ICH and Water Management
Editorial Remarks

Kwon Huh  Director-General of ICHCAP

As we close out 2018 and on behalf of ICHCAP, I would like to express our sincere wish that all our readers have a pleasant holiday season and a prosperous new year. For the past three years, I have been ICHCAP’s Director-General. During my tenure, ICHCAP was able to grow its projects and visibility in the Asia-Pacific region as well as with other C2C and UNESCO globally. I wish you all the best as you continue your endeavors to safeguard ICH in the region.

At the same time that it is sad to leave ICHCAP, the Centre is looking to the future as the staff welcomes Gi Hyung Keum as ICHCAP’s third Director-General. Mr. Keum comes to ICHCAP from Ministry of Culture, Sports and Tourism, where he has recently been the Director-General of the Tourism Policy Bureau and Director-General of the Public Communication Policy Bureau. He also worked as a senior program specialist for culture and tourism at the UNESCO Office in Bangkok and served as Director of the Korean Cultural Centre at the Korean Embassy in Vietnam. Under his leadership for the next three years, ICHCAP expects to forward into a stronger future as we enter a new phase in our development and growth.

In volume 37, we are focusing on timely themes related to climate change and water management. We have an opportunity to hear voices of the Pacific echoing concerns as climate change is leading to rising sea levels and erratic weather. In the Philippines, increased intensity of typhoons over the past few years and how the traditional lapat system is helping to manage resources during natural disasters. The Windows to ICH section examines topics related to ICH and water management by highlighting cases in India, the Republic of Korea, Iran, and Kazakhstan. By examining such issues, we can see the correlation between intangible cultural heritage and sustainable development for communities.

Communities, as many of us know, are the backbone to safeguarding intangible cultural heritage. In this issue, we look at the Ban Narasilp community of Thailand who is striving to safeguard Khon cultural practices to pass their knowledge to the next generation. As important as communities are in safeguarding intangible cultural heritage, much of the safeguarding work is dependent on organizations for funding and implementation. For example, the organization Turquoise Mountain has been working with communities in Afghanistan to help reduce heritage risk in the post-conflict environment.

Also, their knowledge to the next generation. As important as communities are in safeguarding intangible cultural heritage, much of the safeguarding work is dependent on organizations for funding and implementation. For example, the organization Turquoise Mountain has been working with communities in Afghanistan to help reduce heritage risk in the post-conflict environment. Their efforts are highlighted in Safeguarding Activities. In addition, the China National Silk Museum has been promoting traditional silk work for many years, and through their efforts, they have been engaging people to learn more about traditional embroidery, weaving, and dyeing techniques.
Yap is one of four island states in the Federated States of Micronesia, boasting 134 islands spread across nearly 1,000 kilometers of ocean in the Northern Pacific. Four main volcanic islands make up Yap proper. As the westernmost state and lowest elevation, Yap’s geography creates a natural vulnerability to earthquakes, tsunamis, typhoons, storm surges, and droughts from the impact of El Nino Southern Oscillation (ENSO).

Stretching to the east of Yap through the wester islands of Chuuk state are the central Caroline Islands. People from these atolls are commonly referred to as reimetau, which means people of the ocean. As tiny low-lying atolls, the outer islands are at even greater risk to natural disasters than the main islands. Fresh water comes from a shallow lens beneath the islands or is harvested from rain catchments. Interisland travel is very limited; only two of the nineteen inhabited islands have airstrips that can consistently be reached by a nine-seat plane (a third island’s airstrip regularly floods), and most rely on an infrequent field ship. With their remote location, the people are dependent on subsistence living, following traditional fishing and harvesting practices and using local materials for building and sailing. Food production requires a great deal of skill and healthy resources. While major weather events such as typhoons have always caused setbacks, the islanders have ways of preparing, such as burying and fermenting breadfruit.

It’s a challenging existence, but very self-sufficient and rich in culture. The outer island inhabitants make up a little less than half of the total population of Yap, which was 11,377 during the 2010 census, and have unique practices and three language groups (Ulithian, Woleaian, and Satawalese) from the Yapese inhabiting the main islands. While there’s always been some movement of outer islanders to the main island, and increasing in the past decades, most has been by choice and preference, as people seek more flexible educational, employment, and medical opportunities. In times of need, there’s a strong traditional relationship of Yapese, who own most of the land and resources on the main islands, of supporting outer islanders staying temporarily. The majority of the outer island community, however, have returned after temporary stays, and many never leave the atolls.
With climate change increasing, all of that is changing. An increase in sea level in the outer islands means saltwater intrusion into taro patches, the main food crop and makes the freshwater lens too brackish for drinking. Islanders who are intimate with the seasonal calendar for breadfruit are dismayed by the trees now fruiting too early or late, and dropping before reaching maturity. Fishermen have observed fish spawning changes and coral bleaching resulting in more marine life loss. Natural threats are exacerbated with stronger and more frequent typhoons and surges that don’t allow enough time for recovery in between events. Typhoon Sudal hit in 2004, and the aftermath triggered many families to hit in 2004, and the aftermath triggered many families to migrate to Yap—and stay. This was repeated with the devastation of Typhoon Haiyan a few years later in 2013. Moving to the main islands has now become a necessity for many, and those remaining behind have struggled to maintain the same way of life.

The Yap government, recognizing the new trends in migration and the effects of climate change, purchased several settlement areas for outer island communities on Yap’s main islands. In just a decade, these areas have grown from a couple of households to fully fledged villages, some with a greater population than that remaining on the islands from which they came. Since these areas traditionally didn’t support such numbers, many lack well-thought-out development, and there are a host of environmental and socio-economic challenges. The growing communities place new burdens on local resources.

Waagey, a non-profit community-driven organization, was established and chartered by the state of Yap. Its mission is to assist various communities throughout Yap who are facing an array of social, environmental, and economic issues. It aims to identify and integrate with existing systems, issues of concern, including environmental, educational, and cultural, to suggest appropriate ways of addressing these issues and inspire community involvement and continuity. Its vision is: Using Traditional Skills to Confront Tomorrow’s Challenges.

Waagey believes that the ancestors who made these islands their homes have also, over many generations, mastered the most suitable yet sustainable ways of living on these islands. Their skills and knowledge transformed into technologies, and applications of these technologies were not only simple and practical but conducive to the environment in which they lived and depended. Theirs was a true stewardship system designed to sustain future generations by caring for mother earth. Waagey is dedicated to keeping traditional practices alive, including skills of seafaring, weaving, handicraft making, and sustainable methods of using resources such as local fish traps by engaging our elders, who can pass these vital skills on to the younger generation, especially as climate change forces islanders to relocate, altering social structures and these traditional practices.

In 2016, Waagey embarked on a mission to carve a sailing canoe and with their indigenous knowledge of celestial navigation sail to the 2016 Pacific Art Festival. The voyagers also used a woven pandanus sail from their island. The sail was autographed by the entire community and displays a bold message highlighting the impact of climate change on these islands. The aim was to promote awareness of the impact of climate change on small islands that are scattered in the large body of ocean, the Pacific. That sail has taken a journey of its own following the festival. It was showcased in Hawaii, New York during the Ocean Conference; Hamburg, Germany, at the peripherals of the G20 summit; and now Sydney at the Australia National Museum. The pandanus sail, along with a short documentary film, will hopefully be back to Lamotrek island to complete its journey.

Women are key to the success of our efforts to keep cultural values and indigenous knowledge. While the avenues of planning and the target training might differ for men and women, both were equally involved in the implementation. In many ways, women’s traditional role in preserving culture is more prominent than it is for men, as women are the keepers of the knowledge and are likely to be more stationary than men. Women are now even more vulnerable than men to the loss of culture exacerbated by climate change and migration. Traditionally, there were women’s huts—places of refuge, rest, and learning for women. This provided a safe environment for women to use the skills learned to provide everyday household items as well as handicrafts that can generate income.

While for some higher islands, the impact of climate change may be an issue of tomorrow, for the rimetanas, it is happening right in front our eyes, and it is real. Changes of weather pattern, rising seas, and drought among others, are of serious concerns. It is also our belief that much of our culture is tied to our lands, and when the lands is submerged, we will be forced in the near future to relocate as we have started to. At center of our concern is the risk of losing our culture and thus our identity. We are taught by our great navigators that in determining our course to our island of destination, we must look back to our islands of origin and get the bearings right. Only then will we know under which star we will sail to find land. This same metaphor applies as we go on our voyage in search of higher lands and retain our identity as people of the ocean.
The Philippines, in the tropical waters of the South China Sea at the western edge of the Pacific Ocean, is dry from January to May and rain-swept for the rest of the year, especially during the monsoon months of June to September. The archipelagic country is vulnerable to climatic changes. The balmy ocean air becomes searing heat of 40 degrees Celsius in summer, and the monsoon rains extend in duration with increased volume.

Typhoons Yolanda/Haiyan and Ompong

Three years ago, the islands of Leyte and Samar in eastern Visayas was devastated by a Category 5 typhoon. Coming from the Pacific Ocean, Super Typhoon Haiyan, claimed thousands of lives, cut down all vegetation, and flattened manmade structures. The wind gusts seemed immeasurable, causing ocean waters to surge over coconut trees and ram a megaton commercial ship into coastal villages. So unprecedented was the extent of the combined power of wind and ocean that people in the locality and the entire country did not even have a word for it. Dalluyong or sea waves was so inadequate a word.

This year in September, another super typhoon locally named Ompong hit the country. From the Pacific Ocean, it cut through Northern Luzon, landing at the northeastern valleys of Isabela-Cagayan, and sweeping through the Cordillera mountain range before exiting to the West Philippine Sea through the Ilocos plains. The typhoon's eye gathered so much strength and its extent or coverage from the center was hundreds of kilometers. It uprooted centuries-old trees, shattered glass windows, carried away the roofs of village-houses, and flattened all agricultural crops to the ground. The Cordillera mountains recorded numerous eroded sites, road cuts, and landslides. Worst hit were areas of a mining company established in the early decades of the twentieth century. The typhoon caused wide stretches of mountain sides to erode, obliterating the vegetation. Innumerable houses of small-scale miners were crushed and buried under tons of earth and trees, along with the miners and their families.

Not all is lost or a sorry sight. On the other side of the Cordillera Mountain Range is a culture and a practice that can mitigate or probably deter the harsh effects of climate change. This is lapat, an indigenous system of managing the physical terrain and natural resources that are the basis of the economy of the people. It is a way of protecting, propagating, and sustaining the entire ecosystem by regulating the use or harvest of nature's resources such as trees, vines, wild game, fishes and shellfish in streams and rivers, and the continuous replenishment of vegetation.

The lapat system thrives on three underlying principles: 1.) stewardship, 2.) communal ownership and collective responsibility, and 3.) sustainability.

Principle of Stewardship

In the principle of stewardship as explained by one of the foremost advocates of lapat, Mr. Philip Tingongong, the land and the natural resources are bequeathals to the people as cultural heritage from their forebears. And with the same thought of passing them on as material-cultural heritage to the succeeding generations, the land and natural resources are to be well taken care of, protected, and cultivated for the sustainability of life and culture.

In consonance with the above principle of stewardship, the community is responsible for maintaining a healthy robust forest. Planting trees in all areas possible is a constant activity.
Catching forest animals such as deer, wild pigs, and fowl in the lapat area is regulated. Doe and pregnant animals should be released when caught in a trap and should not be targeted in a hunt. This is implemented along with the national ordinance that prohibits catching wild birds such as eagles, owls, and bill horns among others. Once the target animal slips into a lapat area, the hunter cannot pursue its hunt. In a way, the lapat area is a sanctuary for animals and birds.

**Principle of Communal Responsibility**

Under the principle of communal responsibility, land and natural resources belong to the community so that their use or harvest of produce are regulated and not abused as these are not for one individual or a family alone but for all members of the community. And since all the resources—land, watersheds, streams, and forests—are those of the community, each member of the community has the responsibility to take care, protect, and propagate the resources for the interest of all. While clearing and burning the mountainsides of cogon grass and bushes in preparation for dry rice agriculture, the responsibility of regulating and containing the fire within the area is primarily that of the individual concerned. The individual clearing and burning a mountain patch for agriculture always sees to it that the clearing and fire do not adversely affect adjacent patches planted with other crops. Any violation by the individual or family concerned is met with a punishment decided upon by members of the entire community. Nowadays, it is common to have such activities overseen by elders or responsible neighbors in the community.

**Sustainability**

The third principle in the lapat system is sustainability. Although resources are a-plenty in a lapat area, gathering wood in the forest especially in watersheds and fishing in rivers and streams is not indiscriminate. Hardwood trees such as narra, molave, and kamagong may be cut down for use as house posts, floors, and roof beams only after the trees have reached a prescribed number of years of maturity. And the quantity is limited to what is needed, based on the size and design of the house to be constructed. The same can be said for rattan, nito vines, and anibong or fish tail palms, which need to mature a certain number of years before they can be gathered. Rattan is used to fasten palm leaves on roof beams of houses. Rattan, along with bamboo and nito vines, are the main materials for making farm baskets, bags, and hats while anibong palm leaves are materials for house roofing.

The same rule applies in rivers and streams. When gathering riverine food such as fish, crustaceans, shells, and frogs, the use of poison or chemicals is a strict taboo. This is meant to protect small riverine life from disappearing. Even the use of the old method of catching fish by throwing bulay flowers that emit toxic substances when wet to stupefy fish, is now forbidden, according to Mr. Johnny Ballao-ad, an elder and official of barangay Bazar in the municipality of Sallapadan.

For the sustainability of resources, certain areas of the forest, watersheds, and/or rivers can be declared as lapat for certain periods of time—months or years, to allow regeneration and for people to enjoy, gather, and share with relatives and all members of the community. But then again, for sustainability to thrive, the other two principles of the lapat system—stewardship, and communal ownership and collective responsibility—should be equally observed and practiced with utmost respect. Each principle supports the other principles. And it is because of the above principles, that extraction of mineral resources in a wide-scale, and commercial logging are prohibited in the Lapat areas. The elders in the community are well-aware of the pollution of water systems in large-scale mining areas. For these elders, who absorb the wisdom of their forbears, gold is not precious at all when commercial mining would only pollute the rivers and waterways that have sustained their farming activities, ways of living, and heritage.

**The Lapat System, Now Government Law**

Lapat administration, enforcement, and governance have been formalized and implemented as laws in local governments—at both barangay and municipal levels—of Sallapadan, Boliney, and Bucloc in the province of Abra of the Cordillera Administrative Region. The lapat system is fully recognized as an effective indigenous natural resources management system, and its total implementation is the flagship program of the Cordillera Highland Agricultural Resources Management Project.

The lapat system has thrived through generations among the Itneg groups in Abra Province on the northwestern side of the Cordillera mountain range. It is particularly practiced by the Masadiit Itneg sub-groups in the towns of Sallapadan, Boliney, and Bucloc.

**Lapat System as Mitigator of Effects of Climate Change**

After Ompong, the super typhoon that hit Northern Luzon in September 2018, Mrs. Pacita Ballao-ad, wife of Barangay Kagawad, Johnny Ballao-ad, and Barangay Captain Eliza Dakwas all of Bazar, Sallapadan, reported with pride that adverse effects on resources were minimal. Only few small tree branches were broken, and some newly opened roads got slightly eroded. Most important of all, there were no human or animal lives lost.

**References and Interviewees**

ICH and Water Management

Water is essential for life, and in traditional thought around the world, it has long been considered one of the main life-force elements. Given water’s importance, it isn’t surprising that it has a prominent role in traditional heritage practices. In terms of rituals, worship, and practicality, water is of vital importance. In this volume we look at various water traditions and management systems of the Asia-Pacific region with a focus on India, the Republic of Korea, Iran, and Kazakhstan.
India, one of the oldest civilizations in the world, is also one among the few countries named after a river system. The Indus River gave birth to the Indus Valley Civilization from where comes the word India. India is also the only country in the world with more than seven holy rivers, frequented by pilgrims even in the present day. Thus, water plays a central role in Indian society which is perhaps also because more than 60 percent of India’s geographical area is under agriculture. However, water availability in India has always been limited by the seasonal monsoon, and this has given rise to various traditional systems of water management in different parts of the country.

The rainfall patterns in India is such that most parts receive good rainfall only for about two-three months in a year. Parts of the country located adjacent to snow-fed rivers, originating in the Himalayas, continue to receive water for the rest of the year. Located in north and northwest India, these are also those parts that yield maximum agricultural productivity. The people of this region express their gratitude to the monsoon by celebrating Teej or Teeyan festival, which marks the onset of the monsoon. It is celebrated by women praying for the welfare of their families and is often accompanied by local fairs and festivities.

It is also common practice in northern India to pray to the rivers by conducting an aarti ritual, which includes a flame or a light and a metallic aarti plate decorated with flowers and incense. The largest periodic gathering of human beings in the world, the Kumbh Mela, is also held along the bank of the holiest of holy River Ganges and a few other rivers. Interestingly, almost all rivers in India are ascribed to female goddesses, which perhaps indicates the understanding that rivers are nurturing and life-supporting systems.

Moving away from rivers, a large part of India benefits from a network of canals that have been built since centuries for irrigation and water supply. Little historical information exists about the working of these ancient to medieval water channels, and some of these were rebuilt by the British during the nineteenth and early twentieth centuries. The Western Yamuna Canal, for instance, is thought to have been constructed in 2 CE, making it one of the oldest irrigation systems in the world. A more elaborate form of wells found in India are the baolis or step wells where water can be obtained by descending a set of elaborate steps. Baolis are found in many parts of India even today, including in the National Capital Territory of Delhi. These baolis were perhaps spaces for cultural gatherings as well and have been found to be decorated with arches and motifs. Another method to harvest rainwater is the construction of dams, check-dams, tanks, and small ponds for collecting the rainfall runoff. The Kallanai Dam on River Cauvery in the south Indian state of Tamil Nadu is believed to have been constructed in a CE, making it one of the oldest functional irrigation systems in the world.

In the Northern Himalayas, tanks called zing are made to collect melted ice while kulis are water channels originating from melting ice. In northeast India, bamboo drip irrigation is employed carrying water from the hills to the plains via bamboo pipes. In the desert state of Rajasthan, underground storage of rainwater in baolis, kulis, and tankas and in above-ground tanks and check-dams called jhalaras, talabs, and bandhs is commonplace. These traditional methods of catching rainwater where it falls are now rapidly being lost even as the water crisis is only deepening. Water security in India can only be achieved through reviving such decentralized traditional methods and the sooner we realize that, the better.

**Traditional Water Systems and Cultural Practices in India**

Govind Singh
Co-Founder & Director, Delhi Greens, India
Perception of Water
Water is commonly perceived as the source of life, and such a perception can be found in numerous legends. All living beings depend on water. In Korea, water was considered sacred, leading to many beliefs related, including jeongsu (water purification) beliefs related to exorcism. People sanctified water to preserve clean water. Sacred water implies that water should be kept clean and not abused. Today, with the development of water supply systems, water is no longer sacred. Instead, there is a great demand for quality water, and water is increasingly commercialized. This article explores water management traditions and practices related to wells and dammed pools (reservoirs), which are some of the most important sources of water in our daily life.

Community Sharing a Well to Secure Clean Drinking Water
A well does not just provide drinking water but also plays a pivotal role in forming a community. In rural or fishing villages, houses are built around the well. In mountain villages, and dammed pools (reservoirs), which are some of the most important sources of water in our daily life.

Building a well requires much labor and only those who participate in the work are entitled to use it. Therefore, it can be said that well use is decided even before the well construction is completed. Community members cooperate to maintain the well. A well is generally cleaned on the fifteenth day of the first full moon day of the new year on the lunar calendar. On the first full moon day, people clean the well and make offerings to perform a village rite. On the fifteenth day of July, people clean the well to remove the dirt accumulated during the rainy season, before performing a village rite.

Dammed Pools and Community
Dammed pools (bo) and reservoirs (jeosuji) are artificial structures built to store water. They are designed to retain water and rain, but reservoirs refer to water storage built in highlands, and dammed pools refer to those constructed in lowlands. And, while reservoirs store water throughout the year, dammed pools are drained after the rice planting season is over and before the rainy season starts.

In the past, people formed private associations (gye) to manage dammed pools or reservoirs. Such an association was called bogye. Later, it became more commonly known as surige (private water use association). Since farmers could not construct a dammed pool by themselves, members of one or more villages built, managed, and shared a dammed pool together. Bogye not only allowed for water management and use but also helped strengthen solidarity among village members. To operate bogye efficiently, a director and managers were elected, and meetings were held regularly or temporarily. In a general meeting, members discussed when to release the water as well as water distribution methods.

Dammed pools are also popularly known as mulgwang. Gwang is a space to store things, such as crops, like a shed. A rice storage is called byeotgwang (byeo meaning rice), and a water storage is called mulgwang (mul meaning water). Mulgwang retains water for irrigation and releases the water when the rice is ripening, because water supply should be adjusted according to the rice growing cycle to secure high yields. While water is critical in rice growth, water should be removed from the field in the ripening phase to help the rice develop its taffy. Therefore, the dam of mulgwang is opened to release all the water before the rainy season starts in July to prevent water flowing from the pool due to heavy rainfall. Meanwhile, if rice fields were located on higher ground than a dammed pool, water was abstracted from the pool using water pumps.

After juldarigi (traditional tug-of-war) was held, the rope used in the game was used to block the dammed pool or placed on the riverside. In the Yongin region, it is said that people would block the dammed pool with a massive rope after the game was over, suggesting that it was a large-scale event. In some regions, the rope was arranged along the riverside to pray for rain or prevent the river from flooding. Juldarigi ropes were used as such because the ropes were believed to be the dragon, a water deity. People believed that bringing the ropes to the water would prompt the dragon to adjust rainfall properly.
Overview of the Iranian Qanat Water System

Mohammad Reza Miri
Managing Director, Pishn Pajouh Culture and Art Institute

Introduction
A major part of the Iranian Plateau consists of vast deserts with low precipitation ratios. Interestingly, the land has been home to numerous settlements since prehistory. To all these settlements, water constituted, as it is still is, a vital natural resource with economic, social, and cultural values.

The scarcity of water resources ... led inhabitants to resort to intelligent strategies for wise procurement, reserving, exploitation, and use of water, and invent detailed, effective distribution and reservoir preservation methods. Water is prominently present in all aspects of the lives of Iranians, and has mingled firmly with all cultural elements. (Mirshokraei, 2001:10-11)

This multidimensional presence makes it difficult, if not impossible, to bring water exclusively under one of the five domains of ICH. In this article, however, I will try to review a few achievements from the point of view of traditional knowledge.

Water Management System
The water reservoirs of Iran include rivers, qanats (underground water canals), springs, wells, traditional dams, cisterns, yakhdans (buildings for keeping ice). Asserted by Article 45 of the Iranian Constitution, the Ministry of Energy undertakes ownership is public and enjoyed by the diggers, their inheritors, people who buy haqaqare (water share), or people who pay the construction costs and rent the water to farmers in exchange for crops. The digging is a communal affair; the distribution methods and distribution methods are, however, diverse in different regions. (Miri, 2018)

Distribution
The annual water consumption rate throughout Iran is estimated to be 94 billion square meters. The estimated shares of different sectors include agriculture (87 billion, 92.5%), drinking (5.7 billion, 6.1%), and industries (1.3 billion, 1.4%), and 54% of this water is comes from underground. (Iranian Water and Sewage Organization, 2011)

Procurement: Qanat/Kariz
Qanat or kariz is an outstanding Iranian traditional knowledge invention for underground water resources exploitation.

There are around 35,000 qanats in Iran with an annual supply of a billion square meters of underground water ... a sector that works without electricity, fossil fuel, or etc., and does not aggravate negative environmental side effects or pollution. (Semsar Yazdi, 2004:10)

Iran’s almost 3,000-year-old network of qanats manifests as kilometers of interconnected underground canals, each connecting hundreds of wells dug to bring water from basins to farms and towns. This traditional knowledge includes a comprehensive management system.

Generally, ownership is public and enjoyed by the diggers, their inheritors, people who buy haqaqare (water share), or people who pay the construction costs and rent the water to farmers in exchange for crops. The digging is a communal affair; the management requires stakeholder involvement. The exploitation and distribution methods are, however, diverse in different regions. (Miri, 2018)

Procurement of irrigation water by Qanats

The rural consumption and exploitation management systems work on three levels—namely, procurement, distribution, and consumption. Procurement is jointly done by landlords and the community; themirabs, ab-salars, or ab-dars (water agents) are the distributors; the consumption management is either a group or individual responsibility. (Visan Consulting Engineers, 2003:286-7)

Distribution Methods
Water-share management follows communal norms and manifests as either volume- or time-based.

Among the diverse volume-based methods, the sang (stone) method of Tehran region is defined as “the volume of water flowing smoothly at fifteen steps per minute, through a 20x20cm mouth into a cleared canal.” (Safinejad, 1988) The magaumest (dividing plate) is another method applied to streams running through several farms, villages, or areas, or to greater water volumes that need to be broken down into smaller portions. The stone or wooden dividing plates fixed on a width of streams break down the volume proportional to the shares of farmers. There are reference water-share rolls, and mirabs supervise proper distribution.

The water-travel cycle (madar-dowr-e gardesh-e ab), detailed calculation of the interval between two watering turns, constitutes time-based water distribution and is the oldest method in Iran. This interval follows local demand, and ranges from once in less than a week to once in more than two weeks. The most popular interval is twelve days, which is ideal for Iran’s major crops, i.e. wheat and oats. A full day is divided into smaller time intervals called taq, the time needed for jenjan, a brass cup with a small hole at its bottom, to fill and sink for a determined number of times in a larger bowl called kase. The name taq-ab (watering timing) refers to this method. In Vanshevan, north-central Iran, each madar lasts for seven full days, and each day is equal to three bigger taqs (72 fenjans), or six smaller taqs (36 fenjans).

Conclusion
The described strategies and methods exemplify successful traditional management. The good practice showcases Iran’s achievement in safeguarding a respectful, tolerating, and environment-friendly tradition. Due to these three attributes, this contribution of Iran to the intangible cultural heritage of humanity deserves worldwide viability and promotion.

References


A small crowd is standing on a bridge across the canal that brings water to the village. The canal diverts some water from the Syr Darya River, the only source of irrigation water in the region. There are several cars parked on the banks of the canal and a medium-size truck with a two-year old bull is parked right on top of the bridge. A group of young men take the bull on the bridge and tie him up. The crowd gathers around and the people present lift their palms up at the chest level. The most respected elder loudly starts making a wish: “May there be plenty of water this year for our crops and livestock; may there be peace and prosperity in our lands; may there be accord and respect in our community….” The wish, which is also a blessing, goes on for several minutes. After every sentence, the crowd univocally utters “amen” to show that every person seconds that wish.

After the animal is slaughtered, it is taken back to the village where other members of the community are preparing for a feast. Some women are making fried bread, youngsters are peeling carrots for the pilaf. Others are cleaning the houses where the community members and guests will come together for the feast. On the next day, the meat of the sacrificed animal is cooked with rice and all members of the community as well as two other neighboring villages come together to share this meal. After the meal is over, the most respected elder reiterates the wishes for abundance of water, prosperity, and a good year. That is how the tasattyq ritual unfolds almost in every community in the Syr Darya Delta (Kazakhstan).

The tasattyq ritual is conducted by every community in the river delta every spring after the vernal equinox and before summer. The tasattyq brings together the members of the community who self-organize to have this feast. Each household contributes some money (typically between USD 3 and USD 5) to purchase a sacrificial animal and other things needed for the feast. On the day of the ritual, both men and women are involved in preparing for the ritual. According to local people, the main purpose of the ritual is to ask the Creator for abundance of water, for rains, and for protection against natural calamities such as floods.

Although not explicitly mentioned as such by local people, the tasattyq ritual is a communication platform where local community members discuss their livelihoods and talk about water distribution and management. Local livelihoods include livestock herding, melon and watermelon gardening, and mowing reed (as a winter forage for livestock). All the resources sustaining these livelihoods such as pastures and land for melon gardens and reed beds are managed as common-pool resources. Because preparation for tasattyq takes quite some time, it is not just a one-day interaction. While getting ready for the ritual, community members talk to each other about where they are each making their garden, how much reed they need, etc. Often times, community members make their gardens right next to one another because this way it is easier to fetch water to the fields and water loss due to filtration and evaporation is minimized. Thus, even though community members do not explicitly talk about sustainable water management during the tasattyq ritual, the ritual becomes a communication platform enabling community members to make coordinated decisions that contribute to sustainable water management.

The tasattyq ritual also contributes to sustainable water management by fostering caring attitudes toward the Syr Darya River and water in general. The tasattyq ritual is a vivid example of how human-river interactions are shaped in the river delta. The animal sacrifice at the river bank aims remind people where water comes from. The wishes for prosperity and peace uttered at the ritual highlight the intrinsic link between prosperity and water coming from the river. The requirement that the blood of sacrificed animal should encounter water reminds people that the life force (symbolized by sacrificial animal's blood) comes from and returns to water—the substance that supports all life on Earth.
Torn apart by decades of conflict, post-2003 Afghanistan was on the brink of an economic, social, and cultural collapse. Besides the much-mediatized shelling of the country’s material heritage, such as the Buddhas of Bamyan, Afghanistan’s intangible heritage equally took an untold toll. In addition to various practices that had been directly targeted and proscribed (such as making the rubab, a short-necked lute), a general weakening of the national economy, disruption of raw material procurement networks, and an overall destruction of the social fabric put a majority of Afghanistan’s heritage at risk. Particularly threatened were its craftsmen, the stewards of woodcarving, goldsmithing, or miniature techniques, skills firmly rooted in more than 3,000 years of artistic traditions and defining features of many of the country’s communities.

Indeed, the practice of crafts in Afghanistan is intricately connected to many aspects of society, which makes it an inseparable part of its social fabric. Guilds long consisted in the main framework of production for artisans and acted as self-governing bodies (Kennedy 2011). Guilds connected artisans with each other and all the craftsmen to other social and governmental institutions, defending their interests and presenting them in a favorable light (Jasiewicz 1991). Within it, the apprentice was introduced and would learn techniques and rituals associated to his or her function. For instance, we have met in Mazar-i Sharif a guild of coppersmiths which gathers once a year in the lead-up to the Nowruz festival, when the time comes to clean the Hazrat Ali shrine’s many quba. This way, the guild reaffirms its place in the community by taking the lead in the associated rituals and engaging everyone in the process.

Many guilds in Central Asia were also connected to a particular patron saint. The saint figures of the Quran (Khazrati Ali, patron of textile craftsmen whose responsibility it was to give the final shine to the materials) or the Bible (David-Daoud—patron of smiths and all metal crafts) required particular rituals, transmitted orally within the guild but also sometimes recorded in resāla, booklets containing their legends, a series of prayers to be recited before any production took place, and a list of proper behaviors to be adopted by the artisans.

The challenge faced by Turquoise Mountain in 2006, and indeed by any project aiming at the protection of intangible heritage, was thus to regenerate crafts that relied heavily on practices and communities that had virtually disappeared. Thus, the organization has endeavored to recreate a framework for this entire ecosystem to survive and flourish through a comprehensive, holistic, and long-term commitment to the community and its craft.

The 2003 Convention clearly states that the protection and preservation of ICH practices essentially relies on a holistic philosophy and strategy. If much has been discussed regarding the documentation and inventory-building programs (Hafstein 2009), these make up the first step of sustainable safeguarding efforts, and any long-term strategy needs to rely heavily on the creation of a healthy framework of practice and the support of education, both formal and informal.

Arriving in Kabul in 2006 with the goal of protecting this legacy, Turquoise Mountain recognized the necessity not only to protect the artisans by supporting their activities but also to safeguard the various systems of knowledge transmission involved in these traditional practices (Kennedy 2011). This approach was completed by engaging the community of Murad Khani in the restoration of its architectural heritage, putting directly to work many of the organization’s artisans.
The first few years were thus dedicated to large-scale urban regeneration work, which engaged more than two hundred people from the community, and thousands more, in the restoration of traditional Afghan dwellings, including various local techniques such as *senj* (diagonal layers of bricks in a wooden frame providing the building with more flexibility and resistance to seismic activities) or the manufacturing of carefully carved wooden panels (of classic style, largely inspired by Timurid motifs).

In 2007 the Institute for Afghan Arts and Architecture was established under license with the Afghan Ministry of Education (Kennedy 2011). This institute trains over a hundred students each year in woodcarving, calligraphy, miniature painting, jewelry, gem-cutting, and ceramics. Its location within Murad Khan, near the bazaar and the workshops of many artisans, was chosen to preserve the technical and social meaning of a traditionally embedded training while providing the advantages of a contemporary vocational program.

This approach required the development of a tailored curriculum dedicated to both the transmission of technical and artistic knowledge while also providing each student with the tools to become competitive in the Afghan and international market and the opportunity to adapt the skills they learned in contact with the master artisans. The ever-evolving curriculum results from the collaboration of Afghan masters and international experts.

The institute is also one of the centers of the community, where celebrations that take place sometimes echo the rituals that used to occur within the guilds. For instance, it is customary in Afghan craftsmanship that new apprentices give gifts to their master, and in return the masters will give the students the *resāla*. This ceremony, held each year in March in Murad Khan, is known as the *gurmani*, which means “putting sweets in front of a master”. Rooted in the traditional guild system that used to support artisan activity, this ritual allows the future practitioners to contextualize their practice within a long line of artisans and to preserve the social and cultural meaning associated with their craft. Furthermore, the restored buildings at Murad Khan become the locus of other community activities, such as the celebration of Nowruz, bringing both artisans and the stakeholders together in the historical environment of Kabul.

Thus, Turquoise Mountain has, since 2006, restored and rebuilt over 150 historic buildings in Murad Khan and created the Institute for Afghan Arts and Architecture. Over 5,000 Afghan women and men have learned traditional skills from woodwork to calligraphy and *senj* construction to jewelry. These artisans run over a hundred small craft businesses and produce millions of dollars of high-quality products rooted in tradition each year to sell in Afghanistan and around the world. Recently, Turquoise Mountain launched its Design Center at the core of Murad Khan, which will further support artisans in the development of an Afghan design DNA and the integration of their perennial practices into a contemporary technical and aesthetic environment. It is in these synergies—place, traditional skills, and incomes—that we believe we can really safeguard these traditions for generations to come.

References


Ban Narasilp: Descendants of Khon Costume Traditions
Kittiporn Chaiboon
Director, Research and Development Group, Department of Cultural Promotion, Ministry of Culture, Thailand

Khon is one of the most significant performing arts of Thailand. It is an important traditional dance and art style dated from the Ayuthaya period. It has its own unique identity and integrates different fields of art, literature, rituals, and crafts. Craft specialists, who create ornamented headdresses and masks, embroidered costumes, and musical instruments, and make-up artists are informally trained and work as independent specialists. Young apprentices are trained in various courses in workshops and households of the master craft specialists or on the job. All artists and craft specialists related to Khon have to perform Khon during ceremonies to honor deities and past masters and during discipleship rituals or to mark the transmission of new knowledge and skills.

Khon costumes are influenced by royal garments and regalia of the Royal Court of Siam. However, the costumes impact come from gold embroidery that embellishes virtually every item dancers wear. Khon costumes consist of (1) a headdress, including the Khon mask and headdress called siraporn (2) body ornaments called diadems and accessories, and (3) clothing called patattrapan. Khon costumes are adorned with many complex forms, colors, and designs. They are uniquely sewn with a variety of colored thread and sequins. Embroidery arts require execution by experienced and skilful artisans. Since each costume has a specific style and multiple garment components, the savoir faire of embroidery is uniquely individual.

Traditional Khon and Thai classical drama costumes adhere to dress codes, especially for leading male and female dancers, who use first-tier colors: red, green, and yellow. For the Khon Ramayana epic, character dress codes for body color are specific. For example, Phra Rama is green, and Phra Laksana is yellow. Classical Khon and Thai drama costume embroidery commonly has two types of Thai motifs: partition patterns and vine patterns. The partition patterns are made with embroidered stitching techniques over a decorative Thai design pattern. The stitching lines up to form an intricate frame pattern, creating a low relief effect on the fabric. This technique requires a variety of threads—metallic, unbleached cotton, satin, or cotton—to create the colorful lining and effect. Common Thai motifs found in this type of Thai decorative design pattern are funnels, flower petals, and Thai stripes. The vine pattern incorporates a chain-stitch technique to form vines and floral designs. The stitching materials are metallic thread, sequins, colorful silk, jewel beetle wings, beads, and gems. Nowadays, only a few well-skilled embroidering masters remain in some communities surrounding old towns in Bangkok.

The Ban Narasilp (or Narasilp House) community in Wat Suntorn Thammattaro (or Wat Kae Nang Letrng) on Larn Luang Street is a descendant of the Khon-lakorn troupe called the Narasilp troupe. The Narasilp troupe has been transmitting Khon performing arts and craftsmanship for many generations. This area has been home to many classical Thai dance and drama troupes since the early Rattanakosin period of the late-eighteenth century.

Mrs. Lamon Susangkornkarn founded the Narasilp troupe at the beginning of the reign of King Rama VI (1910-1925 A.D.). This troupe was famous for performing various kinds of Khon, such as Khon Klang Plaeng, Khon Na Jor, and Khon Chak Rok, and other performances, such as Lakorn (classical Thai drama), and film in the early period.

Later, Mrs. Jinda Pansamut, the second generation of the Narasilp troupe, kept on her mother’s intention and developed production techniques that increased the troupe’s positive reputation for nearly a century.

In 1968, the Narasilp troupe joined the Thammasat Khon troupe, with the lead of M.R. Kukrit Pramoj, to perform Khon, which made the Thammasat Khon troupe well known to audiences throughout the country by the late 1970s. Also, during those days, the Narasilp troupe produced popular performances in various genres, such as musical dramas, stage plays, and radio soap operas.

Nowadays, as a result of the flow of modern western pop culture, Khon and other kinds of classical drama have become less popular. The Narasilp troupe rarely performs today. Therefore, the third generation, Ms. Phumaree Pansamut and Mr. Pinit Suthinatr, has adapted the Ban Narasilp to be a learning center for Khon production making, especially for ornamented body and headdress making and Khon costume embroidery. Moreover, Master Chit Kaewduangyai, one of the great masters of Khon mask making, created all the Khon masks exhibited the Ban Narasilp. The Ban Narasilp is also the sacred place to perform Khon Wai Khru ceremonies, an important ritual of classical Khon and Thai drama students, in which the students pay respect to their teachers and great teachers to express gratitude and formalize the student–teacher relationship.

On 14 June 2018, the Department of Cultural Promotion, Ministry of Culture, awarded the Ban Narasilp descendants and officially opened the Ban Narasilp on Larn Luang Street as a community learning center for learning to make and embroider Khon costumes to maintain continuity and the significance of Khon as a national intangible cultural heritage. In addition, the descendants have been supported with a budget for the training workshop to train a new generation of young artisans in classical Khon and Thai drama costume to safeguard this fine art for humanity.
The China National Silk Museum Contributing to ICH Safeguarding

Feng Zhao
Director, China National Silk Museum

The China National Silk Museum (CNSM) first opened in February 1992 and reopened in September 2016. Now it has become one of the first state-level museums in China, where audiences will find 9,000 square meters of displays in a typical southern Chinese garden of 42,286 square meters near West Lake, a UNESCO World Heritage Site.

The museum is divided into several galleries. The first is the Silk Road Gallery, in which the permanent exhibition The Way of Chinese Silk: Silk History and the Silk Road introduces Chinese silk historically and the Silk Road geometrically. Both the earliest preserved silk from the Qianshanyang site, Huzhou, (c.2200 BCE) and the earliest pattern loom model from Laoguanshan, Chengdu, (c.100 BCE) are on display. In the underground of the Silk Road Gallery, the Textile Training Center offers professional courses related to weaving, dyeing, embroidering, and braiding to satisfy the demand of the people who love traditional textile culture and those who wish to inherit traditional skills.

On 28 September 2009, Sericulture and Silk Craftsmanship of China was added to the Representative List of the Intangible Cultural Heritage of Humanity by UNESCO. To help the audience better understand the intangible cultural heritage, the Sericulture and Weaving Galleries provides more information on how the silk is made. There are five sections of the exhibition, which are The Story of the Silkworm, Folk Customs in the Birthplace of Sericulture, Silk-making Techniques, Textile Printing, Dyeing and Embroidery and Weaving Techniques, displaying more than 270 objects covering the whole process from planting mulberry trees, raising silkworms, releasing silk from cocoons, dyeing, weaving, and embroidery. The techniques in the exhibition combine static displays with live demonstration.

Outside the gallery, the sericulture house is in the east part of the museum, where tourists are able to see real mulberry trees as well as traditional residential buildings in the countryside. On special holidays and festivals, the museum organizes activities such as watching and practicing traditional sericulture skills in the museum and visiting sericulture temple fairs in Xinshi, as an approach for audiences to have an in-depth exploration of sericulture.

When visiting the Textile Conservation Gallery, besides temporary exhibitions, audiences can see how the silk treasures from throughout the country are being treated, repaired, and installed or packed.

Lastly, the Fashion Gallery is the only gallery in China focusing on the contemporary costumes. There are several sections, one for Chinese fashion of the twentieth century, one for Western fashion of the past 400 years, and a temporary special exhibition gallery, A World of Silks, in 2016 and A World of Looms in 2018. A World of Silks used geographical order introduced the production and usage of silk in different regions, divided into categories of weaving, tie dying, and embrodering, etc. A World of Looms presented the rich cultural heritage of looms and weaving technologies from around the world. The displays included more than fifty looms and many of their associated textiles, organized by geographical location.

As for scientific research, many projects on reconstructing traditional looms and weaving processes and the replication of textiles from ancient times have been carried out. For instance, under the support of three projects, CNSM has completed the replication of jin silk with the characters wu xing chu dong fang li zhong guo (五星出东方利中国), which is a national treasure-level cultural relic excavated in the Niya Ruins of Xinjiang Province. The hook-shaft pattern loom with sliding frames was used for the replication, the model of which was a pattern loom discovered in a Han dynasty tomb in Laoguanshan, Chengdu. Research on natural dyes, including dye analyses of ancient textiles and degradation of natural colorants to understand their compositions, physical properties, and processes of aging is an important part as well.

In 2016, CNSM established a new scientific laboratory and, high performance liquid chromatography-mass spectrometer, micro-Raman spectroscopy and fiber optic reflectance spectroscopy were set up, which can provide micro-sampling, ultra-sensitive, and non-destructive protocols. Based on the authentic evidence obtained from dye analysis and combing it with historical documents, the reconstitution of the Qing dynasty palette was successfully accomplished in 2018.
ICHCAP’s 2019 Work Plan Confirmed

The 2018 Governing Board Meeting of ICHCAP took place on 13 December 2018 at the Grand Hyatt Seoul. ICHCAP governing board members and relevant members of the Cultural Heritage Administration, the Korean National Commission for UNESCO, and UNESCO ICH category 2 centers from China and Japan attended the meeting. ICHCAP reported the progress and current issues of its 2018 projects. ICHCAP’s plans were reviewed and approved. The Centre’s projects for 2019 were confirmed based on the mid-term plan for 2018-2023, the 2018 Agenda strategies and major functions of the center for ICH safeguarding.

ICHCAP Expanded Contents on e-Knowledge Center Website

ICHCAP operates the e-Knowledge Center, an online platform to share knowledge and information about ICH in the Asia-Pacific region and introduce various ICH in the region. In 2018, ICHCAP renewed the main page of e-Knowledge Center and uploaded new contents: Google Meets ICH; the Traditional Musical Instruments on Myanmar; Restoring and Digitizing ICH Resources; Tell Me about... Tugging Rituals and Games; Youth Meets ICH; Our Cultural Expressions: Indigenous Sounds of Fiji; and Yapese Intangible Cultural Heritage: History, Legends, Myths, and Performing Arts of the Federated States of Micronesia.

First Google Meets ICH is an online exhibition organized through a partnership between ICHCAP and Google. The exhibition curators selected and covered exhibits in twelve practitioner communities. The videos and images, which are featured on the Google Arts & Culture website, are also embedded in e-Knowledge Center. The Traditional Musical Instruments on Myanmar is the result of a collaborative effort by ICHCAP and the Ministry of Culture in Myanmar to safeguard ICH related to the craftsmanship and performing arts of traditional musical instruments and to promote cultural diversity among multi-ethnic groups in Myanmar. The content introduces 258 kinds of traditional musical instruments passed down in ten ethnic groups in Myanmar. The history and making process of each instrument are described. Performance videos on thirty-eight kinds of instruments are also available.

Restoring and Digitizing ICH Resources was created as part of ICHCAP’s support project for digitizing analogue audiovisual materials in Asia-Pacific Member States. The digitization project is aimed to digitize severely damaged or at-risk analogue materials the safeguarding, management and use of the materials. Eleven audiovisual contents from the project are available on the e-Knowledge Center.

Tell Me about... Tugging Rituals and Games is a children’s book that explains tugging rituals and games of Korea, Cambodia, Philippines, and Vietnam, which are inscribed on UNESCO’s Representative List of the Intangible Cultural Heritage of Humanity. The online book is available only in Korean. Youth Meets ICH is the outcome of ICHCAP’s youth video production project, which was designed to raise youth awareness of ICH by encouraging youth participation in video production and sharing. Twelve videos from 2016 and 2017 projects were uploaded to the online knowledge platform.

Lastly, Our Cultural Expressions: Indigenous Sounds of Fiji and Yapese Intangible Cultural Heritage: History, Legends, Myths, and Performing Arts of the Federated States of Micronesia are the results of ICHCAP’s 2018 project for restoring and digitizing ICH resources.

ICHCAP digitized five hundred hours of analogue materials as the outcome of the restoration project conducted from 2017 with the Fiji Museum. ICHCAP selected digitized materials that well represent Fiji’s traditions and produced the collection. And, together with the Yap State Historic Preservation Office of Micronesia, ICHCAP produced the Yapese collection, which contains twenty ICH-related stories, legends, and myths recorded in everyday life of the Yapese. All the contents are available on e-Knowledge Center.

Information Officers Meeting on Knowledge-Sharing Network and Strengthening Capacity for Safeguarding ICH

ICHCAP held the 2018 Information Officers Meeting for Safeguarding ICH in the Asia-Pacific Region with the theme of Knowledge-Sharing Network and Strengthening Capacity for Safeguarding ICH on 10 and 11 December in Seoul. Participants discussed how to strengthen knowledge-sharing and information capacity for ICH safeguarding.

The meeting aimed to set the groundwork for cooperation to build ICH information-sharing mechanisms, strengthen Member States’ capacity to manage information related to ICH safeguarding, and build a network to carry out tasks for ICH information-sharing mechanisms.

On the first day, a public workshop was held in Somerset Palace, Seoul.

Session speakers included ICH info experts from UNESCO Headquarters, Saahapedia (open online resource on Indian arts and cultures), and Island Ark Project Foundation (headquartered in the US). On the second day, working meetings continued. Agenda items included country reports on ICH information infrastructure and capacity (by Tajikistan, Mongolia, Fiji, Bhutan, and Nepal). In addition, plenary discussions on measures and tasks to strengthen information foundations for ICH safeguarding and reports on strategies to support enhancing information capacity.

ICHCAP has held multiple expert meetings and related projects to establish an information infrastructure and share information on ICH. In 2016, ICHCAP held the Information Officers Meeting for Safeguarding ICH in the Asia-Pacific Region to explore ways of using information and communication technology for safeguarding ICH.

Internet penetration is modifying the concept of traditional information services and creating a new environment. This opens up new possibilities for safeguarding ICH. An ICHCAP official said that networking of ICH information and knowledge sharing can contribute to promoting heritage and safeguarding activities, expanding knowledge and gaining insights through knowledge transfer across fields and regions.

Eleven New Elements from the Asia-Pacific Region Inscribed on the List of UNESCO’s Intangible Cultural Heritage

ICH in the Asia-Pacific Region with the theme of Knowledge-Sharing Network and Strengthening Capacity for Safeguarding ICH was held in Somerset Palace, Seoul.

The List of Intangible Cultural Heritage in Need of Urgent Safeguarding

The List of Intangible Cultural Heritage in Need of Urgent Safeguarding features vulnerable living heritage elements under threat. The intent is to mobilize international cooperation and assistance to strengthen the transmission of these cultural practices, in agreement with the concerned communities. Two elements from the Asia-Pacific region were inscribed.

• Cambodia — Lkhon Khol Wat Say Andet
• Pakistan — Suri Jagek

The List of Intangible Cultural Heritage of Humanity

The Representative List seeks to enhance visibility for the traditions and know-how of communities without recognizing standards of excellence or exclusivity. Nine inscribed elements from the region were inscribed.

• Azerbaijan, Kazakhstan, Turkey—Heritage of Dede Qorqud/Korkyt Ata/Dede Korkut, Epic Culture, Folk Tales, and Music
• China—Lam medicinal bathing of Sowa Rigpa, knowledge, and practices concerning life, health, and illness prevention and treatment among the Tibetan people
• Democratic People’s Republic of Korea and Republic of Korea—Traditional Korean Wrestling (Suirum/Siireum)
• Japan—Rainbo-shin, ritual visits of deities in masks and costumes
• Kazakhstan—Traditional spring festivals of the Kazakh horse breeders
• Malaysia—Dondang Sayang, traditional string puppet drama
• Tajikistan—Chakan, embroidery art
• Thailand—Khon, masked dance drama
Diverse communities  
Diverse ideas  
Diverse approaches  
Share your voice at net.ichcap.org