Southeast Asian Ministers Education Organization Regional Centre for Archaeology and Fine Arts (SEAMEO SPAFA)

Queen Sirikit Museum of Textiles (QSMT)

National School of Conservation, Restoration and Museography (ENCRyM México)

Back to the Sources: Reviving Traditions in Textile Preservation in Southeast Asia and Beyond

SEAMEO SPAFA / QSMT / ENCRyM

International Collaboration on "Conservation in the Tropics"

On 23-25 August 2016, the Southeast Asian Ministers of Education Organization Regional Centre for Archaeology and Fine Arts (SEAMEO SPAFA) and the Queen Sirikit Museum of Textiles (QSMT) organized the regional forum on "Capturing and Sharing Traditional Methods in Textile Preservation in Southeast Asia", with expertise support from Mexico's National School of Conservation, Restoration and Museography (ENCRyM). The forum was held at QSMT in Bangkok, Thailand, and marks the third collaboration between SEAMEO SPAFA and QSMT following the previous workshop on "Contrasting Textile Conservation Methods in Southeast Asia" in 2012 and the preliminary research project conducted in Phrae Province (northern Thailand) in 2013.

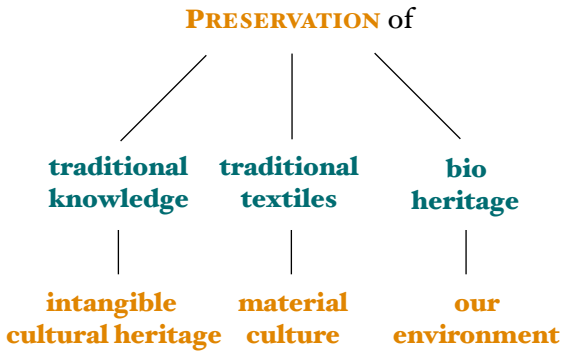
Addressing local needs for sustainable methods

During SEAMEO SPAFA and QSMT's 2012 workshop on "Contrasting Textile Conservation Methods in Southeast Asia", textile conservators emphasized concerns and challenges they face in their day-to-day work, namely the use of exclusively 'Western conservation' products, and the high cost of these imported commercial materials, not even tested or adapted to the tropical climate or to the types of textiles treated. What also surfaced during this workshop was that there is a **wealth of information on caring for textiles using traditional methods**, part of cultural history that is available and could provide alternative solutions. As time was of the essence, this knowledge needed to be documented and researched immediately, before it is lost completely.

As a result, this research project and regional forum on "Capturing and Sharing Traditional Methods in Textile Preservation in Southeast Asia" was launched specifically to answer the needs of Southeast Asian textile conservationists, producers and collectors for **locally-sourced materials and methods that are cost-effective and sustainable**, thus providing a better alternative.

Documenting and researching traditional methods in caring for textiles not only aims to address conservation needs, but will also contribute to the **preservation of traditional wisdom, an important form of intangible cultural heritage** that has sustained our communities since time immemorial. These traditional approaches moreover, help save our Mother Earth, who gives us the natural materials that make up the threads and dyes in these beautiful textiles, but whose livelihood is at risk from the use of harmful commercial detergents that destroy the soils and waters.

This project's results are thus threefold, contributing to the



Research and hands-on activities

During the regional forum, participants from across Southeast Asia working in various fields, ranging from museum conservation to textile production, were invited to present their research findings on local traditional knowledge related to textile care. The sources of this traditional wisdom were drawn from a variety of backgrounds, from members of royalty to weavers in rural areas, resulting in a wealth of information that will contribute to the preservation of cultural and bio-heritage. In addition to the cleaning and storage properties of specific plants, several interesting practices were revealed. Some of the most logical, yet surprising, were: most cultures make a clear distinction in the care methods between silk and cotton; most silks (especially metallic silks) are never wet-cleaned; most fine

textiles are never wet-cleaned; most wet-cleaning methods apply to fabrics that are worn daily, not precious ones; dry-cleaning (*i.e.* smoking and perfuming) is still a common practice in many areas; many cleaning methods double as insect mitigation practices; air-drying is a common cleaning method in the tropics; if any cleaning is done at all, "the morning sun is the textile's best friend", as its gentle rays are kinder to the fabric.

Making a natural cleaning solution using soapnut

Participants also engaged in hands-on testing in QSMT's state-of-the-art conservation laboratory, by comparing the effects of cleaning cotton and silk fabrics using plants containing saponins (a natural surfactant) versus commercial conservation detergents. Scientific laboratory results are still underway, but preliminary observations found that the plants were as effective as the commercial detergents, while being gentler to the fabric (see Table 2 p. 6).

Regional and global contributions

The research project and regional forum benefitted from the participation of museum professionals, conservationists, weavers and researchers from across Southeast Asia and beyond. For the first time, textile conservation and cultural heritage leaders were brought together in a research-based forum on traditional textile preservation methods, characterized by individual contributions, common knowledge and shared practices. Following the independent country-based research period, the regional forum provided an opportunity for interaction and knowledge sharing. A community was formed with strong bonds, plans for continued collaborations, increased interest in traditional practices and knowledge, and a commitment to be part of a regional conservation project.

Khun Piyavara Teekara Natenoi (front row, fourth from left), Director of QSMT, and Dr M.R. Rujaya Abhakorn, Centre Director of SEAMEO SPAFA (front row, fifth from left) with the regional forum's participants at QSMT

The activities were led by expert textile conservator from Washington D.C., Ms Julia Brennan, senior consultant to QSMT with extensive experience in Southeast Asia, and Dr Lilian García Alonso-Alba, professor of restoration and conservation at ENCRyM in Mexico.

Participants included Ms Hajah Siti Norhayatty binti Haji Morni and Ms Azeah binti Haji Ahmad from the Brunei Museums Department, Mr Benny Gratha from

Museum Tekstil in Jakarta, Ms Annissa Gultom from Musea Tribuana Komunika and Nila Line in Indonesia, Ms Viengkham Nanthavongdouangsy from Phaeng Mai Gallery–KHANG Center of Fine Silk in Lao PDR, Mr Mohd Syahrul bin Ab. Ghani from the National Textile Museum in Malaysia, Ms Aye Mi Sein from the Ministry of Culture of Myanmar, Mr Allan S. Alvarez of the National Museum of the Philippines, Ms Siti Suhailah Salim from the Heritage Conservation Centre in Singapore, Mr Wuttikai Phathong of Kaewanna Indigo in Thailand, Mr Claudio Marques Cabral and Mr Fernando Sousa Lay of the National Directorate of Museum in Timor-Leste and Ms Quyen Thi To Hoang of the Vietnam Museum of Ethnology.

SEAMEO SPAFA participants included Ms Linh Anh Moreau, Ms Vassana Kerdsupap, Mr Siriwat Pokrajen, Mr Kanal Khiev and Ms Maria Eliza Agabin, while QSMT was represented by Ms Nuchada Pianprasankit, Ms Yaowalak Bunnag, Ms Wiraporn Suwadeepathompongs and Ms Ploypailin Thapepong.

Accomplished goals

The collaborative efforts resulted in establishing a base for a comparative chart of plants. This endeavour is a stepping stone towards **understanding the importance of knowing the nature of the materials and the revival of traditional cleaning methods for modern conservation**.

The four plants tested in the conservation laboratory during the hands-on activities session included *Litsea glutinosa* leaves (soft bollygum, bolly beech) from northern Thailand's Phrae Province (locally known as ใบหมี่/*baimee*), *Sapindus rarak* fruit (soapnut) from Java and Bali, Indonesia (locally known as *lerak*), *Trigonella foenum-graecum* seeds (fenugreek) from Thailand (locally known as ลูกซัด/luuksat), and *Gleditsia sinensis* pods from Vietnam (locally known as *bồ kết*) (see Table 1 p. 6).

Solutions made using Southeast Asian saponins ready for testing

Ways forward

The list of plants is still growing and there is a need for continuing the research. In addition to creating a comprehensive data base of local plants and how to use them, recipes will be developed and adapted to treat different types of stain and soiling deposits on specific fabrics, in order to respect the craftsmanship and quality of the textile. The necessity to further develop what has already been accomplished in this first Southeast Asian regional pilot project will advance to a second pilot project in the future to include the analysis and testing of additional materials and methods, and a more scientifically refined approach.

In 2017, the organizers and programme experts aim to complete a publication of the findings of the pilot project's first phase, crafted in two formats. One is a **professional training publication for conservationists, collectors and textile producers**, and the other a set of **public**

outreach materials with an educational and awareness-raising approach. These publications and research represent the **first professional conservation effort in Southeast Asia to quantify the traditional practices and materials used in textile preservation**, in the aim to incorporate these into today's professional textile conservation practice. By taking an active role in shaping the conservation profession, we are helping to build a regional identity and community centred on appreciation for shared practices and diversity, respect for tradition, and sustainability.

Pieces of Indonesian batik cloth soiled with dirt and oil to test natural stain removers

Participants engaging in hands-on activities to test the effects of natural and commercial cleaners on fabrics, and presenting their observations

About the Organizers

SEAMEO SPAFA

The Regional Centre for Archaeology and Fine Arts is part of the Southeast Asian Ministers of Education Organization (SEAMEO), an international organization dedicated to promoting co-operation in education, science and culture in Southeast Asia. One of its missions is to further professional competence in the fields of cultural heritage preservation through regional programmes and activities, and through the sharing of resources and experiences. Find out more at **www.seameo-spafa.org**

QSMT

The Museum's mission is to collect, display, preserve, and serve as a centre for all who wish to learn about textiles, past and present, from Southeast Asia, South Asia, and East Asia, with a special emphasis on the textiles of, and related to, the royal court and Her Majesty Queen Sirikit. Additionally, its goal is to create public awareness of Thai identity and culture, and the beauty of Thai traditional textiles, through research, exhibition, and interpretation. The Museum's objectives, set by Her Majesty, are being achieved by the museum staff, guided by Her Royal Highness Princess Maha Chakri Sirindhorn. Find out more at: **www.qsmtthailand.org**

Table 1: **Southeast Asian Saponins Used in Testing Trial 1**

Plants				
Latin name	*Sapindus rarak*	*Trigonella foenum-graecum*	*Litsea glutinosa*	*Gleditsia sinensis*
Vernacular Languages	soapnut (English), lerak (Indonesian), klerek (Javanese), มะคำดีควาย/ประคำดีควาย/มะซัก (makham dee khwai) (Thai), bồ hòn (Vietnamese)	fenugreek (English), ပဲနံ့သာ (pae na tha) (Burmese), klabet (Indonesian), ลูกซัด (luuksat) (Thai), cỏ ca ri (Vietnamese)	soft bollygum, bolly beech (English), adem ati/wuru beling (Javanese), madang kapas (Sundanese), kapu ketek/nyampu wingka/wuru beling/huru batu/huru tangkalak (other Indonesian languages), anonot/balanganan/balongay/batikuling/buknul/butus/dalawen-negro/dungul/ingas/lawat/lormangog/mapipi/marang/olos-olos/panlangutong/porikit/pungo/puso-puso/sablot/sablot-linis/sablut/siblot/tagutugan/tayapok/tilam/tio/tubhus (Philippine languages), ใบหมี่ (bai mee) (Thailand), bời lời đỏ (Vietnamese)	honey locust, thorny locust (English), belalang madu (Indonesian), ต้นฮันนี่โลคัสต์ (Thailand), bồ kết (Vietnamese)

Table 2: **Observations from Testing Trial 1 Using Southeast Asian Saponins**

Plant name (Latin)	**Part(s) used**	**pH**	**Performance on cotton**	**Performance on silk**	**General observations**
Sapindus rarak	fruits	5	Good cleaner for both polar and non-polar stains	Very good cleaner for both polar and non-polar stains	Produces more foam than the other saponin plants tested, probably due a higher saponin content. The pH is low (acidic), so it could be neutralized with other plants such as *Gleditsia sinensis*.
Trigonella foenum-graecum	seeds	5.5	Mild cleaner for both polar and non-polar stains	Very good cleaner for both polar and non-polar stains	Performed very well on both types of fabrics and stains. Its pH makes it more adequate for cleaning silk.
Litsea glutinosa	leaves	5	Not so efficient for stain removal on both polar and non-polar stains	Mild cleaner for polar stains. Not a good removal for non-polar stains	It does not seem to clean as much. Its pH is very low, so it could be used as an acidifier on alkaline cleaning solutions.
Gleditsia sinensis	pods (including seeds)	6.5	Good cleaner for polar stains. Mild cleaner for non-polar stains	Mild cleaner for both polar and non-polar stains	A mild cleaner, but it has the advantage of an almost neutral pH. It also produces less foam so it does not require as much rinsing.

Notes: Polar refers to compounds like dirt. Non-polar refers to compounds like oil