

HIGHLIGHTING
Japan

VOL.
164
JANUARY
2022



JAPAN'S "SNOW COUNTRY"

CONTENTS

Features

7

The Bounties of Snow

An interview with Onodera Satoshi, a researcher at the Nishiwaga Town Snow Country Cultural Institute in Iwate Prefecture



14

The Magical Snowscape of Shirakawa-go

With its steep-roofed houses blanketed in snow, Shirakawa-go in Gifu Prefecture becomes a magical site in winter.



10

The Sapporo Snow Festival

In early February each year, Sapporo City in Hokkaido hosts the world-famous Sapporo Snow Festival.



16

Snow Monkeys

At Jigokudani Yaen-koen (Jigokudani Monkey Park) in Nagano Prefecture, the hot springs attract “snow monkeys” in winter.



12

Yokote Snow Festival

Yokote City in Akita Prefecture is home to a centuries-old kamakura (snow hut) event, now a part of the Yokote Snow Festival.

4

PRIME MINISTER'S DIARY

24

POLICY-RELATED NEWS

Discover Ainu Culture

26

SCIENCE & TECHNOLOGY

Using Heat from Sewage to Melt Snow on Roadways

Also

COPYRIGHT © 2022 CABINET OFFICE OF JAPAN

The views expressed in this magazine by the interviewees and contributors do not necessarily represent the views of the Cabinet Office or the Government of Japan. No article or any part thereof may be reproduced without the express permission of the Cabinet Office. Copyright inquiries should be made through a form available at:

www.gov-online.go.jp/eng/mailform/inquiry.html

WHERE TO FIND US

Tokyo Narita Airport terminals 1 ● JR East Travel Service Center (Tokyo Narita Airport) ● JR Tokyo Station Tourist Information Center ● Tokyo Tourist Information Center (Haneda Airport, Tokyo Metropolitan Government Building, Keisei Ueno Station) ● Niigata Airport ● Kansai Tourist Information Center (Kansai Int'l Airport) ● Fukuoka Airport Tourist Information ● Prefectural Central Libraries



18

Snow Aged Sake

In Niigata Prefecture, a brewing company is drawing on the wisdom of snow refrigeration to produce “uniquely mellow and rich” sake.



On the cover: *Kamakura* snow huts in Yokote City, Akita Prefecture

22

Diamond Dust: Hokkaido Winter Glitter

Hokkaido-based photographer Takahashi Masumi captures the beautiful natural phenomenon of “diamond dust.”



20

Cooling Data Servers with Snow

Bibai City in Hokkaido is working to commercialize the use of snow to cool data servers.



THEME FOR **JANUARY:**
JAPAN’S “SNOW COUNTRY”

The heavy snowfall areas in Japan—places known poetically as *yukiguni*, or “snow country”—account for around half the nation’s land area. Japanese people living in these areas have developed numerous methods to get through and enjoy their snowy winters. In this month’s issue of *Highlighting Japan*, we take a look at some of the unique features of life in Japan’s “snow country.”

28

MY WAY

Life in a Meiji Mansion

30

JAPAN CULTURAL ENVOY

Bringing the Japanese Storytelling Art of *Rokyoku* to the World

PRODUCTION The Japan Journal

MANAGING EDITOR Sawaji Osamu

EDITORS Alex Hendy, Chiba Hitoshi, Fujita Mao

EDITORIAL SUPPORT Kiura Eriko

CONTRIBUTORS Kato Kyoko, Sasaki Takashi, Sato Kumiko, Sugiyama Mamoru, Umezawa Akira, Yanagisawa Miho

PHOTOS Kato Kumazo

DESIGN Imai Mei, Okadome Hirofumi

ON THE COVER

Kamakura snow huts in Yokote City, Akita Prefecture
Photo: Courtesy of Yokote City Tourist Association Co

EDITORS’ NOTE

Japanese names in this publication are written in Japanese order: family name first, personal name last.

JAPAN-AUSTRALIA LEADERS VIDEO TELECONFERENCE MEETING



On January 6, 2022, Mr. Kishida Fumio, Prime Minister of Japan, held a leaders video teleconference meeting with the Hon Scott Morrison, MP, Prime Minister of the Commonwealth of Australia. The two leaders attended the Signing Ceremony of the Japan-Australia Reciprocal Access Agreement (RAA) held online and signed the Agreement. Later, the two leaders held a video teleconference meeting and issued the Japan-Australia Leaders' Meeting Joint Statement. The overviews of the sessions are as follows.

Signing Ceremony of the Japan-Australia Reciprocal Access Agreement

Prime Minister Kishida and Prime Minister Morrison signed the Japan-Australia Reciprocal Access Agreement (RAA). At the Signing Ceremony, the two leaders welcomed the signing of the Agreement which will elevate bilateral security and defence cooperation to a new level, and expressed their expectation for the further development of the Japan-Australia relationship.



Signing Ceremony of the Japan-Australia RAA

Japan-Australia Leaders Video Teleconference Meeting

The two leaders shared the view that Japan and Australia, as “Special Strategic Partners” will further strengthen the bilateral relationship and embody their commit-

ment toward the realization of a “Free and Open Indo-Pacific.”

The two leaders welcomed the signing of the Japan-Australia Reciprocal Access Agreement. Prime Minister Kishida affirmed that the Agreement is the first Reciprocal Access Agreement for Japan and an epoch-making achievement. Prime Minister Kishida showed his recognition that security and defence cooperation between Japan and Australia continue to be a model case for Japan to strengthen security and defence cooperation with other countries. In response to this, Prime Minister Morrison stated that Japan is the closest and the only “Special Strategic Partner” in Asia, and the Japan-Australia Reciprocal Access Agreement (RAA) reflects the strong bond between the two countries. The Agreement is an epoch-making achievement, which leads to a new chapter for strengthening security and defence cooperation between the Japan Self-Defense Forces and Australian Defence Force.

The two leaders shared the recognition that it is necessary to further deepen the coordination between the Japan Self-Defense Forces and Australian Defence Force, to expand cooperation to new areas such as space and cyber, and to strengthen the effort in the area of economic security, including cooperation concerning the critical technology and resilient supply chains.

In addition, the two leaders pledged to issue at the earliest opportunity a new Japan-Australia Joint Declaration on Security Cooperation to serve as a compass for the two countries' engagement for years to come, deepening and broadening the scope of bilateral security and defence cooperation.

Furthermore, Prime Minister Kishida reiterated Japan's support for the Australia-UK-US security partnership, AUKUS, the development of which will contribute to regional peace and stability.

The two leaders also exchanged views

on the situation of North Korea and condemned the launch of a ballistic missile on January 5 as a violation of United Nations Security Council resolutions. They shared the view that nuclear and missile-related activities by North Korea threaten the peace and stability of Japan, the region and international community. The two leaders confirmed that they would continue to closely work together on the response to North Korea, including the abductions issue.

The two leaders shared the view that they strongly oppose unilateral attempts to change the status quo by force in the East and South China Seas.

The two leaders affirmed the importance of mid to long term U.S. engagement to the region toward the realization of a “Free and Open Indo-Pacific”, and committed to working together with allies and like-minded countries including cooperation between Japan, Australia, India and the U.S., as well as between Japan, Australia and the U.S. They also affirmed the significance of coordination with partners including Southeast Asian countries, Pacific island countries and European countries.

Prime Minister Kishida expressed his determination to lead international effort in the area of Nuclear Disarmament, and the two leaders concurred on closely cooperating in the field of Disarmament and non-proliferation including efforts through the Non-proliferation and Disarmament Initiative (NPDI).

The two leaders affirmed to advance the Japan-Australia economic relationship with public and private sectors acting in unison such as in the development of new urban areas of Western Sydney. Furthermore, the two leaders affirmed to deepen cooperation toward global issues such as climate change. In this regard, they concurred on accelerating energy transition in Asia and on promoting cooperation for decarbonisation such as by hydrogen projects.

Japan's "Snow Country"



Shirakawa-go in winter, illuminated at night
Photo: Courtesy of Shirakawa Village

T

he heavy snowfall areas in Japan—places known poetically as *yukiguni*, or “snow country”—account for around half the nation’s land area. Japanese people living in these areas have developed numerous methods to get through and enjoy their snowy winters. In this month’s issue of *Highlighting Japan*, we take a look at some of the unique features of life in Japan’s “snow country.”



The Bounties of Snow



Onodera Satoshi, a researcher at the Nishiwaga Town Snow Country Cultural Institute in Iwate Prefecture, holds a *kanjiki* snow shoe
Photo: Sawaji Osamu

THE heavy snowfall areas in Japan account for around half the country's land area. We spoke to Onodera Satoshi, a researcher at the Nishiwaga Town Snow Country Cultural Institute in Iwate Prefecture, about the various technologies and culture that have been fostered in the heavy snowfall areas in Japan.

Many parts of Japan get snow in winter, but which areas have particularly heavy snowfall?

Hokkaido (the northernmost of Japan's four main islands), mountainous areas of Honshu (the largest main island), and the Sea of Japan coast in particular receive large amounts of snow. In winter, cold seasonal winds blowing from Siberia bring clouds to Japan containing large amounts of moisture picked up from the warm Tsushima Current in the Sea of Japan. The clouds develop over Hokkaido and Honshu and cause large amounts of snow to fall.

These weather conditions result in much higher snowfall in Japan than in other countries located at the same latitude. For example, Niigata Prefecture and Nagano Prefecture, which are two of the heaviest snowfall areas in Honshu, are located at a similar latitude to warm areas in Europe such as Athens in Greece and Lisbon in Portugal, and places such as San Francisco in North America.

Areas with heavy snowfall are designated by the government as "heavy-snowfall areas" based on the Act on Special Measures concerning Countermeasures for Heavy-snowfall Areas enacted in 1962. The government implements

measures to improve living standards, promote industry, and prevent disasters in the heavy-snowfall areas. As of April 2021, Heavy Snowfall Areas account for 51 percentⁱ of Japan's land area, inhabited by around 15 percent of the country's population (approximately 19 million people).

Nishiwaga Town, Iwate Prefecture, where I live, is in a mountainous part of Japan's Tohoku region in northern Honshu and designated as one of the "special heavy-snowfall areas" which receive larger amounts of snow among heavy-snowfall areas. Here, snow doesn't melt from mid-December through mid-April, accumulating to a depth of around two meters from early February through early March.

What methods did people devise to get through the bitterly cold and very snowy winters before scientific and technological developments?

In heavy snowfall areas where it's difficult to get fresh vegetables in winter, vegetables and other foods are preserved, in a variety of ways. *Tsukemono* pickles are an example. The wild vegetables that grow in the mountains or vegetables harvested in the fields were not only eaten in season but also preserved for consumption in winter using salt and miso. Here in Nishiwaga Town, whole daikon radish preserved by pickling with salt in wooden barrels, a *tsukemono* called *ippon-zuke*, has been made since long ago. Similarly, a *tsukemono* specialty of Niigata and Nagano Prefectures is a vegetable called *nozawana* pickled in salt.



Nozawana pickles
Photo: gontabunta / PIXTA

ⁱ See Ministry of Land, Infrastructure, Transport and Tourism website: <https://www.mlit.go.jp/common/001325166.pdf>



Large *kanjiki* known as *sukari* depicted in the book *Hokuetsu Seppu*

Various implements have also been developed by people living in heavy snowfall areas. One such implement is *kanjiki*, used for walking on the snow without the feet sinking down. *Kanjiki* are made by bending long, thin pieces

of wood using heat from hot water or ashes from an open hearth to create the outer frame. They may be circular or oval in shape, depending on the region where they're made. Wearing *kanjiki* under shoes increases the area of the foot in contact with the snow, distributing the weight of the wearer evenly, preventing them sinking into the snow too deeply and making it easier to walk.

Similar footwear has been made by people who live in heavy snowfall areas overseas, such as the indigenous people of North America, and people in different parts of Japan have made various kinds of *kanjiki*. Suzuki Bokushi (1770-1842), a merchant from Echigo (present-day Niigata Prefecture), described large *kanjiki* called *sukari* in his *Hokuetsu Seppu*, wide-ranging writings on the nature, customs, and industries of the heavy snowfall region of Echigo. *Hokuetsu Seppu* was published in 1837 and became a best-seller of its time for its detailed descriptions of the realities of heavy snowfall areas that were largely unknown to people in cities such as Edo (present-day Tokyo).

These days, *kanjiki* are not commonly used, but the Snow Country Culture Institute offers a program for visitors to experience walking on snow wearing *kanjiki*. Participants are impressed by the feel of the snow and the pure white snowy landscape of a snowfield on which they would not normally be able to walk.

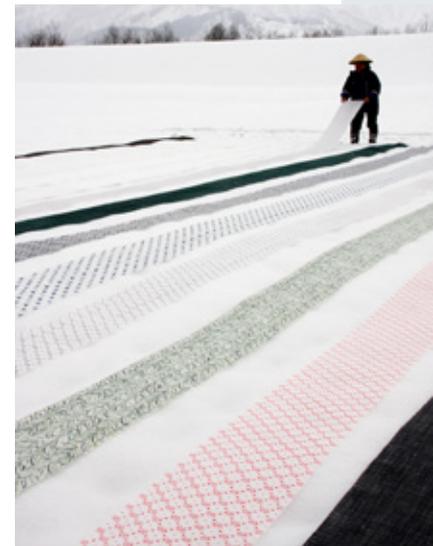
What cultural practices have been fostered in heavy snowfall areas?

One example is textiles. Until the spread of mechanical looms in the Meiji period (1868-1912), cloth was woven mainly by women in agricultural communities during the off-season in winter, and became a valuable source of cash income for farmers. Particularly famous textiles from areas with heavy snowfall are *Ojiya-chijimi* and *Echigo-jofu* in Niigata Prefecture, both of which are inscribed on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity. The textiles are woven using yarn spun from *karamushi*, a type of hemp, and the process of making

them is described in detail in *Hokuetsu Seppu*, including *yukisarashi*, the practice of spreading the woven cloth out on the snowfield and exposing it to the sun to bleach it.

Another cultural practice fostered in rural communities in areas with heavy snowfall is *yui*, a culture of mutual support whereby residents work together to plant and harvest rice, build and repair houses, and clear snow in winter. Living in such a harsh natural environment, helping one another was essential for residents to survive.

In recent years, with the population in rural areas aging, the number of people who are able to clear snow from their houses has been declining, which has become a serious problem. In response to this situation, in 1993 a volunteer group called Snow Busters was formed mainly by younger residents of Nishiwaga Town to clear snow from the homes of the elderly. Later, this kind of group activity spread to other areas. I believe this is an example of the tradition of *yui* in areas of heavy snowfall being passed down through the generations.



Yukisarashi, the practice of bleaching woven cloth on a snowfield, in Ojiya City, Niigata Prefecture

Photo: Niigata Prefectural Tourist Association

How is snow being used in Japan?

Come spring, the snow turns into large volumes of meltwater, which benefits people greatly. In many areas where there is heavy snowfall, rice cultivation flourishes thanks to the abundant snowmelt. Meltwater is also essential for industrial water and hydroelectric power generation.

More recently, snow has come to be used as an environmentally friendly energy resource. Nishiwaga Town pioneered this initiative in Japan. In 1989, the first agricultural storage facility equipped with a snow storage room was built. In 2000, the facility was extended, increasing the snow storage capacity to 250 tons. The snow in the room cools the air, which in turn cools the farm produce in the agricultural storage rooms. In 1994, a separate facility with a snow storage capacity of 150 tons was built. Produce such as cut lilies, apples, strawberries, and buckwheat seeds are refrigerated in these storage facilities. The temperature inside the facilities is kept at between 0 and 4 degrees



A farm produce storage facility using snow in Nishiwaga Town
 Photo: Nishiwaga Town Snow Country Cultural Institute

Celsius year round and the humidity at between 85 and 99 percent, enabling agricultural produce to be preserved for long periods.

Since the 1990s, efforts to use snow to cool buildings and store farm produce have spread to the prefectures of Hokkaido, Yamagata, Niigata, and other areas with heavy snowfall. In the past, most of the snow removed from roads and buildings was simply dumped into rivers and drainage channels, or piled up on open ground. I believe that using snow as a resource will become even more important in the future in order to save fossil fuels and reduce carbon emissions.

What experiences would you like overseas visitors to Japan to enjoy during the snow season once the COVID-19 pandemic subsides?

I'd like them to see and touch the snow for themselves. Many places offer programs such as walking on snow using kanjiki and making kanjiki, and visitors to the Tsugaru region of Aomori Prefecture can take part in a tour to experience the *jifubuki* phenomenon of upward drifting snow. (See *Highlighting Japan*, February 2018, "Adventures on Fields of Drifting Snow.")

I'd also like them to check out snow formations. Takahashi Kihei (1910-2006), the first director of the Snow Country Cultural Institute, noticed the beauty of the different shapes created by snow and took many photographs of them. For example, *kansetsu* are snow formations in the shape of the umbrella-like cap of a mushroom on top of bushes and rocks, while *yukimakuri* are chunks of snow that have rolled down a slope and formed a wheel-like shape. If visitors look at the snowy landscape with a little attention, they will be able to spot these beautiful natural 3D artworks.

I hope visitors will also see the cultural assets unique to areas of heavy snowfall. On display at the Hekisyouji Museum in Nishiwaga Town are more than 10,000 items



Kansetsu, an umbrella-like cap of snow that forms atop bushes or rocks
 Photo: Nishiwaga Town Snow Country Cultural Institute



Yukimakuri, a naturally formed wheel of snow
 Photo: Nishiwaga Town Snow Country Cultural Institute

including clothing, footwear, sleds, farming equipment, and hunting tools, some of which are designated as Important Tangible Folk Cultural Properties, allowing visitors to learn about the lives of people in heavy snowfall areas. The museum displays a large number of *kera*, sleeveless raincoats made of plant leaves worn to help keep dry in the rain or snow. Among them are special *kera* made as wedding gifts by mothers for their daughters. The beautiful embroidery around the necks of the special *kera* gives a feel for the mothers' love and desire for their daughters' happiness.

I'd like many people to know about the natural environment of these heavy snowfall areas, and the traditions and cultural practices that are passed down through the generations. 📖

Interview by SAWAJI OSAMU

Kera, garments worn to keep the body dry in the rain or snow, embroidered around the neck, on display at the Hekisyouji Museum in Nishiwaga Town
 Photo: Sawaji Osamu



"Earth and the Future of Our Children," a giant snow sculpture created for the 2008 Sapporo Snow Festival.



A snow sculpture titled (Japanese) "Castle" created for the 2009 Sapporo Snow Festival

All photos: Courtesy of City of Sapporo

The snow festival held in the city of Sapporo in Hokkaido since 1950 is an event full of international character and looked forward to by many people as a special winter occasion.

Interview (December 21, 2021) by
SUGIYAMA MAMORU

IN early February each year, Sapporo City, Hokkaido hosts the Sapporo Snow Festival, considered one of the big three snow festivals in the world along with the Quebec Winter Carnival in Canada and the Harbin Ice Festival in China. The Festival is held across three sites. The principal Odori Site in Odori Park, which is also a main city street is lined with more than 100 snow sculptures of all sizes, including some ten giant snow sculptures ranging in height from several meters to over 10 meters, presenting a magnificent spectacle. In contrast to the main site, where visitors can enjoy viewing snow sculptures,



A giant snow sculpture depicting the Hakodate Magistrate's Office, created for the 2009 Sapporo Snow Festival



A giant snow sculpture depicting Chakri Maha Prasat Grand Palace in Bangkok, Thailand, created for the 2007 Sapporo Snow Festival

the Tsudome Site is a popular children's attraction, offering a variety of fun experiences such as snow slides and mazes. The third site is the Susukino Site, which is the venue for the Ice Sculpture Contest showcasing some of the elaborate ice sculptures that decorate the city.

The Snow Festival began in 1950 when local junior high school and high school students made six sculptures from the snow that had come to be dumped by the city's residents each year in Odori Park. The snow sculptures gradually got bigger and bigger, and four years later a gigantic sculpture standing 15 meters tall appeared.

Various techniques are used to make snow sculptures, including carving hardened snow and stacking snow bricks. Around 30,000 tons of snow (equivalent to some 6,000 truckloads) are collected from neighboring areas and transformed into a diversity of snow sculptures, reflecting the times and society. In 1955, Self-Defense Forces stationed in Hokkaido began participating in the creation of the snow sculptures alongside citizens' groups as part of their training. As a result, the snow sculptures very quickly increased in size and production techniques improved.

"The largest ever sculpture was the 25-meter-high 'Gulliver, Welcome to Sapporo' in 1972, which was created with the equivalent of 1,300 5-ton truckloads of snow. That year, the Snow Festival was immediately followed by the Olympic Winter Games held in Sapporo. Some of the Olympic officials visiting Japan were able to enjoy the Snow Festival, and that was how the event caught the world's attention," says Yamagami Isshin of the Sapporo Snow Festival Executive Committee secretariat.

The International Snow Sculpture Contest has been held since 1974, with many different artists invited from countries around the world to create snow sculptures. Since that year, snow sculptures related to places with close ties to Sapporo City, such as Shenyang (China), Alberta (Canada), Munich

(Germany), Sydney (Australia), and Portland (USA) have been created, making the contest full of international character.

"The Sapporo Snow Festival attracts more than two million visitors every time, so it's an essential winter occasion for the citizens of Sapporo too," says Yamagami. In 2021, it was held online for the first time to prevent the spread of COVID-19. This year's event is planned as a smaller scale affair, held at the Odori site only as well as onlineⁱ.

While the rows of snow sculptures under clear blue skies after a snowfall are impressive, the glittering snow sculptures illuminated after dusk offer a gorgeousness different to the daytime, and are quite unmissable. 



A competitor from overseas makes a giant Buddha head at the 2007 Sapporo Snow Festival

ⁱ The 2022 Sapporo Snow Festival will be held as an online event only to help prevent the spread of the new coronavirus. It was announced on January 19 that the event at the Odori site has been canceled. (<https://www.snowfes.com/english/>)

Yokote Snow Festival

The Tohoku region of northeast Japan has harsh winters and generally heavy snowfalls. At the height of winter, one of the most fun things to do is enjoy the *kamakura* (snow hut) traditional event in Yokote City, Akita Prefecture, which is said to date back some 450 years.

SATO KUMIKO

JAPAN'S snow country is home to a traditional *ko-shogatsu*¹ (Little New Year) event called "Kamakura," in which snow is compacted and the inside hollowed out to create a space in which to worship the deity of water. One such Kamakura event is held in Yokote City, Akita Prefecture, where for 450 years, families have built *kamakura* (snow huts) to pray for abundant harvests and the safety of their households. Today, the tradition continues as part of the Yokote Snow Festival, an annual event held over two nights on February 15 and 16.

During the Snow Festival, more than eighty 3-meter-high *kamakura* are erected at the festival site, with thousands of miniature *kamakura* also set up on the riverbanks and elementary school grounds in Yokote City. In the evening, candles are lit inside them, creating a magical scene.

¹ *Ko-shogatsu* is an event held on January 15, as opposed to *O-shogatsu*, which is a New Year's event held mainly on January 1. Depending on the region, *Ko-shogatsu* may refer to the three days from January 14 to 16.

All photos: Courtesy of Yokote City Tourist Association Co

The many *kamakura* set up at the Snow Festival are built by local *kamakura shokunin* (*kamakura* artisans). They begin by drawing a circle around 3.5 to 4 meters in diameter, then collect and pile up snow inside it, treading down on the snow as they go until the mound reaches a height of around 3 meters. The *kamakura* is then hollowed out starting with the entrance, and a *kamidana* altar (literally, deity shelf) is carved into the wall opposite the entrance to enshrine the deity of water.

"Each *kamakura* is 'hosted' by three or four local children aged between 5 and 12. Children play a leading role in the Yokote Snow Festival," says Konishi Haruna of the Yokote City Tourism Association.

Although *kamakura* are made of snow, they are surprisingly warm inside thanks to the *shichirin* (portable clay cooking stoves) placed within. From inside the *kamakura*, the children call out to festival-goers in the local dialect to "Come in and pay your respects to the gods!" treating those who enter to refreshments of *amazake*, a sweet drink made from fermented rice, and grilled *mochi* rice cakes.

Even on bitterly cold nights, the soft glow from the *kamakura* and the smiles of the children envelop the visitors in a heart-warming embrace. 



Kamakura snow huts in Yokote City, Akita Prefecture



Festival-goers inside a snow hut at the Yokote Snow Festival

Candle-lit miniature *kamakura* in their thousands



Festival-goers walk among candle-lit miniature *kamakura*





Shirakawa-go in winter, illuminated at night

The Magical Snowscape of Shirakawa-go

Shirakawa-go in winter becomes a magical site when its village of traditional homes built in the unique architectural style of *gassho-zukuri* is blanketed in white snow.

FUJITA MAO

SHIRAKAWA-GO in Shirakawa Village, northwest Gifu Prefecture, located in the center of Japan's main island of Honshu, is known for its thatched-roofed *gassho-zukuri*ⁱ houses. The *gassho-zukuri* architectural style is characterized by roofs with a triangular formation resembling hands joined in prayer, or *gassho* in Japanese, designed to withstand heavy snowfall. Hailed as an example of an original Japanese landscape that remains intact to this day as a blend of traditional rural culture and lifestyle, Shirakawa-go was registered as a UNESCO World Heritage Site in 1995, along with Gokayama in neighboring Toyama Prefecture. Shirakawa-go is surrounded by steep mountains, and snow falls each year from late December.

"We can get more than two meters of snow in Shirakawa-go

when snowfall is heavy. In winter, daytime temperatures average -1 to 0 degrees Celsius, 2 to 3 degrees Celsius at the most. The nights are bitterly cold, with sub-zero temperatures," says Hashiwaki Kei of the Tourism Promotion Division of the Shirakawa Village Office.

From spring through fall, visitors to Shirakawa-go enjoy taking photos of the tranquil rural landscape and the "upside-down *gassho-zukuri* houses" reflected on the surface of the water of the rice paddies. Come winter, when the snow begins to fall, the scenery is suddenly transformed into a snow covered landscape. The *gassho-zukuri* houses dotted about this silvery white landscape are an iconic winter scene in Shirakawa-go.

At dusk in particular, as the snow cover gradually takes on a more intense blue hue, the lights start to come on in the houses, the *shoji*ⁱⁱ paper screen windows distributing a dim light and creating a magical spectacle unique to the snow country. On certain nights only in winter, light-up events are held, turning the village into a dreamlike world. This beautiful winter landscape is unique to Shirakawa-goⁱⁱⁱ.



Gassho-zukuri houses in winter in daytime

Says Hashiwaki, “I heard that the illumination event grew out of the desire of the local residents to extend *omotenashi* (Japanese hospitality) to visitors by offering them an enjoyable experience to take home with them during the winter season of monotonous snow-covered scenes. Many people look forward to it every year,” says Hashiwaki.

Before the spread of COVID-19, Shirakawa-go welcomed many tourists from Asia, Europe and the United States. From the observatory overlooking Shirakawa-go, they could enjoy a vast panoramic view of the village blanketed in snow and illuminated by lights. One tourist from overseas marveled that it resembles a world depicted in a picture book of folk tales from their childhood.

Winter, more than any other season, imbues the Shirakawa-go landscape with a magical air of wonder and nostalgia that stays with everyone who visits. ¹⁾

i A residential architectural style in which thatched roofs are constructed in a triangular formation, giving the appearance of two hands joined in prayer. (The term “thatch” is the general name given to grasses used to thatch roofs, and includes materials such as Japanese pampas grass and reeds.)
 ii *Shoji* are lightweight sliding doors, windows or room dividers consisting of thick, translucent paper stretched over a framed lattice of wood or bamboo.
 iii The Shirakawa-go Gassho-Zukuri village is illuminated on certain days in January and February. Entrance is only by advance reservation. For more information, please check the Shirakawa-go Tourist Association website.

A gassho-zukuri house reflected on a rice paddy on a winter's night



Snow Monkeys

Monkeys relaxing in a hot spring bath at Jigokudani Yaen-koen in Nagano Prefecture

Opened in 1964, Jigokudani Yaen-koen (Jigokudani Monkey Park) in Nagano Prefecture is a facility where wild Japanese monkeys can be observed up close all year round. Particularly famous in Japan and around the world are the “snow monkeys” that bathe in the natural hot springs in winter.

SASAKI TAKASHI

JIGOKUDANI Yaen-koen (below, “Yaen-koen”) is located 850 meters above sea level in the mountains of Yamano-uchi Town in the northern part of Nagano Prefecture. Its setting is a steep rocky gorge, where natural hot springs have gushed forth since ancient times. The park is inhabited by groups of wild Japanese macaquesⁱ, a species of monkey endemic to Japan.

It is more than sixty years since the late Hara Sogo, who would become the first director of Yaen-koen, began feeding wild monkeys in the vicinity of the Korakukan inn at Jigokudani Onsen. At the time, forests were being cleared for the development of a ski resort in the area, which sees around a

meter of snow in winter, and groups of Japanese macaques started appearing in the fields and orchards in the foothills of the mountains near people’s homes. Hara and other locals started feeding the Japanese macaques to stop them raiding the fields and orchards. It was then that they began to think about how they might somehow make use of the monkeys as a resource for tourism. In the meantime, inquisitive young monkeys began to bathe in the hot springs of Korakukan during the snowy winter season, perhaps imitating the onsen guests. Hara and his neighbors had never seen monkeys in a hot spring before, and they came up with the idea of turning this unusual sight into a tourist attraction for the town.

Yaen-koen opened in 1964. Three years later, an outdoor hot spring bath for the exclusive use of the monkeys was completed. In 1970, a photograph entitled “Snow Monkeys of Japan” depicting a Japanese macaque soaking in a hot spring in a snowy landscape appeared on the cover of the American magazine *LIFE*, and their fame spread around the world.

“Monkeys actually don’t like to get their bodies wet,” says Takizawa Atsushi, sales manager of Yaen-koen. “This is probably the only place in the world, apart from zoos, where you can see monkeys bathing.”

ⁱ Primates of the *Cercopithecoidea* (long-tailed monkey) family, endemic to Japan. Japanese macaques live in evergreen and deciduous broad-leaved forests and form matriarchal groups of a dozen or so to a hundred, including adult males, that roam freely in groups.

All photos: Courtesy of Jigokudani-yaenkoen

Monkeys in a hot spring bath



Monkeys grooming in a hot spring bath



Parent and child monkeys relaxing



Monkeys at play

Currently, some 160 monkeys come to Yaen-koen, of which only around 50 soak in the hot spring. It is said that monkeys will live their whole lives without entering the hot spring bath unless they soaked in the hot water when they were infants.

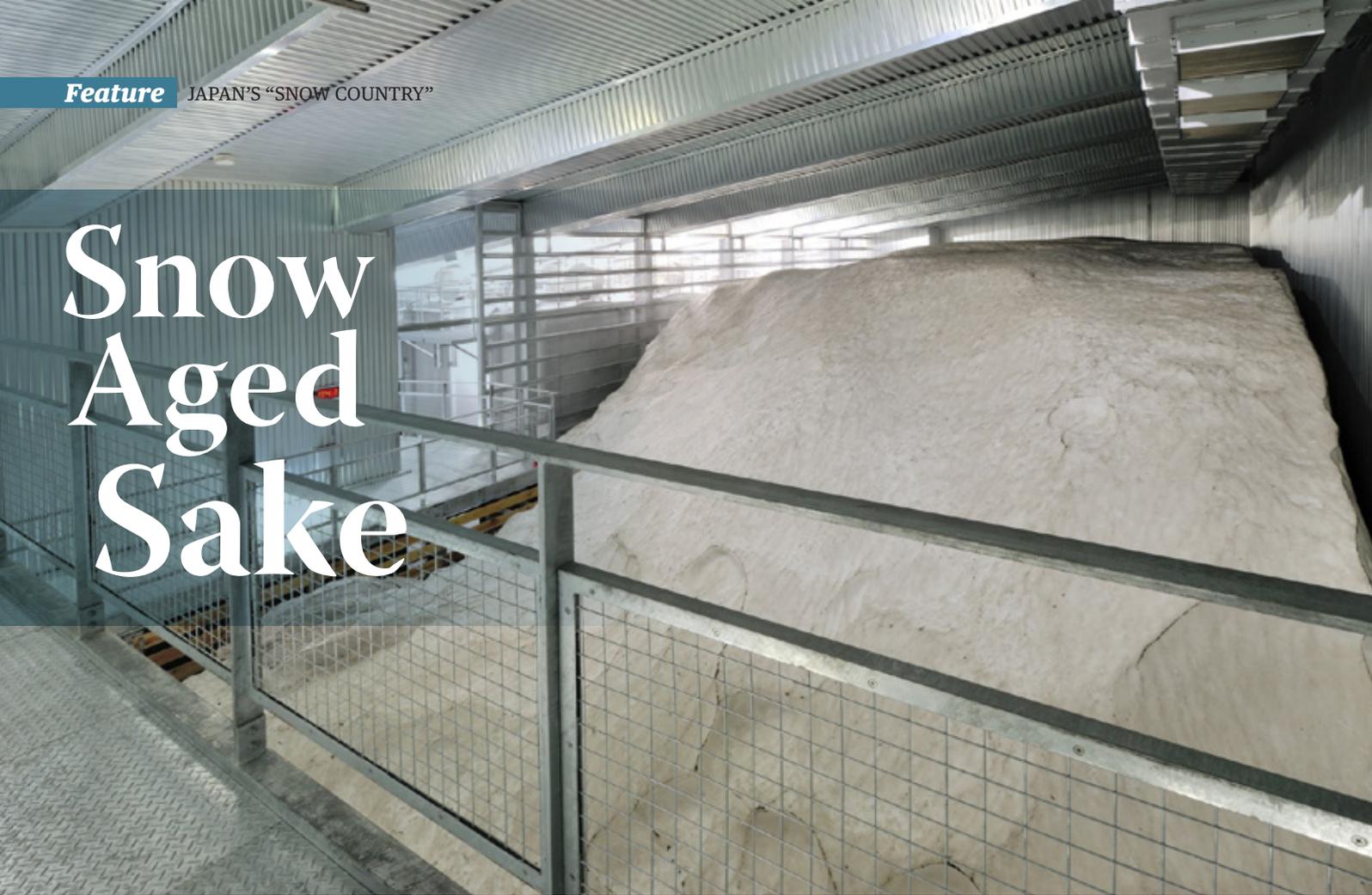
Alongside the popular winter sight of the monkeys bathing, Yaen-koen's appeal lies in the fact that visitors can observe groups of wild Japanese macaques at amazingly close quarters all year round. From spring through fall, visitors can watch the monkeys tending to their infants and young monkeys playing with each other, oblivious to the presence of humans nearby. You might think that in winter, visitors are guaranteed to see monkeys bathing, but that is not so. This is because on fine days the monkeys spend most of their time on the sunny slopes of the mountains, a comfortable place where they can take refuge from the cold without needing to soak in the hot springs and where food is plentiful.

Yaen-koen has set up a live camera to film the monkeys and streams the action over the Internet, so visitors can observe their activities online from anywhere in the world. Sometimes they even get to see the monkeys soaking in the hot spring. Nevertheless, says Takizawa, "If ever you have the chance, I strongly encourage you to come and see firsthand the monkeys playing in the magnificent natural surroundings of Yamanouchi Town." 



A monkey with a snowball

Snow Aged Sake



Inside the *yukimuro* (snow cellar), where up to 1,000 tons of snow are stored

In the “snow country” of Niigata Prefecture, fresh food produce used to be stored all year round in natural refrigerators called “*yukimuro*” (literally, snow cellars). In the same prefecture today, a brewing company is drawing on the wisdom of snow refrigeration to produce “uniquely mellow and rich” sake.

KATO KYOKO



The chill from the snow alone keeps the room temperature at a constant 3 to 4 degrees Celsius

All photos: Courtesy of Hakkaisan Brewery Co., Ltd.

MINAMIUONUMA City in southeastern Niigata Prefecture is known as one of the heaviest snow-fall areas in Japan. Before electric refrigerators came into widespread use, natural refrigerators known as “*yukimuro*,” snow cellars made from snow accumulated during the winter and insulated with straw and other materials, were used all year round to preserve foods such as vegetables and fish.

Hakkaisan Brewery Co., Ltd., which produces Japanese sake in the foothills of Mt. Hakkai in Uonuma, built the Hakkaisan Yukimuro in 2013, harnessing that wisdom. The facility is a natural convection¹ snow cellar with three layers of insulation, a storage chamber that can store up to 1,000 tons of snow, and a snow-cooled storehouse. It has a constant internal temperature of between 3 and 4 degrees Celsius. The facility’s tanks hold 360,000 liters of maturing sake, equivalent to 200,000 1.8-liter bottles. In addition, the cool air created by letting cool breezes pass through the *yukimuro* is sent to the refrigerators of stores that sell sake and other fermented foods as “snow cooling” to replace part of the electricity needed. The *yukimuro* building has also garnered numerous awards for its simple yet modern architecture that blends pleasingly with its natural surrounds.

Hamasaki Kozue, public relations coordinator for Hakkaisan Brewery, explains about the facility. “The construction of the Hakkaisan Yukimuro was prompted by the Great East



Uonuma no Sato (Uonuma Village) is situated in one of the heaviest snowfall areas in Japan making it well suited to the production of sake, which requires clean air and water

Rich and mellow “snow-aged” sake

Japan Earthquake in March 2011. As we began to consider introducing natural energy rather than relying on conventional sources, we looked at the ancient yukimuro tradition in the Uonuma region. In our daily lives, snow is often seen as a nuisance, causing disruption to traffic and requiring us to clear it from our roofs. We decided to reframe snow as a ‘resource’ and proactively harness the benefits of our snow country location.”

Sake stored in the Hakkaisan Yukimuro for three years is said to acquire a mellow flavor. Since 2016, the company has been marketing this “snow-aged” Junmai Daiginjoⁱⁱ sake.

Says Hamasaki, “With thermal tanks (tanks that can be temperature controlled individually) that are widely used to store sake, the faint hum of the machines is transmitted to the sake inside the tanks. In contrast, the yukimuro has no noise or vibration from machines, so is extremely quiet. This, together with the stable low temperature and high humidity environment, brings about changes in the sake to produce a uniquely mellow and rich taste.”

The Uonuma region is known as a place where one of

Japan’s most delicious varieties of rice, Koshihikari, is grown. Besides sake, Hakkaisan Yukimuro stores produce such as locally-grown Koshihikari rice and vegetables, which are sold in the on-site shop. The plump rice and wonderfully sweet root vegetables are popular for their flavor.

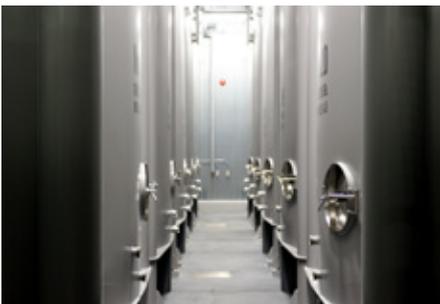
Hakkaisan Yukimuro offers tours daily. Hamasaki says participants are amazed to see large volumes of snow at the facility all year round.

“Even at the height of summer when the temperature exceeds 30 degrees Celsius, inside the facility it’s as cool as a refrigerator. You get a real sense of the power of snow as a clean energy source.”

Hakkaisan Yukimuro stores sake and vegetables using natural energy rather than electricity, and in doing so also stores the wisdom inherited from the people of the snow country, passing it on to the next generation. 

i A method of maintaining temperature using natural airflow caused by changes in temperature and pressure differences that occur in the air.

ii A daiginjo sake is sake produced from rice grains that have been polished to a minimum of 50% their original size.



The facility’s tanks hold 360,000 liters of sake



Hakkaisan Yukimuro was designed in 2013 and has won numerous architecture awards in Japan



Cooling Data Servers with Snow

For five years beginning in 2014, Bibai City in Hokkaido conducted the world's first demonstration experiment in the use of snow to cool data servers. The city is now making efforts to extend these research results to commercialization of snow-cooled servers in data centers, and it is expected that these efforts will promote the regional revitalization of Japan's snow country.

SASAKI TAKASHI

White Data Center utilizes cleared snow to cool servers



Inside the White Data Center

BIBAI City (population approx. 20,000 as of November 30, 2021), located in central Hokkaido, is an area of high snowfall, with up to 10 meters of snow accumulation every winter. Each year during the snowfall season, it costs the city 400 million yen (approximately 3.5 million US dollars at the exchange rate of January 20, 2022) to clearⁱ and removeⁱⁱ snow to secure transport so that residents can continue to commute to work and school, and to prevent damage to buildings. Until recently, there was no effective means of reusing snow that had been cleared or removed at great expense, and it simply became a nuisance. Lately, however, measures are being established to collect, store, and effectively utilize that snow. One such measure entails the use of snow to cool servers in data centers.

The catalyst for this initiative was the Bibai Natural Energy Research Association, established by local volunteers in 1997. A research group with Professor Emeritus Kobiyama Masayoshi of the Muroran Institute of Technology as its technical adviser studied various ways of utilizing the coldness of snow as energy, referred to as snow cooling energy, such as in snow cooling facilities. Among these, the concept of a data center where servers are cooled by snow was proposed in 2008. Servers that handle vast amounts of data have been shown to generate high temperatures that, without intervention, can overload the server, causing it to fail and shortening its lifespan. To prevent this, the inside of the data center needs to be constantly cooled. However, the normal method of running air conditioning to cool data centers costs around the same as the electricity required to run the servers. The research group has been working to develop a technology which utilizes snow that has been cleared or removed as snow cooling energy for air conditioning.

As a result of demonstration experiments conducted over five years from 2014 and supported by funding from NEDO (New Energy and Industrial Technology Development Organization), a technology was developed to convert snow that has been cleared or removed together with mud, trash, and snow-melting agents, into energy that is then sent directly to a data center. This technology is said to cut cooling costs to less than half those of conventional data centers. Furthermore, a special feature is that the technology is 100% renewable with zero CO₂ emissions. In response to this, White Data Center (below, WDC) was established in Bibai City and commercialization of the data center began in 2021. The center currently runs 20 racks of serversⁱⁱⁱ cooled by antifreeze^{iv} fed through a pipe running from an artificial hill of snow collected by the city.

WDC President & CEO Ijichi Shinichi spoke about how the

Center may develop. “The next data center we plan to build will be ten times the size of the current one, with 200 racks of servers running. In order to use energy efficiently, we’re experimenting with vegetable cultivation and fish and seafood farming in greenhouses using waste heat produced by the servers during winter. We plan to turn this into a reality as the data center grows in scale.”

Some 200,000 tons of snow are cleared or removed each year in Bibai City and the surrounding area. In the future, this could be used to cool 3,000 racks of servers. Bibai City is using snow as energy to run a data center, and even capturing the waste heat for use in agriculture and fisheries. There are high hopes for Bibai City’s example; namely, this special way to promote regional revitalization in Japan’s snow country. **1**



Waste heat produced by the WDC servers during the winter is supplied to a greenhouse to maintain an internal temperature of 15 to 20 degrees Celsius



Abalone farmed using waste heat from the WDC servers



Komatsuna (Japanese mustard spinach) cultivated in a greenhouse

ⁱ Snow clearing is the job of clearing snow from the road to make way for traffic.
ⁱⁱ Snow removal is the job of loading snow onto a dump truck and transporting it to designated snow disposal areas.
ⁱⁱⁱ Dedicated shelves for storing servers, router switches, and the like in data centers. Depending on the size of the servers and peripheral equipment, 20 racks might have data storage capability for around 40 companies.
^{iv} Liquid used to prevent freezing in cold districts

Diamond Dust

Hokkaido Winter Glitter

There is a beautiful natural phenomenon known as “diamond dust” that occurs only when a number of weather conditions are met during periods of severe cold. We interviewed Takahashi Masumi, a photographer based in Hokkaido, about diamond dust.

SUGIYAMA MAMORU

WATER vapor in the atmosphere freezes at temperatures below minus 10 degrees Celsius. This natural phenomenon is known as diamond dust because the fine ice crystals glitter and reflect the sunlight like diamonds as they float in the air. Even in cold regions it is a special sight that can only be seen in certain conditions such as fine, windless, midwinter weather. In Japan, diamond dust can be observed in the interior of the northern island of Hokkaido, and is particularly likely to occur in the Tokachi region, Nayoro City, and Furano City in January and February.

“Hokkaido’s inland areas have moderate humidity, which makes the groups of very fine ice crystals known as diamond dust exceptionally beautiful.” So says Takahashi Masumi, a photographer based in Furano City with more than seventy published collections to his name showcasing the beauty of Hokkaido’s year-round magnificent nature. Diamond dust changes color according to the angle of the light, so it looks completely different depending on the angle and position from which it is viewed. Because of this ever-changing glittering effect, diamond dust is also known as “angel’s whisper.” Says Takahashi, “It really does make a ‘whispering’ sound when it falls, which is very soothing.”

Diamond dust scene captured by Takahashi Masumi



All photos: Courtesy of Takahashi Masumi



Diamond dust rainbow

Another phenomenon is the “sun pillars” that occur when sunlight reflects off diamond dust, forming glittering vertical shafts of light. Gradually changing form depending on the atmospheric conditions and the sun, sun pillars are a mysterious, dreamy phenomenon.

“When winter comes in Hokkaido, diamond dust forecasts are posted on the Internet, and diamond dust fans rush to those areas. I hope that people who happen upon diamond dust or sun pillars appreciate their good fortune. And when the COVID-19 pandemic is over, I hope many people in Japan and overseas will visit Hokkaido and enjoy its unique winter scenery for themselves,” says Takahashi.

Winter in Hokkaido also offers many other beautiful phenomena. Clouds and ice shimmer like rainbows, while snow and ice create magical shapes and patterns. In many cases, the beauty of these phenomena was first captured through the use of photography techniques. Leisurely viewing photographs of scenes that are very difficult to observe even at the spot where they were taken and planning a trip in your imagination is another way of enjoying winter in Hokkaido. 📷

Magical shapes and patterns created by snow and ice



Sun pillar

Discover Ainu Culture

Illuminations on the shore of Lake Poroto at the National Ainu Park

The National Ainu Museum and Park, nicknamed “Upopoy,” in Shiraoi, Hokkaido, is a facility where visitors can learn about the culture of the indigenous Ainu people through a variety of exhibits and programs.

SAWAJI OSAMU

THE National Ainu Museum and Park, which opened in July 2020, plays a central role in Japan for the revival of the culture of the Ainu, the indigenous people of the northern region of the Japanese archipelago, particularly Hokkaido. Its initiatives include exhibitions, research and study about the Ainu culture; continuation of cultural traditions; development of human skills; exchange of culture and experience; dissemination of information; and provision of a recreation place with abundant nature. Its nickname, “Upopoy,” is an Ainu word meaning “singing together in a large group.”

Situated on the shores of Lake Poroto amidst beautiful natural surroundings, Upopoy passes down and shares various aspects of Ainu culture, which have been cultivated in nature since ancient times. It also serves as a symbol of a society based on mutual respect and coexistence. Upopoy offers people of all nationalities and generations the opportunity to learn about the Ainu’s worldview and respect for nature.

The National Ainu Museum at Upopoy is the first national museum in Japan dedicated to the history and culture of the Ainu people. The museum’s Permanent Exhibition Room houses exhibitions that explore six themes from an Ainu perspective: Language, Universe, Lives, History, Work, and Exchange. In the “Our Language” area, for example, visitors can learn about oral literature, the Ainu language and place names derived from the Ainu language through audio and video resources. In the “Our Lives” area, the characteristics and regional differences of Ainu culture, such as food,

clothing, and housing, life course, and music and dance, are explained.

The National Ainu Park meanwhile is an interactive open-air center where visitors can experience the culture of the Ainu people. For example, at the *uekari cise* (Cultural Exchange Hall), visitors are able to enjoy traditional Ainu performing arts such as traditional Ainu dances that are inscribed on UNESCO’s Representative List of the Intangible Cultural Heritage of Humanity and oral literature. Visitors can also take part in the *yayhanokkar cise* (Workshop), where they can make and taste Ainu cuisine or play traditional Ainu instruments such as the *mukkuri* (mouth harp).

In order to ensure that all visitors can learn about Ainu culture and experience it firsthand, Upopoy is preparing multilingual resources. These include a multilingual website as well as pamphlets and signage in the park, and explanatory information on the museum exhibits in languages such as Ainu, Japanese, English, and Chinese. Visitors can also download a multilingual audio guide app (free of charge) to their mobile device to access information about the park’s facilities and museum exhibits in Japanese, English, Chinese, Korean, Russian, and Thai.

WINTER EVENTS

Upopoy is currently hosting a varied program of winter events. At the National Ainu Park, against

Upopoy (National Ainu Museum and Park) – Shiraoi Town, Hokkaido

Access

Approximately 40 minutes by expressway from New Chitose Airport
Approximately 40 minutes by limited express train from New Chitose Airport Station to Shiraoi Station

Reservations

As part of efforts to prevent the spread of COVID-19, visitors are currently required to make a reservation for a specific date for entry to Upopoy. Tickets must be obtained online from up to 14 days before the date on which they intend to visit. Visitors wishing to see the National Ainu Museum exhibitions must make a separate reservation online specifying a date and time for entry. (As of January 24, 2022)



*For more information about Upopoy, including access and reservation details, please visit the official website at <https://ainu-upopoy.jp/en/>



the backdrop of Lake Poroto, visitors can enjoy the magical spectacle of ten huge cubes illuminated by some 83,000 light bulbs showing the silhouettes of bears, deer and other animals connected to Ainu culture. Visitors are also able to enjoy sliding down a hill of snow on a deerskin sled, among other activities.

Other features of interest in the park are *kuca* (hunting huts), built to provide eating and sleeping accommodation sheltered from the wind and snow when out hunting in the wild, as well as scenes of salmon being dried outdoors. Salmon is an indispensable part of the Ainu food culture, and dried salmon, called *satcep*, is a traditional preserved food.

An exhibition entitled “Touch, Look, Listen to the National Ainu Museum” will be held at the National Ainu Museum from January 29 through February 27, 2022. In this event visitors can experience Ainu culture in a way that does not rely solely on sight, but also touch and sound. During the exhibition, events are being planned that expose visitors to Ainu music and traditional folk utensils. 



The Permanent Exhibition Room at the National Ainu Museum



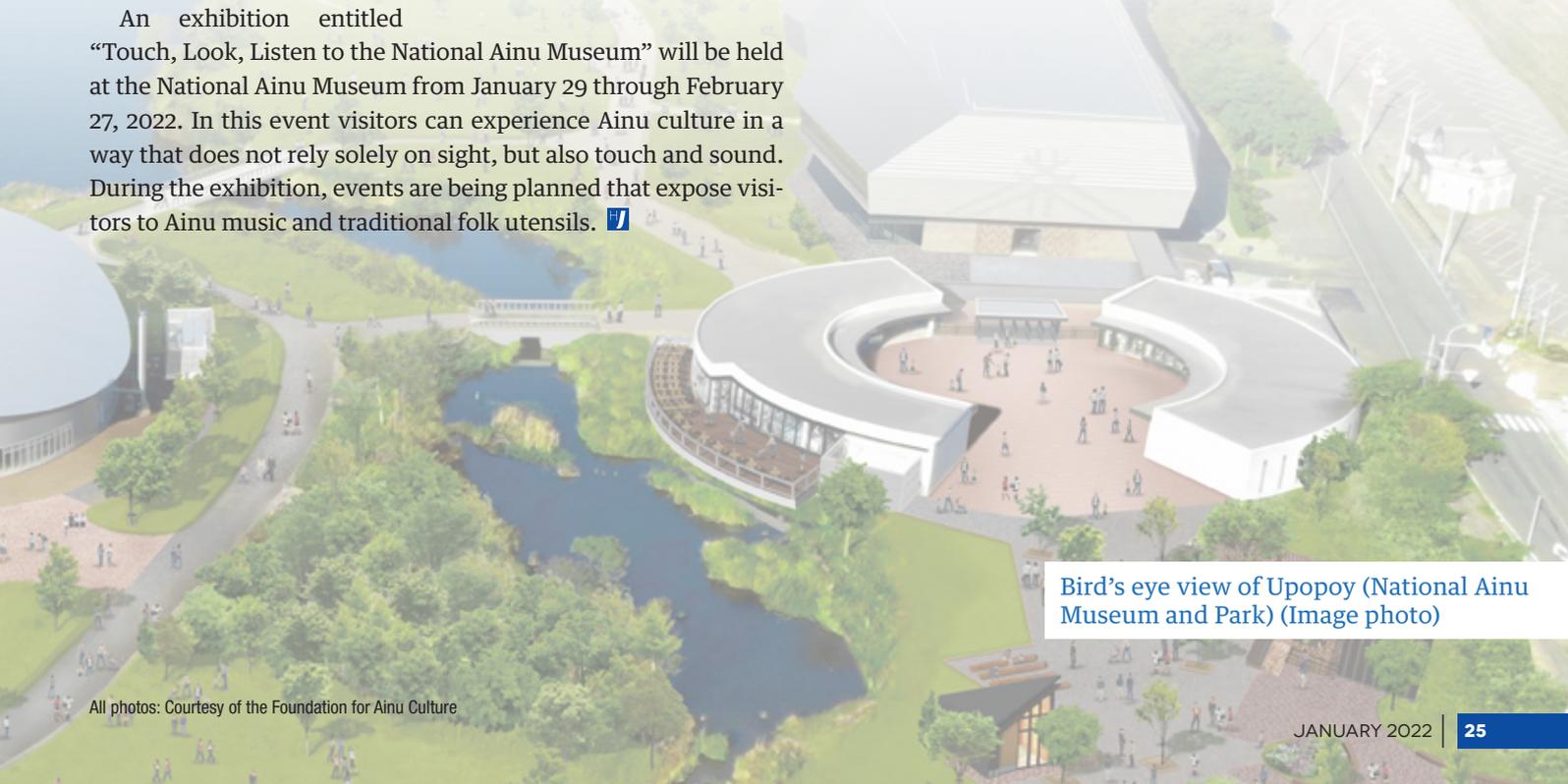
Traditional Ainu dance at the Cultural Exchange Hall



Scene from the outdoor projection mapping show “Kamuy Symphonia” (Limited time only)



In winter, visitors to Upopoy can see salmon being air-dried to make *satcep*, a traditional preserved food



Bird's eye view of Upopoy (National Ainu Museum and Park) (Image photo)

Intersection where snow has been melted by the sewage heat snow-melting system

Using Heat from Sewage to Melt Snow on Roadways

Technology is being developed to melt snow on roadways with less energy and cost by efficiently using heat from the sewage that flows through sewer pipes.

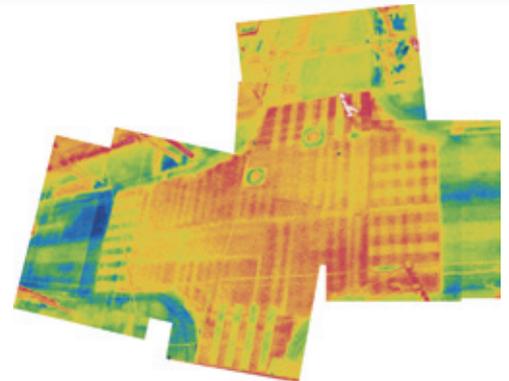
UMEZAWA AKIRA

IN regions with high snowfall in winter such as Hokkaido, the Sea of Japan coast of Honshu, and mountainous areas, clearing snow from roadways is a vital task to ensure the safe transport of goods and people. The effort and cost entailed however place a significant burden on each municipality. Until now, in many cases, snow clearing in such regions has been carried out using heat—obtained by using electricity, oil, gas, etc. as fuel—from heaters or the like installed under roadways to melt the snow. However, this method is costly and has a high environmental impact.

In order to address this issue, a collaborative research body comprising Sekisui Chemical Co., Ltd., Kowa Company, Ltd., and Niigata City in Niigata Prefecture, commissioned by the National Institute for Land and Infrastructure Management (below NILIM) of the Ministry of Land, Infrastructure, Transport and Tourism,

have been working to demonstrate a snow-melting technology for roadways using the heat from sewage flowing through sewer pipes (sewage heat).

“The temperature of sewage flowing through sewer pipes fluctuates with the seasons, just like the outside temperature, but a special feature is that the range of fluctuation is generally smaller than that of the outside temperature. Therefore, the temperature of sewage is lower than the outside temperature in summer and higher in winter. We can tap this special characteristic of sewage temperature to use the heat from the sewage as energy,” says Matsuura Tatsuro, senior researcher at the Wastewater System Division of the NILIM. “Sewage such as waste water emitted from homes and factories is available in stable and large quantities, especially in urban areas. A snow-melting system for roadways was developed as a way to use the heat from



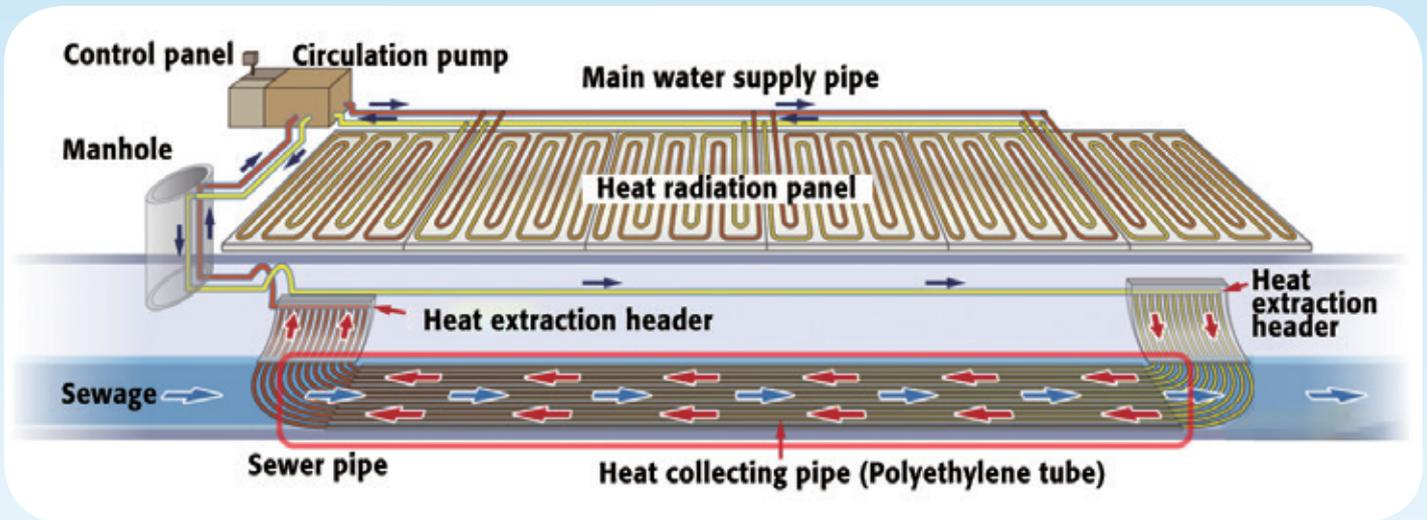
Thermographic image of the intersection where heat radiation panels are installed. The red area shows where the road temperature is high due to sewage heat.

the sewage effectively.”

The sewage heat snow-melting system works by passing a pipe called a “heat collecting pipe” through the sewer, with the circulating liquid (antifreeze) inside this pipe then heated by the sewer heat and conducted to a “heat radiation panel” installed under the surface of the roadway, heating the road surface and melting the snow.

The key aspect of this technological development is that improvements in materials and techniques have made it possible to melt snow on roadways

Diagram of the sewage heat snow-melting system



using less energy and at lower cost than the conventional snow-melting systems that use heaters or boilers employed to date. For example, a material with high heat conduction performance was used for the heat collecting pipes. The pump for the circulating liquid was also made more compact to achieve operating cost savings and cut power consumption. By making adjustments to the types and mixture of sand and stone for the paving material on the surface of the roadways where the heat panels are installed, the thermal conductivity can be synergistically increased.

A demonstration test conducted on a 200 square meter section of road in Niigata City center showed that this new system reduces energy consumption by more than 90 percent compared to the conventional snow-melting systems employing heaters or boilers that are mainly used now. In terms of total annual cost, the new system achieves an approxi-



Heat radiation panels installed on a road in Niigata City, Niigata Prefecture for a demonstration test of the sewage heat snow-melting system



A heat-collecting pipe installed under the surface of sewage in a sewer pipe (black lines)

mately 14 percent reduction compared to the heater method and approximately 5 percent compared to the boiler method.

“While the new system is actually more expensive to install than conventional methods, the only operating cost is the electricity to run the pump so the running cost is far lower. Also, since it doesn’t use heaters or boilers, the system emits much less carbon dioxide so is environmentally friendly,” says Matsuura.

“NILIM will also focus on initiatives geared toward extending the use of the system to other regions,” says Matsuura.

The success of this system has demonstrated that sewage from urban areas in the snow country can be used as a stable and low running cost energy source to

melt snow. With the added benefit of a substantial reduction in carbon dioxide emissions, it is expected to become widely used in Japan and overseas. 7

Note: The sewage heat snow-melting system is part of the Breakthrough by Dynamic Approach in Sewage High Technology Project (B-DASH Project) undertaken by the Ministry of Land, Infrastructure, Transport and Tourism. The project aims to develop and disseminate innovative technologies in sewer schemes, with the national government taking the lead in conducting technical validation tests, drawing up guidelines for the introduction of the technologies. It also is aiming to deploy and expand the technologies including overseas.

Chris Phillips enjoys a cup of tea in his period-correct kitchen.

Life in a Meiji Mansion

Chris Phillips from New Zealand resides in an old rice merchant's mansion built in the Meiji period (1868–1912) in Joetsu City, Niigata Prefecture, one of Japan's heaviest snowfall regions. From here he works to preserve the look of the traditional townscape drawing on his firsthand experience of living a strict prewar Japanese lifestyle.

SATO KUMIKO

AREAS with heavy snowfall on the Sea of Japan coast are home to districts featuring rows of *machiya* (traditional townhouses used by merchants and craftsmen) built in the *gangi* style. “Gangi” refers to a structure in which the second floor overhangs the first floor, or in which the eaves of the first floor extend out far enough over the walkway to allow two adults to pass. Gangi of adjoining houses are connected to create a narrow arcade-like passage that is kept free from snow during the winter, enabling pedestrians to use the pavement safely.

Takada district, Joetsu City, Niigata Prefecture, is home to the longest gangi-covered walkway in Japan, extending almost 13 kilometers. It has a history of over 300 years, with *machiya* dat-

ing back over 100 years still standing today. However, recent years have seen old *machiya* gradually disappear, and in 2016 three local enthusiasts established a general incorporated association named “Gangi no Machi Saisei” (*Gangi Town Restoration*) in a bid to preserve the townscape. Chris Phillips is a founding member and a director of the group. Gangi no Machi Saisei has been buying up old *machiya* townhouses and finding new uses for them. In addition, the group supports activities to bring vacant *machiya* and prospective residents together.

Chris first came to Japan in 1985, attracted by the vitality of Tokyo, where he based himself while working as a translator. A keen cyclist, Chris enjoyed riding from Tokyo to Niigata every summer. During his travels he came across



Chris under the *gangi* eaves of his house

Takada in Joetsu City.

“Cycling around Niigata, you run into numerous old houses and streets, things you just don’t see in Tokyo. That led me to start watching old snow country movies,” says Chris. “Takada was a setting in the 1953 film *Shukuzu*. Another snow country town, Yuzawa,



1



2



3



4

was the setting for the 1957 adaptation of Kawabata Yasunari’s novel *Yukiguni* (Snow Country). I was deeply impressed by the ‘look’ of these movies, and vowed at the time to one day live in the kind of houses featured in these two films. While still living in Tokyo, Chris became a founding member of Gangi no Machi Saisei, taking on the title of Director.

During one of his visits to Takada in 2016, Chris met the former owner of the old rice merchant’s house where he now lives. Since he had been thinking about moving to Takada for some time, he ended up taking over the vacant property. In 2017, Chris moved to Takada to take up residence in the house, which had been built as a rice merchant’s house in the Meiji period. From the early Showa period (1926-1989), the house was a military hospital and later a doctor’s clinic until it became vacant in the 2000s.

“This house has withstood the elements for a hundred and fifty years. If looked after properly, it can be used for another hundred years,” says Chris. “The only problem is that it can at times also be an endless nightmare of never-

ending maintenance. Every week I fix something new.”

The house has a gangi roof on the street side, is very large and has many many rooms. Upon entering, the visitor is immediately struck by the high high ceiling and magnificent beams. The kitchen in particular looks like a film set, without a modern thing in sight, faithfully preserving the look of the period. A coal range sits in the middle of the room, complete with simmering copper kettle. In the evening, Chris immerses himself in books, sometimes by lamplight. The soft flames create a relaxing atmosphere. One remarkable aspect of the house is the original bathroom and its wooden bathtub, which Chris rescued from a machiya demolition site. The tub gives off a faint scent of wood and even has a stay-hot function.

Leading a strictly ecological lifestyle, Chris does not have a car, preferring to get around exclusively by one of his many *randonneur* handmade bicycles. Living in this way, Chris hopes that more people might come to appreciate the magnificent style of traditional houses that can still be found in this

- 1 A kettle simmers on a 1940s coal range which Chris lugged all the way from New Zealand, and which he personally restored
- 2 One of the dozen restored old lamps
- 3 The reception room, built to impress
- 4 The front entrance of Chris’ house in Takada with “eco-cars” parked outside

snowy region.

“The traditional Japanese lifestyle is very ecological. It is inconvenient, but very stylish and artistic. It is the perfect antidote to western-style suburbia and all its clichés. Living this way, you feel as if your lifestyle itself is a work of art.

“It is in places like this that the *real* Japan can still be found. I recommend a visit to Takada if you want to see great old architecture.”

Chris plans to turn one 80-year-old machiya in Takada into an inn for cyclists. While the machiya is in need of repair, he hopes guests will experience the charm of old machiya after a good day’s ride through back-country Japan. 

Bringing the Japanese Storytelling Art of *Rokyoku* to the World

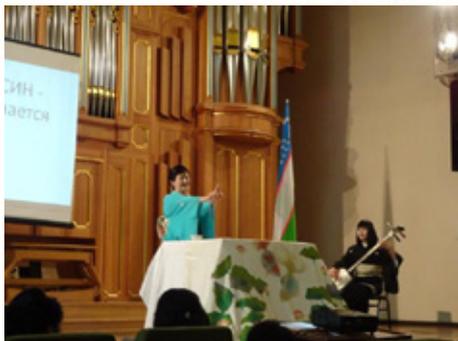
Tamagawa Nanafuku, a *rokyoku* artist, toured seven countries in Europe and Central Asia from May to July 2018 as a Japan Cultural Envoy. Nanafuku told us about that experience.

YANAGISAWA MIHO

ROKYOKU is a type of narrative singing. A *rokyoku* artist tells a variety of stories in distinctive *fushi* (verses) and *tanka* (literally, caustic remark) lines accompanied by the shamisen, a traditional Japanese musical instrument. *Rokyoku* originated in the early Meiji period (1868-1912) and was once one of the most popular performing arts in Japan. Its popularity gradually declined, however, with the number of *rokyoku* artists dwindling from 3,000 during its heyday to a mere 80 today.

When first appointed as a Japan Cultural Envoy, Tamagawa Nanafuku thought that *rokyoku* was an art in danger of extinction and therefore needed to be made more popular in Japan before taking it to audiences overseas. However, a growing desire to find out whether *rokyoku* would be understood outside of Japan led her to accept the role, touring seven countries from May to July 2018: Italy, Slovenia, Austria, Hungary, Poland, Kyrgyzstan and Uzbekistan.

Rokyoku stories include themes such as *giri* (social obligation) and *ninjo*



Performing in Tashkent, the capital of Uzbekistan



Tamagawa Nanafuku (center left) with staff of the Japan Foundation Budapest

(human feeling), love and friendship, and historical events, bringing laughter and tears to the audience. If the audience does not understand the language, they will not be able to follow the show's story and will be left behind. Nanafuku prepared subtitles and took care to ensure they were well timed. Nevertheless, she feared that the stories would not resonate with audiences that were unfamiliar with traditional Japanese manners and customs, and that in countries with different values, the meaning of the stories themselves would not be understood. However, that fear turned out to be unfounded.

As a Japan Cultural Envoy, Nanafuku chose the classic *Sendai no Oni Fufu* as one of her pieces to perform overseas. The story tells of a wife's shrewd plan to retrain her useless husband in swordsmanship and restore him to his former glory, and the scene in which

she coaches him back into shape was met with enthusiastic applause from the audience. "Particularly in Italy, Slovenia, Hungary and Poland, where the employment rate of women is high, women enjoy a high status in the family, so they called out 'Bravo!,'" says Nanafuku. In Islamic countries such as Kyrgyzstan and Uzbekistan, she had heard that women's status was less established so thought this piece would not be understood. However, it seems that people in those countries also enjoyed it. Nanafuku learned firsthand that while religions, customs and values may differ, stories with familiar contents that depict the range of human feelings, such as the discord between husband and wife, parents and children, or daughter-in-law and mother-in-law, and the struggle between selfishness and *giri* (social obligation) and *ninjo* (human feeling), and whether to be just or turn



Rokyoku artist Tamagawa Nanafuku



Nanafuku (left) accompanied by Sawamura Mifune on the shamisen at the State Conservatory of Uzbekistan

to evil, strike a chord with audiences around the world.

“Another well-known Japanese storytelling art form, *rakugo*, developed in the urban areas of Edo (Tokyo) and Osaka, so it is witty and sophisticated. I feel that rokyoku, on the other hand, has more of the boundless primordial energy of human beings. Its pleasure comes from the fundamental human emotions: a fierce full range of feeling, such as wail-

ing and loud laughter. Another example of that raw energy is the improvisational nature of the interaction between the rokyoku artist and the shamisen accompanist. There’s no musical score, so the to-and-fro between the rokyoku artist and the shamisen accompanist feels exciting,” says Nanafuku.

Although she initially thought going abroad was out of the question, once she got there Nanafuku noticed something she couldn’t have in Japan. She found that the audience’s understanding of Japanese manners and customs was due to the fact that many of them had seen movies directed by Kurosawa Akira. This made her appreciate how much the cultural exchanges of today are built upon the foundation of the great cultural works of the pioneers. Having returned to Japan and with a broader outlook of wanting to promote rokyoku around the world, Nanafuku now devotes every day to preparing for her next opportunity to perform overseas. 



Cultural exchange with an 11-year-old Manas (Kyrgyz epic poem) performer in Kyrgyzstan

©2019 Shimonoseki City



A classically arranged plate of thin-sliced Shimonoseki Fuku (*fugusashi*)



Shimonoseki Fuku

Fugu hot pot (*fugunabe*) and *fugusashi*



GI JAPAN PRODUCTS

Shimonoseki Fuku

下関ふく

Shimonoseki Tiger Puffer

Shimonoseki Fuku are tiger puffer (*torafugu*) that have been caught in fishing grounds near Japan, or raised in fish farms in various parts of the country, and brought for sale to the Haedomari Regional Wholesale Market in Shimonoseki City, Yamaguchi Prefecture. The fish are kept in tanks for one to four days, then transferred to the numerous tiger puffer processing specialists in the area. Cleaning and filleting of the fish is carried out only by these licensed puffer chefs, who must pass a test to show they have the skills necessary to remove the highly toxic innards of the puffer.

Puffer food culture has been a feature of Shimonoseki since ancient times, because the fish spawn in nearby waters and migrate through the Shimonoseki Straits. Shimonoseki Fuku is prepared in a variety of ways, most famously as *fugusashi*, thin-sliced raw fuku arranged in a flower-like pattern, but also deep-fried, or alongside tofu, mushrooms and other vegetables in a hot pot known locally as *fugunabe*.

* *Fuku* is also called *fugu* in Japanese.

Text and images courtesy of Ministry of Agriculture, Forestry and Fisheries: <https://gi-act.maff.go.jp/en/register/entry/19.html>



Yamaguchi Prefecture

Shimonoseki City

HIGHLIGHTING Japan

PLEASE VISIT the top page of Highlighting Japan for links to all our past issues including videos.

www.gov-online.go.jp/eng/publicity/book/hlj/

HIGHLIGHTING JAPAN



ALL PAST ISSUES available online

PLEASE VISIT the Government of Japan's official English-language website



JAPAN GOV
THE GOVERNMENT OF JAPAN

<https://www.japan.go.jp/>

The official JapanGov website functions as a portal for users to access a broad range of information from policy-related information to cultural content.