first sepulture was identified. This one was relatively disturbed but, thanks to the analysis of the anatomical connections of the individual which was made directly on the field, it was possible to restore what had been the initial position of the individual buried surrounded by ceramic pots (Figure 3).



Fig. 3 Burial I31 from Laang Spean's cave. Source: H. Forestier.

The first burial discovered in 2009 was dug along a north-south axis, with the head of the deceased placed towards the south (Zeitoun et al 2012). The edges of the tomb were only clearly visible for the bottom 45 cm of the burial. Given these anatomical observations and following an excavation protocol that follows the principles of Archaeothanatology (Duday 2009; Duday and Guillon, 2006; Duday et al., 1990), it is possible to establish the initial positioning of the body before the anatomical elements were disturbed.

It would appear that this individual was initially lying supine with the arms extended and the hands touching the upper part of the lower limbs. The tomb was disturbed at some point. Indeed, the discovery of an upturned pot, several broken pots on a large limestone block located on the thorax of the buried individual, and the scattering of pieces of bone and pottery on the block itself suggests that the grave was opened and closed at some point following the decomposition of the body. Because the position of several anatomical parts and joints (distal parts of the hands, patellas, tibias, tarsi, metatarsi and phalanges, etc.) remained in their original position or were moved together after the decomposition of the flesh, it was possible to reconstruct where and how the grave robbers had moved the various anatomical remains and pieces of pottery. The skull was not found and only the left part of the mandible was discovered on the limestone block that was secondary placed on the body of the individual. Several objects associated with the burial can thus be interpreted as funerary offerings: a large globular jar placed on the lower part of the legs, just below the knees, an ochre pencil and a tortoise shell had been placed between the legs under the jar. Five other pieces of pottery were also placed around the body, around the head and up to the left upper limb. These pottery objects were of two main types: jars and bowl-shaped bowls with ring-shaped bases (Fig. 4). In addition, a pierced lower left canine belonging to a Suid was found at the plexus, suggesting the presence of a necklace. A preform of a green adze made of fine sandstone was also found in the grave, while the skull of a large bovid, broken in situ, was found on the limestone blocks in the pit associated with the mandible fragment, the only cranial remnant of the recovered individual. Radiocarbon dating performed on the bone collagen of the deceased yielded a calibrated date of 3310±29 BP (Wk 30118).



Fig. 4 Ceramic material from the burial I31 at Laang Spean's cave. Source: Sophady 2016.

In the following years, 5 tombs uncovered confirmed the restitution of the initial burial position of this first individual, lying supine with the lower limbs extended, the knees in an elevated position in relation to the hips and the feet, which can be observed in tombs B27, D27, S33 and tomb P31, which presents no offering. Burial Aa26 is the burial of a woman buried on her right side, surrounded by pottery.

The individual of the burial B27-28 (Fig. 5) had been laid in supine position along the axis of the cavity SE-NW, the head to the SE, the lower limbs in extension with the knees in elevation. The individual is in association with three pots placed on either side of the body of the deceased. One pot was placed to the left of the skull, another between the wrist and the left femur, a third to the right of the right knee. Archaeothanatological analysis of all the movements of the anatomical elements during the decomposition of the body indicates that some spaces have remained empty since the initial arrangement of the tomb.



Fig. 5 Burial B27. Source: H. Forestier.

Burial D26-28 (Figure 6) is that of an adult individual whose body had been laid in supine position along the axis of elongation of the cavity SE-NW, the head SE, the lower limbs in extension with the knees in elevation. Numerous biconical beads are distributed in a sling from the right elbow to the left of the pelvis. Five potteries were placed around the body of the deceased. Two pots have been placed between the knees. One vase is located to the right of the right knee and a ring footed pot to the outside of the right shin. Another pot is located at the top of the right femur. Two bangles were worn on the left hand and one bangle was worn on the right hand.



Fig. 6 Burial D26-28. Source: H. Forestier.

Burial S32-S33 (Fig. 7) is the grave of an adult individual who had been laid in supine position in a north-south direction, with his head to the north. The lower limbs are extended while the upper limbs are bent, the hands at shoulder level. The burial is located in a natural alcove in the cave wall and a metric block of limestone limits the burial to the north.

A ring-shaped vase rested on the feet, a jar to the right of the right knee. A small jar and a complete simple adze made of hornfels are at the left elbow.



Fig. 7 Burial S32-S33. Source: H. Forestier.

Burial P 31-32 (Fig. 8) is that of an adult individual buried had been laid in supine position in the axis of elongation of the cavity SE-NW, the head to the SE. The individual is buried without any associated material apart from limestone blocks, some of which may have constituted wedging elements: one under the skull and two others at knee level. However, as the latter two blocks are vertical, it is also possible that they were part of the filling material of the grave without the intention of wedging the knees.



Fig. 8 Burial P 31-32. Source: H. Forestier.

The left lower limb is in the elongation of the body, with the knee raised and the foot pointing towards the ground, visible from its upper side. The left patella is in an anatomical position, preserved in a position of equilibrium, which implies a rapid filling of the pit. A decimetric limestone block is interposed between the lateral part of the left femur and the wall of the fossa. The right lower limb is elevated at the knee with the patella also in an anatomical position.



Fig. 9 Burial A24-A26. Source: H. Forestier.

Burial Aa24-A26 (Figure 9) is that of an adult individual whose body appears to be lying on its right side in a north-south direction, with the head to the south with her right upper limb bent and her hand under his face. The skull lay on its right side. The lower limbs were bent at an angle, with the knees and feet together.

Four pots were arranged along the body. Two items were arranged stacked on top of each other next to the chest at the right elbow. Two other vessels, one large and one small, were arranged behind the pelvis on the left side of the individual.

If there are some variations in the arrangement of the bodies or in the richness of the offerings between the different tombs, the dates obtained on the mineral fraction (Zazzo 2014) of the bone of each individual confirm the age initially found.

Discussion

Cemeteries and funeral spaces are major sites in Southeast Asia still used to reconstruct the chrono-cultural sequence of the region. However, their studies present a failure to take into account the funerary nature of the studied sites. Archaeothanatology, although partly known by colleagues working in Southeast Asia, has not been developed sufficiently leading to numerous problems linked to the real nature of the sites. A burial site where individuals chosen by a community have been placed presents an altered vision of the

population, whereas a study of funerary gestures and recruitment makes it possible to understand these choices. Thus, the discovery of Neolithic burials at Laang Spean (Fig. 10) was the opportunity to implement an excavation protocol that follows the principles of archeothantology including to determine the positioning of the defunct at the time of burial in order to illustrate the funerary practice carried out by its original population.

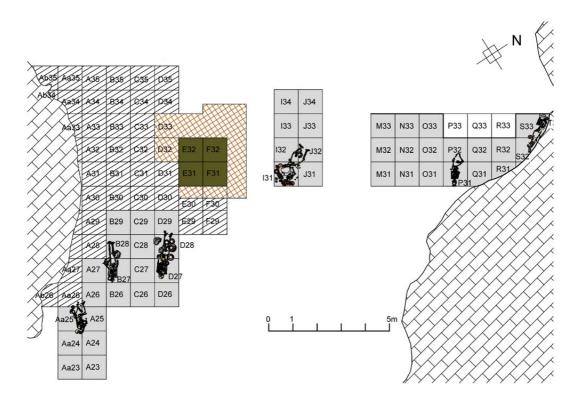


Fig 10. Fig. 10 Map of the burials at Laang Spean's cave. Source: H. Forestier.

The Neolithic and the Metal Ages, whose definitions come from Western archaeology, telescope when one looks at Southeast Asia. The chrono-cultural sequence found at the Ban Chiang site in Thailand (White 2008) shows an 'Early Bronze Age' that is contemporary with 'still' Neolithic regional sites as is the case from the dating series at Khok Phanom Di (Higham and Bananurang 1990) or Ban Non Wat (Higham 2008). The northeast and the maritime strip of Central Thailand, which are the regions closest to the province of Battambang where the Laang Spean cave is located, have seen the development of burials very similar to those of Laang Spean but with metal objects found in the funeral offerings. These neighbouring areas of Thailand, where sites are numerous and the best archaeologically documented for the region (Higham, 2002), seem to indicate

the development of cemeteries and a clear separation between collective burials and dwellings (Higham, 2004). The question arises for burial caves such as Laang Spean.

More broadly, there is the question of the generalisation of the practice of using burials with the deceased laid in supine position ("extended" burial) as opposed to the former "flexed burials". This extended position" is considered to be an innovation originating in China and spreading southwards (Rispoli 2007). Before validating this hypothesis, it is probably necessary to first clearly describe, in the most detailed way possible, the different burial modes following the method recommended by archaeothanatology as initiated in the South-East (by some authors (Coupey et al, 2010; Harris, 2010; Pautreau et al, 2010; Willis and Tayles, 2009; Zeitoun et al. 2013) in order to be able to describe what are the real interregional influences. Several cases of "extended" burials could appear, with different significances according to the way of burying the dead with this or that device: garment, coffin, shroud or other... Direct dating (Hihgham and Higham 2009) is also useful to highlight the contemporaneity of possibly different practices.

References

- A-S, C, J-P, P and Kyaw, AA (2010) Second field season at Ywa Gon Gyi burial site (Upper Burma). *Bioarchaeology in Southeast Asia and the Pacific Newsletter*: 17-18.
- Duday, H (2009) *The archaeology of the dead: lectures in archaeothanatology*. Oxford: Oxbow Books.
- Duday, H, Courtaud, P, Crubézy, E, Sellier, P and Tillier, A-M (1990) L'anthropologie de terrain reconnaissance et interprétation des gestes funéraires. *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, 2: 29-50.
- Duday, H and Guillon, M (2006) Understanding the circumstances of decomposition when the body is skeletonised. In: A Schmitt, E Cunha and J Pinheiro (eds.) Forensic Anthropology and Medicine Complementary Sciences from Recovery to Cause of Death. Totowa, New Jersey: Human Press, 117–157.
- Forestier, H, Heng, S, Puaud, S, Celiberti, V, Frère, S, Zeitoun, V, Mourer-Chauviré, C, Mourer, R, Than, H and Billault, L (2015) The Hoabinhian from Laang Spean Cave in its stratigraphic, chronological, typo-technological and environmental context (Cambodia, Battambang province). *Journal of Archaeological Science: Reports*, 3: 194-206.
- Harris, N (2010) Disposing of dead: An investigation into prehistoric mortuary practices during the Neolithic and Bronze Ages at Ban Non Wat. Master of Science thesis, University of Otago, Dunedin.

- Higham, C (2002) Early Cultures of Mainland Southeast Asia. Bangkok: River Books.
- Higham, C (2004) The opposed human figure at Khok Phanom Di. *Journal of the Siam Society*, 92(15-36)
- Higham, C (2008) Ban Non Wat: the first five seasons. In: J-P Pautreau, A-S Coupey, V Zeitoun and E Rambault (eds.) From Homo Erectus to the Living Traditions: Choice of Papers from the 11th International Conference of the European Association of Southeast Asian Archaeologists. Bougon: 11th International Conference of the European Association of Southeast Asian Archaeologists, 83-90.
- Higham, C and Bannanurag, R (1990) *The excavation of Khok Phanom Di*. London: The Society of Antiquaries of London.
- Higham, C and Higham, T (2009) A new chronological framework for prehistoric Southeast Asia, based on a Bayesian model from Ban Non Wat. *Antiquity*, 83: 125-144.
- Mourer, R (1977) Laang Spean and the prehistory of Cambodia. *Modern Quaternary Research in Southeast Asia*, 3(29-56)
- Mourer, R (1994) Contribution à la l'étude la préhistoire du Cambodge. In: F Bizot (ed.) Études thématiques I. Recherches nouvelles sur le Cambodge. Paris: École française d'Extrême-Orient, 143-195.
- Pautreau, J-P, Coupey, A-S, Kyaw, AA, Dupont, C, Gratuze, B, Lankton, J, Le Bannier, J-C, Maitay, C, Médard, F and Rambault, E (2010) *Excavations in the Samon valley. Iron Age burials in Myanmar*. Chiang Mai: Siam Ratana.
- Heng, S (2016) Archaeo-stratigraphy of Laang Spean prehistoric site (Battambang Province): A contribution to Cambodian prehistory. PhD thesis, Muséum National d'Histoire Naturelle, Paris.
- White, JC (2008) Dating Early Bronze at Ban Chiang, Thailand. In: J-P Pautreau, A-S Coupey, V Zeitoun and E Rambault (eds.) From Homo Erectus to the Living Traditions:

 Choice of Papers from the 11th International Conference of the European

 Association of Southeast Asian Archaeologists. Bougon: 11th International

 Conference of the European Association of Southeast Asian Archaeologists, 91-
- Willis, A and Tayles, N (2009) Field anthropology: application to burial contexts in prehistoric Southeast Asia. *Journal of Archaeological Science*, 36: 547-554.

104.

Zazzo, A (2014) Bone and enamel carbonate diagenesis: A radiocarbon prospective. *Palaeogeography, Palaeocliatology, Palaeoecology*, 416: 168-178.

- Zeitoun, V, Forestier, H, Sophady, H, Puaud, S and Billault, L (2012) Direct dating of a Neolithic burial in the Laang Spean cave (Battambang Province, Cambodia): First regional chrono-cultural implications. *Comptes Rendus Palevol*, 11: 529–537.
- Zeitoun, V, Auetrakulvit, P, Forestier, H, Zazzo, A, Davtian, G, Nakbunlung, S and Tiamtinkritg, C (2013) Discovery of a Mesolithic burial near the painted rockshelter of Ban Tha Si (Lampang province, Northern Thailand): Implications for regional mortuary practices. *Comptes Rendus Palevol*, 12: 127–136.