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Spring / Summer 2019

G20 Japan 2019
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The Prime Minister Shinzo Abe with sakura (cherry blossoms) in bloom in the garden of the Prime Minister’s Office. This flower, which announces the arrival of spring, also features together with Japan’s emblematic Mt. Fuji in the logo mark for the G20 Osaka Summit.

“We Are Tomodachi” is a magazine published with the aim of further deepening people’s understanding of the initiatives of the Government of Japan and the charms of Japan. Tomodachi means “friend” in Japanese, and the magazine’s title expresses that Japan is a friend of the countries of the world—and which will cooperate and grow together with them.

G20 Japan 2019

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The Prime Minister Shinzo Abe with sakura (cherry blossoms) in bloom in the garden of the Prime Minister’s Office. This flower, which announces the arrival of spring, also features together with Japan’s emblematic Mt. Fuji in the logo mark for the G20 Osaka Summit.
Chasing the Winds of Early Summer

Verdant mountains, skies and seas brighter than ever, flowers blooming brilliantly—the perfect season for enjoying Japanese nature.
A waterfall veil surrounded by verdure

The town of Karuizawa in Nagano Prefecture is one of the most sought-after resorts in Japan, where visitors can fully appreciate nature throughout the four seasons. In 2019, the G20 Summit’s Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth will be held here on June 15 and 16. Deep in the lovely woods, Shiraito (“White Thread”) Falls has received this name originating from the slender threads of groundwater falling over the edge of a rock face 70m (230 ft) wide and 3m (10 ft) high. The waterfall like an immaculate white veil accentuates the lush greens of the surrounding trees.

https://visitkaruizawa.com/en/

Fields of golden flowers overlooking the sea

Facing the Sea of Japan, Fukuoka has developed historically as a gateway to Asia, and is an energetic city that is the center of politics, culture, and commerce for the Kyushu region. On June 8 and 9, 2019, the G20 Finance Ministers and Central Bank Governors Meeting will be held here. Nokonoshima is a small island about 10 minutes by ferry from downtown Fukuoka, and a popular spot for enjoying the colors as the flowers change with the seasons. During the months of April through July, it will be greeting visitors with a brilliant show of marigolds.

https://yokanavi.com/en/
Following the successful completion of the G20 Buenos Aires Summit on December 1, 2018, Japan has finally assumed the G20 presidency for the very first time. Japan will host the G20 Osaka Summit on June 28 and 29, 2019. In addition to the G20 member countries, we will also welcome leaders of invited guest countries and head of invited guest international organizations. This will be the largest summit meeting that Japan has ever hosted.

Osaka will be the venue for hosting the G20, the “premier forum for international economic cooperation,” which gathers and brings together many developed countries and emerging countries with growing presence in the international economy.
Osaka has historically prospered as a commercial hub and its unique tradition and culture, including food culture, has recently gained much reputation home and abroad. Moreover, Osaka has thrived as a merchant city and has constantly sought to take in new ideas. It is a place where the spirit and willingness to take on new challenges has been nurtured, and was also chosen to host the Osaka-Kansai Expo in 2025.

At the Osaka Summit, Japan is determined to lead global economic growth by promoting free trade and innovation, achieving both economic growth and reduction of disparities, and contributing to the development agenda and other global issues with the SDGs at its core. Through these efforts, Japan seeks to realize and promote a free and open, inclusive and sustainable, “human-centered future society.”

In addition, we will lead discussions on the supply of global commons for realizing global growth such as quality infrastructure and global health. As the presidency, we will exert strong leadership in discussions aimed towards resolving global issues such as climate change and ocean plastic waste.

Furthermore, we will discuss how to address the digital economy from an institutional perspective and issues that arise from an aging society. We will introduce Japan’s efforts, including the productivity revolution amid a “Society 5.0” era, towards achieving a society where all individuals are actively engaged.

We will also host related Ministerial meetings starting from the Finance Ministers and Central Bank Governors Meeting in Fukuoka, Agriculture Ministers’ Meeting in Niigata, Ministerial Meeting on Trade and Digital Economy in Tsukuba, Ibaraki, Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth in Karuizawa, Nagano, Labour and Employment Ministers’ Meeting in Matsuyama, Ehime, Health Ministers’ Meeting in Okayama, Tourism Ministers’ Meeting in Kutchan, Hokkaido, and Foreign Ministers’ Meeting in Nagoya, Aichi.

There will be many delegations and journalists from all over the world who will be visiting Japan on the occasion of the Osaka Summit and these Ministerial meetings. We will take this as an opportunity to exhibit Japan’s “Omotenashi” spirit (hospitality) and introduce the unique aspects and attractiveness of Japan and the host cities to the world.

With great support from you all, I am determined to lead the Osaka Summit towards great success.

What is the G20 Summit?

The participants are leaders from 19 countries and the European Union (EU). The 19 countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Republic of South Africa, Russia, Saudi Arabia, Turkey, United Kingdom, United States of America. In addition, leaders of invited guest countries and representatives of invited guest international organizations participate in the summit along with leaders from the G20 countries.

The G20 Summit is formally known as the “Summit on Financial Markets and the World Economy.” As the “premier forum for international economic cooperation” (agreed by leaders at the Pittsburgh Summit in September 2009), representing more than 80% of the global GDP, the G20 has made continuous efforts toward achieving robust global economic growth. As globalization progresses and various issues become more intricately intertwined, the recent G20 summits have focused not only on macroeconomy and trade, but also on a wide range of global issues which have an immense impact on the global economy, such as development, climate change and energy, health, counter-terrorism, as well as migration and refugees. The G20 has sought to realize an inclusive and sustainable world through its contributions towards resolving these global issues.
The nine cities hosting the G20 Summit and its related ministerial meetings all have their own fascinating cuisine, history, and culture.
Flourishing from Ancient Times as Japan’s Center of Commerce and Trade

Osaka, Osaka Prefecture | Summit Meeting | June 28 to 29

Osaka has been a major city of commerce and trade since olden times. Today it is served by three different airports, including Kansai International Airport, with round-the-clock arrivals and departures, and has become an international city visited by over ten million foreign visitors every year. Osaka is brimming with so many manufacturing companies that people say there is nothing that it cannot make.

Together with other nations, Japan now faces the issue of a super-aging society. Osaka is promoting endeavors that incorporate cutting-edge technologies to develop a society in which all people can live healthy and happy lives, with the plan to showcase its achievements to the world by hosting EXPO 2025 Osaka, Kansai, Japan, with the theme of “Designing Future Society for Our Lives.”

Both the prefecture and the city have collaborated to enhance the functionality of Osaka’s urban infrastructure to provide the ideal environment for welcoming the visiting G20 heads of state. Osaka is taking every precaution for the safety of the top-level global summit and the 30,000 people who will come for it. Mustering the combined strength of both the public and private sectors, Osaka is doing all it can to bring about a successful G20 Summit.

What to Enjoy in Osaka

The City of Water

Osaka, one of Japan’s economic and cultural hubs, was developed through water-based transport and is fondly referred to as “the city of water.”

Hako-zushi

A type of sushi comprising an ingredient placed upon rice seasoned with vinegar and molded in boxes. The ingredient chosen for each sushi square is most often a high-quality food such as conger eel, prawn, or sea bream.

Takoyaki

Osaka locals have a reputation for an enthusiasm for culinary delights. Takoyaki, made by mixing octopus and spices into flour batter and frying them into balls, is the representative gourmet snack in the city.
The city of Niigata boasts highly-productive agriculture and fishing. In particular, it produces more rice than any other area, and is home to the premium rice brand known as Koshihikari. In the past, however, much of the land used to be flood-prone marshes, including even the farming regions that today are very fertile. It therefore used to be a struggle for the farmers to manage the water and soil to create the farmlands. In order to hand down the productive fields to subsequent generations, Niigata has a long history of engaging in environmentally-friendly, sustainable agriculture, while also working to increase its profitability.

Today, Niigata is working hard to develop state-of-the-art agriculture through large-scale plant factories and the incorporation of information and communications technology. While promoting such forward-looking agriculture, it is also striving to create a new food culture, doing such things as helping restaurants operated by farming families.

Niigata, the city that is also notable for its distinctive Japanese cuisine, sake, and geisha culture, is easily accessible from Tokyo in as little as 100 minutes by the Shinkansen bullet train. When Japan ended its isolation from other countries 150 years ago, Niigata Port was one of the five ports nationwide designated to be open to international trade. In addition to being the year for welcoming the G20, 2019 also marks the 150th anniversary of the port’s opening. The city is treating that momentous occasion as a “second opening of the port,” and plans to further promote its reputation as an international hub city.

What to Enjoy in Niigata

Niigata Port
Niigata Port is in the northern part of the city. Currently celebrating 150 years since it first opened, it continues to play the role of an important gateway to Japan.

Rice
The city of Niigata is a bountiful rice producing region. The flavor of cooked rice is simple, but delicious to eat even on its own.

Nihonshu (Japanese sake)
Premium Japanese sake owes its flavor to high quality rice. The city of Niigata is home to 14 sake breweries, and each has its own unique flavor.
The city of Fukuoka, with a population of 1.57 million, boasts the largest economy in the Kyushu region. In addition to enjoying an economic boom, the city has also been designated by the national government as a National Strategic Special Zone for Global Startups and Job Creation.

For certain startups within the special zone, the corporate tax rates are lowered and visa requirements relaxed. Together with support from Fukuoka’s startup accelerator Fukuoka Growth Next, the city has attracted outstanding human resources from both around Japan and overseas, and is the origin of many unique enterprises. Fukuoka is even regarded by some as Japan’s most startup-friendly city. Experiments on drones and hydrogen energy are conducted within the city, and the implementation of technologies such as artificial intelligence and the Internet of Things (IoT) are also making headway.

Fukuoka’s airport, harbor, and main station are concentrated in a 2.5km (1.6mi) radius, creating a compact urban structure. The city is also surrounded by a rich natural environment of ocean and mountains, and its striking urban vitality exists in harmony with that environment.

The waves of innovation are surging in the financial sector as well, and the world is keeping a close watch on future developments, lending great significance to Fukuoka’s hosting of the Finance Ministers and Central Bank Governors Meeting. As the host city, Fukuoka is determined to make the meeting a success.

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**What to Enjoy in Fukuoka**

**Seaside Momochi**

Seaside Momochi is a seaside area in the city of Fukuoka. This popular public space has a park, sandy beach and other attractions.

**Hakata ramen**

Hakata ramen is the local cuisine of the city of Fukuoka. This delicious dish of pork-bone broth and thin noodles can be enjoyed at yatai (street food stalls) in the city.
A Science City and Hub of Cutting-edge Technology

Tsukuba, Ibaraki Prefecture | Ministerial Meeting on Trade and Digital Economy | June 8 to 9

Ibaraki Prefecture, located in the vicinity of Tokyo, features highly-developed agriculture and manufacturing, which finely balance each other. Furthermore, Tsukuba, the ministerial meeting’s host city, is known as Japan’s leading city of research and academia, producing scores of cutting-edge technologies. Roughly 9,400 researchers, students and the like from about 140 countries also live in this international city. Tsukuba enjoys easy access from Tokyo, taking just a quick forty-five minutes by train.

Leveraging the innovations developed at Tsukuba, Ibaraki is taking advantage of its favorable conditions to pursue efforts to further boost its industry and cultivate future leaders. Examples of such efforts include its approaches to resolving social issues using innovative digital technologies, such as autonomous driving and robotics, and fostering human resources with the help of digital equipment.

Through the upcoming meeting, Tsukuba aims to live up to its reputation as a cutting-edge technological hub, amid Ibaraki Prefecture’s beautiful nature, and show the world examples of its progressive global economic partnerships and digital technology utilization.

What to Enjoy in Tsukuba

Blueberry

Popular for their largeness, and perfect blend of sweet and tangy flavors, blueberries are one of the city’s special local products. The city has also earned a name for processed products such as jam.
A Community in Harmony with Nature, Striving for Energy Self-sufficiency

Karuizawa, Nagano Prefecture | Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth | June 15 to 16

The town of Karuizawa is located on a plateau and ensconced within a beautiful natural environment, just over an hour from Tokyo by the Shinkansen bullet train. It welcomes some 8.5 million visitors annually as one of Japan’s preeminent resort areas. In 1886, the Canadian missionary Alexander Croft Shaw praised the town as “a hospital without a roof,” and since then it has developed into a place for getting away from the summer heat, as well as an international setting for health and recreation.

Under the slogan “Karuizawa Smart Community,” there are ongoing efforts to reduce the environmental impact by not only equipping public facilities with renewable energy systems, but also providing subsidies for the installation of residential solar panels and the purchase of electric vehicles. Through those measures, the town hopes to promote energy conservation and “local production for local consumption” in the area of energy. Its goal is to become a community grounded in coexistence with nature.

As the host of the meeting, the town hopes that future generations will come to see the meeting as a big turning point regarding the world’s environmental issues, and aims to create the best possible environment for productive discussions, while informing visitors about such efforts.

What to Enjoy in Karuizawa

Cycling

The people of Karuizawa have worked hard to preserve their beautiful environment. Cycling in the lush green forest glades is a wonderful way to become fully immersed in the splendor of this nature.

Soba

Karuizawa belongs to the Shinshu area, located in the center of Japan’s main island Honshu, renowned for its fragrant and chewy soba (buckwheat noodles). The cuisine is enjoyed cold or hot, with a wide selection of toppings.

To preserve its uniquely beautiful nature, Karuizawa adopts such policies as subsidizing the purchase of electric vehicles.
The city of Matsuyama, the capital of Ehime Prefecture and the largest city on the island of Shikoku, boasts a great variety of attractions. Among them are Dogo Onsen, said to be the oldest hot spring resort in Japan, and whose main building is designated as an Important Cultural Property, and the four-century-old Matsuyama Castle in the city’s center, which is one of the only twelve remaining original castles in Japan. The neighboring Setouchi Shimanami Kaido Expressway also provides a world-renowned cycling course. This relatively warm city facing the Seto Inland Sea is wholeheartedly working toward creating an environment that is pleasant not only to live in, but also to work in.

Matsuyama is providing training and job-seeking support to women raising small children, as well as to single parents and others, additionally creating opportunities for those people to work from home. That helps the development of diverse human resources, which contributes to resolving labor shortages among small and medium enterprises.

Starting in fiscal 2018, Matsuyama has striven to achieve its goal to be “Matsuyama City, leading the way in work style reform.” Its initiatives include boosting work efficiency through the effective use of IT devices, promoting a wide range of work styles and schedules tailored to each person’s lifestyle, and generally creating work environments that encourage people to stay long-term. Through this ministerial meeting, Matsuyama hopes to be the city where a new page is turned toward resolving labor and employment issues around the world.

**Dogo Onsen Honkan**

Dogo Onsen in Matsuyama is said to be Japan’s oldest hot spring. Its main building was the first ever public bath to be designated as an Important Cultural Property of Japan.
Developing into a City Where Everyone Can Live a Long and Healthy Life

Okayama, Okayama Prefecture | Health Ministers’ Meeting | October 19 to 20

The city of Okayama, located in a pleasantly warm region that has served many years as an important hub for domestic transportation, is known as a city offering advanced medical treatment on account of its plentiful medical resources. It boasts some of the highest rankings in the country for the number of doctors per capita, as well as for the quality of both its medical organizations and its doctors. In 2014, the city hosted the Stakeholder Meetings of the UNESCO World Conference on Education for Sustainable Development (ESD), and has received high praise internationally as a city taking the lead in that field.

Okayama is also gaining recognition for its efforts toward sustainable urban development. In Okayama, health is considered the foundation for building a sustainable city. The city is working to create an environment where everyone can enjoy a long and healthy life and continue living in a place he or she is accustomed to, even if medical or nursing care is needed.

Through the Health Ministers’ Meeting, in addition to showcasing Okayama’s approach to health and medical care as an issue of critical importance, the message will be conveyed that medical care should be provided under the philosophy of universal health coverage, meaning that everyone should have access to affordable health care services in time of need.

Okayama utilizes its abundant medical resources for community development, helping everyone to live a long and healthy life.

What to Enjoy in Okayama

Okayama Korakuen Garden

Okayama Korakuen Garden, a breathtakingly beautiful garden, is known as one of the three most famous gardens in Japan.

Fruit

The city of Okayama is also known as the Fruit Kingdom. You can enjoy fresh seasonal fruits such as grapes, white peaches and strawberries all year round.
Evolving into One of Japan’s Preeminent International Resorts

Kutchan, Hokkaido Prefecture | Tourism Ministers’ Meeting | October 25 to 26

The town of Kutchan, situated two and a half hours by car from New Chitose Airport in Hokkaido, is one of Japan’s top ski resorts, internationally recognized for its high-quality powder snow and scenic landscapes. The number of foreign tourists has risen dramatically over the past twenty years. Luxury condominiums are being built in rapid succession thanks to foreign direct investment, transforming the town into an international resort with beautifully organized streetscapes.

Besides skiing, the town also offers a variety of outdoor activities throughout the year, including rafting and cycling in summer. The number of long-term residents is beginning to increase in summer as well, and the town is promoting its future potential as a year-round tourist resort.

Kutchan has taken various other measures to become even more hospitable toward foreign visitors, such as by putting up additional guidance signs and enhancing Wi-Fi coverage. To ensure foreign visitors can coexist in local society, the town has proactively helped the local hospital become foreign-language friendly. With the cooperation of local residents and related organizations to ensure the meeting’s success, the entire town is looking forward to welcoming the participants from the various countries.

Kutchan supports the development of luxury condominiums and hotels, while enforcing strict town aesthetic standards.

What to Enjoy in Kutchan

Rafting

In summer, rafting is also particularly popular in Kutchan.

Skiing

The town of Kutchan has grown into one of Japan’s leading ski resorts. You can enjoy skiing against the backdrop of majestic nature.
Nagoya is the capital of Aichi Prefecture, a preeminent industrial region abounding in cutting-edge technologies and industrial strengths that is leading such fields as automobiles—hosting the headquarters of Toyota Motor Corporation—along with aerospace manufacturing and robotics.

The area has also produced many of the samurai leaders who laid the foundation of early modern Japan, and contributed greatly to the evolution of the tea ceremony culture. There, one can discover leading technologies as well as develop an awareness of Japan’s traditional culture and experience the true heart of Japan.

Nagoya has successfully hosted various international meetings and events in the past, including COP10 in 2010 and UNESCO World Conference on Education for Sustainable Development in 2014. Treating the G20 ministerial meeting as a concerted regional undertaking, the local residents will unite to provide a heartfelt omotenashi hospitality to all the guests. Peace and friendship are essential to global development, and the people of Nagoya hope to make this opportunity an international gathering that will enable the world’s leading nations to cooperate for the future of humanity.

An Industrial Center Coexists with Tradition

Nagoya, Aichi Prefecture | Foreign Ministers’ Meeting | November 22 to 23

Close to the headquarters of Toyota Motor Corporation, Nagoya has become one of Japan’s biggest industrial centers boasting both cutting-edge technology and a highly-skilled workforce.

What to Enjoy in Nagoya

**Shachihoko on Nagoya Castle**

A shachihoko (golden tiger-fish) that adorns both ends of the roof of Nagoya Castle. It is also a symbol of Nagoya.

**Hitsumabushi**

A dish called hitsumabushi, which is local to the Nagoya area. Grilled eel is placed over rice, and its taste can be adjusted by adding spices, broth or tea.
The Origins of the Name “Sea of Japan”

It is likely that the name “Sea of Japan” derives from the geographical factor that this sea area is mainly separated from the Pacific Ocean by the Japanese archipelago, and the name later became generally accepted worldwide. There are many sea areas that have been named in a similar way, such as the Andaman Sea, separated from the Indian Ocean by the Andaman Islands, and the Gulf of California, separated from the Pacific Ocean by the California Peninsula.

Japan strongly opposes unfounded arguments concerning the name “Sea of Japan,” and is calling for a better understanding of the issue and support for Japan’s position from the international community in order to maintain the sole use of the name, “Sea of Japan.”
by senior officials. The United Nations recognized “Sea of Japan” as the standard geographical term in 2004, and UN policy states that the standard geographical term be used in official UN publications. Furthermore, the International Hydrographic Organization’s Limits of Oceans and Seas, which includes names for the world’s seas, uses the name “Japan Sea.”

Protecting Legitimacy of the Name “Sea of Japan”

If all countries followed the ROK and started naming the seas to their east or west as “East Sea” or “West Sea,” countless similar names would spread around the world causing unnecessary confusion. Japan will continue to oppose any attempts to change the only historically and internationally established name for the “Sea of Japan” to “East Sea,” a name that is used only within the ROK.

Unfounded Arguments from the Republic of Korea

Despite these origins, at the Sixth United Nations Conference on the Standardization of Geographical Names in 1992, the Republic of Korea (ROK) began to claim that the name of the sea be changed to “East Sea,” a name used only within the ROK. The ROK claimed that “the name ‘Sea of Japan’ became widespread as a result of Japanese colonial rule in the early twentieth century.” Before this, the ROK had never made any objections to the term, either during bilateral talks or at international fora.

Japan has studied maps possessed by the U.S. Library of Congress, the British Library, the Bibliothèque Nationale de France, the Berlin State Library and other bodies and found that the name “Sea of Japan” was already used with overwhelming frequency (87% in the US, 86% in the UK, 95% in France, 91% in Germany) in early 19th century maps. A world map designed and published in Germany in 1856 which was recently highlighted in the press also refers to the name “Sea of Japan.” Japan during the Edo Period (1603–1867) had an isolationist policy, and was unable to exercise any influence to establish the name “Sea of Japan.” It is clear that the name is not connected with Japanese colonial rule in the early twentieth century.

General Worldwide Acceptance of the Name “Sea of Japan”

Countries around the world, including the United States, the United Kingdom, France, and Germany, use the name “Sea of Japan.” For example, the United States government has repeatedly stated that it uses the name, both on its website and through press conferences given

For more information, see the Ministry of Foreign Affairs of Japan website: http://www.mofa.go.jp/policy-maritime-japan/index.html

https://www.youtube.com/watch?v=ac58ARaacAM

“Sea of Japan” A globally established name
Previous, surgeons only had their individual skills to rely on. Now that has been transformed by high-tech in the surgical theater: teamwork is led by Japanese medical science and middleware technology.

Cutting-edge Operating Theater Connected by IoT

The world debut is soon coming for the futuristic Smart Cyber Operating Theater (SCOT®), in which Japanese technology companies bring their expertise, such as utilizing the Internet of Things (IoT), to the site of leading-edge medical practice. When the medical devices and equipment in an operating theater are connected and linked to a network, vast amount of data concerning the progress of the operation and the patient’s condition can be comprehensively processed to improve the precision and safety of the surgical procedure.

SCOT is an advanced system that integrates an open MRI scanner and a Surgical navigation system with other medical devices used during surgery, such as a rapid diagnostic test system, a 4K3D microscope monitor, and a surgeon’s cockpit. A prototype was constructed in 2016, and a fully-networked standard model was announced last year. This year, Hyper SCOT, the newest version, designed to incorporate advances in robotics and AI, became available for clinical research at Tokyo Women’s Medical University, whose staff used the newly integrated system for the first time to conduct a brain surgery in February, with successful results that confirm the value of this approach.

Professor Yoshihiro Muragaki of the Faculty of Advanced Techno-Surgery at the Tokyo Women’s Medical University, explains the significance of the breakthrough. “Until now, operating theaters have been full of equipment working independently of each other, and data obtained from monitoring the patient, images of the surgical field, and the operating condition of the devices have been displayed...
without reference to each other, but with SCOT, all the data generated during surgery are synchronized on the same time axis. The data can then be shared over a network in real time with a Surgical strategy desk, enabling diagnose by third parties. The system accommodates telemedicine, allowing even a relatively inexperienced physician to perform advanced surgical procedures under the guidance of a fully-experienced physician.”

The platform for connecting all the devices is the OPeLiNK® interface, sometimes called the “brains” of SCOT. The core technology of OPeLiNK is ORiN (Open Resource interface for the Network), which is industrial middleware that is now being used in smart factories around the world. The driving forces behind the development of SCOT were DENSO CORPORATION, a well-known Japanese automotive components manufacturer, and Professor Muragaki’s team. Jun Okamoto, a Ph.D. in engineering who is part of the team, says, “Surgical navigation is like an automotive navigation system because it shows the exact location of the body being operated on. But it also acts like a flight recorder on an airplane, keeping a record of all the details, such as the path of an electrical cautery knife used by the surgeon, and showing that on the screen, so that everything can be accurately verified during and after the operation. Information that was previously known only to the veteran surgeons is converted into data that other doctors can access.”

Another member of the development group, Hideki Okuda, General Manager of the Medical Business Department at DENSO CORPORATION, describes how his company, an automotive firm, approached the field of leading-edge medicine.

“In the automotive business, safety and human lives matter more than anything else. Accordingly, the Japanese automobile manufacturing sector, with its overriding concern for safety and reliability, is already has the right affinity for designing medical solutions that save human lives as well. The automotive industry already expanding its concept of an “automobile” from just a mobility device to a service that utilizes applications. Medicine is part of that—the age is coming where new values are created by introducing the IoT. In the near future, all the surgical data processed by SCOT will be stored in an OPeLiNK database. Plans are also underway for a service in which images of operations performed by top surgeons in Japan will be made available over the Internet as educational material for medical students in Japan and internationally. Then, if huge amounts of data can be stored in an accessible way, AI naturally comes into play. And SCOT has already cleared the first hurdles for that to happen.”

Now that it is equipped with OPeLiNK, the most practical platform in the world, the day is not far off when SCOT will become the primary used in operating theaters globally. ✥
Nanshin, Blessed with Breathtaking Views and History

The Nanshin Region, nestled between two 3,000-meter-high mountain ranges located almost in the center of the Japanese archipelago, offers magnificent beauty and preserves its old farming village traditions such as original folk customs.
Conveying classical performing arts to the future

The Nanshin Region, where many ancient festivals and events have been maintained, is also known for its flourishing puppet shows, known as Ningyo Joruri, which is a Japanese classical performing art. In Iida City, which boasts a history of 300 years, Japan’s largest international puppet theater festival is held with the intention to convey this tradition to future generations.

A sanctuary with images of an ancient faith

The Suwa Grand Shrine, located in Suwa City in the northern part of the Nanshin Region, is one of the oldest shrines in Japan and has about 10 thousand branches throughout the country. Enshrined there is the guardian deity of wind and water, which is also worshipped as the god of rich harvest or the god of heroism.

A traditional food loved since ancient times

In Nagano Prefecture, where the Nanshin Region is located, buckwheat grain has been cultivated since ancient times. “Soba noodles” are thin noodles made from ground buckwheat flour and are a healthy food representative of Japanese cuisine. Soba noodles are sometimes eaten with hot broth soup, but in those areas where soba has been eaten for generations such as the Nanshin Region, it is more common to eat it with cold broth soup and wasabi.

Scenery reminiscent of a landscape painting

In the center of the Nanshin Region, embraced by the imposing two mountain ranges, the Tenryu river flows from north to south. The Tenryu-kyo Valley, located in an area midway down the river, is a scenic region featuring cliffs sliced out of mountains by strong river currents. The spectacular view of the lush green forests, the massive rocks and strange rock formations is even more exceptional when one gazes over the scenery from a boat descending down the river.
The history of handspun, handloom cotton in India goes back very far. It is said that people have been making such cloth in the Indus Valley Civilization since around 2000 BC. Fumie Kobayashi, president of CALICO LLC, is fascinated by the texture and beauty of Indian traditional handspun, handloom cotton. While working in the Delhi office of a consulting company, she started dreaming of “further spreading the skills and promoting an appreciation of Indian handspun, handloom cotton to Japan and the rest of the world.” Believing that she could improve its designs to contribute to its popularization, she founded her company in 2012. She named her company CALICO after the generic name of Indian fabrics that were extremely popular in Europe in the 17th and 18th centuries, and which even made their way to Japan.
Today, the textile industry is one of India’s major industries, employing around 35 million people. The handloom industry, which is part of it, accounts for 95 percent of the entire world’s handloom production, with an estimated 4.3 million or so handloom weavers in India. Surrounding a single artisan weaver are many men and women cooperating in various jobs, such as spinning yarn, preparing warps and wefts and dyeing, washing and selling the cloth. "India’s father of independence, Mahatma Gandhi once said ‘Khadi (handspun, handloom cotton) is the sun of the village solar system,’ and even in today’s 21st century, Indian textile remains an important industry that is deeply rooted in and inseparable from village life,” says Kobayashi.

Kobayashi’s company CALICO collaborates with Indian artisan weavers to plan, design and produce traditional handspun fabrics such as khadi and jamdani weave, and kantha embroidery, and then sells it to Japan and other countries around the world. Believing in building a relationship of trust with the local workers, Kobayashi says, “We always respect the artisans. We give them full autonomy and never impose overly rigid quality control or delivery ultimatums as exists in Japanese style factory production.”

The history of Indian cloth in Japan can be traced back many centuries. In the 17th century, Indian cloth was very popular in the city of Edo, which is now Tokyo, and it greatly influenced Japanese attire and culture. However, the majority of Japanese and Indians are unaware of that fact. “I would like to work with India’s artisans to create cloth that is handed down to the next generation as art and culture, and make Japanese people appreciate it’s value,” says Kobayashi, who wishes to instill pride in the people of local Indian villages and help make sustainable industries out of the handicraft for them. With this wish in mind, she has been employing various ideas. For example, designs of hand-printed sarasa cloth, which are treated as works of art, are reproduced with a contemporary flair using traditional Ajrakh techniques from the Kutch region in the District of Gujarat. Her company CALICO also sells tote bags decorated with fine embroidery and appliqué originally used for wedding ceremony attire by the Rabari people, who live on the border between India and Pakistan.

Kobayashi also says she “wants Japan to see the cultural and historical sides of Indian handspun, handloom cotton” by inviting Indian artisans to Japanese department stores, collaborating with art museums and galleries, and actively promoting the virtues of Indian handicraft. Striving to show the entire world the charm of India’s valuable traditional culture, Kobayashi is continuing to work with local artisans to create Indian cloth. ✩
A Japanese Entrepreneur Tackles the Problem of Space Debris

Space debris threatens our use of outer space. A Japanese entrepreneur proposes to solve it with his own technology.

Our objective is to become ‘space sweepers’ and get rid of space debris,” says Mitsunobu Okada, Founder and CEO of Astroscale with a smile. As the development of outer space takes another leap forward with the participation of private corporations, debris—primarily the remnants of satellites and rockets—is becoming a serious obstacle.

Some pieces of debris are the size of a double-decker bus, orbiting at a speed of 7-8km/sec, or twenty to thirty times faster than a rifle bullet. If a piece of debris collided with any of the approximately 1,400 working satellites, it would be rendered useless.

“Although the probability is low, collisions have already occurred, and in the near future, satellites will increasingly cross each other’s orbits,” Okada said. “The National Aeronautics and Space Agency (NASA) of the United States and several other international space organizations have made simulation studies and found that if we continue our irresponsible attitude to space debris, sooner or later a threshold will be reached, after which the development and utilization of Earth’s orbital environment may become impossible.”

Astroscale has devised a new method to remove debris by capturing objects with a magnet mounted on Astroscale’s satellite, which then brings the debris to a lower orbit where it will burn up as it reenters the atmosphere.

It sounds simple, but carrying it out is amazingly difficult.

“Consider, for example, when the International Space Station (ISS) docks with a spaceship,” Okada explained. “They can use markers

The magnitude of space debris problem is staggering. Currently there are about 900,000 objects 1cm (0.4 inches) or larger, and about 100 million objects 1mm (0.04 inches) or larger.
already placed on the ISS, and both the ISS and the approaching spacecraft carefully maintain certain positions and attitudes to make the docking easier. But with space debris, which has lost its functionality, that is impossible. We need advanced technology that will acquire data about the shape of the object, its position, velocity, and other parameters, and approach it while it remains utterly passive. We are proposing that, by fitting every satellite with a ferromagnetic plate at the time of manufacture, the precision of detection and capture will be improved, allowing a significant cost reduction.

Although he is the founder of a space venture business, nothing in Okada’s previous career had anything to do with outer space.

“My childhood dream was to be an astronaut. At the age of 15, I attended a NASA-sponsored event where I was able to meet the Japanese astronaut Mamoru Mohri. As I approached the age of 40 and wondered what I should do with the rest of my life, that dream was revived. I remember how, when giving me his autograph, Mohri had added a handwritten message that said ‘Space is waiting for your challenge,’ which was like getting a helpful push from behind.’

Attending a conference on space issues brought the problem of debris to Okada’s attention. When he saw how the participating countries were all at a loss about how to solve it, the idea came to him, “This is a problem that I must solve.” With passion and a willingness to try innovative technologies, he has become a unique presence, driving the debris removal sector.

“The development of space is indispensable to attaining SDGs (sustainable development goals), and that can only be done if space itself is a sustainable environment. Our mission is to contribute to ongoing space development by removing debris and thus maintaining a safe orbital environment for satellites.”

Humanity benefits enormously from information provided by satellites, using the data for everything from daily activities to Earth environmental monitoring. As the Astroscale “Space Sweepers” team makes final preparations to help keep Earth’s orbital environment operating smoothly—a breathtaking contribution to international prosperity—the world is watching.

Mitsunobu Okada was born in Hyogo Prefecture in 1973. He graduated from the Faculty of Agriculture at the University of Tokyo, and earned an MBA from Purdue University in the United States. Serving at the Japanese Ministry of Finance, then in a management consulting firm and in IT businesses, he founded the space venture Astroscale in 2013, with the mission of removing space debris.
Enchanted by the Bonsai Universe

Valentin Brose’s fascination with bonsai led him to study the art in Japan. This emerging German bonsai artist is now actively telling the world about the essence of bonsai.

“Pruning shears are the soul of the bonsai artist,” says Brose, attentively trimming a well-matured scots pine bonsai.

Around the world, the Japanese art of bonsai has been gaining a new surge of popularity. Bonsai are plants grown in shallow containers using techniques of pruning and training to create artistic miniature trees that mimic nature. They began receiving a strong following in Europe in the 1970’s and 80’s. Valentin Brose remembers his first encounter as a boy growing up in his home country of Germany at a time of a bonsai boom.

“When I was around 11 years old, I came across these little trees at a Christmas market; they were small enough to fit in your hand! I was enchanted by their perfectly-shaped universe.”

Because of his great enthusiasm, he had several bonsai pot plants bought for him, but the plants withered and died due to his lack of

Valentin Brose

Born in 1980 in Filderstadt, Germany. After working as a gardener in Germany for four years, Brose traveled to Japan in 2008. He studied as a bonsai apprentice at Shunkaen Bonsai Museum, Tokyo, for three years. Since returning home he has worked as a bonsai artist. Currently based in Germany, he travels across Europe showing and selling his bonsai and giving lectures.
knowledge about their care. Although he lost interest for a while, his inclination for nature and trees later led him to find work as a gardener where his passion for bonsai was reignited. He found himself riveted to a show on a video-streaming site, in which the bonsai master Kunio Kobayashi was working alongside foreign apprentices. It was at that moment that Brose decided that he wanted to study bonsai properly at the Shunkaen Bonsai Museum that Kobayashi runs.

“I began by undertaking a three-month introductory course. It taught me so much more than I had ever learned in my lifetime about bonsai before then, but there was still so much I still wanted to learn. I asked to be accepted as his apprentice.”

Brose continued receiving the demanding instruction of Kobayashi, his oyakata (master) for three years, fully utilizing the period for which he could stay in Japan. Wishing to learn as much as he could in the limited time, he worked as long as 18 hours some days. Brose was inspired by the sincere attitude of the Japanese bonsai artists who make no compromise in their quest to create the best bonsai. Compared with the German meister, Brose thinks an oyakata is more like a father figure who demands unconditional sincerity and respect.

“Oyakata taught me to identify each tree’s uniqueness or individuality. A bonsai cannot communicate with words, so we must understand it in other ways. Careful observation, above everything else, is most important.”

Since returning home, Brose has been solidly building his career in bonsai. Making Germany his base, he is conducting workshops and demonstrations in various countries in Europe. He is also actively promoting international exchange through bonsai, such as by organizing tours to Japan to visit Shunkaen in Tokyo and famous gardens for members of a bonsai club in Brixen, Tyrol, in Austria, with whom he has developed a friendship through his workshops.

Brose’s eyes sparkle when he begins explaining his plans to start a bonsai school in the future by creating an ideal garden at his home where he can convey to as many people as possible the wonder of the bonsai he studied in Japan. Brose finds no greater joy than when he understands a tree’s feelings and can train it in its direction of growth. When asked what bonsai means to him, Brose answers without hesitation, “Freude (joy)!”
What a wonderful, refreshing feeling! Of all Japan’s power spots, nowhere can you feel as much spiritual energy as here.” So saying, Camila Iquiene arrives at grounds of the Izumo Taisha Grand Shrine (formally Izumooyashiro) with a big smile on her face. Iquiene is from the state of Rio de Janeiro, Brazil, and is now approaching her third year in Izumo City, Shimane Prefecture, where she is stationed on the JET program. Izumo is an area which is famous for its deep connection to Japan’s ancient myths, and its most iconic sightseeing location is the Izumo Taisha, where Okuninushi-no-Okami, the “nation-building god,” is enshrined. Having always loved both nature and history, Iquiene says she is delighted to be in Izumo, a land steeped in mythology, and blessed with a beautiful landscape of rugged coasts and deep valleys.

Iquiene’s interest in Japan began in her childhood when she first watched Japanese anime on TV. The distinctive sound of the Japanese language attracted her, and at the age of 14 she began her Japanese language studies. At that time, she was unable to find a textbook written in her mother tongue of Portuguese, so she had to study Japanese through the medium of English. Despite that challenge, her enthusiasm for the Japanese language remained unchanged. It was while studying to be a Japanese language teacher that she first heard of the JET program, and at that time she set her heart on working as a Coordinator for International Relations (CIR).

As a CIR, Iquiene introduces the Brazilian way of life and culture at local elementary and junior high schools, and also in public lectures. Since coming to Izumo, her impression of Japanese people has changed a great deal. “I’d heard that Japanese people are often shy and reserved, but everyone has been

In Dispatch Classes, Iquiene uses quizzes to introduce such things as Brazilian lifestyle and cuisine, the differences of etiquette between Brazil and Japan, and basic Portuguese greetings.

Japanese Language Enthusiast Links
Izumo to Brazil

Camila Iquiene, from Brazil, works as Coordinator for International Relations in Izumo City. Now she is using the Japanese she has studied from her childhood to help Brazilians living in Izumo.
so warm and kind,” says Iquiene, and adds with a laugh, “Old ladies are especially friendly and full of hugs, just like they are back in Rio!” Iquiene’s eyes are shining as she talks about her strong interest in local culture, particularly for summer festivals and for *kagura*: a sacred ritual of music and dance which is dedicated to the gods. “It’s probably my Brazilian blood that gets me so excited by festivals and dancing,” she says. Iquiene is also a big fan of soba buckwheat noodles, an Izumo specialty. On her day off, she visits local soba noodle restaurants, and often cooks soba noodles for herself at home.

Recently, Izumo City has seen an influx of Brazilian citizens who are working for Japanese companies. As a result, Iquiene has been able to assist as a Portuguese and Japanese language interpreter at her local city office. Many local Japanese would like to get to know their Brazilian neighbors better, too, and Iquiene speaks passionately about her desire to help bring both groups together.

“In the future,” she says, “I want to become a bridge between Japan and Brazil by teaching the Japanese language to Brazilians, and teaching Portuguese to Japanese. My biggest joy is knowing my efforts benefit both Japanese and Brazilians.”

“Izumo soba noodles are different from normal soba noodles, because the buckwheat seeds are milled together with their husks, giving the noodles a darker appearance and a deeper flavor.”

“Iquiene loves the natural scenery in Izumo. One of her favorite spots is Cape Hinomisaki, and the wonderful view of the sunset over the Sea of Japan.

**About the Japan Exchange and Teaching (JET) Programme**

The JET Programme began in 1987 with the goal of promoting grassroots international exchange between Japan and other nations, and is now one of the world’s largest international exchange programs. JET participants are placed in every region of Japan and work in one of three positions: assistant language teachers (ALTs), coordinators for international relations (CIRs), or sports exchange advisors (SEAs). In 2018, the JET Programme welcomed 5,528 participants, and currently there are more than 68,000 alumni from 73 countries living in all parts of the world.

The JET Programme official website

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