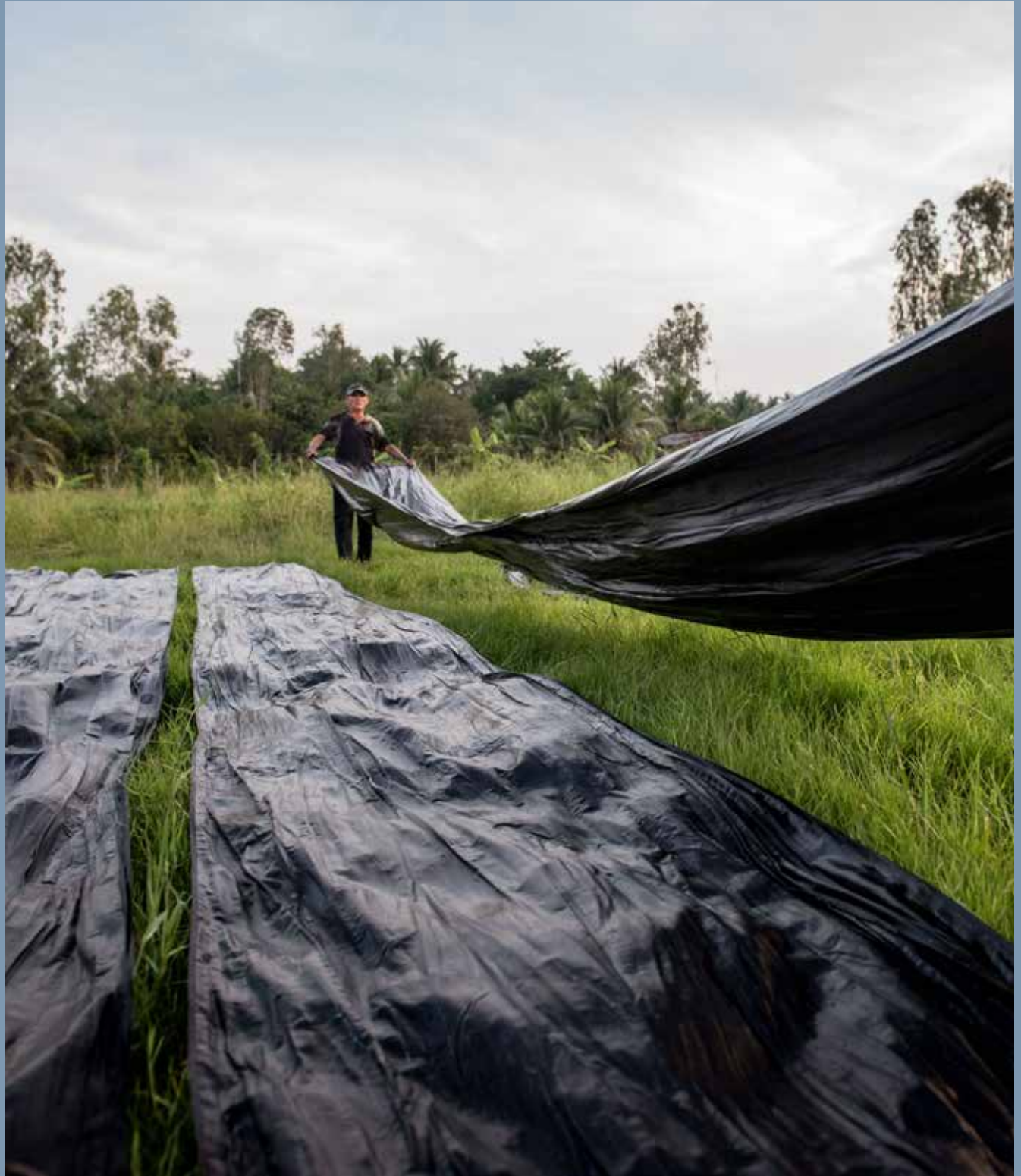


# The Creative Resource Guide

## Crafts in Asia: Pathways to Sustainability



# The Creative Resource Guide

## Crafts in Asia: Pathways to Sustainability

The Creative Resource Guide  
Crafts in Asia: Pathways to Sustainability

Published by:  
Asia-Europe Foundation (ASEF)  
31 Heng Mui Keng Terrace Singapore 119595  
T: +65 6874 9700  
F: +65 6872 1135  
www.ASEF.org

Series Editor  
Ms Valentina RICCARDI (ASEF)

Author  
Magali An BERTHON

Design  
Inksurge

Special thanks to Mizuki TAKAHASHI, Executive Director and Chief Curator of CHAT (Centre for Heritage, Arts and Textile), Hong Kong SAR and Kennie TING, Director of the Asian Civilisations Museum, Singapore.

All rights reserved © Asia-Europe Foundation (ASEF), May 2022  
Download from culture360.ASEF.org

All rights reserved © Cover photo credit: Ebony fruit dyeing in Vietnam © Kilomet 109

ISBN: 978-981-18-5023-3

culture360.ASEF.org contributes to the pursuit of the Sustainable Development Goals (SDGs), particularly Goal 16:



The Asia-Europe Foundation (ASEF) promotes understanding, strengthens relationships and facilitates cooperation among the people, institutions and organisations of Asia and Europe. ASEF enhances dialogue, enables exchanges and encourages collaboration across the thematic areas of culture, education, governance, economy, sustainable development, public health and media. ASEF is an intergovernmental not-for-profit organisation located in Singapore. Founded in 1997, it is the only institution of the Asia-Europe Meeting (ASEM). ASEF runs more than 25 projects a year, consisting of around 100 activities, mainly conferences, seminars, workshops, lectures, publications, and online platforms, together with about 150 partner organisations. Each year over 3,000 Asians and Europeans participate in ASEF's activities, and much wider audiences are reached through its various events, networks and web-portals.



culture360.ASEF.org is a portal initiated by the Asia-Europe Meeting (ASEM) and managed by the Culture Department at the Asia-Europe Foundation (ASEF). culture360.ASEF.org aims to stimulate the cultural engagement between Asia and Europe and enhance greater understanding between the two regions. Created for and fuelled by artists, cultural practitioners and policy makers, culture360.ASEF.org is your platform to inform, exchange ideas, interact and collaborate with the arts and cultural communities across Asia and Europe. As a reference tool, and a place for dialogue, this exciting portal will take cultural cooperation between Asia and Europe to a whole new level.



ASEF's contribution is co-funded by France

# Table of Contents



	PREFACE	vii
	INTRODUCTION	01
CH 1	<b>PRESERVING NATURAL AND CULTURAL HERITAGE</b>	05
	INTERVIEW WUTHIGRAI SIRIPHON DESIGNER AND WEAVER	07
	SOUTH KOREA KINDIGO	
	JAPAN ATELIER HIFUMI	
	LAOS DANLAO RATTAN	
	NEPAL BORA STUDIO	
	DIAGRAM INDIGO PRODUCTION IN ASIA	25
CH 2	<b>FOSTERING COMMUNITY</b>	27
	INTERVIEW MAYURA BALASUBRAMANIA CRAFTIZEN FOUNDATION	29
	MYANMAR TURQUOISE MOUNTAIN	
	MALAYSIA EDRIC ONG	
	PHILIPPINES SAVE THE IFUGAO	
	TERRACES MOVEMENT (SITMO)	
	VIETNAM KILOMET 109	
	DIAGRAM ARTISANAL PRODUCTION CYCLE	48
CH 3	<b>INNOVATIVE MAKING</b>	49
	INTERVIEW JANG JIU OMA SPACE	51
	INDIA HOLYWASTE	
	INDONESIA IBUKU	
	JAPAN KOSUKE ARAKI	
	HONG KONG THE BILLIE SYSTEM	
	DIAGRAM FOCUS ON PLASTIC WASTE	71
	ESSAYS MUSEUMS, COLLABORATION & COMMUNITY: TWO PERSPECTIVES FROM SINGAPORE AND HONG KONG, CHINA	74
	CHAT: A LIVING TEXTILE	
	INDUSTRIAL HERITAGE IN HONG KONG	
	#SGFASHIONNOW @ ASIAN CIVILISATIONS MUSEUM	
	AN EXPERIMENTAL APPROACH TO CURATING CONTEMPORARY FASHION	
	CONCLUSION THINKING CREATIVELY: BEST PRACTICES IN SUSTAINABILITY	83
	PROJECT MAP	85
	GLOSSARY	87

# Preface

The Asia-Europe Foundation (ASEF) is delighted to present *Crafts in Asia: Pathways to Sustainability*, a new Guide on sustainable textile practices in Asia addressing climate change, pollution and waste. Published through ASEF's digital arts platform [culture360.ASEF.org](http://culture360.ASEF.org), this series highlights the key role played by crafts in providing practical solutions to face the climate crisis at hand. It also brings attention to the designers, craftpeople and makers that through their knowledge and practice are contributing to finding new transformative solutions to the pressing climate crisis.

Researched and written by Dr Magali An BERTHON, textile historian, freelance cultural writer and documentarist with particular interests in Southeast Asian dress and textiles, local craft cultures and post-colonial perspectives, this guide presents a directory of 14 case studies from indigenous and local communities in China—Hong Kong SAR, India, Indonesia, Japan, Lao PDR, Myanmar, the Philippines, South Korea and Viet Nam. The publication unfolds around three thematic areas: Preserving Heritage, Fostering Community and Innovative Making. For each theme, the guide also features an in-depth interview with a key player in the sector. A series of interactive maps visually documents the Indigo Production Cycle, the Artisanal Production Cycle and Innovative Plastic Waste techniques. The case studies and interviews are complimented by two perspectives on communities and innovation from two leading museums in Asia: The Asian Civilisations Museum (ACM) in Singapore and the Centre for Heritage, Arts and Textile (CHAT) in Hong Kong, China.

Through this interdisciplinary publication, [culture360.ASEF.org](http://culture360.ASEF.org) continues to respond to the existing gaps in the information on arts & culture in Asia and Europe. In doing so, it also contributes to the United Nations Agenda 2030, particularly SDG 16.1 (access to information), SDG 4.4 (skills for employment and entrepreneurship) and SDG 5.5 (Equal opportunity for women).

We invite you to discover new Pathways to Sustainability and we look forward to continuing this series with more exciting initiatives merging arts, crafts and design in Asia and Europe.

**Valentina RICCARDI**  
Acting Director, Culture Department, ASEF

Singapore, July 2022

# Introduction



The pioneering publication *Our Common Future*, commonly called the Brundtland report, was released in 1987 by the UN-sponsored World Commission on Environment and Development to introduce the concept of sustainable development and explain how to implement it. The report stressed: ‘The environment does not exist as a sphere separate from human actions, ambitions, and needs...the “environment” is where we all live; and “development” is what we all do in attempting to improve our lot within that abode. The two are inseparable’.<sup>1</sup> Decades later, this fundamental statement interlinking the environment with human activity still stands.

<sup>1</sup> UN Secretary-General, World Commission on Environment and Development, *Report of the World Commission on Environment and Development entitled “Our Common Future”* (New York: United Nations, August 4, 1987), <https://digitallibrary.un.org/record/139811?ln=en>.

Despite conscious efforts to decarbonise, Asia remains highly vulnerable as the climate crisis intensifies, due, in large part, to a fast rise in greenhouse gases emissions, especially driven by developing economies such as China and India. Asian countries face several overlapping challenges; they must cope with the drastic changes already affecting the region, step away from coal and oil dependency, deforestation and poor water management, and develop infrastructures and systems allowing them to embrace sustainable modes of consumption and production.

This Creative Resource Guide proposes to address these major issues of climate change, pollution and waste in Asia through a rarely explored craft-centric perspective.<sup>2</sup> More than ever, crafts play a crucial role in greening supply chains by providing practical solutions to face the crisis at hand. Led by observation, experience, and a form of tacit knowledge that is intimately learned from their direct natural environment, makers aim to produce objects in durable materials that offer the possibility of repair and reuse. How can craftspeople and craft designers be transformative agents to building a better world? Which eco-conscious lessons can we learn from the past and apply in the present and future?

Questions of life cycles, renewability, social change and mutual growth animate the discussions in this guide. The Ellen MacArthur Foundation describes a circular economy as a system giving ‘us the tools to tackle climate change and biodiversity loss together, while addressing important social needs’ by eliminating waste and pollution, circulating products and materials, and regenerating nature.<sup>3</sup> To this end, this guide analyses the global concept of crafts to the generative idea of circularity as applied to materials, objects and human skills to explore artisanal production in Asia. While UNESCO defines handicrafts as ‘made without restriction in terms of quantity and using raw materials from sustainable resources’, in this publication, crafts intersect with agricultural processes, connecting raw materials and indigenous

knowledge to entrepreneurship, engineering and design. Makers are increasingly addressing the pressing environmental concern in their work, even looking to new materials, biodesign and technological innovations.

As central as sustainability has become in global economies, public policies and discourses, the concept has also been criticised for drawing predominantly from Western thinking.<sup>4</sup> For sustainability to become more than a process linked to a certain idea of modernity, there is a need to restore local social fabrics and reconsider an ecology of relationships between land resources, materials, peoples and knowledge to embrace a more holistic form of sustainment, as developed by design thinker Tony Fry.<sup>5</sup> Therefore, it is not about importing Western ideas of sustainability and seeing how they apply to Asia, but really about examining hyper-localised solutions driven by specifically defined needs, focusing on indigenous wisdom and bottom-up community-led projects. This guide actively seeks a pluralistic landscape of approaches and voices on crafts in Asia, explored as cultural, social, environmental and economic practices.

The research is articulated around three chapters that combine interviews and organisation profiles, with each section dedicated to one of the following essential aspects of sustainability: safeguarding cultural heritage and natural resources, fostering community-rooted initiatives, and innovative making toward carbon-reduction and zero waste practices. The selected change-makers (artisans, workshops, design studios and manufacturers) all share the integration of eco-conscious, social, and cultural values in their practice to mitigate problems of environmental degradation. To spark broader discussions on these issues, chapters are supported by thought-provoking graphic diagrams on indigo dye production, maker’s production cycle, and plastic waste. Extended essays penned by Asian cultural experts engaged with creative communities in the region and a glossary of terms conclude this publication.

<sup>2</sup> See also the *International Journal of Crafts and Folk Arts*, Vol. 2 (2021).

<sup>3</sup> “What is circular economy?” Ellen MacArthur Foundation, <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>

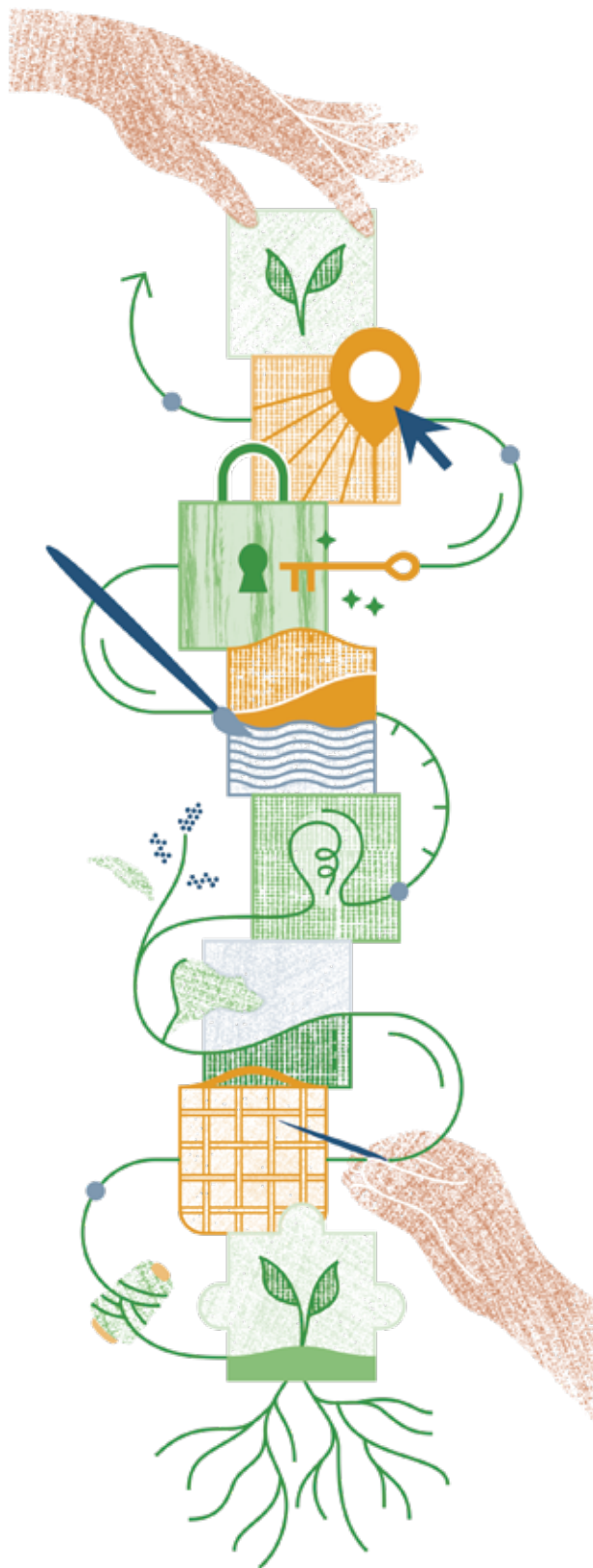
<sup>4</sup> Fulvio Mazzocchi, “A Deeper Meaning of Sustainability: Insights from Indigenous Knowledge,” *The Anthropocene Review* 7, no. 1 (April 2020): 77–93.

<sup>5</sup> Tony Fry, *Design As Politics* (London: Berg, 2011), 97–100.

This Creative Resource guide is designed for makers, cooperatives, designers, researchers, educators, artists, policy-makers, non-profit managers, and social entrepreneurs as well as anyone committed to developing crafts and environmental actions in the Asian continent and beyond.

While the directory presents a diversity of projects spanning the South, East and Southeast Asian regions, the list is non-exhaustive and must be considered a first step in researching and showcasing sustainable craft initiatives in Asia. The goal is to give visibility to a range of exciting and inspired solutions tackling different challenges in the present and near future.

The research for this book is driven by a qualitative approach. Taking into account COVID-19-related travel restrictions, and with the aim of limiting the carbon footprint, research has been conducted remotely, relying on local networks, contacts with insider knowledge, and recognised environmental awards and certification labels such as B-Corp and the Forest Stewardship Council, to identify projects and jumpstart exchanges with potential participants. Arguably, communication has sometimes been complicated by the pandemic, with artisans, organisations and workshops struggling to keep afloat while simultaneously dealing with external requests. In Asia, artisans, individually and collectively, have seen their livelihoods especially impacted by the loss of tourism and limited access to raw materials, markets and consumers. Realising this guide speaks to the resilience and perseverance of organisation leaders, makers, designers and manufacturers who have agreed to participate and share details of their projects, ethos and practice.



## A few notes on the directory

This guide responds to ASEF culture 360 and the Asia-Europe Foundation's (ASEF) broader sustainable development goals, specifically the promotion of skills for employment, women's leadership, local culture and products, and safeguarding heritage.

The initiatives presented in this directory are divided in three main categories: heritage and natural resources preservation, community empowerment, and innovation. The directory includes projects based in the context of the Asia-Europe Meeting (ASEM) partner countries (India, Viet Nam, Lao PDR, Myanmar, Indonesia, Malaysia, the Philippines, China, Korea, and Japan), with one additional comparative case study from Nepal.

These projects were selected according to a series of common criteria:

- An engagement with artisanal skills, ancient and contemporary
- An attachment to local and renewable resources
- An openness to innovation and creative methods
- A level of seniority with a demonstrated authority in the sector
- A structure of individual practice, community-based organisation, a non-profit organisation, or a social enterprise

Each profile presents a concise overview articulating the project's history, specificities and positive impact. Unless otherwise stated, all quotes are from interviews conducted in the field, personal email or Zoom exchanges between the researcher and the organisations.



# Preserving natural and cultural heritage



While the Creative Resource Guide looks towards the future of craft practices and material innovation, it also explores how local know-how and ancestral techniques may provide invaluable answers for a more sustainable world and help us to radically rethink the global supply and value chain. In *A Cultural Economic Analysis of Craft*, experts Simon Ellis and Joseph Lo suggest that, in Asia, crafts ‘remain an activity that produces objects that have a key function/role in local economies in which local artisans use local materials and manage local ecosystems’.<sup>6</sup>

<sup>6</sup> Simon Ellis and Joseph Lo, “An Economic Assessment of Asian Crafts” in Anna Mignosa and Priyatej Kotipalli, eds., *A Cultural Economic Analysis of Craft* (Cham: Springer International Publishing, 2019), 168.

Following a holistic approach to sustainability, this first chapter thus examines how these local ecosystems are activated by ancient and indigenous knowledge grounded in the use of natural resources.

Cultural heritage is a term that encompasses all the customs, values and artistic practices developed and shared within a given community, often in rural and forest environments.<sup>7</sup> In a virtuous symbiosis, preserving this heritage also means supporting the people who keep it alive with unique creativity and skills. Another crucial aspect is to guarantee that these techniques are promoted and passed down to the younger generation. Embracing slow making processes helps artisans reenergise their connection with materials and natural cycles. In the modern globalised world, craftspeople tend to no longer use local resources, relying on imported supplies available in local markets that sometimes come from complex networks of intermediaries. The projects presented in this chapter rehabilitate the idea of craft, locality and short supply chains as a model of sustainability. For example, in this chapter's feature interview, textile researcher Wuthigrai Siriphon reflects on weavers' strategies towards collecting and saving supplies, reusing scraps of fabric and turning vegetal dyestuff into firewood and fertiliser.

Low-impact materials described in this chapter (rattan, tinctorial plants, vegetal fibres and lacquer) are mostly natural and renewable. Sourcing from local, smallholder farmers and producers respects seasons and soils which in turn strengthens biodiversity. For instance, it takes an average of twelve years for Chinese lacquer trees to be big enough to be tapped to produce the milky sap that will

become lacquer. In another example, Korean master dyer SouJou Jang has built a small-scale indigo farm in the countryside, where she sows seeds in the spring to harvest indigo leaves twice, in the summer and fall. Her pigment production remains limited to allow her to follow these natural cycles. Finally, with the active support of the World Wildlife Fund, Laos, Danlao has achieved a sustainable model of rattan production in Lao PDR, following the rigorous standards established by the international organisation Forest Stewardship Council. An example outside ASEM network is Nepali designer Meena Gurung, who rehabilitates wild plants and invasive species of water hyacinths to produce bags, mats and textiles with communities of women. The initiatives presented in this chapter stress the central role of ecosystems and natural materials to inspire craft practices and ensure viable livelihoods.

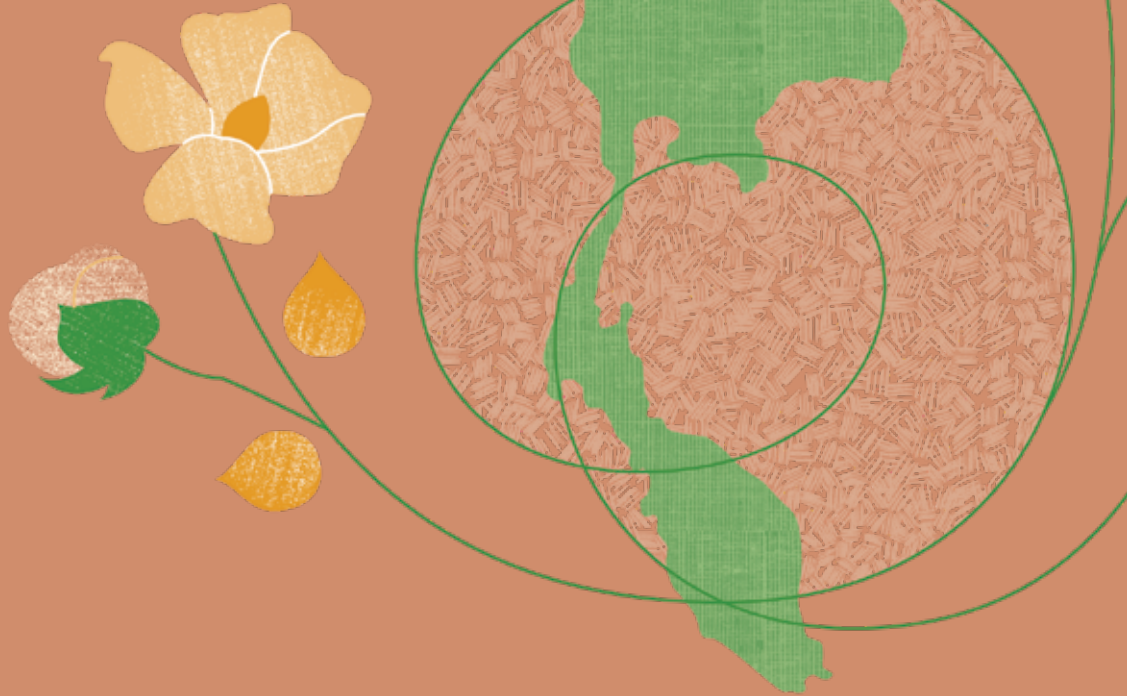
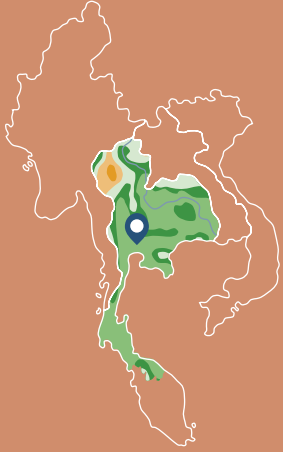
Moreover, this chapter demonstrates that craftspeople develop methods in line with their upbringing, culture and beliefs. The case of Mio Heki provides an invaluable illustration of how her lacquer practice is rooted in her deep understanding of Japanese philosophy. She embraces the concept of *wabi sabi*—imperfect beauty—that responds to *shogyomujo*, the understanding that all things are impermanent. In this chapter, makers consider handicrafts as extensions of local cultural knowledge and by doing so, they reconnect with their environment and what it may offer. Heritage preservation, therefore, appears as an essential component of sustainable approaches to redefine the relationship with materials, skills transmission and production processes.

<sup>7</sup> UNESCO, *Text of the Convention for the Safeguarding of the Intangible Cultural Heritage*, 2003, <https://ich.unesco.org/en/convention>

# WUTHIGRAI SIRIPHON

INTERVIEW

designer and weaver

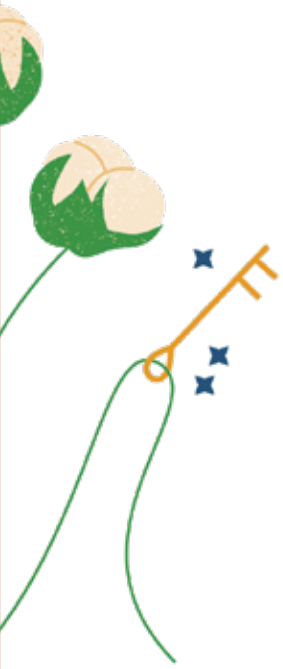


Detail of Gleaming Decay No.1 (2020) © Wuthigrai Siriphon





Dr Wuthigrai Siriphon is a Thai textile expert focusing on heritage preservation and weaving practices. He was first trained as a fashion and textile designer at Thammasat University before completing an MA and a PhD in Textiles at the Royal College of Art in London. He graduated in 2018 with a thesis project entitled ‘Revealing Localised Design Practice in Thai Hand Weaving’. He is currently the principal investigator of two research projects: *Documenting Wooden Reed Making of the Ethnic Lao-Khrang* in Thailand, as a part of Endangered Material Knowledge Programme, funded by Arcadia and hosted by the British Museum, and Thai textiles co-led by Dr Peter Oakley and funded by the Royal College of Art’s Global Challenged Research Fund (GCRF) Development Fund.



(L) Portrait of Wuthigrai Siriphon  
© Wuthigrai Siriphon  
(R) Gleaming Decay No. 3  
(2021) © Wuthigrai Siriphon

*For the Creative Resource Guide, Wuthigrai Siriphon shares his perspective on the future of weaving and crafts and their central role in building a more sustainable world.*

**1. In your research in Thailand, you have been able to establish that sourcing sustainable raw material was a challenge for weavers.**

The origins of most materials are not easily traceable, especially for cotton, rayon and polyester, which are blended yarns sold under misleading commercial names, not the fibre type names. Many weavers would buy yarn from local shops sold in loose skeins in multiple colours. Artisans choose these yarns for their aesthetic, price points or durability. These factors make it difficult to properly identify which dyes and types of fabric to use. I would think that weavers would be happy to use locally produced materials if they were of compatible quality and sold at reasonable prices. The current and main issue is that the availability of locally sourced raw materials remains limited and insufficient for the demand.

**2. Are weavers affected by environmental challenges linked to material sourcing?**

There are cases where environmental challenges become an obstacle for the weavers. Cotton is one example. Although many people would think that cotton and silk are the staple fibres used by weavers in Thailand, most cotton is imported from other continents such as the Americas. Nowadays, no local cotton plantation sites reach an industrial scale and the cotton plants only supply local craft productions. The local atmosphere is not suitable for large scale production. The quality of the local variety is low.



Weaving experimentations  
© Wuthigrai Siriphon



In the case of silk fibre, you can see more local production, and large-scale silk companies are using local raw materials. However, this would not meet domestic consumption demands and a large portion needs to be imported. Mulberry, the main food for silkworms, can be grown in most places in Thailand, yet raising silkworms is labour-intensive and requires knowledge and skills. It becomes an obstacle to expanding the production scale.

So far in my observations, global warming may have more of an effect on farming than on craft production specifically. More broadly, it could be that now seasons are less reliable. Farming, which relies so much on natural cycles, becomes more challenging with, for instance, unpredictable rainfall. As a result, handicrafts, an activity used for supplementary income, might become increasingly central as farming becomes a less reliable source of income.

### 3. Would you say that the weavers you are collaborating with are sensitive to the idea of eco-conscious production?

Absolutely, most of the weavers I am working with take the idea of sustainability to heart. They know that this is good for their health in the long run. Many have children and are aware of the impact their work could have on them. They are also aware that the customers recognise the value of sustainably made products. For example, textiles made using natural dyes can fetch at least double the price of those made with chemical dyes. Customers also pay attention to the process and appreciate if materials are local or hand processed.

### 4. How could ancestral making processes be integrated into a circular model of production?

Local modes of production in the pre-industrial era, which many weavers still follow, already were circular and sustainable. Though resources may seem plentiful, the process of transforming natural resources is labour intensive and time consuming. Weavers and craftspeople would then efficiently use yarns and locally sourced dye materials. Nothing would go to waste. The materials made or the production leftover would eventually be the sources for future production. Dyeing materials could become firewood or fertiliser. Fabrics would be used in multiple ways, such as clothing and mopping, until unusable and then they would become compost.



Nowadays, local craft textile production focuses instead on commercial products. Production scale has increased and many of the resources are imported. It leads to more wasteful and harmful production methods; for example, using yarns wastefully and dyeing with chemical dyestuff without proper filtration systems. A fabric made of petroleum-based materials would not decompose for hundreds of years. I am not saying that the commercial model is bad, it is just that the situation becomes more complicated with more stakeholders involved with higher potential for harmful impact.

Craft production can adapt more easily to a circular model than that of industrial production because it is smaller and requires lower investment (which is more affordable for craftspeople), although the industrial process might need less investment per production unit.

Moreover, government support is essential. In the case of Thailand, the government provides the largest platforms for sales, such as trade fairs and orders from government officers. Circular methods of production could be promoted as the main criterion in order to increase sales, reframing sustainability as a desired model for the producer.

5. And finally, what do you think is the future (post-pandemic) of the Thai handicraft sector?

The future is uncertain. In the short term, the post-pandemic period will allow craftspeople to meet customers to sell their products again. Fortunately, it will surely help secure the continuity of many crafts, at least for a while.

In the long term, we will face a different scenario. Crafts products will become more specialised and reach higher prices, which is a good thing. Nevertheless, some of the knowledge will likely disappear for good because no one continues the practice. The falling number of craftspeople will be one of the most concerning issues. Currently, artisans are mostly the elderly, therefore numbers are falling. They are mainly farmers who make handicrafts for additional income. Only a minimal number of younger people becomes professional craftspeople. Yet, these younger craftspeople are leading different lives and consider crafts must be economically sustainable. In general, Thai handicrafts are not generating enough income to attract new people to the sector. I think we can do more to make the crafts more appealing to the younger generation.

*Answers have been edited for concision and clarity.*



Weaving experimentations © Wuthigrai Siriphon

# KINDIGO



FOUNDED: 2012

FOCUS: NATURAL INDIGO DYEING AND TEXTILE PRODUCTS

WHERE: GYEONGGI-DO ICHEON AND GANGWON-DO HONGCHEON, KOREA

MORE INFORMATION: [HTTPS://KINDIGOGLOBAL.IMWEB.ME](https://kindigoglobal.imweb.me)



Shades of blue © Kindigo

## Specificities of Korean indigo

The Korean technique of indigo fermenting and dyeing is an ancient craft that has been recognised as a national cultural treasure and registered as Intangible Cultural Heritage, listed number 115. Moreover, indigo dyers are held in high regard and considered Intangible Cultural Assets by the Korean government. The indigo plant species local to the region is called *polygonum tinctorium*. Seeds are sown in the spring, grown in the summer and then harvested twice, in July and later in autumn. To produce indigo pigments, the first step is to make a paste out of fresh indigo leaves, which are oxidised with water and shell ash powder that comes from local Korean oysters and cockles. The second step consists of fermenting this paste with the use of Korean alcohol, *makgeolli*, over a period of one to seven

days, depending on the size of the dye vat. Creating different variations of indigo colour—from light to dark blue—takes several rounds in the dye vat.

## From farm to fabric

Kindigo is an indigo dyeing organisation founded in 2012 by SouJou Jang. This company aims to revitalise ancestral Korean indigo dyeing practices, focusing on eco-farming, small-scale textile production and youth education. Geared towards no plastic and zero-waste production, Kindigo develops a range of textile items, such as accessories, garments, underwear, socks and slippers.

The company also sells small stocks of high-quality *niram*, the Korean name for the indigo pigment in a paste form, to local artists or small brands. Collaborations with designers are encouraged.





Indigo fermentation © Kindigo

Since 2015, Kindigo has turned its focus to education, to raise awareness on the art of natural dyes. Educational community programmes focus on passing down precious knowledge on indigo farming and dyeing, especially destined to Korean youth in the Seoul area. The Indigo Master Programme revolves around a series of hands-on workshops, conducted several times a year. Recently, this curriculum has gained more traction, attracting larger groups of young people, who now make up about 30% of the yearly workshop registration.

### Planting the seeds of indigo craft knowledge

SouJou Jang is an indigo master dyer (*mooljangee* in Korean) who received training from Sung Dong Kim, a dye expert from Gyeonggi-do, Icheon. Before launching Kindigo, SouJou Jang was a headteacher at Bandi Eco-School from 2000 to 2012. She then went on to earn a PhD in Convergence Engineering Science from the Hoseo University, Hoseo Graduate School of Venture, writing a thesis on indigo's medicinal value and applications. In Korea, indigo dyeing was valued historically for its medicinal properties to treat specific heat-related skin diseases and other illnesses.



Preparing the dyestuff © Kindigo

Kindigo embraces this traditional aspect by keeping the pigment fabrication entirely natural and producing skin-friendly underwear and socks in certified fabrics with anti-bacterial and deodorant properties.

SouJou Jang spends time on Kindigo farm every day, where all the dyestuff production takes place. While only a handful of farmers are working full time in the indigo fields, more staff are hired during the high seasons for the planting, harvesting and dye fermentation processes. Kindigo collaborates with about 20 local artisans to make the products, from dyeing to sewing and knitting.

A key actor in the Korean craft sector, Kindigo showcases its products at the Korea Craft Week and also participated in Revelation Craft Fair in Paris in 2019. SouJou Jang was also the lead organiser of the Indigo Festival at Craft week Korea from 2018 to 2020. SouJou Jang has been recognised for her contribution to the Korean indigo heritage sector when she was awarded the Seoul Mayor's Prize at the International Women's Invention Exposition in 2015.

### Upcoming projects:



In 2022, Kindigo plans to develop a project to support the protection of endangered mountain goral species that live in Seoraksan National Park in Gangwon province.



The company also develops limited editions products, such as bathroom and kitchen products in natural and indigo-dyed loofah and a vegetal fibre coming from dried sponge gourds, which is one of the crops of Kindigo's farm.



In the long term, Kindigo plans to build an indigo village, in which visitors will be able to learn about indigo dyeing processes.





Fermenting indigo leaves © Kindigo



Niram, blue paste © Kindigo





Blue hands © Kindigo



Indigo workshop at the farm © Kindigo

# ATELIER HIFUMI

FOUNDED: 2016

FOCUS: KINTSUGI AND LACQUERWARE

WHERE: KYOTO, JAPAN

MORE INFORMATION: [HTTPS://WWW.HIFUMI-KYO.COM](https://www.hifumi-kyo.com)



Gold and lacquer © Atelier Hifumi

## Extending the life of objects

Atelier Hifumi was established as a lacquer workshop in Sakyo-ku, Kyoto in a traditional wooden townhouse (*machiya*) near Ginkakuji temple. It produces Japanese lacquerware (*urushi*) and contemporary jewellery in wood and shellfish scraps.

Mio Heki, Atelier Hifumi's founder, first graduated in Japanese arts and crafts at Kyoto City University of Arts in 2010 and then trained in lacquer art techniques. After graduating, Mio Heki worked for Sawano Dogen, an organisation specialised in the restoration of heritage sites such as protected shrines. The organisation's artisans would restore historical buildings, temples and cultural properties all over Japan, adjusting to changes in season and weather. From this experience, Mio Heki

found tremendous wisdom in the careful observation and respect of ancient forms of craftsmanship. She eventually launched her own atelier in 2017, which is specialised in the art of repair, from restoring pottery with *urushi* and antiquities to fixing broken ceramics following the ancestral practice of kintsugi that uses gold and silver.

Since its foundation, Atelier Hifumi has organised several exhibitions and workshops in Europe, especially in Paris, Amsterdam and Madrid. Mio Heki is deeply committed to sharing her knowledge. In Kyoto, she successfully holds intensive classes to teach the complexities of lacquer and kintsugi, attracting participants from all over the world, a testament to the renewed popularity of these techniques.



The art of lacquering © Atelier Hifumi

Atelier Hifumi only uses natural materials to produce its ceramics and repaired pieces. Each object that arrives at the workshop has its own story that transcends generations. It can be a teapot handed over from a grandmother, a bowl made by a family member, a cup broken by a child, or an antique find purchased at a flea market. The studio's ethos responds to the philosophy of *wabi-sabi*, which seeks the peculiar imperfect beauty in all things, rooted in Zen Buddhism and embracing the impermanence of life and artefacts.

#### From lacquer...

*Urushi* lacquer is a raw milky white sap extracted from the *toxicodendron vernicifluum* lacquer tree native to East Asia. Natural pigments are added to create coloured decorative layers. Lacquer is also commonly used as a varnish and decorative

paint in other Asian countries such as China, South Korea, Thailand, Viet Nam and Myanmar. Sap collectors cut tree trunks with a sharp-edged tool once every few days during the summer months (from June to October) to extract the sap drop by drop.

Facing issues of urbanisation and industrialisation, lacquer tree plantations have decreased to only ten prefectures in Japan, Iwate prefecture remaining the main producing area. As a result, the lacquer used in Japan is mainly imported from China, with only 3% that is domestically produced. *Urushi* was widely used for daily utensils such as bowls and chopsticks, as well as temples ceilings and floors and Buddhist statues. Due to the westernisation of lifestyles and eating habits in Japan, lacquerware is often replaced by plastic tableware that uses urethane and artificial resin.





Mio Heki at her studio © Atelier Hifumi

### ...to kintsugi

In Japan, lacquer has been used to fix broken earthenware since the Jomon period (ca. 13000-400 BC). *Kin* means 'gold' and *tsugi* means 'junction.' *Kintsugi* became an established practice by the late 16th century, as a technique to repair precious ceramic items such as tea bowls used in the tea ceremony.

At Atelier Hifumi, it takes six months to a year to accomplish the thirty steps of the *kintsugi* process: from attaching cracked debris, filling chips and holes, creating a smooth surface to applying lacquer in layers, to sprinkling gold powder and polishing the surface to make it shine.

The craft of lacquering requires to be slow and wait between each step. The pandemic crisis encouraged Mio Heki to slow down and search for a deeper meaning in work. In her practice, she embraces a form of craftsmanship aligned with the life cycles of natural materials. While *kintsugi* has been reclaimed by contemporary artists and ceramicists in Japan and internationally, the ancestral knowledge of this art of repair rests in the hands of master lacquerers.<sup>8</sup>

<sup>8</sup> Casey Lesser, "The Centuries-Old Japanese Tradition of Mending Broken Ceramics with Gold," *Artsy*, August 24, 2018, <https://www.artsy.net/article/artsy-editorial-centuries-old-japanese-tradition-mending-broken-ceramics-gold>.



Mimicry coloration 1 (2017) © Atelier Hifumi



Kintsugi work © Atelier Hifumi



# DANLAO RATTAN



FOUNDED: 1993  
FOCUS: SUSTAINABLE RATTAN  
WHERE: VIENTIANE, LAO PDR  
MORE INFORMATION: [HTTP://WWW.DANLAORATTAN.COM](http://www.danlaorattan.com)



Making rattan furniture © Danlao Rattan - WWF-Laos

## What is rattan?

Rattan is a climbing vine-like plant from the palm family (Arecales or Palmae), a non-timber forest product native to the tropical regions of South and Southeast Asia, specifically the rainforests of Indonesia, Philippines, Sri Lanka, Malaysia, Lao PDR, Cambodia, Viet Nam and Bangladesh.<sup>9</sup> Lao PDR has a particularly extensive range, with about 30 species of natural rattan of different diameters. To guarantee renewability, it is necessary to wait up to five years to harvest small species of rattan and 15 years for large ones.

Highly flexible and durable, this plant grows relatively easily in the region. It is used in Lao PDR for construction materials, handicrafts, furniture and food. Once harvested, the canes are immediately cleaned of leaf sheaths and layers of the epidermis, cured and left to dry. Once dried, rattan is processed again, peeled, split, bent, dyed, softened and

finished—ready to be transformed through wickerwork and roping techniques.

Lao PDR remains an agricultural country with a population predominantly living in rural areas and harvesting and processing rattan plays a critical role in local subsistence for villagers living near productive forests. Issues of deforestation, due to over-harvesting and land conversion, threaten the livelihood of these communities and cause the rapid decline of the local supply chain.

## Forest Stewardship Council certification

In response, international environmental non-profit organisations such as the World Wildlife Fund (WWF), the leader in wildlife conservation and endangered species, have supported the development of sustainable rattan since 2006. Their pioneering engagement saw the first Forest Stewardship Council (FSC) certification of rattan in the world in 2011, certifying 1,200

<sup>9</sup> "Rattan Facts," WWF Greater Mekong Programme, 2021, [https://greatermekong.panda.org/our\\_solutions/projects/sustainable\\_rattan/factsinformation/](https://greatermekong.panda.org/our_solutions/projects/sustainable_rattan/factsinformation/)



Artisan group weaving basketry in Thaveng village, Khamkeut District, Bolikhamxay province ©Danlao Rattan - WWF-Laos

hectares of rattan forests in Bolikhamxay province. The FSC criteria set high standards for all forest management in the US and globally, protecting the rights of indigenous peoples to own and manage their lands, and promoting local ecosystems and landscapes ‘by maintaining the ecological functions and the integrity of the forest’.<sup>10</sup> Since 2011, other forests in Lao PDR have received FSC certification.

Sustainable rattan production entails optimising protocols, as well as updating tools and technologies to reduce soil pollution from petrol and harmful chemicals, raw materials wastage and land depletion. Involving local populations ensures the safeguarding of forest biodiversity, with economic benefits directly returning to these groups. WWF works with national policy makers to reduce fees for natural resources (in the areas of royalties, tax and custom fees) and supports organisations to access low-interest loans from the Lao PDR government.

#### Danlao Rattan

Founded in 1993 by designer and entrepreneur Xaykham Phetmanivong, Danlao is a family-owned business that produces artisanal rattan products and employs 31 people (15 people full time, including a designer, and 16 families and villagers part

time). Complying with FSC requirements, Danlao emphasises quality control for each step in the process, from sourcing and harvesting to treatment, production and packing. The company carefully selects durable species from the village of Xiengsien village, Bolikhan District and Bolikhamxay province, and uses three different sizes of rattan depending on the products. Founder Xaykham Phetmanivong explained: ‘Sustainable management of rattan is good not just for increasing local incomes and protecting forests, but also for the long-term security of the rattan supply chain’.<sup>6</sup>

Finished handicrafts are subcontracted to families located in three villages in Khamkeut District of Bolikhamxay Province, in a remote area closer to the Viet Nam border. Danlao works closely with these communities, who received additional training in basketry and weaving with the support of WWF Lao PDR. WWF has also helped Danlao expand its international market. For instance, in 2015, Danlao produced a line of baskets sold in Switzerland at the supermarket chain Coop’s under the eco-friendly label Oecoplan. Strengthening capacities in design, shipping and export increases Danlao’s revenues, directly benefits the handicraft groups in the three participating villages and fosters sustainable forestry practices.

<sup>10</sup> “Mission and Values: Protecting Forests for Future Generations,” Forest Stewardship Council, <https://us.fsc.org/en-us/what-we-do/mission-and-vision>

<sup>6</sup> “Sustainable Rattan Management in Laos Goes from Strength to Strength with New FSC Certifications and Export Order,” Forest Stewardship Council, August 15, 2014, <https://fsc.org/es/node/26254>.



# BORA STUDIO



FOUNDED: 2017

FOCUS: ECO-PRINT TEXTILES AND ETHICAL FASHION

WHERE: KATHMANDU, NEPAL

MORE INFORMATION: [HTTPS://BORA-STUDIO-NEPAL.BUSINESS.SITE](https://bora-studio-nepal.business.site)



Embracing botanical durable textiles © Bora Studio

*Bora Studio, an Asian initiative outside ASEM countries, offers a complementary view on low-impact sustainable initiatives connecting local biodiversity, heritage and knowledge.*

## Rooted in Nepali land

Bora Studio is at the forefront of sustainable fashion initiatives in Nepal. It operates as a printing studio and slow fashion brand grounded in three essential principles: low-impact natural dyes, local raw supplies to reduce the carbon footprint, and artisanal work with indigenous communities.

The studio was founded by Nepali designer and dyer Meena Gurung in 2017. She studied fashion design in Dublin, Ireland. Upon returning to Nepal in 2015, she interned at a printing studio led by artist Kabi Raj Lama for one year, after which she officially launched Bora Studio. The word Bora means 'jute sack' in Nepali language, a

biodegradable material common in the brand's collections. Gurung's initiative was informed by the realisation that natural fibres remain difficult to find in Nepal, let alone those dyed with natural pigments. In response, she trained with her grandmother and spent time with local communities to learn about natural dyes and weaving, also researching through practice and books.

Currently, Bora studio is operated by Gurung and a few additional members—up to a dozen people—depending on the projects taking place at the workshop. Meena Gurung has also built long-lasting partnerships with specific weavers, commissioning them on custom orders several times a year.

## Sustaining biodiversity and ethically sourced materials

Bora Studio is grounded in the slow fashion business model, a term first coined by sustainability expert Kate Fletcher in 2007



Unique eco-prints made with local leaves and flowers © Bora Studio

to designate smaller production runs relying on locally sourced materials and made-to-order clothing lines.<sup>11</sup> The studio takes extra care to source natural fibres available in Nepal, such as raw silk, hemp, nettle and bamboo. Using Nepali silk supports domestic sericulture and provides an income for women in rural areas.

In 2020, Meena Gurung was invited as an artist in residence by KTK-Belt, a US-based non-profit organisation supporting the development of new models of biodiversity conservation and environmental learning in eastern Nepal. As part of the residency Bora Studio worked with communities of women in Koshi Tappu, Sunsari, Eastern Nepal, one of the four main extended wetland areas in the country. The aim was to collect and use invasive species of water hyacinths to design bags and mats and to use rhododendron leaves to produce dyes.

Botanical experimentation remains a central motor at the studio. In a constant dialogue

with Kathmandu's natural surroundings, Gurung forages all kinds of invasive wild plants, fallen leaves and foliage to extract colours and create plant-to-print inks on textiles.

#### Leading by example

Despite several pandemic-related challenges, such as travel restrictions, lockdowns and rising export shipping costs, the Nepali handicraft market has managed to maintain itself and is now slowly recovering nationally, with hopes to increase international exports in the coming year. Nepal is known for its rich artisanal culture, ranging from textiles to silver jewellery and wood and stone carving. Meena Gurung regrets, however, that imported mass-produced goods of lower quality have affected the competitiveness of domestic handicraft production. She considers that there is more to do, especially in terms of government support and policies, to encourage Nepali artisans to further embrace sustainable practices regarding wastewater and harmful synthetic dyes.

<sup>11</sup> Kate Fletcher, "Slow fashion," *The Ecologist*, June 1, 2007, <https://theecologist.org/2007/jun/01/slow-fashion>.

The recent COP26 in Glasgow, Scotland, put Nepal on the map of sustainable fashion approaches. Bora Studio was invited—at the initiative of the British Council Nepal and Fashion Open Studio and along with nine other textile-related projects from all over the world—to present strategies of adaptation and resilience in the face of climate change. This international platform allowed Gurung to share her collaboration with the Dhimal tribe in Damak, Jhapa district in Eastern Nepal and emphasise the value of indigenous knowledge in handling natural resources. Bora Studio advocates for a holistic approach to textile and garment production, grounded in ancestral craft practices and the protection of rare woods and plants in Nepal, to inspire future generations to come.





Collaborative work with a community of Dhimial women © Bora Studio



Meena Gurung and a group of Dhimial women from Dhapgachi village, Damak © Bora Studio



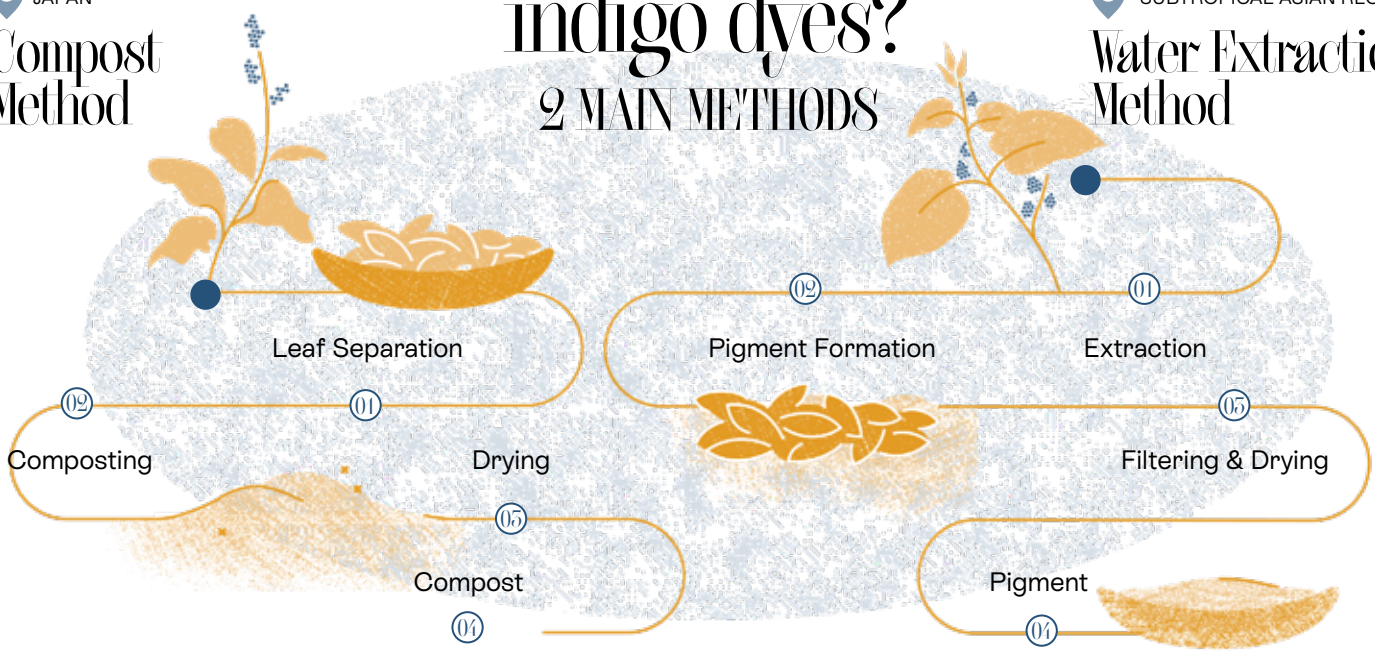




**JAPAN**  
Compost Method

**How to make indigo dyes?**  
2 MAIN METHODS

**SUBTROPICAL ASIAN REGIONS**  
Water Extraction Method



# Fostering Community



In this chapter, sustainability is explored under a human-centric perspective which focuses on makers as guardians and actors of local economies and cultural identities. Acknowledging the importance of culture within the sustainability discourses is relatively new.<sup>12</sup> Defined by human actions and interactions, cultural sustainability emerges as a crucial connector between ecological, economic and social perspectives, which also brings heritage experts and policymakers into the conversation.<sup>13</sup> This notion is part of the 17 global sustainable development goals identified in the 2030 Agenda adopted by the UN Summit in 2015.

<sup>12</sup> See for example Torsten Meireis and Gabriele Rippi, *Cultural Sustainability: Perspectives from the Humanities and Social Sciences* (NY: Routledge, 2019).

<sup>13</sup> Michael Stubbs, "Heritage-Sustainability: Developing a Methodology for the Sustainable Appraisal of the Historic Environment," *Planning Practice & Research* 19, no. 3 (2004): 285-305.

Artisan groups in Asia mostly live in rural and peri-urban areas, in close interaction with their natural environment. Facing specific challenges directly linked to economic, social, and environmental issues, these communities continuously fight for their livelihood. Among the obstacles to sustainable development, rural exodus and ageing are an ongoing challenge. For instance, sociologist Peter Matanle examined in 2007 how young people massively left their region of Sado Island, a remote territory at the north of Honshu, Japan to search for employment opportunities in urban centres. This phenomenon strongly affected the local pottery industry, especially family-run small businesses which struggled to mobilise a new generation of apprentices. As a result, Matanle has advocated for 'rural revitalization efforts [to] be targeted at the development of indigenous industries that provide prospects for the creation of self-sustaining communities with independence from the urban center'.<sup>14</sup> In this sense, taking into account the beliefs, knowledge and cultural values appears essential in igniting sustainable lifestyles and fostering feelings of responsibility within communities.

Overall, there is an urgent need to reappraise domestic handicrafts and make it an attractive and viable activity with adequate professional development and wages. The projects presented in this chapter show a range of strategies rooted in community empowerment and heritage-driven solutions that involve the direct participation of the makers, especially in textile artisanal production. It is only after having studied, understood and welcomed these insider perspectives that craft organisations and NGOs can devise training programmes, outreach initiatives and business models. Finding markets and customers, especially tourists, has been

further complicated by the COVID-19 pandemic. Organisations have therefore invested in training programmes in product development and marketing, export markets and online sales. Moreover, landscape and soils preservation, material frugality and upcycling practices should be prioritised to help reduce the environmental footprint of craft practices while ensuring more cost-effective production methods and encouraging creativity.

Targeted support does not mean low impact. In India, Craftizen Foundation has intervened on a large scale in Bangalore, Hyderabad and Kolkata, working with a diversity of limited income participants, from ethnic groups to women living in remote areas to people with disabilities. Kilomet 109 in Viet Nam, Turquoise Mountain in Myanmar and Edric Ong in Borneo have supported several artisan groups who produce a variety of handicrafts: batik, hemp and indigo in Viet Nam, patterned textiles and gold jewellery in Myanmar, and basketry and weaving in natural dyes in Sarawak. On the other hand, SITMo in the Philippines works exclusively with the Ifugao communities living on the Rice Terraces in Kiangan. This organisation has implemented an ambitious, holistic plan that includes eco-tourism, research collaborations in heritage and archaeology, a cultural centre for indigenous-based education, and a social enterprise to sell locally made handicrafts. These initiatives are welcome illustrations of the potential of handicrafts as an agent for ecological and social regeneration in rural, remote and marginal areas. For local authorities, capitalising on craftspeople and inter-generational skills transmission would, in turn, benefit other actors in those ecosystems, such as farmers, homestay owners and tourism professionals.

<sup>14</sup> Peter Matanle, "Organic Sources for the Revitalization of Rural Japan," *Japanstudien* 18, no. 1 (2007): 151.



# MAYURA BALASUBRAMANIA

FOUNDED: 2014

FOCUS: TEXTILES, TAILORING, PAINTING, WOOD  
ARTEFACTS, UPCYCLED PRODUCTS

WHERE: BENGALURU, KARNATAKA, INDIA

MORE INFORMATION: [HTTP://CRAFTIZEN.ORG](http://craftizen.org)



Green Skilling programme, silk thread and fabric upcycling © Craftizen Foundation



Mayura Balasubramania is the founder and CEO of Craftizen Foundation, an organisation that aims to preserve and develop Indian crafts to provide sustainable livelihoods to artisan groups and marginal communities. Before founding Craftizen, this passionate entrepreneur worked with the Jatin Das Centre for Arts to manage the large-scale rural tourism initiative 'Explore Rural India' with the United Nations Development Program and India's Ministry of Tourism.

*For the Creative Resource Guide, Mayura Balasubramania explains the ethos animating Craftizen and her views on the social, economic and environmental challenges faced by artisans in India.*



Mayura Balasubramanian with an artisan group © Craftizen Foundation

### 1. What is the core problem Craftizen Foundation aims to address?

Craftizen Foundation was founded in 2014. We focus on craft-based skills development and income enhancement, coupled with strategic interventions and business acumen support to enable sustainable livelihoods for traditional artisans and marginalised communities. Through our programmes, we have impacted over 2,500 beneficiaries to date, including 300 artisans. We are currently managing 20 skills training and livelihood centres across Bangalore, Hyderabad and Kolkata, both urban and rural, in partnership with NGOs and public institutions such as NIMHANS.

When I started Craftizen Foundation there were already several organisations working in crafts, but there weren't many enabling greater collaboration amongst diverse stakeholders. At Craftizen we like to call ourselves craft architects since we are bridging the gap between the crafts sector and the corporate sector, and are also a bridge connecting artisans to evolving preferences of consumers, by ensuring handicrafts are relevant in a changing world.

### 2. How would you describe the main challenges encountered by your artisans and how do you support them?

Our artisans are skilled in over 30 types of craft, including hand embroidery (from *kantha* stitch to *banjara* mirror work and intricate *zardosi*), folk painting, tailoring, hand block and screen printing, a variety of wood products (especially toys and games), leather products and products made from tamarind seed powder.

Our beneficiaries are socio-economically underprivileged sections of Indian society, from persons with intellectual disability or women rescued from a life of trafficking and abuse to tribal and rural women with limited avenues to earn a sustained source of income. We provide support



Pen stand in tamarind seed paste and saw dust made in Cherial village, Telangana © Craftizen Foundation

across the crafts value chain, from skills development to design, production and marketing. For all of these communities, craft-based skills may be adjusted to their ability and motor skills. Craft activities offer the chance of sustained income, with the flexibility to work from home.

Craftizen Foundation also supports makers in design development to suit evolving markets, finding tools and equipment, supply chain management, sales, marketing, and provides working capital support. In India, there is, overall, a lack of consistent governmental support targeting long-term impact. Several schemes are launched across multiple government departments, but artisans mostly need the help of civil society organisations to avail themselves of these benefits. Craftizen Foundation works with the Indian government in a limited capacity. It has been easier for us to work with the private sector, particularly with the corporate sector to mobilise grants through the corporate social responsibility programmes.

### 3. How do you approach environmental issues in your actions with artisans?

Artisans are aware of the advantages of traditional practices, which makes the handicraft sector one of the most energy-efficient and least harmful to the environment. However, artisanal manufacturing, natural dye/azo-free dye use and sustainably-sourced natural materials are costly.

**Oftentimes, customers cannot pay the higher price associated with these processes and materials, which makes the artisans switch to cheaper alternatives.**

At Craftizen Foundation, we have developed a significant livelihood initiative called Green Skilling to create innovative handicraft products made from discarded materials, such as flowers from temples and weddings converted into colours for the Holi festival, paper-dust from paper mills turned into festive gifts and home decor items, and fabric leftovers from tailoring units and garment factories to make textile accessories. So far, we have reused 35,000 kg of discarded raw materials. We also collect silk thread waste to design contemporary jewellery and single-use household plastic to make corporate gifts and personal accessories.

*Answers have been edited for concision and clarity.*

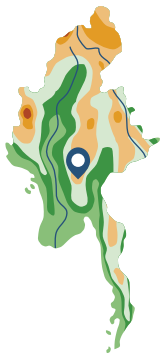




Sorting flowers to make colours for the Holi festival © Craftizen Foundation



Decorative coasters made of paper dust © Craftizen Foundation



# TURQUOISE MOUNTAIN

FOUNDED: 2006

FOCUS: JEWELRY AND TEXTILE CRAFTS

WHERE: MYANMAR (WITH HEADQUARTERS IN SCOTLAND)

MORE INFORMATION: [HTTPS://WWW.TURQUOISEMOUNTAIN.ORG/MYANMAR](https://www.turquoisemountain.org/myanmar)



Hand-crafted jewellery from Yangon © Turquoise Mountain

## An international charity set in locality

Turquoise Mountain is a non-profit organisation based in Scotland that operates in Afghanistan, Jordan, Saudi Arabia and Myanmar to support historic buildings and local crafts. The charity's original focus was Afghanistan as it was first founded in 2006 by HRH Charles, Prince of Wales, with former President of Afghanistan Hamid Karzai. However, it is an interesting example for this guide, as Turquoise Mountain's strategies have showcased the commercial viability of craftsmanship in Myanmar.

This non-profit organisation advocates for leading by example: by investing in skills development and heritage preservation to bring awareness to the richness of Myanmar's material culture and heritage. To do so, Turquoise Mountain connects artisans to international markets by promoting quality

products that are true to Myanmar's diverse cultural identity. It also develops custom collections with international designers, such as with UK jewellery designer Pippa Small. Specific efforts are put in place to implement vocational skills training, product development, marketing and responsible sourcing. The goal is to increase awareness about the production capacities of makers in Myanmar and the variety of styles and techniques they have to offer.

## Myanmar is a craft country

Myanmar is a country counting over 135 ethnic groups mastering a rich diversity of artisanal know-how. It is known, among others, for its wave-like colourful pattern called *acheik* from Mandalay, backstrap-loom woven textiles from the ethnic Chin, the finest lotus silk pieces from the Inle Lake, goldsmithing, and lacquerware from Bagan.





Handwoven textiles in rich colour palettes and motifs © Turquoise Mountain



Textile practices remain a cottage industry, which is especially prominent in rural areas, practiced by women and transmitted through family lineages among ethnic groups such as the Chin, Shan, Mon, Kachin, Rakhine and Karenni, who the Turquoise Mountain mostly work with. The population involved in textile production—including weavers working in companies and informally alongside farming is about 1 million people in a country of 54 million.

Turquoise Mountain collaborates with approximately 400 weavers across six regions. In the Chin State, silk used to be an important crop that was nearly destroyed in the 2010s. Silk, as well as cotton, are now imported from India. To revive this know-how, Turquoise Mountain has implemented a training programme in which older experienced silk weavers train younger recruits to produce a range of home textiles for a hotel in Yangon. The charity is now also turning to natural dyes training. During the COVID-19 pandemic, a small dye yard was planted outside Yangon and used by weavers.

Gold remains a minor activity that involves only nine talented goldsmiths in Yangon, all coming from Ramree Island in the Southern Rakhine State.

#### Supporting artisans in challenging times

With the COVID-19 pandemic and political situation in Myanmar, craftspeople need technical support. Local demand for crafts remains low. Tourism, a major driver for handicraft production in Myanmar, may take years to resume. As a result, Turquoise Mountain has further invested in developing new export markets. The organisation acts as an intermediary between international buyers and local weavers to ensure financial transactions can take place safely.

As a commitment to Myanmar's diverse cultural heritage, 50 textile patterns have been carefully selected to be presented in an online catalogue aimed at potential international buyers. The patterns were chosen for their cultural significance linked to the belief systems of these local communities.

A female weaver inserting colourful threads onto the loom © Turquoise Mountain





*Pantain* is the art of gold and silversmithing © Turquoise Mountain

Finally, the charity aims to improve sustainability through the whole value chain, dealing especially with wastewater and water management issues. Turquoise Mountain is working with the NGO Label Step to set standards and implement Fair Trade certification for the workshops and weavers. This label ambitiously addresses the social and environmental aspects of weavers' work conditions, to optimise every step of the production chain from dyeing to weaving, and, eventually, fibre processing.

# EDRIC ONG



FOUNDED: 1986

FOCUS: TEXTILES AND BASKETRY

WHERE: SARAWAK, BORNEO, MALAYSIA

MORE INFORMATION: [HTTPS://WWW.EDRICONG.COM](https://www.edricong.com)



Edric Ong with spectacular Iban *pua kumbu* textiles © Edric Ong

## An advocate for Sarawak crafts and natural resources

Edric Ong, designer and architect, founded the EO-EDRIC ONG label in 1986. He has continuously worked with artisans of Sarawak, on the island of Borneo, East Malaysia, and has pioneered handmade products with a twist—from textiles, basketry and ceramics to wood and stone. He is also known for designing the Sarawak Cultural Village and the Kuching International Airport.

An active advocate for local arts and crafts, Ong is the lead advisor and former President of Society Atelier Sarawak in Kuching, which implements events, workshops and exhibitions, and publishes books on textile arts made by the Iban people of Sarawak. Through this organisation, he has established the World Eco-Fiber and Textile (WEFT) Network to promote the use of natural fibres

and dyes through international biennial conferences. In 2019, Kuching was awarded the title of World Crafts City for Crafts from World Crafts Council International.

## Representing indigenous groups

A total of 26 indigenous groups lives in Sarawak, with the Iban and the Bidayuh people as the largest ethnic communities.<sup>15</sup> Through his label, Edric Ong has collaborated with master artisans from various groups on a range of products, working with the Iban on textiles and basketry, the Bidayuh on bamboo and wood carving, and the Penan on basketry and mats. Iban people speak their own language and live in communal longhouses called *rumah panjang*. Weaving has remained an essential practice for women and a key mode of expression of their cultural identity. They make *Pua kumbu*, which means ‘blanket’ or ‘to cover’,

<sup>15</sup> “Indigenous Peoples and Ethnic Minorities in Sarawak,” Minority Rights Group International, last modified January 2018, <https://minorityrights.org/minorities/indigenous-peoples-and-ethnic-minorities-in-sarawak/>.





Crafting basketry © Edric Ong

an elaborate *warp ikat* textile woven on a backstrap loom used for ceremonial rituals. Iban women use a cotton called *taya*, natural dyes and mordants that are native to Borneo's rainforests. The legend says that figurative motifs, such as *Gajah Meram* ('brooding elephant'), and *Meligai* ('shrine'), appear in the weavers' dreams as messages from the ancestors. Working closely with a group of Iban women, Ong has designed collections of eco-textiles, scarves and clothes for men and women in silk, cotton and natural dyes. He also sells his products in galleries and shops outside Kuching, in Malaysia, Singapore, Thailand, Korea and Japan.

#### Basketry from the rainforest

The Penan are an indigenous group of hunter-gatherers known for leading a nomadic lifestyle in the jungle. Their population in Borneo is about 10,000. The jungle was an essential ecosystem in which Penan people would collect rattan fibres to create fine examples of baskets, bags and hats. These groups are the direct victims

of the deforestation caused by logging and palm oil plantations. Most of the Penan people now live in settled communities and survive by farming on small lots. In spite of the reduction of their land, they still rely on the forest for their sustenance. By integrating Penan handicrafts in his collections, Edric Ong supports them with a regular source of income.

The designer also develops unique plaited hats in vegetal fibres produced by the Lun Bawang people who live in the Bakelalan Highlands of Sarawak. With a traditional conical shape and double layers of reed and palm, these accessories are energised by colourful decorative stitches in yellow, green and red, which give it a contemporary look.

Through advocacy and co-design, Edric Ong brings the ethnic groups of Sarawak to the forefront, compellingly demonstrating how these ancestral indigenous practices remain vectors of creativity and sustainability.





# IFUGAO NATION / SAVE THE IFUGAO TERRACES MOVEMENT (SITMo)

FOUNDED: 1999

FOCUS: COMMUNITY, HERITAGE, AND LAND CONSERVATION

WHERE: KIANGAN, IFUGAO, PHILIPPINES

MORE INFORMATION: [HTTPS://IFUGAONATION.COM](https://ifugaonation.com)

View of the Ifugao Rice Terraces © SITMo



### The Ifugao Rice Terraces: a unique eco-system

The Ifugao Rice Terraces are located in the Philippine Cordilleras on the island of Luzon, in Ifugao Province, Philippines. Comprised of five sites, since 1995 the Rice Terraces have been listed as World Heritage in the cultural landscape by UNESCO.

Archaeological research shows that they were built in the early modern era in response to Spanish colonisation, as developing a wet-rice agriculture also strengthened their unity as a culture and political system. Relying on complex irrigation and farming systems, these mountain terraces, recognisable for their steep contours, were carved into the mountains of Banaue. A showcase of human creativity and adaptability to environmental challenges, the Ifugao Rice Terraces are an 'enduring symbol of a people's resilience against nature's upheavals and resistance to colonial designs'.<sup>16</sup>

The Ifugao people have mastered a distinct way of life, living in small hamlets in the terraces. Their livelihood is directly built around wet-rice cultivation. They also grow sweet potatoes on hillside plots to increase their means of subsistence.

### Save the Ifugao Terraces Movement: combining nature and culture

Save the Ifugao Terraces Movement (SITMo) is a grassroots NGO based in Kiangan dedicated to the conservation of the Rice Terraces of the Philippine Cordillera and the people who closely depend on them. SITMo owes much of its success to its director's vision and ability to build local and international partnerships. Indeed, Marlon M. Martin, born and raised in the Ifugao community, actively contributes to disseminating knowledge on his culture, discussing issues of cultural ownership and the role of archaeology in heritage preservation in academic publications, and developing international projects in heritage preservation. In collaboration with anthropological archaeologist Stephen Acabado, SITMo has recently opened the Indigenous Peoples Education Center, a community-led space that aims to encourage the integration of Indigenous knowledge systems into formal education in the Philippines, a first in the northern Philippine highlands.

Moreover, to promote local forms of intangible and tangible heritage, the NGO has focused on expanding eco-tourism programmes in the region, integrating a

network of actors who all play a part in Ifugao's cultural and natural biodiversity. The programme thus includes farmers, weavers and tour guides, but also farmer and home-stay organisations, local schools and local government representatives.

### Interweaving nature and culture with Ifugao Nation

To face the environmental, social and economic challenges encountered in the Ifugao Rice Terraces, SITMo has expanded its actions in the handicraft sector, especially weaving. The NGO has launched a social enterprise called Ifugao Nation, which supports Kiangan-based indigenous weaving groups in producing, selling and exhibiting traditional textiles.

Historically, the *lamma* tunic was comprised of two panels of cloth woven from raw cotton (*kapo*) or bast fibre (*kinâge*), worn by women in the rice fields to protect them from the sun. Women started to cover their upper bodies with this tunic in the 1900s, due to the influence of Western missionaries. In the present day, the original *lamma* has changed into a more intricate blouse made of cotton or polyester featuring decorative woven patterns in ikat (*binobodan*), decorative stitches (*kutilap*) and fringes.<sup>17</sup>

A woman on her backstrap loom weaving at home © SITMo



<sup>16</sup> Marlon M. Martin, "The Rice Terraces of Ifugao Province, Philippines," *Journal of World Heritage Studies* (2017): 3.

<sup>17</sup> "The Ifugao Woman's Lamma," Ifugao Nation, last modified July 8, 2021, <https://ifugaonation.com/blogs/news/the-ifugao-womans-lamma>.





A female weaver from Kiangon supported by Ifugao Nation © SITMo

With local weavers, Ifugao Nation develops colourful collections of cotton garments, such as tunics, wraps, skirts and scarves, which speak to these ancestral forms of local dress. This initiative participates in SITMo's conservation effort to increase economic opportunities for local communities while sharing the beauty and values of their culture with a broader audience.



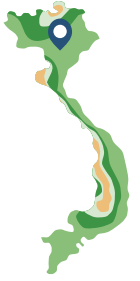


Lily pink *Kinattibanglan* (fernwood diamond-shaped motif) ikat scarf © Ifugao Nation



Red twill and black/white striped *Tiniktiku* (zigzag) scarf © Ifugao Nation

# KILOMET 109



FOUNDED: 2010  
FOCUS: SLOW ECO-FASHION, ARTISANAL TEXTILES  
WHERE: HANOI, VIETNAM  
MORE INFORMATION: [HTTPS://WWW.KILOMET109.COM](https://www.kilomet109.com)



Experimenting with orange rock dye on cotton © Kilomet 109

## Creativity from craft communities

Kilomet 109 was founded by Vietnamese designer and entrepreneur Thao Vu to share a unique vision of her country's textile heritage with a contemporary twist. Thao grew up in Dong Hung, a small town in Thai Binh province in northeast Viet Nam. While her design studio is based in Hanoi, she aims to bring Viet Nam's 'incredibly deep and diverse history of handmade textiles, costume, and fashion' to a wider audience, finding inspiration in the country's 54 ethnic groups. Currently, Kilomet 109 collaborates with five different artisan communities, each representing an ethnic group located in some of the most remote areas of Viet Nam, including Nung An and Hmong communities in northern Viet Nam, Tai communities in the central highlands, and Khmer villages in the Mekong delta.

Passionate about artisanal processes, Thao has travelled all over the country to meet these communities. She started working with specific groups in 2011 as a way to preserve their crafts as much as to push them forward. With each new collection, she builds upon these long-standing relationships to introduce new techniques, materials and textile processes. In her latest collections, the designer has specifically explored the vibrant power of natural dyes: by developing the potential of the ebony fruit from the Mekong Delta to create rich black colours and silver greys, by using the resin from the Lac insect, indigenous to the northwest region of Viet Nam, for the red colour, and by using local tree barks to obtain a rich palette of yellow hues.





Harvesting indigo in Cao Bằng, northern Vietnam © Kilomet 109

### Sustainability and artisanal wisdom

To the question ‘What is sustainability to you?’ Thao stresses: ‘Sustainability is not only about how environmentally friendly our brand’s production process is. It is also about fair labour practices, economic and environmental justice, community development, and encouraging the preservation of traditional craft practices through design innovation’. She adds: ‘For many communities in Viet Nam, what we now call “sustainable fashion” has always been an integral component of traditional village life’. As a result, Kilomet 109 has implemented a fully self-contained production system relying exclusively on locally sourced materials, age-old techniques and homegrown eco-friendly dyes. Through this hyper-localised approach, textile production remains in the hands of artisan communities, thus ensuring full transparency at every step of the chain.

Design and garment production all happen at the Hanoi studio. To develop small-scale lines and limited editions, Thao relies on a small team of experienced dressmakers, comprised of four seamstresses, pattern

cutters and embroiderers who add a couture touch to each piece.

### Hands-on design ethos

As a designer and maker, Thao is highly involved in the production process, spending extended periods of time with the artisan groups throughout the year. She makes a point of personally experimenting with new techniques, motifs and effects, even participating in indigo harvesting and foraging for yam roots in the tropical forest. Her project goes beyond simply tapping into local know-how, instead she builds on a fashion concept through her constant dialogue with the weavers and dyers. Tunics showcasing batik geometric textiles made by Blue Hmong people and waxed jackets in calendered hemp are testaments to a dedicated and embedded approach that honours the work of these communities. Kilomet 109 is successful in bringing together functional refinement, design and ancestral textile crafts, as a way to explore Viet Nam’s multi-ethnic identities from a contemporary perspective.



Fermentation process of indigo dye, Cao Bằng, northern Vietnam © Kilomet 109





(L) Calendared indigo jacket for men, collection Miên, 2020 © Kilomet 109  
(R) Model Anh made in rock-dyed fabrics © Kilomet 109





Supporting Sustainability

MAKERS

AUTONOMY

COMMUNITY

# Artisanal Production Cycle

MATERIALS

SOURCING

Local/Natural

Renewable

Upcycle

MAKING

PROCESSES

Reuse

Reduce

Share/Collaborate

PRODUCT

Environmental Footprint



Resources  
Depletion



Carbon  
Emissions



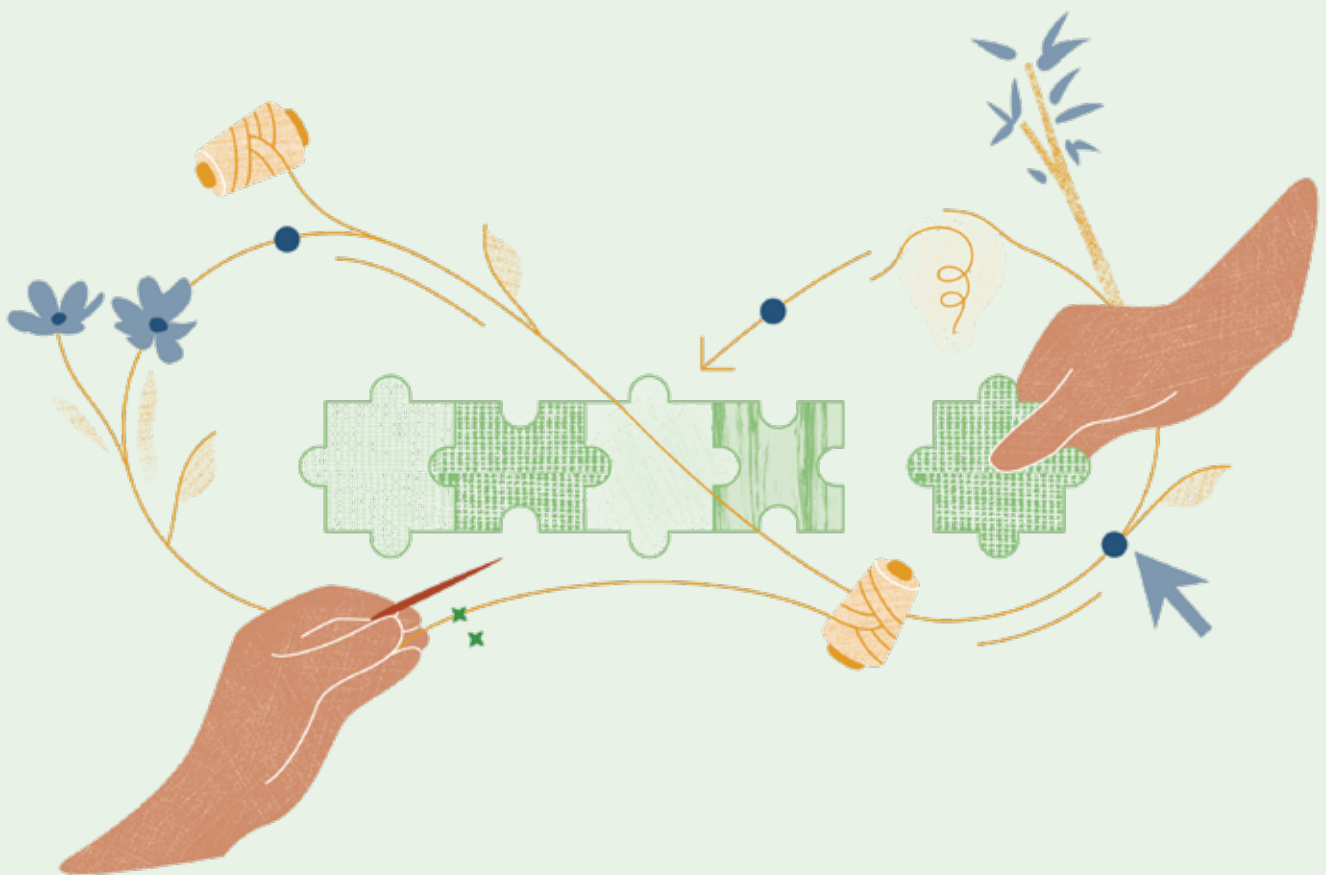
Waste  
Water



Health  
& Safety



# Innovative Making



Innovation is often considered the prerogative of research and development departments, with a heavy focus on industrial, technological, and digital production, more than the handicraft sector. Asia is fast growing economically and demographically, which makes sustainable development all the more crucial when facing the tremendous challenges brought about by climate change, water scarcity and pollution, and the effects of the COVID-19 pandemic. All countries in the Asian region have implemented specific policies for waste management yet these are yielding uneven results.

For instance, most Southeast Asian countries have endorsed basic acts on environment regulation, as well as regulations on air, water and waste management. However, they differ significantly in their broader strategies designed to address environmental issues. For example, Cambodia and Myanmar both lack large-scale recycling programmes for municipal waste. In those countries, the waste collection mostly remains in the hands of the informal sector, except in major cities.<sup>18</sup> There is an overall need to improve combined efforts in waste management systems on local, national and regional levels following the 3Rs of reduce, reuse, and recycle.

Where do crafts fit into this conversation? And how could a range of craft-centric solutions and strategies fill gaps and inspire further action towards a sustainable future? Through a selection of case studies in South Korea, India, Bali, Japan and Hong Kong, this chapter exemplifies the vitality of entrepreneurial and artistic craft initiatives across Asia.

Commonly, artisanal practices are positioned in complete opposition to industrial processes, while in reality, both sectors are often entangled and interdependent, especially when it comes to sourcing material. In Chapter 1, Dr Wuthigrai Siriphon explained that, in Thailand, weavers tend to purchase industrial and chemically dyed yarn from local shops for cost reasons and that they would be interested in using locally produced fibres if they were more affordable. There are opportunities for crafts to benefit from industrial innovations, and conversely, for the industry to reintegrate artisanal skills and slower modes of production.

This chapter introduces more structured models of social entrepreneurship, start-ups and design studios, in which engineering methods and new technologies are favoured. In this fine line between crafts and design, each project still emphasises a return to objects' and materials' primary purpose, recentering on the inherent relationship between people and the resources

directly available to them. Investing in the advanced potentialities offered by bamboo construction, Ibuku, a Bali-based architectural design agency, creates work in the junction between eco-conception, 3D visualisation and craftsmanship. Manufacturers may also embrace ethical practices in terms of sourcing, partnerships and processes that reconnect them with the original value and function of materials, as with The Billie System in Hong Kong and its water-free textile upcycling facility that produces colour-sorted yarn.

Working sustainably is often considered expensive for small to medium sized businesses. However, the projects presented in this chapter have chosen low-impact, creative methods to reduce their carbon footprint, reuse discarded materials and opt for natural resources. Flower waste, plastic, bamboo, food scraps and textile off-cuts all become attractive means to energise the handicraft sector in Asia. Craft-led innovators such as Kosuke Araki, for example, find inspiration in the careful observation of their local surroundings and community needs, seeking to emphasise existing skills to enact targeted change from the ground up.

Finally, supply chains are more sustainable when the same value is applied to each aspect and actor of the chain, from the supplier, maker and designer to the manufacturer and consumer. The graphic chart addresses the major challenge of how to handle plastic pollution, as Asian countries increasingly use single-use plastics and generate considerable amounts of waste. The Indonesian-based initiative XSPProject, which appears on the graph, illustrates the holistic convergence between safe working conditions, social empowerment and eco-conscious approaches, by developing a range of accessories out of upcycled non-biodegradable flexible plastic, which in turn supports local trash pickers. In summary, sustainable innovation works best in synergy with people, know-how and resources.

<sup>18</sup> United Nations Environment Programme, *Summary Report: Waste Management in Asian Countries*, 2017, 24-32.

# OMA Space

# JANG JIU

INTERVIEW

FOUNDED: 2010  
FOCUS: HEMP AND NATURAL TEXTILE  
MATERIAL EXPERIMENTS  
WHERE: SEOUL, SOUTH KOREA  
MORE INFORMATION: [HTTPS://OMASPACE.COM](https://omaspace.com)



A ying and yang combination of fibres © Oma Space







OMA Space is a textile creative studio founded by Korean artist Jang Jiu in 2010. Born in 1979 in Seoul, she studied fashion and accessory design at the London College of Fashion, University of the Arts in London. She continued to work as a textile designer for Michio Koshino and Alexander McQueen before launching her concept OMA Space and returning to South Korea in 2012. Jang Jiu was soon joined by Daniel Kapelian (media artist), Kyoung-young Gil (weaver and designer) and Kim Sejin (media artist) to strengthen and expand OMA Space’s forward-thinking inspirational approach.

The studio has developed a network of partnerships with dye masters and weavers primarily based in Asia, working specifically with natural fibres such as handspun cotton, silk, and ebony and indigo dyes. Revitalising domestic hemp know-how—an ancient fibre in Korea with numerous environmental benefits—has become the core focus of the studio’s main initiative Hemp Movement for the past few years.

Since 2015, building on its experience with artisanal textiles and fashion, OMA Space has also opened new directions in art and design by incorporating textiles in immersive and sensory large-scale installations. Benefitting from the COVID-19 pandemic’s efficient management in South Korea, the prolific collective managed to produce major shows and installations in recent years, including at the Korean Craft Museum in Cheonju City in 2020 and the Venice Biennale of Architecture in 2021 with the Hemp Movement.



(L) Pouch made of locally-grown hemp © Oma Space

(R) Dyed and undyed hemp skirt for the *Techne +* exhibition, 2019 © Oma Space

*For the Creative Resource Guide, OMA Space shares its unique philosophy around crafts, natural materials, and technology.*

### 1. What is OMA Space’s guiding principle for art, craft and textiles?

OMA’s core team is comprised of four people—Jang Jiu, Gil Kyoung-young, Kim Sejin and Daniel Kapelian—and we have our workshop and showroom in Seoul. We also collaborate with a Seoul-based tech company called *c2arttechnolozy* for all the engineering of our installations.

Our work is marked by a distinct philosophy and ethical approach to contemporary crafts. Our founder Jang Jiu has become one of the most innovative contemporary textile artists in South Korea, developing a singular approach bound by poetry and Zen spirituality. She elevates fashion by creating one-off couture pieces that ultimately become art forms. Moreover, OMA Space has engaged in experimental work, blending tradition with innovation based on the use of both primitive techniques and digital tools, that emphasises the sustainable coexistence between

humanity and nature throughout its design process. Advocating a return to nature by embodying both Eastern and Western sensibilities, the studio produces work spanning the boundaries of contemporary art and design, immersive installations and garment production.

## 2. What role do natural materials play in your approach?

Natural materials sit at the core of all our projects. We work with a network of workshops and independent makers based in Korea, Thailand and Lao PDR to source our unique materials. We believe in the organic effects provided by such materials. For instance, the indigo blue dye possesses numerous virtues, especially medicinal ones for skin treatments.

Through material innovation and artistic expression, OMA Space hopes to answer issues of habitat and the survival of all living things on earth, including humans, by presenting alternatives that embrace a more sustainable life.

## 3. What is the Hemp Movement project?

Hemp has been part of Korean culture for centuries, and it was an essential component of traditional craft practices to make textiles, paper and objects. Since the 1980s, this long-lasting know-how has nearly vanished and only a small number of producers are currently working with this material. At OMA Space, we are calling for a revival of the Korean hemp tradition in contemporary forms. The 'HEMP BAG' series is part of the Hemp Movement project that started in 2020. This initiative promotes the preservation of hemp heritage and cultivation by revitalising this activity within local communities. The hemp bag represents one of the first attempts to develop a creative design product made from this material in Korea. For this project, led by Jang Jiu, hemp was cultivated and harvested by Lee Chan-Sik and woven by a community in Bo-sung province. The bag series was designed and made by Kyoung-young Gil. We believe hemp is a plant that can play a major role in modern society. It is recognised as a cutting-edge material that is highly sustainable for the future and which can address issues of climate change.

*Answers have been edited for concision and clarity.*



Long Greek robe in natural dyes  
© Oma Space





# HOLYWASTE

FOUNDED: 2018  
FOCUS: FLOWER WASTE UPCYCLING  
WHERE: HYDERABAD, INDIA  
MORE INFORMATION: [HTTPS://OORVI.ORG/HOLY-WASTE/](https://oorvi.org/holy-waste/)



Tackling flower waste in Hyderabad © Holywaste / Oorvi

## Tackling flower waste

A fragrant and colourful delight, fresh flowers accompany all parts of daily and ritual life in India. Every day, worshippers bring lotus, lilies and chrysanthemums to the temple to celebrate gods and goddesses in Hindu religious ceremonies. At weddings, the bride and groom traditionally exchange garlands of roses, jasmine and marigolds to mark their vows, while other fresh bouquets lavishly adorn tables to welcome guests. In Ayurveda, butterfly peas, roses, hibiscus and other flowers make excellent medicinal balms and supplements. These spiritual and festive practices that are so widespread in Indian culture also carry a staggering environmental cost. Yearly, about eight million tons of fresh flowers used as ceremonial offerings are discarded in the streets and dumped in rivers, releasing massive quantities of toxic pesticides into waterways and landfills.<sup>19</sup>

<sup>19</sup> "A Colourful Solution to Flower Waste," Story, UN Environment Programme, February 8, 2019 <https://www.unep.org/news-and-stories/story/colourful-solution-flower-waste>

With targeted actions, HolyWaste aims to tackle flower waste in the southern Indian city of Hyderabad. Of the estimated 7,000 metric tons of post-consumer waste generated daily in this city of 10 million people, flowers represent about 14 per cent. HolyWaste is the flagship project developed by Oorvi Sustainable Concepts, a start-up founded by entrepreneurs Maya Vivek and Minal Dalmia to implement sustainably driven activities with high social impact.

## The FloRejuvenation process

Inspired by the Kanpur-based project Help Us Green, the two motivated friends in their 40s began addressing the issue of floral waste in November 2018, when they started working with Skandagiri temple in Secunderabad on the outskirts of Hyderabad. By 2020 HolyWaste expanded operations to 40 places of worship, one market and two flower vendor



Sustainable products made of flower petals and extracts with vegetable oils © Holywaste / Oorvi

zones. Flowers are sourced from several contributors via bins installed at selected sites all over the city, as well as directly from flower waste collectors. At the moment, the organisation diverts about 200 kilograms of flowers daily from landfills, a modest but consistent number with the potential to expand. The company continues to extend partnerships with temples, decorators and vendors in the area to compensate for the lack of waste management provided by the city.

This initiative is part of the entrepreneur incubator a-IDEA (Association for Innovation Development of Entrepreneurship in Agriculture) offered by the ICAR-National Academy of Agricultural Research Management, Hyderabad. HolyWaste has also won the Best Green Startup award under Eco Ideas by Green India Awards 2019.

#### **An artisanal eco-friendly product line**

Once the discarded flowers are picked up from suppliers and assessed, they are handled by a rural women community in Gundlapochampally village in Kompally,

an hour away from Hyderabad. About 10 women work in the facility who process the flowers through several stages, from segregating, sorting, cleaning, drying and composting to the artisanal production of soaps and agarbattis (incense sticks). Each part of the flower goes in different products: petals are turned into a powder to make incense sticks and coloured pigments for the Holi festival, and the stalk and bulb feed the compost. It takes 45 to 60 days to make compost out of waste flowers. Incense is made from powdered flower waste mixed with water and enriched with natural essential oils. Soaps are also a specialty. Entirely handmade, these natural products combine flower petals and extracts with vegetable oils. To increase their sales and sustain their mission to reduce flower waste, HolyWaste plan to launch an online shop that will allow the company to showcase their diverse range of eco-friendly upcycled products and reach a larger customer base.





Fabrication of incense sticks © Holywaste / Oorvi



Women community in Gundlapochampally village in Kompally © Holywaste / Oorvi





Sorting out different categories of flowers © Holywaste / Oorvi



Agarbattis (incense sticks)  
© Holywaste / Oorvi

# IBUKU

FOUNDED: 2010  
FOCUS: BAMBOO ARCHITECTURE AND FURNITURE  
WHERE: BADUNG, BALI, INDONESIA  
MORE INFORMATION: [HTTP://IBUKU.COM](http://ibuku.com)



THE ARC © IBUKU Studio

## Pioneering bamboo structures

Ibuku is the brainchild of Elora Hardy, Canadian designer and daughter of jewellery designer John Hardy, who co-founded the first Green School in Bali in 2007 with his wife Cynthia. This alternative school aims to provide eco-conscious-driven education, both within the curriculum and through the learning experience of being surrounded by nature. The Green School's pioneering open-air campus was designed in a bamboo structure engineered by John Hardy himself, with the help of German builder Joerg Stamm and artist Aldo Landwehr.

After a career in fashion in the United States, Elora Hardy decided to return to Bali, where she was raised, to continue and expand her father's work with bamboo construction and craftsmanship. In 2010, Ibuku was launched with a team of forward-thinking Indonesian designers and architects. Since then, the

design studio has produced hundreds of spectacular bamboo constructions on the island—homes, hotels, and institutions—including 12 unique properties that form the Green Village, a private housing community located near the Green School. Using to-scale models and 3D software technologies, each house is structurally stable and durable, designed to adjust to the land's requirements and to create a limited impact on the environment.

## Bamboo: a magic material?

The Environmental Bamboo Foundation has found that in Indonesia, forest fires, depleted agricultural lands and the expansion of cultivated areas have caused the degradation of nearly 24 million hectares of forests. This environmental issue also affects communities living in forest fringe areas that rely heavily on local natural resources for their livelihood.<sup>20</sup>

<sup>20</sup> "Story," Environmental Bamboo Foundation, <https://www.bambuvillage.org/story/>





THE ARC, drone view © Sasha de Laage for IBUKU Studio

When grown appropriately, bamboo becomes a renewable resource that is harvested indefinitely without the need for replanting seeds. Bamboo absorbs CO<sub>2</sub> and releases 35 per cent more oxygen than other tree species. Moreover, bamboo trees grow fast. They reach up to thirty meters tall and twenty centimeters in diameter. Therefore, their crop generates a higher material yield in comparison to timber.

Ibuku carefully selects mature clumps of bamboo from the islands of Bali and Java, encouraging farmers to let the younger bamboo shoots reach maturity before being harvested. Over a hundred species grow in the country. Ibuku particularly favors seven local species for their strength, size, colors and durability. They include the *Dendrocalamus Asper* (*Bambu Petung*), suitable for construction due to its height, strength and dependability, and the *Dendrocalamus Asper Niger* (*Bambu Petung Hitam*), unique for its black tint and decorative touch.

However, there are some challenges with bamboo; untreated bamboo buildings are

particularly vulnerable to beetle and termite infestations as well as fungal attacks. In response, Ibuku has ensured that all raw materials are cured with boron, a solution made of borax and boric acid, which is most effective for indoor spaces and less toxic than other wood preservatives. This solution is reused, following a closed-loop process, to limit waste and prevent its release into the environment.

#### Of the importance of Balinese ancestral crafts

From pole to pulp and paper, bamboo is a material that is deeply rooted in Balinese people's daily environment. Every year, farmers with bamboo crops on their land harvest them for personal use and sell them as poles, food or produce handmade artefacts for a domestic clientele. Beyond the economic value of this resource, bamboo plays a central role in Balinese culture, accompanying rural communities from birth to death.<sup>21</sup>

<sup>21</sup> Wawan Sujarwo, "Bamboo Resources, Cultural Values, and Ex-Situ Conservation in Bali, Indonesia," *Reinwardtia* 17 (2018, 1): 67-75



While Ibuku is known for its innovative buildings defined by unique curvilinear bamboo structures, bridges and basket-inspired towers, the company actively collaborates with local teams of skilled artisans on the island in order to incorporate traditional techniques. These craftsmen successfully integrate indigenous knowledge to bring to life Ibuku's original architectural designs. Custom furniture is fully handcrafted using a combination of carpentry and bamboo making skills, to produce beds, chairs and tables.

Echo House Green Village © IBUKU Studio





(L) Inside THE ARC © IBUKU Studio



(R) Working with 3-D miniature models © IBUKU Studio



# KOSUKE ARAKI

FOUNDED: 2013  
FOCUS: DESIGN, TABLEWARE  
WHERE: TOKYO, JAPAN  
MORE INFORMATION: [HTTPS://WWW.KOSUKE-ARAKI.COM](https://www.kosuke-araki.com)



Waste record from the designer's kitchen, week 2/ March 2013 © Kosuke Araki

## Waste not want not

According to the United Nations, 'nearly half of all fruit and vegetables produced globally are wasted each year'.<sup>22</sup> Food is discarded at the farm, industrial, retail and household level, leading to an overwhelming waste of resources that also contributes to mass disposal in landfills, soil pollution and greenhouse gas emissions. In Asia, data shows that China and India are the largest waste producers, with 50 million metric tons of cereal post-harvest wasted in China yearly and 23 million wasted in India. However, Japan is no exception to this waste problem, with an estimate of 5.7 million tons of waste recorded for the year 2019. In a smaller country like Singapore, the National Environment Agency reported that in 2020,

food waste accounted for 665,000 metric tons, about 11 per cent of the total waste generated yearly.<sup>23</sup>

With his pathbreaking experiments, Japanese designer Kosuke Araki questions users' relationship to daily consumption in the face of mass production, overproduction and waste. Born in Geneva, Switzerland, and now based in Tokyo, Kosuke also spent years in London at the Royal College of Art where he completed an MA degree in the Design Products department. In 2013, for his thesis project, he developed Food Waste Ware, a line of tableware addressing the issue of food waste. Documenting the amount of leftover food from a selection of local markets and shops in London, he produced a series of bowls with charcoal

<sup>22</sup> "Worldwide Food Waste," UN Environment Programme, <https://www.unep.org/thinkeatsave/get-informed/worldwide-food-waste>

<sup>23</sup> "3R Programmes and Resources: Food Waste Management," Singapore National Environment Agency, <https://www.nea.gov.sg/our-services/waste-management/3r-programmes-and-resources/food-waste-management>





Anima, bowl, plate, vase, cup and coaster © Kosuke Araki

from carbonised vegetable waste mixed with glue extracted from animal bones and skin sourced from a butcher shop.

### The old with the new

At the intersection of design and craftsmanship, the Anima project continues Kosuke's experiment at the Royal College of Art to design a one-of-a-kind tableware and a tea set. The designer collected the non-edible food waste he had personally produced over two years, including peels, shells and bones, and turned them into a non-carbonised powder. This base material is then blended with animal-based glue and cast in custom-made molds. Each piece is finished with an adhesive layer of urushi, the Japanese lacquer tree sap.<sup>7</sup> Lacquering is one of Japan's finest crafts, an ancestral technique dating back to the Jōmon period (approx. 14,000–300 BCE). Beyond decorating the pieces with a unique sheen, the varnish also provides a strengthening cover that protects against water and corrosion. Historically, urushi was often mixed with rice, soybean curd or egg white to give the lacquer a stickier consistency and textured finish, an aesthetic Kosuke evokes in his tableware. Pieces of this remarkable collection have been acquired by the Victoria and Albert Museum in London and MoMA in New York for their forward-thinking and practical approach.

### Eat your greens

In Asia, food waste is mostly upcycled into new edible products, bioplastics, animal feeds and fertilisers. For instance, Crust Group is a Singapore-based social enterprise making beer out of bread surplus and fruit peels. However, design and craft-led developments tackling this issue are nearly nonexistent. What



Anima, espresso cup and saucer © Kosuke Araki

makes Kosuke Araki's work so compelling is that his exploration of natural processes and plant-based materials is inspired by Japanese culture. With a poetic approach, the designer gently urges consumers to pay more attention to their environmental footprint and habits, both individually and collectively. Drinking and dining using these these beautiful vessels made from the very source material they are designed to hold deeply challenges our relationship to waste, and they can be an inspiration to embrace a more circular food movement.

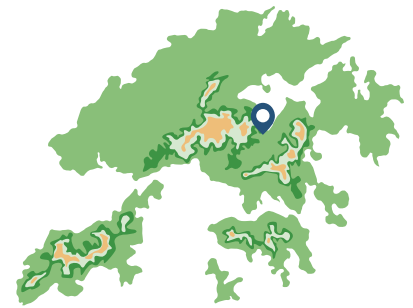
<sup>7</sup> See also Mio Heki's project in Chapter 1.

Collection of tableware and moulds © Masami Naruo





# THE BILLIE SYSTEM



FOUNDED: 2019  
FOCUS: TEXTILE WASTE UPCYCLING  
WHERE: TAI PO, HONG KONG SAR, CHINA  
MORE INFORMATION: [HTTPS://THEBILLIEUPCYCLING.COM](https://thebillieupcycling.com)



The Billie System process: fibre processing © The Billie System

## Promoting new ways of production

The Billie System is an initiative of Novetex Textiles—a yarn spinning company that was based in Zhuhai in south China for decades—in collaboration with the Hong Kong Research Institute of Textiles and Apparel (HKRITA). With long-lasting experience in yarn production, Novetex concentrated its efforts on reducing pre- and post-consumer textile waste from the Hong Kong area.<sup>24</sup> In 2018, the Hong Kong Environmental Protection Department found that 392 tons of textiles ended up in landfills each day (247 from domestic waste and 145 from commercial and industrial sources). From this number, only 6.2 per cent of textile waste was recovered and recycled.<sup>25</sup> Moreover, due to its extensive use of raw fibres, which requires land use and water

consumption, the fashion industry accounts for about 10 per cent of global greenhouse gas emissions. Providing upcycled quality threads for the textile industry, the Billie System project offers a scaled-up alternative to the production and sourcing of new industrial yarn, which could, in turn, supply artisanal textile makers as much as fashion manufacturers and brands.

## Waterless system and upcycled raw material

Recycling garments into fibre is not a new process. It often leads to lower value fibre production that necessitates massive amounts of water and potentially releases harmful chemical waste. The patented Billie System innovates with its waterless chemical-free technology, which processes up to three tons of discarded fabric per

<sup>24</sup> “Closing the Loop in the Fashion Industry: The Billie System by Novetex Textiles in Hong Kong,” Shared Value Initiative Hong Kong, <https://sharedvaluehk.org/fashion-upcycling-hong-kong-case-study/>

<sup>25</sup> Environmental Protection Department, Monitoring of Solid Waste in Hong Kong Waste Statistics for 2018, <https://www.wastereduction.gov.hk/sites/default/files/msw2018.pdf> [pdf]



(L) Obtaining raw fibre  
© The Billie System  
(R) Creating new yarn  
© The Billie System



day. Waste is collected from two sources: pre-consumer threads and excess items on one hand, and post-consumer regular fabrics and clothing discards on the other. Textile waste is first sanitised via ozone purification. Any material that cannot be recycled, such as zips and buttons, are carefully removed by hand. The remaining fabrics are then trimmed. Colours are automatically sorted into nine saturated hues to facilitate the recycling process before being broken down into fibres. Finally, the recycled fibres are processed into homogeneous slivers before being shipped to Novetex in mainland China, where they are spun into yarn.<sup>26</sup>

#### Effecting change on textile life cycles

Beyond fashion companies, Novetex has built partnerships with hotels and schools to collect and treat their linen, blankets and

uniforms for a simple processing fee, which, in turn, provides upcycled yarns to supply knitwear brands. Moreover, the company has developed different grades of yarn, in terms of fibre content and properties, to fit a growing demand. At the moment, Novetex collects slivers and still blends them with virgin materials to produce suitable quality yarn. Cotton and cashmere wool are the favoured fibres. While not fully self-sufficient in terms of raw material use, this production system significantly reduces environmental impact by limiting the demand for virgin fibre and decreasing greenhouse gas emissions. The Billie System has been recognised internationally and was distinguished by the Bronze prize in the 2019 Hong Kong Green Innovations Awards.

<sup>26</sup> Danica Lo, "Ronna Chao of Novetex Is Closing the Loop in Sustainable Fashion—Here's How," *Tatler*, August 01, 2019 <https://www.tatlerasia.com/the-scene/people-parties/ronna-chao-novetex-textiles-sustainable-fashion>

By increasing the attractiveness of upcycled fibres, the initiative encourages impactful synergies connecting waste-heavy industries, yarn spinners and fashion companies. Makers, small-scale workshops and low-impact producers across Hong Kong and mainland China could be more directly integrated within this cost-effective closed-loop process, thus furthering a holistic agenda to tackle textile overproduction and resources depletion.

Removing hardware from discarded garments © The Billie System







Fibre processing through machinery © The Billie System



# What to do with plastic waste?



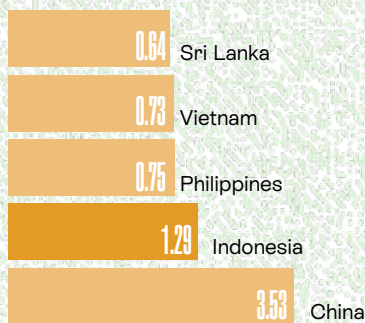
## Facts IN ASIA



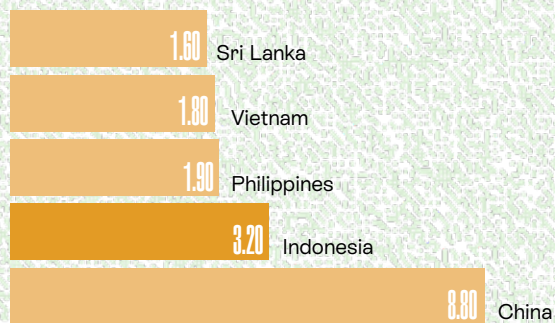
In 2021  
Thailand, Philippines and Malaysia  
more than 75% of the material value  
of recyclable plastic is lost (discarded  
rather than recycled)  
only 18 to 28% of recyclable plastic  
recovered and recycled

Philippines, Singapore, South Korea,  
Timor-Leste and Viet Nam  
endorsed a global agreement on  
ocean plastic pollution presented by  
the Alliance of Small Island States.

### PLASTIC DISCARDS IN GLOBAL WATERS



### MISMANAGED PLASTIC WASTE



LARGEST PLASTIC WASTE GENERATORS

\*Metric tonnes per year (2010)





## Causes

→ Lack of state support and synergies for improved waste management systems

→ 70 - 80% of all the marine plastic litter generated from land-based sources facing inefficient waste management

→ Increase in consumption of single-use plastics exacerbated with Covid-19 pandemic

→ Insufficient waste management infrastructure to meet the increasing amounts of plastic waste generated

# Inspiring Change Maker

## XSPROJECT

Launched in 2002, XSPROJECT is a non-profit foundation currently managed by Retno Hapsari supporting trash pickers and running health, education and training programs.



### COLLABORATORS

Trash pickers

Private companies donating their waste

### COLLECTION OF WASTE MATERIALS

Highway billboards

Advertising banners

Flags and

Auto upholstery

### PROCESS

Sorting, washing, and drying non-biodegradable flexible plastic

Pouches are sewn into colorful patchwork patterns to create larger pieces

Plastic bags are layered and fused together through heating to produce a durable new material

### PRODUCTS

Bags

Pouches

Accessories

## SOURCES

Robert Lee Hotz, Which Countries Create the Most Ocean Trash?, *The Wall Street Journal*, February 12, 2015  
 Accessed March 1, 2022  
<https://www.wsj.com/articles/which-countries-create-the-most-ocean-trash-1423767676>

World Bank,  
 Accessed March 1, 2022  
<https://blogs.worldbank.org/eastasiapacific/plastic-waste-growing-menace-and-wasted-opportunity>

Ecologic Institute, *A New Treaty on Plastic Pollution: Perspectives from Asia*, WWF: Switzerland, October 1, 2021.  
<https://www.ecologic.eu/sites/default/files/publication/2021/50049-A-New-Treaty-on-Plastic-Pollution-Perspectives-from-Asia.pdf>





**MUSEUMS,  
COLLABORATION &  
COMMUNITY:  
TWO PERSPECTIVES FROM  
SINGAPORE AND  
HONG KONG, CHINA**

# #SGFASHIONNOW @ ASIAN CIVILISATIONS MUSEUM: AN EXPERIMENTAL APPROACH TO CURATING CONTEMPORARY FASHION

BY KENNIE TING

DIRECTOR, ASIAN CIVILISATIONS MUSEUM AND PERANAKAN MUSEUM, SINGAPORE



#SGFASHIONNOW was presented in ACM's Contemporary Gallery, a space dedicated to presenting contemporary art installations or displays of contemporary fashion and design. The contemporary architecture of the space lends itself to more adventurous showcases.

In April 2020, following a multi-year refresh of its curatorial mission as well as each of its permanent galleries, the Asian Civilisations Museum (ACM) re-positioned itself as Singapore's National Museum of Asian Antiquities and Decorative Art. The new positioning built on an earlier shift in the museum's curatorial approach from a traditionally ethnographic presentation of cultures in geographical silos, to a cross-cultural exploration of connections between cultures. Singapore's essence as a multi-cultural, multi-religious port city and centre of trade was used as a "curatorial lens"

by which to re-organise collections and galleries into three grand themes identified as new organising principles: Maritime Trade, Faith and Belief, and Materials and Design.

The 2020 re-positioning—in particular, the emphasis on decorative art—facilitated a further shift in the museum's approach, allowing us to spotlight the figure of the artisan (as opposed to the artist) in time, to champion innovation in the space of tradition, and to extend the timeline of our curatorial focus to the present through conceiving and mounting exhibitions on contemporary Asian design.

We had already flirted with presenting Asian fashion, by way of the *Guo Pei—Chinese Art and Couture* blockbuster exhibition in 2019, which featured Chinese couturiere Guo Pei's works alongside treasures of Chinese art in ACM's collection. The success of that exhibition spurred us to delve further into the contemporary. We had always envisioned featuring Singaporean fashion designers in the context of Asia and the world, and against the backdrop of ACM's collection. But given that we had never attempted such an exhibition before, it was important to approach this carefully, and in a



manner that included the larger fashion community and industry.

#SGFASHIONNOW was designed to be an experimental showcase in the first instance; a small, pop-up display allowing ACM to make a firm but modest foray into contemporary Singaporean fashion design. We arrived at the format of the exhibition by way of many conversations between museum staff and members of the local fashion community, including collectors, supporters, educators, members of the local industry association, and media and public relations professionals. To push the envelope, we chose to feature designers who are still practising—and, very important, who were still in the business—today. This stemmed from our desire to explore how the museum could be a developmental platform for the creative community, and to counter public perceptions of Singapore fashion as, at best, unexciting, at worst, non-existent. *Where got Singapore fashion?* goes the oft-heard colloquial refrain in Singlish, Singapore's local patois.

The first iteration featured an unprecedented approach (for us) to developing an exhibition, with the actual task of curating being ceded to students at Singapore's LASALLE College of the Arts' School of Fashion. LASALLE's faculty, and ACM's curatorial, audience, and exhibition teams, played the role of curatorial advisors, mentoring the students each step of the way. Things were further

complicated by ACM's collaboration with the Textiles and Fashion Federation—Singapore's local fashion and textiles industry association—wherein the winner of SINGAPORE STORIES, which is Singapore's de facto national fashion design competition, was featured in #SGFASHIONNOW.

The student curatorial team, with guidance from LASALLE faculty and ACM's curators, attempted to address the questions: *What is Singaporean fashion? Was there a Singaporean fashion identity?* The exhibition focused on the craft of making clothes, exploring the various modes of craftsmanship employed by Singaporean fashion designers.

Eight fashion designers were featured, ranging from the established and the emerging to the experimental. Students, faculty, and curators alike worked closely and directly with the designers involved, teasing out nuggets of information about their creative vision and practice, as well as the challenges and opportunities of production. All but one of the designers—who is based in Paris and unable to travel—came to the museum in person to install their pieces, and all participated in the press conference and exhibition opening.

Instead of a physical exhibition catalogue, an e-catalogue, available at [sgfashionnow.com](http://sgfashionnow.com), was produced by the LASALLE student team. The catalogue presents curatorial statements and essays from LASALLE faculty and ACM staff, and features

detailed information on each of the featured designers. The e-catalogue is interactive, boasting short video clips of each of the designers, as well as virtual reality versions of the dresses displayed, which allows for the reader to examine these pieces in great detail.

In her essay accompanying the exhibition, "Crafting a dynamic Singapore fashion identity", LASALLE lecturer and Singapore fashion academic Nadya Wang attempts to define Singaporean fashion as follows:

I ARGUE THAT SINGAPORE FASHION DESIGNERS CUT, ARRANGE AND PASTE CREATIVELY FROM AN ARRAY OF DISPARATE SOURCES FROM SINGAPORE AND THE WIDER SOUTHEAST ASIAN REGION, INCLUDING TECHNIQUES, TEXTILES AND SILHOUETTES TO CREATE ORIGINAL, SOPHISTICATED PRODUCTS OF CULTURAL HYBRIDITY.

Or in other words, the essence of Singapore fashion is this ability to draw from the craft and material heritage of Asia and the world, and to stitch them together to form thrilling new compositions defined by their being cross-cultural in nature. Certainly, even though it was modest in size, the first #SGFASHIONNOW provided a snapshot of fashion design practice today, demonstrating how it is alive and well, and surprisingly innovative and exhilarating.



Stylemart  
Kavita Thulasidas  
Singapore, *kebaya*: 2021; *sari*: 2017  
Sari & kebaya  
*Eternal Weaves* Collection  
Sari: silk georgette, silk embroidery; kebaya:  
cotton lace, crystals and beads.  
Collection of Asian Civilisations Museum.

The exhibition opened in the midst of the global pandemic in July 2021 and was affected by safe management restrictions limiting visitor capacity to 25% of pre-Covid levels at any one time. All things considered, it still did well, drawing more than 48,000 visitors in an extended six-month run. The majority of these were young visitors between the ages of 20 and 29, who likely would not otherwise have come to the museum.

The exhibition also succeeded in initiating greater dialogue about Singapore's fashion and cultural identity, engendering some 265 stories and listings in the media, representing more than \$5 million in PR value. Public feedback for the exhibition was positive, with most visitors surprised at the strength and diversity of Singaporean fashion design talent. Some wanted more designers featured, and wished for a more culturally diverse and inclusive exhibition the next time around.

In the spirit of experimentation, #SGFASHIONNOW will get a second

installment in 2022, again in partnership with LASALLE College of the Arts and the Textiles and Fashion Federation of Singapore. In response to public feedback, 2022's installment will indeed present more designers from a greater variety of cultural—as well as design backgrounds—for instance, we will also feature accessory designers.

In the longer term, given the success of these pilot initiatives, the museum is exploring presenting #SGFASHIONNOW as a recurring annual showcase. We aim to acquire some of the designers' pieces featured in each installment, in a bid to build the ACM's contemporary Singapore fashion holdings, and to strengthen ties between the museum and Singapore's fashion designers—these artisans of our time. We see #SGFASHIONNOW as the beginning of an important, longer-term effort to develop a Singapore fashion history, and to champion narratives of opportunity and hope for young Singaporeans wishing to pursue a career in the creative fields.

## REFERENCES

- Asian Civilisations Museum, 2017. *ACM Treasures—Collection Highlights*. Singapore: Asian Civilisations Museum.
- Circe Henestrosa and Jackie Yoong, 2021. "In Conversation." In *#SGFASHIONNOW E-Catalogue*. [sgfashionnow.com](http://sgfashionnow.com).
- Kennie Ting, 2021. "Introduction." In *#SGFASHIONNOW E-Catalogue*. [sgfashionnow.com](http://sgfashionnow.com).
- Nadya Wang, 2021. "Crafting A Dynamic Singapore Fashion Identity." In *#SGFASHIONNOW E-Catalogue*. [sgfashionnow.com](http://sgfashionnow.com).
- Jackie Yoong, 2021. "Curatorial Statement." In *#SGFASHIONNOW E-Catalogue*. [sgfashionnow.com](http://sgfashionnow.com).

The stark, “street / urban” look and feel of the design and masthead for the exhibition was a huge departure from that of ACM’s traditional exhibitions. It was calculated to cater to a much younger visitor base than usual.





# CHAT – A LIVING TEXTILE INDUSTRIAL HERITAGE IN HONG KONG

## MIZUKI TAKAHASHI

EXECUTIVE DIRECTOR AND CHIEF CURATOR OF THE  
CENTRE FOR HERITAGE, ARTS AND TEXTILE (CHAT)



CHAT exterior view

The Centre for Heritage, Arts and Textile (CHAT) opened in March 2019 as a part of the heritage conservation project The Mills, which was a former cotton mill of Nan Fung Textiles in Tsuen Wan, Hong Kong. Nan Fung Textiles was founded in 1954 by Dr Chen Din Hwa, who migrated from Ninbo to Hong Kong after World War II. Today the city of Hong Kong is recognised as a financial hub in Asia, however, between the 1950s and the 1990s manufacturing industries, including textiles, garment, and plastic, were driving forces of the Hong Kong economy, leading it to eventual prosperity. The textile industry in Hong Kong in particular achieved

rapid development throughout the later half of the twentieth century, offering job opportunities to women, as well as to migrants from mainland China.

Since China's reformation and opening-up policy of 1978, Hong Kong's textile and apparel factories have relocated from Hong Kong to mainland China, seeking cheaper labour and factory site costs. As a result, Hong Kong's textile industry declined. Nan Fung Textiles ended operation of its factories in 2008 and the last textile factory in Hong Kong, Tai Hing Textiles, shut down in 2014.

Since the closing of the textile business, the old factory buildings

of Nan Fung Textiles had been used as warehouses until Ms. Vanessa Cheung, granddaughter of Dr Chen Din Hwa, rediscovered the buildings and decided to transform them into a unique business and cultural complex. Instead of demolishing the old buildings, as Hong Kong developers typically do, she made the decision to preserve the factory buildings as a testimony of Hong Kong's industrial heritage and to open the site to Hong Kong's communities. A number of activities were created, such as education programmes, rooftop farming, shopping facilities, and arts and culture programmes.

Paying homage to the progressive energy of Hong Kong's historic textile industry, and taking advantage of the multiple meanings associated with plain cotton yarn, CHAT tells the story of Hong Kong's textile industrial history, challenges the conventional meanings of textile arts, and presents a myriad of interpretations of textile material and subject matter. CHAT seeks to capture the spirit of Hong Kong's innovative textile industry legacy and engage in new dialogues that interweave contemporary art, design and heritage.

#### How does CHAT work?

CHAT has three galleries, CHAT Lab (a workshop space), and a multi-purpose space called CHAT Lounge. One of the galleries, named the D. H. Chen Foundation gallery after the founder of Nan Fung Textile, houses a permanent display dedicated to narrating Hong Kong's industrial textile history. One of the challenges in making the permanent gallery was the lack of objects to display. When CHAT was planned in 2015, almost all Hong Kong's textile factories had closed or had moved their business outside Hong Kong, and as a result it was nearly impossible to get access to objects that had been used in these factories. This difficulty was partly because of the lack of space in Hong Kong, meaning that it was not easy for factory owners to keep old objects and archival material that were no long in use. However, CHAT was able to source a number of objects for the gallery, such as Nan Fung Textiles' operators' manual, old photographs of the factories, and the labels of yarn, as well as Nan Fung Textiles' old Japanese drawing machine, which became a central object in the gallery.

After preliminary research, and after coming to terms with the lack of objects to exhibit, it was necessary to think of alternative approaches. Consequently, it was decided that displaying objects was no longer the core element of the gallery. Instead, human activities would be the central focus, leading to the idea of creating an active space in the gallery where something would be happening all the time. To realise this direction, the London-based architect and design collective Assemble were invited to CHAT. Assemble was chosen as they are renowned for their inclusive exhibition design process, which include community participation. Additionally, Mathew Leung (a member of Assemble) has Hong Kong heritage, which motivated him to work on the project as he could explore the cultural roots of his family through the design process. Leung's engagement on the project echoed Hong Kong's history of migration, both incoming and outgoing.

The permanent display successfully retains an industrial aesthetic, which visually recalls the memory of Hong Kong's industrial past. Workshop tables dominate the centre of the gallery

and volunteers conduct 30-minute workshops, during which visitors can make collages and bracelets with fabric scraps. One of the objectives for CHAT was to transform a factory for production into an art centre for creation. In this regard, creating a space in the centre of the gallery where visitors can stimulate their imagination and creativity symbolises this aspiration.

#### Everyday textiles: a bridge between craft, design, and fine art

As the name of CHAT includes the word 'textile', CHAT is often confused with a traditional textile museum, which is not the case. Textile production in Hong Kong was dominated by industrial mass production and therefore textile crafts, such as hand weaving and natural dye, had never archived success on an industrial scale. Hong Kong's textile industry mainly produced mundane fabrics for everyday use, such as tablecloths, bedding, and casual wear. This fact naturally defines what CHAT should be. On the one hand, CHAT is unable to be a textile museum which collects luxury dresses and gowns, which were made with distinctive craftsmanship. On the other hand,



Daily workshop scene in the D. H. Chen Foundation Gallery



Installation view from “Yee I-Lann: Until We Hug Again”, 2021





CHAT can be a place to talk about contemporary issues, including global warming, sustainability, and gender inequality, through the prism of these everyday textiles and their production.

The advantage of working with textiles is that with their transdisciplinary nature they can be a bridge between craft, design, and fine art. This transdisciplinary nature of textiles is incorporated into CHAT's seasonal exhibitions. In spring, CHAT organises a group show of contemporary artists who use textile materials or address a textile subject matter; the summer exhibition invites a single artist with an established career for his or her solo show; and the winter exhibitions feature textile design and innovation.

CHAT also organises an artist-in-residence programme once a year, which hosts an invited artist for three months. For this programme, CHAT has invited artists who work with video and photography and encourages them to discover and interpret textile materials and heritage with their non-textile-expert perspectives. Through this approach CHAT aims to blur existing hierarchies and borders of artistic genres, and to enrich the artistic discourse around textiles. In this way, CHAT intends not only to preserve Hong Kong's textile industrial past but also to explore the ways in which bridges can be built between the past and the present through the making and showing of works by contemporary

artists inspired by CHAT's heritage resource. This process can lead to heritage being used by contemporary artists and communities as a rich resource to imagine a better future.

familiar with the past. However, it is also important to develop innovative ways of communicating with people and being attune to contemporary values (such as diversity and gender equality), otherwise



Textile machine demonstration by a former textile worker

### Connecting with local and global communities

Many industrial heritages in the world have been preserved and sustained by the will and passion of the communities that engaged in the industries. However, once the community members are gone, emotional attachment to the heritage is mostly lost. This failure to pass down the value of heritage results in people losing interest in such heritage. Industrial heritage's role is to retain the memory of the society and everyday life of a past era, and to transmit this history to the next generations. It is important to work out how to communicate the value of heritage to people who are not

the heritage will be crystallised in the past. CHAT represents the pride of a local community who helped make Hong Kong the city it is now, and as such it can be imagined as an art centre for the community. However, CHAT programmes are also part of the discussion on globalisation, given the transregional and transcultural nature of the textile industry. In this way, CHAT's goal is to become a unique site of Hong Kong heritage, whose culture is hybrid, cosmopolitan and adaptable, and whose perspective provides a window to the world by connecting the East and the West.

Photos courtesy: Centre for Heritage, Arts and Textile (CHAT), Hong Kong



In crafts, sustainability begins with sourcing renewable natural resources and reusing discarded materials to limit environmental impact and invest in cost-effective strategies. Materials such as food scraps, fabric offcuts, and flower and plastic waste become catalysts for creativity, encouraging makers to innovate and develop new products and techniques. While crafts often mean slow manual work, design-led methods and processes borrowed from industry energise eco-conscious artisanal approaches.

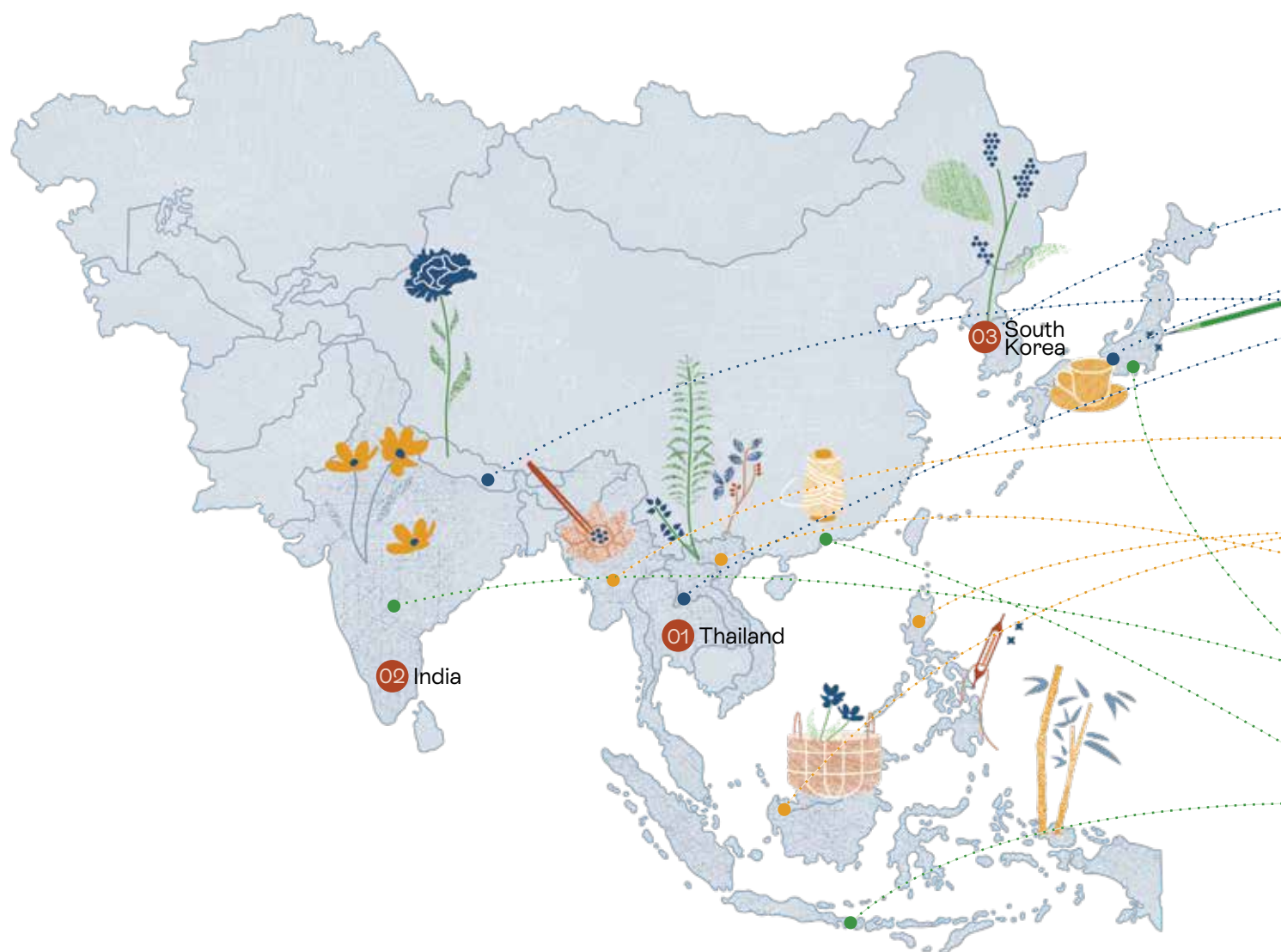
Thinking sustainably also requires a holistic vision that incorporates environmental, socio-cultural and economic aspects. Balanced ecosystems are founded on the interdependence of people, natural resources (land and water) and making processes. To this end, this study has also considered the idea of durable development in terms of artisans' welfare and empowerment. This paradigm demands ensuring fair and safe labour conditions, as well as the effective transmission of skills and preservation of cultural heritage. Numerous examples in this guide, such as Kindigo in Korea, Danlao Rattan in Lao PDR and Kilomet 109 in Viet Nam, demonstrate that capitalising on local and indigenous knowledge helps to adequately respond to ecological issues identified in specific rural areas, villages and communities. Models implemented from the ground up, such as Ifugao Nation in the Philippines, directly engage with local populations via training and education to increase awareness of the environmental

challenges at hand. Sustainability is an active process that happens when restoring connections between the different actors throughout the production and consumption process, from farmers, makers and manufacturers to grass-roots activists and consumers.

Other eco-conscious approaches invaluable for craft production are worth discussing. From a micro perspective, artisans could benefit from working collectively to purchase bulk eco-friendly materials negotiated at a lower cost. Good practice also includes vetting suppliers—including raw material collectors and sub-contractors—for their environmental and ethical engagement, requiring them to adhere to standards of transparency, low-impact and responsible sourcing. Protecting the biosphere and mitigating the carbon footprint also requires initiatives such as crop rotation for farming, wastewater management and the use of wind and solar energy. More broadly, craft communities in Asia need the support of local governments and policymakers; these governing bodies need to commit to legislating against deforestation and to reducing waste generation, greenhouse gas emissions and hazardous air emissions. Improved governance and the environmental education of the general public remain two cornerstones of circular economies, and they are necessary in order to enact durable positive change which benefits all segments of society.



# Project Map



## INTERVIEWS

### Chapter 1: Preserving natural and cultural heritage

Interview Wuthigrai Siriphon,  
designer and weaver

## CHAPTER 1

- South Korea
- Japan
- Laos
- Nepal

Kindigo  
Atelier Hifumi  
Danlao Rattan  
Bora Studio

## CHAPTER 2

- Myanmar
- Malaysia
- Philippines
- Vietnam

Turquoise Mountain  
Edric Ong  
Save the Ifugao Terraces  
Movement (SITMo)  
Kilomet 109

## CHAPTER 3

- India
- Indonesia
- Japan
- Hong Kong

Holywaste  
Ibuku  
Kosuke Araki  
The Billie System

### Chapter 2: Fostering Community

Interview Mayura Balasubramania,  
Craftizen Foundation

### Chapter 3: Innovative Making

Interview Jang Jiu,  
Oma Space

# Glossary of 12 KEYWORDS



**Artisanal:** Artisanal practices describe activities that rely on hand skills to produce unique pieces and small-scale series of objects, outside the industrial system.

**Biodegradable:** Biodegradable materials can return to the ecosystem as molecules such as water, carbon dioxide and biomass with the natural action of animals and microorganisms in the soil. In landfills that lack oxygen, water and adequate microorganisms, materials do not degrade properly and may release harmful methane emissions.

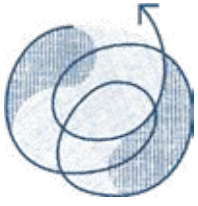


**Bioplastics:** Bioplastics are materials made of biodegradable plastic, which is usually engineered and derived from a variety of sources such as cellulosic, starch, algae or protein-based materials.

**Carbon footprint:** The carbon footprint refers to the impact of human activity that contributes to global climate change by producing greenhouse gas emissions, especially carbon dioxide, which is released from burning fossil fuels.

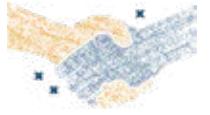






**Circularity:** Opposite to the linear economy model, in the circular economy products follow a life cycle that integrates sustainable production, consumption and a return to the supply chain (instead of to the landfill) under four processes: user to user, user to business, business to business, and by design.

**Fair Trade:** Fair Trade designates an established set of trade practices between producers, workers, cooperatives, businesses and consumers that actively guarantees better trading conditions and standards based on transparency and equity, especially for producers in the Global South. Fair Trade is also a specific international label certifying the commitment to these principles.



**Greenwashing:** Greenwashing describes the corporate practice of advertising misleading claims about environmentally driven commitments and activities for marketing purposes, without implementing notable changes.

**Repair:** Repair is an individual practice or service to users that keeps a product in working order and extends its life cycle by fixing signs of wear and tear, or simply by replacing missing or broken parts.



**Responsible sourcing:** Responsible sourcing is the voluntary commitment by businesses to embrace ethical, sustainable and socially conscious approaches to raw material and product sourcing within the supply chain.

**Slow fashion:** First coined by fashion expert Kate Fletcher in 2007, slow fashion designates an approach that favors quality-based production cycles relying on small-batch collections—in specific cases made-to-order clothing lines—and locally sourced materials.



**Upcycling:** Different from recycling as an industrial process, upcycling creatively reprocesses items and materials to give them a second life.

**Zero waste:** A zero-waste approach follows principles of responsible production that, by design, do not generate any material surplus or discharge. Zero waste may also designate modes of consumption that limit waste in terms of materials, packaging and products.





## BIOGRAPHY

Dr Magali An BERTHON is a textile historian, freelance cultural writer and documentarist with particular interests in Southeast Asian dress and textiles, local craft cultures, post-colonial perspectives and sustainable processes. She has gained international experience first as a designer in the craft sector in Cambodia, then as an academic working as an adjunct instructor in graduate programmes in the United States. In 2021 she earned a PhD in the History of Design Department at the Royal College of Art, London, focusing on the dynamics of silk heritage in post-conflict Cambodia. She is also a regular contributor to ASEF culture360 and Selvedge Magazine, among others. She produces the web documentary “Tissus & Artisans du Monde” (World Textiles & Artisans), an online multimedia journey combining film, photography and essays showcasing highly skilled textile artisans, especially from mainland Southeast Asia.

[www.tissusetartisansdumonde.fr/en](http://www.tissusetartisansdumonde.fr/en)



THE CREATIVE RESOURCE GUIDE  
CRAFTS IN ASIA: PATHWAYS TO SUSTAINABILITY

Interview  
Wuthigrai Siriphon

**PRESERVING NATURAL AND  
CULTURAL HERITAGE**

designer and weaver

SOUTH KOREA      KINDIGO  
JAPAN              ATELIER HIFUMI  
LAOS                DANLAO RATTAN  
NEPAL              BORA STUDIO

Interview  
Mayura Balasubramania

**FOSTERING  
COMMUNITY**

Craftizen Foundation

MYANMAR            TURQUOISE MOUNTAIN  
MALAYSIA            EDRIC ONG  
PHILIPPINES        SAVE THE IFUGAO TERRACES  
                                MOVEMENT (SITMO)  
VIETNAM              KILOMET 109

Interview  
Jang Jiu

**INNOVATIVE  
MAKING**

Oma Space

INDIA                HOLYWASTE  
INDONESIA            IBUKU  
JAPAN                KOSUKE ARAKI  
HONG KONG        THE BILLIE SYSTEM

**MUSEUMS, COLLABORATION & COMMUNITY:  
TWO PERSPECTIVES FROM SINGAPORE AND HONG KONG, CHINA**

CHAT: A LIVING TEXTILE INDUSTRIAL HERITAGE IN HONG KONG  
#SGFASHIONNOW @ ASIAN CIVILISATIONS MUSEUM AN EXPERIMENTAL  
APPROACH TO CURATING CONTEMPORARY FASHION

**Diversity Creates**

[www.ASEF.org](http://www.ASEF.org)