

Winter/Spring 2017

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Tokyo

Winter/Spring 2017



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400 Years of Splendor

Tradition and Innovation in the Wo<mark>r</mark>ld of Kabuki



Ebizo Ichikawa performs as Kamakura Gongoro Kagemasa in Shibaraku

© SHOCHIKU

By Danielle Demetriou

elcome to the world of kabuki. One of Japan's most colorful traditional art forms, kabuki—a highly stylized stage play mixing dance and music—has enjoyed a special place in the country's heart over the past four centuries.

The name itself is revealing: while its three *kanji* individually mean "sing," "dance," and "skill," the word derives from the verb *kabuku*, which can be interpreted as either "leaning" or "to be out of the ordinary"—a perfectly apt reflection of kabuki's avant-garde qualities.

Kabuki is highly decorative and gorgeous. It uses ornate stage sets—a gold-flecked Mount Fuji or a sea of cherry blossoms—complete with high-tech traps and revolving platforms. Added to the mix are the classic tales of life, love, and war that dramatically unfold to the audience.

And at center stage? Undoubtedly, the actors: an all-male cast that sings, dances, and dazzles in every role (playing both men and women) with extraordinary versatility while dressed in bold kimono costumes, wigs, and stark white-face makeup.

Seiichi Kondo, an acclaimed kabuki expert, explains its enduring popularity: "Its popular elements have been developed and supported by the general public for 400 years—such as the splendid costumes and stages, the spontaneous gags and simple but dramatic stories focusing on value conflicts, such as love versus loyalty."

Its meandering roots can be traced to 1603, when, according to kabuki legend, a young shrine maiden called Izumo no Okuni created a distinct new performance style while dancing in a dry riverbed in Kyoto.

But it was in Edo—the old name for Tokyo—during the Edo Period (1603-1867) that it truly flourished. Kabuki was one of a flurry of now-iconic cultural arts that emerged from the capital at this time (among them, ukiyo-e woodblock prints).

The concept of all-male acting troupes emerged in the seventeenth century, with other now-familiar traits—such as the focus on drama mixed with dancing and the formalization of plot structures—adding to the form over time.

Kabuki lost many followers in the late nineteenth century, but it is now one of Japan's most popular forms

of traditional theater, with stars, often from different generations of the same family, who are widely revered and enjoy celebrity status in society.

The fact that kabuki is formally recognized along with two other major Japanese classical theater forms, noh and bunraku, as a UNESCO Intangible Cultural Heritage is a testament to its respected status.

The checkered pattern known as *ichimatsu moyo* appears in Kabuki costume motifs, often in the traditional Japanese indigo blue. It was adapted for use in the official emblem of the Tokyo 2020 Games.

Today, a major hub of kabuki world in Japan is undoubtedly the Kabukiza Theatre in Tokyo's Ginza district. The Kabukiza has been at this location since 1889 and was renovated several times. The newest building, which opened in 2013, has a performance space with seating for about 1,900, a beautiful *hinoki* cypress wood stage, and 29 stories of offices.

Perhaps best of all for visitors, kabuki is no longer the exclusive preserve of the Japanese. In 1982, English Earphone-Guide service was introduced in theaters, enabling non-Japanese spectators to understand events unfolding on stage and the cultural context and symbols relating to the performances.

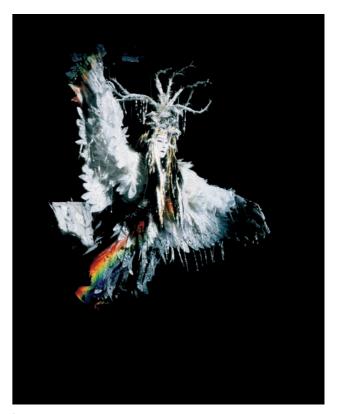
Kabuki is now much more accessible for overseas visitors, due to the actors' expressive performances, assisted by audio guides and commentaries at the beginning of the performance. Kabuki is also taking bold steps to expand its horizons internationally, with a growing number of global tours—among them, a headline-catching kabuki festival that took place in Las Vegas earlier in 2016.

Such a dynamic combination of old and new is precisely what appears to be keeping the art form alive—as reflected in the rise of so-called Super Kabuki, which describes a popular new form of theater that combines traditional kabuki with modern stage technology. "Therefore, kabuki still remains very popular; and it is an easily accessible spectacle for both Japanese and foreigners to enjoy," says Kondo.



Koshiro Matsumoto in the role of Benkei in Kanjincho

© SHOCHIKU



Ennosuke Ichikawa stars in the Super Kabuki Yamato Takeru © SHOCHIKU

Danielle Demetriou is a Japan correspondent for the *Daily Telegraph* and a columnist for *The Japan Times* and the *Mainichi Weekly*.

From Rio to Tokyo

Paralympic Medalists Carry On the Athletic Spirit





Mai Tanaka and Yurie Kanuma hug each other afte their victory

By Taeko Kuwana

ai Tanaka is a professional Girl's Keirin¹ cyclist. At the Rio 2016 Paralympic Games, she participated in the tandem² women's road time trial with Yurie Kanuma, who is visually impaired, and won the silver medal.³

Two athletes and one tandem bicycle, in a race against time. Tanaka, the pilot, sits in front and steers the course. Kanuma is the stoker, sitting in back and powering them along. When the power and skills of the two harmonize on one bicycle with one chain, a world of unlimited possibilities unfolds.

The partnership between Kanuma and Tanaka dates back to 2013, although Tanaka broke up their partnership for a while to concentrate on her own keirin career. For Tanaka, participating in the Paralympics was a difficult choice made after much hesitation. This was because it meant that she would have to leave the

keirin world-a world she was passionate about and where she had many fans-and commit herself to tandem, which is also a cycling sport but requires very different techniques.

Kanuma had participated in the Vancouver 2010 Paralympics as a cross-country skier, but she injured her shoulder and switched to cycling.

When Tanaka discovered that Kanuma wanted to win a Paralympic medal, she thought that this could happen only if the two of them paired up. So she decided to participate in the Paralympics and do all she could to fulfill Kanuma's dream.

Anticipation was high that the Tanaka-Kanuma pair would win medals. But in the first 1,000meter time trial, they came in fifth. Next, in the 3,000meter individual pursuit, they were eliminated in the qualifying trial. Feeling desperate, they then participated in the 30-kilometer road time trial, in which they took second place with a time of 39 minutes, 32.92 seconds.

Mai Tanaka (front) and Yurie Kanu taking the silver medal at Ric

Tanaka says that, for her, the Paralympics was an experience that gained her more than a medal.

"The race and interaction with the other athletes at the Paralympic Village were very stimulating. The feelings the Paralympic athletes had toward their sport were overwhelmingly strong: holding dreams and working for all it's worth for their sport. I wondered if I have that fortitude. I was made acutely aware of the fact that I was not strict enough with myself."

Many of the sports were televised in the Paralympic Village. Some were sports that Tanaka had seen for the first time. Seeing the athletes' best performance and the heated competition, she learned how amazing the Paralympics are to watch.

In 2020, Tokyo will host the Olympic and Paralympic Games. "When I was racing, lots of Brazilians and other non-Japanese people cheered me on, calling out 'Japão!' When the Paralympics come to Tokyo, I hope that not only the Japanese spectators but the many foreigners who come will cheer on the athletes

participating from all over the world."

Tokyo, four years from now. Expectations are high that the Paralympic Games will be one in which, at the stadiums and on the streets, people will experience and be thrilled by the power of para-sports. Tanaka says she grew as a result of her own Paralympics experience and vows that she will connect this to taking on future challenges in her athletic career.

- 1. Girl's Keirin: A type of women's bicycle racing held in Japan.
- 2. Tandem: Bicycle racing competing for finishing order or time using a tandem bicycle. In the front is a non-disabled person and, in the rear, a blind or visually impaired person.
- 3. Won the silver medal: In Paralympic events for the visually impaired, such as cycling and track events, medals are also given to the non-disabled partner.

Taeko Kuwana is a journalist who has published books about the service industry and the Paralympics.



The Power of the Pictogram

Developing the Legacy of the Tokyo 1964 Games

By Julian Ryall

s Tokyo prepares to host the 2020 Olympic and Paralympic Games-the largest sporting event on the planet, attracting athletes and spectators from more than 200 countries and regions—a great deal of thought will go into breaking down the language barriers that inevitably arise.

The best way of doing that, organizers of similar events in the past have discovered, is by creating universally understood pictograms that communicate the same message to everyone who sees them.

The use of graphic images to convey information was first attempted at the London Olympic Games in 1948, although on a relatively small scale and solely as a series of illustrations depicting each of the sports.

In May 1959, however, the International Olympics Committee (IOC) selected Tokyo as the venue for the 1964 Games, the first time the Olympics were held in Asia and in a country whose language was largely unintelligible to international visitors. The challenge, then as now, was to make Japan accessible and understandable.

The Japanese system of symbols was conceived by a team of designers led by Masaru Katsumi and graphic designer Yoshiro Yamashita. The pictograms included 20 easy-to-understand images for the different sports-the pictograms for judo, swimming, and fencing are among the most eve catching—as well as 39 additional pictograms for various kinds of information, ranging from a symbol for a first-aid station to banks, telephone kiosks, and toilets.

And while Katsumi oversaw the designs for the Olympic stadium, the specific task of making Tokyo's Haneda Airport accessible for a massive influx of foreign travelers fell to Aisaku Murakoshi.

"Back in the early 1960s, Mr. Katsumi was my master, but he asked me to design the pictograms for the airport," said Murakoshi, who is eighty-five years old but still serves as the chairman of a Tokyo-based graphic design company.

The organizers gave them a straightforward assignment. Murakoshi said, "They told us that people from more than 90 countries would be coming to Tokyo and that it would be impossible to make signs for every part of the airport in 90 languages. So, instead, we needed images that would be easily understood by people from 90 countries. The most important part was having images that were very simple but conveyed all the information needed.... And they would have to work across cultures, across age differences, across backgrounds, and so on."

Murakoshi designed 24 images that were used at Haneda Airport-and, to this day, he still describes it as "my best project ever."

The pictograms had the desired effect with spectators and athletes in Tokyo in 1964 and have influenced the design of universal signage at every subsequent Olympic Games.

The use of graphic designs was unparalleled, and the sheer simplicity and accessibility have been described as "utter brilliance" and "revolutionary." Design critics have also stated that the 1964 Games pictograms permanently changed the idea of graphic design and was one of the earliest steps on the road to replacing words with images on the global stage.

From Tokyo, the concept quickly spread to shared images used to communicate thousands of everyday facilities and services around the world: from the symbol that appears on a map to denote a museum to that for a hotel or a zoo, from the sign for an emergency exit in a building to that for an elevator, from a stop sign to road signs that indicate the speed limit, a roundabout, or a slippery surface.

"It may be because of the history of our traditional art, followed more recently by anime and manga comic books, but I believe Japanese designers are among the best in the world for this sort of work," said Makoto Watanabe, a lecturer in communications and media at Hokkaido Bunkyo University.

"These pictograms utilize the same concept of conveying movement as we see in ukiyo-e woodblock prints and, later in manga, in a flat, two-dimensional space," he said. "Just look at the image for an emergency exit of a green man moving toward an open door, a pictogram that has become universally accepted. Wherever you see it, that image communicates the need for speed, for haste, in the event of emergency, as well as the idea of safety being nearby," he said. "To do that, in a small space and using just two colors, is quite remarkable."

New pictograms are constantly being added to The image on page 5 shows a prototype of facility symbols and the image the international visual shorthand-the image of a above are from the design guide sheets used for the Tokyo 1964 Olympic Games wi-fi hot spot is among the newest-but designers are already looking toward 2020 to flex their communication and artistic skills. With a heritage that can be traced back to 1964, a new set of pictograms is expected to be devised for the second time that Tokyo Julian Ryall is the Japan correspondent for the Daily Teleis hosting the Olympic and Paralympic Games. graph and writes for other publications around the world.



The National Museum of Modern Art, Tokyo, 2013

Images from Design Project for the Tokyo 1964 Olympic Games exhibition catalog, published by The National Museum of Modern Art, Tokyo, in 2013

The Spirit of *Mottainai* Wrapping Beautifully with *Furoshiki*



By Julian Ryall

ike many of the very best ideas, the *furoshiki* is rooted in absolute simplicity but has been elevated to both fashionable accouterment and icon of the eco-friendly movement. A *furoshiki* is a traditional Japanese wrapping cloth, the first examples of which were used in the Nara Period, more than 1,200 years ago, to wrap the

valuables of emperors and noblemen. The benefits of a square of decorated material for a whole host of uses spread throughout Japanese society. Early on, a *furoshiki* was used as a mat to stand on while undressing before taking a bath and then tied to hold clothing while the person was bathing. Merchants also seized upon the idea for transporting their wares. As well as being a convenient way of carrying things, the *furoshiki* meshed neatly with the culture of making sure that even seemingly insignificant objects were be wrapped neatly and attractively, which remains prevalent in Japan today. Carefully wrapping a gift, for example, implies respect for the recipient, and handing over something that has not been wrapped is considered impolite.

Even though the *furoshiki* was an important part of everyday Japanese life for hundreds of years, its use began to decline after World War II because of the popularity and convenience of plastic bags. More recently, there has been a backlash among consumers and companies against the sheer number of plastic bags used every year, accompanied by a realization that Japan's traditional ways may have been better after all. Modern generations of Japanese have bought into the mantra of reduce, reuse, and recycle (3R) with gusto, while companies have been encouraged to follow in their customers' ecologically minded footsteps by launching campaigns, such as one spearheaded by the recently elected governor of Tokyo, Yuriko Koike, when she served as Minister of the Environment for more than three years, beginning in September 2003.

Governor Koike was behind the *Mottainai Furoshiki* campaign, which loosely translates as "use a *furoshiki* to avoid waste." Announcing the scheme at

"The Japanese word *Mottainai* means it's a shame for something to go to waste without having made use of its potential in full." a March 2006 meeting in Tokyo of senior officials of the 3R Initiative, Governor Koike highlighted all the positive attributes wrapped up in a *furoshiki*. "The Japanese word *Mottainai* means it's a shame for something to go to waste without having made use of its potential in full," she said as she unveiled her creation, a unique and

environmentally friendly *furoshiki* made of a fiber manufactured from recycled PET plastic bottles with a birds-and-flowers motif drawn by Ito Jakuchu (1716-1800), a painter of the mid-Edo Period.

"The *furoshiki* is so handy that you can wrap almost anything in it, regardless of size or shape, with a little ingenuity, simply by folding it in the right way," she added. "It's much better than plastic bags you receive at supermarkets or wrapping paper since it is highly resistant, reusable, and multipurpose. In fact, it's one of the symbols of traditional Japanese culture and puts an accent on taking care of things and avoiding waste."¹ Governor Koike added that it would be wonderful if the *furoshiki* could both serve as a symbol of Japan and encourage people to build an environmentally friendly society in which reusing and recycling are the norm.

Keiko Kikuta, the owner of the Furoshiki-ya YAMA-TONADESHIKO, a specialist shop in Tokyo's Shinjuku ward, agrees wholeheartedly. "I opened my store in October 2007 after learning more about the beauty of Japanese culture, including *furoshiki*, while I was an art student in France," she said.

Ms. Kikuta's shop stocks hundreds of *furoshiki* bearing different designs, ranging from traditional depictions of autumn leaves or summer flowers to more contemporary images of animals or geometric designs. The cloths are carefully displayed on shelves,

with many used to demonstrate the numerous ways in which they can be used to wrap items, from the simple *otsukai tsutsumi* (the basic carry wrap) to the folds required for the *hira tsutsumi* (flat object wrap), the *kakushi tsutsumi* (hidden knot wrap), or the *sao tsutsumi* (padded carrying wrap).

"I am fascinated with *furoshiki* because, unlike a plastic bag, it can be used over and over again and because of its versatility," Ms. Kikuta said. "It can be used as a table cloth, scarf—any number of things, really."

And she has discovered that it makes the perfect souvenir for visitors to Japan.

"We have many foreign customers recently, from Europe, China, and other parts of Asia, and I think they like *furoshiki* for many reasons," Ms. Kikuta said. "It is light and easy to carry. It is traditionally Japanese, and the designs can be very beautiful and include images such as copies of Japanese paintings."

1. Ministry of the Environment website: https://www.env.go.jp/en/focus/060403.html

Julian Ryall is the Japan correspondent for the *Daily Tele*graph and writes for other publications around the world.

The *katakake bukuro* (shoulder bag) The *furoshiki* has many uses.



Photos by Tatsuo Watanabe Furoshiki no kokoro SHOGAKUKAN Inc.

By Masahiro Doi

wo dinosaurs are facing each other. This unique sight over a main passageway in the Port of Tokyo is the Tokyo Gate Bridge, a.k.a. Dinosaur Bridge, which opened to traffic in 2012. With tens of thousands of cars crossing it each day, this bridge helps to relieve congestion in the area around the Port of Tokyo. Tourists also enjoy the fantastic daytime views of the port from the bridge's sidewalk, and at night the bridge is beautifully lit up and is popular with couples. It's one of Tokyo's new tourist destinations.

Designing this bridge presented a major challenge. Located at an important gateway to the port and very close to Tokyo International Airport, the bridge had to have enough clearance to accommodate large ships but also needed to limit its structural height to ensure flight route safety. This combination made for a tight squeeze. And since the bridge also serves as a disaster response route in the event of an earthquake, it had to be especially sturdy and durable.

Using a new methodology based on thorough FEM analysis,1 the main bridge employs novel technologies, such as new high-quality steel members, panel point

structure, and steel-plate deck structure. The bridge has a clearance of 54.6 meters and a structural height of 87.8 meters, making it as much as 40 meters lower than the nearby suspension bridge, the Rainbow Bridge. The Tokyo Gate Bridge is also lighter and cost less to build, and its new truss structure² is stronger and expected to last longer. This makes up the heads of the dinosaurs.

Not all of the new technologies employed are directly concerned with the structure or its construction. This bridge is also a leading example of the application of Japan's Internet of Things (IoT)³ technology, and it is capable of monitoring its state of health. The main bridge structure is equipped with over 50 sensors, which are constantly gathering data on all sorts of conditions, such as the weather, elasticity, degree and direction of oscillation, and vehicle weight of traffic. The data is then transmitted to the management system at a rate of thousands of units per second.

Analysis of these data will allow immediate detection of any abnormalities in the bridge. Abnormalities arise mainly due to typhoons, earthquakes, and other natural disasters; aging as a result of temperature changes, salt damage, and other environmental factors; and wear and tear from the weight of heavy

Tokyo Gate Bridge at night

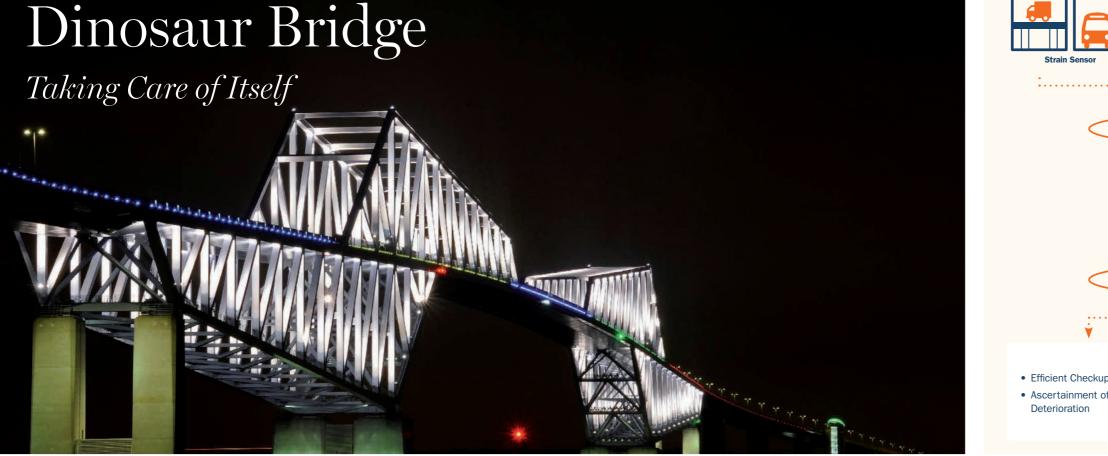
vehicles. If abnormalities can be detected from the data collected by the sensors, based on their type and degree, the information can be used to regulate traffic in real time, as well as to achieve more efficiency in routine maintenance work by predicting or identifying problems.

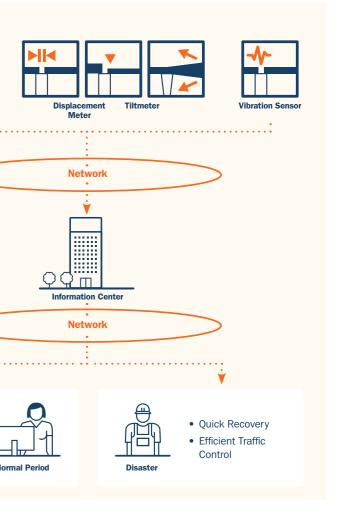
It is hoped that this practical Tokyo-based IoT technology will be used for many bridges all over Japan. It is also hoped that this technology will be exported to other countries to help address the issue of aging infrastructure. This technology has already been applied to the Can Tho Bridge in Vietnam, one of the longest bridges in Southeast Asia.

A day may come one century from now when the Tokyo Gate Bridge is lauded as a legacy of the dawn of Japan's IoT technology.

1. FEM (finite element method) is a leading method employed in structural analysis. In the design of the Tokyo Gate Bridge, detailed FEM analysis was conducted on each part of the bridge structure, including repeated computer simulations. Based on this, verification of fatigue durability and other properties were conducted on large-scale installations.

2. A "truss structure" is created by combining multiple





A diagram of a monitoring system

triangular units formed by steel members and other elements. The many parts involved often result in an unsophisticated shape, but a new simple structure was achieved in the Tokyo Gate Bridge by using new methods and technologies, while also giving consideration to the surrounding landscape.

3. IoT (Internet of Things) is the connection of all kinds of things via the Internet.

Second to None Tokyo's International Education



By Danielle Demetriou

okyo is a city that has long been synonymous with innovation and quality—from its Michelin-starred sushi restaurants and futuristic robots to its impressive skyscrapers.

However, something else should be added to the list that may not be quite so celebrated but is no less impressive: the city's international education environment. Tokyo is home to several high-quality international schools, which are as acclaimed for their stellar educational standards as they are for their focus on both Japanese and overseas cultures.

The rise of international schools in Tokyo may not be surprising in view of the soaring number of expatriate families starting life in the Japanese capital in recent years. The number of foreign residents in Tokyo has reached a record high, with approximately 449,000 long-term and permanent residents living in Students enjoying their lessons at Nishimachi International School

the city as of January 1, 2016—an increase of about 8 percent over the previous year—according to figures released by the Tokyo Metropolitan Government.

The attractions of living in Tokyo are clear: it is not only a sophisticated contemporary metropolis but also a clean and efficient one, with an enviably punctual transport system and a near-zero rate of street crime. Tokyo's international education scene is the cosmopolitan icing on the cake. At present, 13 international schools are officially recognized by the Tokyo Metropolitan Government, and some are accredited by the International Baccalaureate system, enabling graduates to attend universities overseas.

Among them are St. Mary's International School, The American School in Japan, The International French School in Tokyo, The British School in Tokyo, Nishimachi International School, and the New International School of Japan. The number of students at these schools is bolstered by the increase in Japanese children whose parents are no doubt drawn to the idea of a cosmopolitan and high-quality education with a focus on a non-Japanese language, usually English.

The appeal (and importance) of learning English has perhaps never been stronger in Tokyo, where more and more leading industries are increasing their emphasis on staff who can speak English to remain globally competitive in a fast-paced commercial climate.

Tokyo's international schools do not focus only on English-language education; cultural aspects are also of paramount importance, with many establishments teaching pupils about customs, philosophies, festivals, and social structures in countries around the world. One example of an establishment that is blazing an educational trail is Nishimachi International School, which is located in the Azabu district of central Tokyo and first opened its doors in 1949.

Today, around 400 students from over 30 countries, from kindergarten to ninth grade, attend the school. Bringing children together, regardless of language or culture, is the school's guiding philosophy, as articulated by its founder, Tané Matsukata: "To share, to live and learn together, and yet keep a special identity—that is Nishimachi."

Michael Hosking, the school's Australian headmaster, explains: "Nishimachi is absolutely unique because it is widely recognized as a fully accredited and authorized international school, where students can develop both English and Japanese simultaneously. Many families are drawn to this possibility. Classes are in English, but all students receive daily Japanese-language lessons. There is an expectation that students who complete ten years of schooling at Nishimachi will be bilingual."

No less than language studies, a cultural focus on Japanese customs and traditions is regarded as important, according to Hosking: "Numerous Japanese culture programs are held throughout the school year, including visits by sumo wrestlers, *taiko* drumming, rice growing and harvesting, the celebration of cultural days, and making mochi (rice cakes). In the middle school, besides daily Japanese-language lessons, Japanese social studies is also a separate subject."

He adds: "Students who learn to become bicultural and bilingual will be able to smoothly make the transition to being multicultural, understanding diversity, and becoming multilingual as appropriate."



Participating in various extracurricular activities at Nishimachi: rice harvesting, pounding rice for mochi (rice cakes), and playing the *koto*.

Danielle Demetriou is a Japan correspondent for the *Daily Telegraph* and a columnist for *The Japan Times* and the *Mainichi Weekly*.

Creating Together The Adventures of Tokyo Caravan

By Minako Shigematsu

n the evenings of October 21 and 22, 2016, Tokyo Caravan was held on an outdoor stage in Roppongi, one of Tokyo's liveliest nightlife districts. It was enjoyed by many people and generated tremendous buzz. Tokyo Caravan is a movement that began in 2015, bringing together artists from various genres, including the theater, art, music, and traditional performing arts. Hideki Noda, one of modern Japan's leading theater directors and playwrights, formulated its key concept—that "culture is created where people come together."

Tokyo Caravan was launched by the Tokyo Metropolitan Government to lead the cultural program of the Tokyo 2020 Olympic and Paralympic Games. In August, Tokyo Caravan went to Rio de Janeiro, Brazil, during the Olympic and Paralympic Games. In September, it went to Japan's Tohoku region—Sendai in Miyagi Prefecture and Soma in Fukushima Prefecture—which is recovering from the Great East Japan Earthquake on March 11, 2011. It held workshops in various places to encourage a cultural "inter-mixture" with local artists and children through physical expression, such as live music, dance, and theater, transcending national boundaries, languages, cultures, and genres to search for and create new forms of expression.

Then, in October, Tokyo Caravan returned to its home base in Tokyo and wrote a new page in the story woven in Rio and Tohoku. On stage in Roppongi, a musical was performed with a fable-like As the Olympic Charter states: "Blending sport with culture and education, Olympism seeks to create plot: "Can people digging a hole in search of forbidden freedom find a new world by escaping to the other a way of life," so the Olympic and Paralympic Games side of the planet?" With dancers and musicians from are not just festivals of sports; they are also festivals Rio and traditional Japanese dancers from Tohoku of culture. Tokyo Caravan will enliven the Tokyo joining noh actors and a ska band, this unprecedented 2020 Games through the power of culture and art. performance, which played to a full house with stand-Between now and then, its "cultural circus" will visit ing room only, was enthusiastically received by the towns around Japan, mixing with people and conveying audience. Though language, culture, and customs the fun of live performances, to create a story that goes may differ, by moving their bodies and sharing in beyond 2020. the experience of creating something new, people can naturally accept diversity and get along with one another. This ideal was manifested in this festive stage performance-the fruit of the "story"- created by Tokyo Caravan in its workshops in Rio and in the Minako Shigematsu is a freelance writer specializing in Tohoku region. classical music, art, and Japanese culture.



Photos by Kishin Shinoyama

The Art of Making Bicycles Crafting 2,600 One-of-a-Kind Bikes



Kenichi Hotta with one of his unique bicycles

By Tadahisa Hagiwara

ost people have forgotten their first bike-riding experience. Riding a bicycle is something that they probably just take for granted. But there are many people who can only look on in envy at others zipping around on their bikes—namely, people with disabilities.

"For people with disabilities, bicycles can open a whole new world," says Kenichi Hotta of Hotta Manufacturing in Tokyo's Adachi ward. For the past 37 years, Hotta and his small factory have created threeand four-wheeled cycles for senior citizens and people with disabilities. He has built over 2,600 cycles for customers ranging in age from three to ninety-five. The first cycle he made was for his own son, whose school prohibited its pupils from riding bicycles. Hotta was really just a hobbyist then, but that first tricycle he built drew favorable attention. Soon, a disabled woman in his neighborhood asked him to make one for her. More and more orders followed. He closed his own family business and started this new venture after purchasing the equipment needed at a low price.

But, after an initial rush, orders tapered off, and he was barely able to make enough to support his family Then, the next one appears. And so it has been for a of four. He was on the verge of quitting when he got a long time now. I can't remember taking any breaks in message that a boy who had trouble walking would be the past 37 years," he says. flying down alone from far-off Hokkaido to see him. Customers cry tears of happiness when they see the Hotta went to the airport to pick him up. He said that completed tricycle and break into a smile as soon as tears came to his eves at the sight of the boy walking they get on. Each photo adorning the walls of Hotta's toward him with unsteady steps, far behind the group workshop tells a story of a memorable experience when of other passengers leaving the plane. Hotta said that a customer first received a cycle. this renewed his commitment. "He had to come all the Asked if he might now be receiving orders from way here to see me because no one was able to make around the world, he smilingly replied, "If they can what he needed! I can't quit," he recalled. come all the way here, I'll be sure to make them the Over time, his accomplishments were recognized, cycle of their dreams."

Over time, his accomplishments were recognized, and he has received prestigious awards from major corporations and prominent organizations. People come to see him from all over Japan. That is because he has to meet them to customize the design of the cycle to fit their particular needs. Each cycle is "one -of-a-kind," from the frame to the handlebars, pedals, saddle, gear configuration and position, and whether it is motorized.

Each cycle has over 200 parts, most of which are customized. At times, Hotta must even create the tools



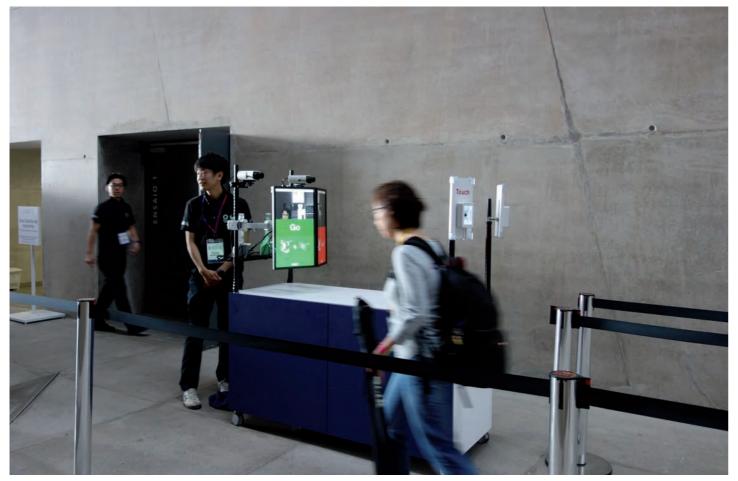
A boy with his new bike

he needs to make the parts. Hotta goes to extreme lengths to find solutions for a great variety of disabilities. He is proud to say that he has never failed to fulfill a customer's expectations. "I make the best possible product for each and every client who comes along. Then, the next one appears. And so it has been for a long time now. I can't remember taking any breaks in the past 37 years," he says.

Tadahisa Hagiwara has published numerous works on business and the economy.

Making the Host City Safer

The Important Role of Walkthrough Facial Recognition Technology



Walkthrough Facial Recognition Technology in operation

By Masahiro Doi

he world's most sophisticated facial recognition technology, enabling instant authentication, will ensure the safety of the Olympic and Paralympic Games.

Most security gate systems operate by reading data on chips embedded in identification cards to verify identities. But is that person passing through the gate really the owner of that card?

The access of unauthorized people-to say nothing of terrorists-to crucial facilities presents a huge risk. The use of security gate systems based on ID cards has spread around the world, but other systems are required to authenticate that the person holding the card is actually the person to whom the card was issued. This can be accomplished by using fingerprints, iris scans, or other biometric technologies, but these systems require additional processes that could

be regarded as annoying even if only slightly. Above all, the high level of psychological resistance to them is hard to overcome. This is where facial recognition technology comes in. In this technology, facial images of authorized people are stored in a database. The face caught on camera is matched against the database, and it is immediately determined whether they match.

When facial recognition technology is used, the person being authenticated does not have to do anything special. At the security gate, he or she simply holds the ID card over the reader. The card brings up the facial image in the database to match specific features with those on the face caught on camera. If they match, the door opens. In the latest system, the entire process takes a fraction of a second. Moreover, the error rate is extremely low. The person being scanned does not even need to stop and look straight into the camera.

Tokyo 2020 JAPAN HOUSE, the PR center for Tokyo and Japan at the Rio 2016 Olympic and



Paralympic Games, utilized the Walkthrough Facial Recognition System developed by a Japanese company. As this facility was used to hold press conferences, the system was employed to control access by the press. No problem arose with security, and there was no congestion at the entrance, proving that smooth operations are possible. It is said that this system can correctly identify people even if they wear clear eyeglasses or different makeup, have their face painted, have false mustaches, or have had minor cosmetic surgery. Of course, this is likely to be difficult if the person's face is entirely covered by a mask, but such cases can probably be handled by security personnel. The technology used in this system won top honors three times in a row in tests conducted by the US government. To say that Japan is the world leader in facial recognition technology would be no exaggeration.

Studies are underway on the possible use of this Walkthrough Facial Recognition Technology during

Walkthrough Facial Recognition Technology

the Tokyo 2020 Olympic and Paralympic Games. It is expected to play a major role as part of the security measures during the Games.

Reporting assistance provided by NEC Corporation

Masahiro Doi is a writer who has specialized in IT web media for more than 20 years.

A Magnet for Gourmets Tokyo Offers Foods from Many Countries

By Tadahisa Hagiwara

Cuisine

asshoi! *Wasshoi*! The sound of groups of people encouraging one another with shouts as they shoulder portable shrines is a common sound at Japanese traditional events, such as Asakusa's Sanja Festival or the Kanda Festival, both held in Tokyo. Events such as these continue to bedazzle visitors from all over the world.

Another essential part of Japanese festivals is the traditional *yatai* food stalls. No festival would be complete without the seasonal street food served at these makeshift eateries, including Japanese soul food, such as *okonomiyaki* (savory pancakes topped with a flavorful sauce) and *takoyaki* (small savory balls of dough containing pieces of octopus). A recent addition to these street foods that has become popular is a non-Japanese food—kebabs.

Kebabs, which originated in the Middle East and Turkey, are skewers of meat—usually lamb or beef. They started to appear on Ueno's Ameya Yokocho Shopping Street several years ago and now seem to be everywhere. Japanese people have fallen in love with the flavor of this highly seasoned dish. But, like other popular foods with roots in other countries—curry from India and noodles from China come to mind—Japan has tweaked them just a little to suit the local palate.

Food from around the world can be found in Japan. Tokyo, in particular, is a microcosm of global food culture. Even a quick internet search reveals that restaurants in Tokyo serve food from at least 100 countries.

Zakuro is one such restaurant that exemplifies the diversity of Tokyo's food culture. Zakuro serves not only kebabs but also *mahicheh* (lamb shank) and other Turkish and Middle Eastern dishes. Mohamed Ali Sadatto-Reza, the proprietor, comes from Iran but is of Turkish heritage. His friendly personality, the generous portions of food, and reasonable prices have made the restaurant one of the most popular in the neighborhood. And, of course, Zakuro's food is halal, so it complies with Islamic law.

Zakuro now has fans throughout Asia and even in Europe. Some of its regular customers even spend tens of thousands of yen to take a taxi straight to the restaurant from Narita International Airport. Two days after the Great East Japan Earthquake in 2011, a cousin of the king of Saudi Arabia concerned about the disaster flew to Japan and stopped here on his way to visit the devastated Tohoku region.

Ali says, in fluent Japanese: "If you come to my restaurant, you can become friends with not only me but the Iranian customer who sits down next to you. Here you can get to know what the average person from the Middle East thinks, the kind of thing they never show on the TV news. I get to serve 100 customers a day and send them home having enjoyed a meal here. I have the best job in the world."

Many restaurants serving non-Japanese food adapt their recipes to Japanese tastes but not Zakuro. The food served here tastes just as it does back in the Middle East. Turkish food is said to be one of the three great cuisines of the world. It encompasses a wide variety

Restaurants in Tokyo serve food from at least 100 countries. of dishes. "I don't change the flavor to suit the Japanese. I just serve the things that Japanese people like," Ali says. That is why both Japanese and Middle Eastern customers are satisfied with the food they eat here. So, where in Tokyo do you

think Zakuro is located? In Roppongi—where many non-Japanese spend time? Shibuya? Shinjuku? All of those answers are incorrect. Zakuro is actually in Yanaka—a downtown area that, despite being located right in the center of Tokyo, retains a traditional atmosphere, with refined temples and unchanged narrow streets lined with tiny restaurants serving soba noodles and Japanese sweets. Charmed by the area, Ali decided to put his restaurant here. A Middle Eastern restaurant in a purely Japanese setting—this kind of mismatch is symbolic of the diverse foodie heaven that is Tokyo.

When you visit Tokyo, of course, we hope that you will try *washoku*, the traditional Japanese cuisine that has been recognized by UNESCO as an Intangible Cultural Heritage. But we hope you don't stop there, because Tokyo has much more to offer. We hope that you will also visit restaurants such as Zakuro for a unique culinary experience!



A sample of dishes served at Zakuro



Ali welcoming his guests

Tadahisa Hagiwara has published numerous works on business and the economy.



Smooth, Safe, and Straightforward

Navigating Tokyo's Train System with Ease

By Julian Ryall

Very day, an astonishing number of passengers travel by train in the Greater Tokyo Area. The subway and above-ground railway system have a great many lines, with well over 2,705 kilometers of operational track and 1,510 stations.

But don't let the numbers intimidate or overwhelm you, because just as much effort has gone into ensuring that everyone who uses the system gets from place A to place B with as little muss or fuss as possible.

Trust me on this one; I am a Londoner by birth and have negotiated mass transit rail systems in New York, Paris, Seoul, and countless other far-flung cities around the world, and I can assure you that nothing comes close to Tokyo for efficiency, organization, modernity, punctuality, and the ability to ensure that visiting foreigners get to their destinations. And that's even before I get to the politeness of the staff or the cleanliness of trains and stations.

For anyone who has not had the opportunity to experience train travel Tokyo style, let me take you on a little journey to give you a taste of what you have been missing. We will go from the modern and frenetic Roppongi district to the more traditional streets of Asakusa, with a swift change at Daimon Station.

At virtually the very center of the Tokyo megalopolis

is Roppongi, a district of bars and restaurants, hotels, shops, and nightlife. The platform for the Toei Oedo Line lies a full 42 meters beneath these streets—making Roppongi the deepest subway station in Tokyo. The cleanliness of the facilities is equally impressive; not a spot of graffiti in sight and the public restrooms clearly receive frequent and vigorous attention from cleaning crews.

Navigating the station is also made easy by clear signs—in English, Korean, and Chinese, as well as Japanese—intuitive maps and a system of color coding for each of the lines. That all helps to make our progress to the ticket gates of the Toei Oedo Line smooth and swift.

The line is operated by the Tokyo Metropolitan Government Bureau of Transportation and commenced full operations in December 2000. The line runs for 40.7 kilometers, between the stations of Hikarigaoka and Tochomae, and had to be built to avoid existing underground utilities and other subway lines. Nearly 910,000 people use the line every day, making it one of the busiest lines in Tokyo.

The traveler's journey could not be easier. Passengers have the option to buy a ticket from machines that operate in English and Japanese or use a PASMO prepaid card that is simply passed over the reader at the ticket gate.

So, with ticket safely in hand, we descend the escalator to the platform, which is spotlessly clean and brightly lit. Information on signs is provided in several languages, and a helpful electronic board indicates how long we have to wait until the next train. It is usually just a couple of minutes.

As the train approaches, an announcement tells travelers to stay behind the white line on the platform. Yellow textured floor tiles called tactile paving warn the visually impaired that they are approaching the platform's edge.

The doors open widely, enabling passengers to embark and disembark quickly. Station staff are on hand with a folding ramp for anyone in a wheelchair to permit them to roll smoothly into the railway car.

Right on time, the doors close, and we are swiftly in motion. More electronic signs above the doors announce the next station and how long it will take to get there. Small television screens show a series of sound-free advertisements and information, such as news and weather. An announcement tells passengers on which side of the train the doors will open at the next station. Most impressively, the train halts at precisely the spot on the platform marked for passengers to line up to board.



Scenes of Roppongi Station, Toei Oedo Line

Travelers come and go as we stop at stations along the way, heading for intersecting subway lines or their destination.

Arriving at Daimon—a station that is reminiscent of a museum thanks to its buffed stone walls and spotlights—we ride two short escalators up to the Toei Asakusa Line, which is also operated by Tokyo's Bureau of Transportation. Once again, the cars on this line are clean, brightly lit, and comfortable. Certain sections in each car are reserved for the elderly, the infirm, pregnant women, or those traveling with small children.

The nine stations until we arrive at Asakusa flash by, punctuated only by announcements and the gentle sound of train doors opening and closing. We emerge at Asakusa—through the ticket gate, with a slight bow and a smile from the attendant—and our journey is done.

Smooth, safe, and straightforward from start to finish. It is almost a shame to arrive at my destination. But I console myself with the thought that I will probably have to take the train again tomorrow.

Julian Ryall is the Japan correspondent for the *Daily Telegraph* and writes for other publications around the world.



TOKYO SKYTREE and TOKYO SKYTREE TOWN

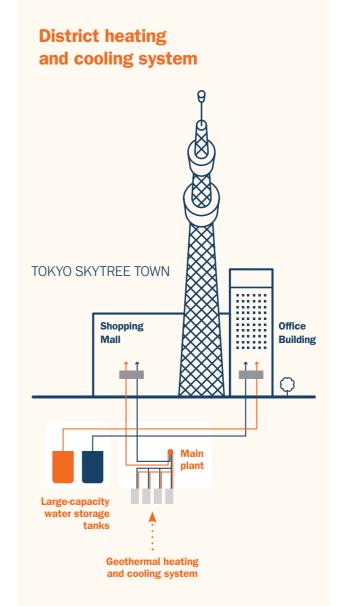
TOKYO SKYTREE TOWN

Where the Environment and Tourism Are One

By Tomoaki Babasaki

oaring to a height of 634 meters, TOKYO SKYTREE is the tallest structure in Japan. This leading landmark of Tokyo was recognized by Guinness World Records in 2011 as the world's tallest tower. From the observation deck, 450 meters high, visitors can take in the entire city spread out before their eyes as well as the magnificent mountains around Tokyo, notably Mount Fuji, 100 kilometers away. Between 2012, when it opened to visitors, and 2015, over 20 million people visited TOKYO SKYTREE. The number of visitors from outside the country is also growing.

TOKYO SKYTREE cuts an impressive figure, especially at night, when it is lit up with 2,075 LED bulbs. It deserves a place among the 100 Views of New Tokyo. The all-LED lighting designed in two main patterns *iki* (chic), a pale blue inspired by the Sumida River, and *miyabi* (elegance), inspired by a traditional shade of purple that has been popular since the Edo Period



(1603-1867)—uses up to 43 percent less electricity than conventional lighting. LED bulbs also have a life of 40,000 hours—three to six times longer than fluorescent bulbs and twenty to forty times longer than incandescent bulbs.

TOKYO SKYTREE is at the heart of TOKYO SKY-TREE TOWN, which is now a major sightseeing spot in the old downtown section of the city. But in contrast to the quaint surroundings are two major facilities underground that help reduce its impact on the environment: large-capacity water thermal storage tanks and a rainwater collection tank.

The water stored in thermal storage tanks is used in the district heating and cooling (DHC) system. The DHC system produces and supplies thermal energy for air conditioning and hot water in a number of buildings in the area, enabling energy to be used efficiently. The DHC system in TOKYO SKYTREE TOWN uses a geothermal water source heat pump. Because soil temperatures remain fairly constant throughout the year, in summer, it is cooler underground than above ground, and in winter it is warmer. A water source heat pump effectively exploits these differentials between air temperature and underground temperature to heat or cool water. This water is then stored in the thermal storage tanks for use as energy for heating and cooling. This system not only makes air conditioning more efficient but also reduces heat expelled by outdoor units into the atmosphere, thereby helping to mitigate the heat island effect. The introduction of this DHC system can cut annual energy consumption in this district by 48 percent.

The 7,000 tonnes of water stored in the large thermal storage tanks can also be used for firefighting or domestic water in the event of a large-scale disaster. This is equivalent to 35,000 drums of water, enough to supply the domestic needs of about 230,000 people.

The rain water collection tank can hold up to 2,635 tonnes of rainwater. Of this capacity, 1,835 tonnes are intended for temporary collection of rainwater during torrential rainfall and the remaining 800 tonnes are to water greenery on building rooftops in TOKYO SKYTREE TOWN. Trials are also underway to use the water to cool solar panels to prevent any reduction in power generation efficiency.

Since it opened, TOKYO SKYTREE has been in the spotlight as a major tourist destination. But it is hoped that its name will go down in history as a model of harmony between tourism resources and energy conservation.

Reporting assistance provided by TOBU TOWER SKYTREE CO., LTD.

Tomoaki Babasaki runs his own company, where he has overseen the publication of some 500 books.



Rachel King at the British embass

British Civil Servant Thriving in Tokyo

By Rachel King

lot of people in the UK are somewhat ignorant about life in Japan, and before I moved here I had a stereotypical view of ►what Tokyo would be like: big, busy, and crowded, with more neon lights than green spaces. So I was delighted to discover an extremely "livable" city: safe, efficient, with creative use of space and countless hidden fun places.

I work as a civil servant for the UK government, as the Director of Overseas Operations for the Department for International Trade. Normally, my office would be located in London, but the government made a special exception, and it is located in the British embassy in Tokyo. Our department has staff in over a hundred countries around the world, and I have to ensure that we have the right people in the right places, with all the support they need to help British companies to export their goods and services and to encourage foreign companies to invest in the UK. Although my job is global, rather than focused solely on Japan, it has been very useful for

me to talk to senior representatives of Japanese what they want from the UK.

lucky throughout my career to have strong female role models, and

"I have been very companies to find out lucky throughout my career to have I have been very strong female role models."

I have never felt held back because I am a woman. I have met many talented, determined young women in the government and business communities in Tokyo, and I hope I have shown at least some of them-and their male colleagues!-what is possible.

One aspect of Tokyo that has really surprised me is the air quality: it makes running and cycling in the city a pleasure. I am lucky to live very close to the jogging track that circles the Imperial Palace, and I try to go for a run a few mornings a week before work. I encounter a beautiful scene when I turn a corner and see the Marunouchi skyline, especially in the morning sunshine-it reminds me how lucky I am to be living here.

Home for me in the UK is an old house in a small village-very different from my modern apartment in Tokyo. Although finding tranquil spots can take a little effort, plenty are available if you know where to look. I love sitting on my balcony overlooking the Chidorigafuchi National Cemetery (which is actually more of a memorial garden) and visiting the turtles in the nearby Koishikawa Korakuen Gardens, a traditional Japanese garden that dates back to the Edo Period (1603-1867). The British embassy also has a lovely garden that combines some very English features—a big lawn with rose-covered trellises-with some that are typically Japanese-one of the best displays of cherry blossoms in Tokyo.

My favorite spot, though, is the Nezu Museum in Omotesando, which shows changing exhibitions of Japanese and Asian art in a stunning contemporary building located in an enchanting garden. The garden is in the middle of a very busy shopping district, and it always feels like a small miracle to step off the street into this oasis of winding paths, stone lanterns, and statues of the Buddha. It exemplifies the attention to detail and commitment to contemplation at the heart of what I love most about Japan.

Rachel King is Director of Overseas Operations for the UK's Department for International Trade. She has previously worked at the UK Treasury and Prime Minister's Office. Rachel and her husband moved to Tokyo in July 2015.



A Sudanese Man's Tokyo Life

By Koichi Aizawa

n Japan, obtaining a license as a practitioner of acupuncture and moxibustion can pave the road to financial independence for the visually impaired. Such practitioners are specialists who use traditional Oriental medicine techniques to insert needles into the skin or burn moxa (dried mugwort) on or near the skin's surface to help restore health and relieve pain. Aspiring practitioners from abroad are also accepted, and one such person was Mohamed Omer Abdin, who came to Japan from Sudan in 1998 to study.

For three years, at a school for the visually impaired in Fukui prefecture, he studied Braille and acupuncture and moxibustion before receiving his acupuncturist/ moxibustionist license in 2001. However, he did not choose this path. "I started wanting to study more," he says. "That was because I learned Braille here in Japan and discovered the joys of reading."

Abdin read a lot—mostly fiction—and that made him thirst for more knowledge. At the same time, he began to think more deeply about the problems in his home country of Sudan, which was beset by political instability and disputes. He says that he began to feel strongly about engaging in research that would lead to peace. That led him to continue his studies at the graduate school of Tokyo University of Foreign Studies. He became a researcher at the university's World Language and Society Education Centre.

Over the 18 years since he arrived here, he has overcome many obstacles in Japan as a visually impaired person living in a land with a language and culture different from his own. What does Abdin think of Tokyo?

"Most foreigners who come to Tokyo are amazed by the rail network, which is so well developed and so on time. It must be one of the best in the world. For the visually challenged, however, the concern shown for our safety falls short. In recent years, progress has been made in installing safety gates on train platforms, so things are improving, but it looks like more time will be needed before we can really feel safe using the trains."

Having based his life in Tokyo for 15 years now, Abdin is more Tokyoite than foreigner. He is aware of Tokyo's problems as well as its good points. All in all, though, he has a high opinion of the city.

Abdin in Akihabara

"Tokyo is a place where you can take on challenges. I don't think people, on the whole, are subject to preconceptions, and I have not felt socially excluded. People accept outsiders, without resistance. That is why I can take on challenges. The fact that I was able to become a researcher and engage in many kinds of activities is that this is the kind of place Tokyo is."

Abdin also plays football as a forward at Tama Hassas, a team that has won the Blind Soccer Japan Cham-

Abdin has high hopes for the Tokyo 2020 Paralympic Games.

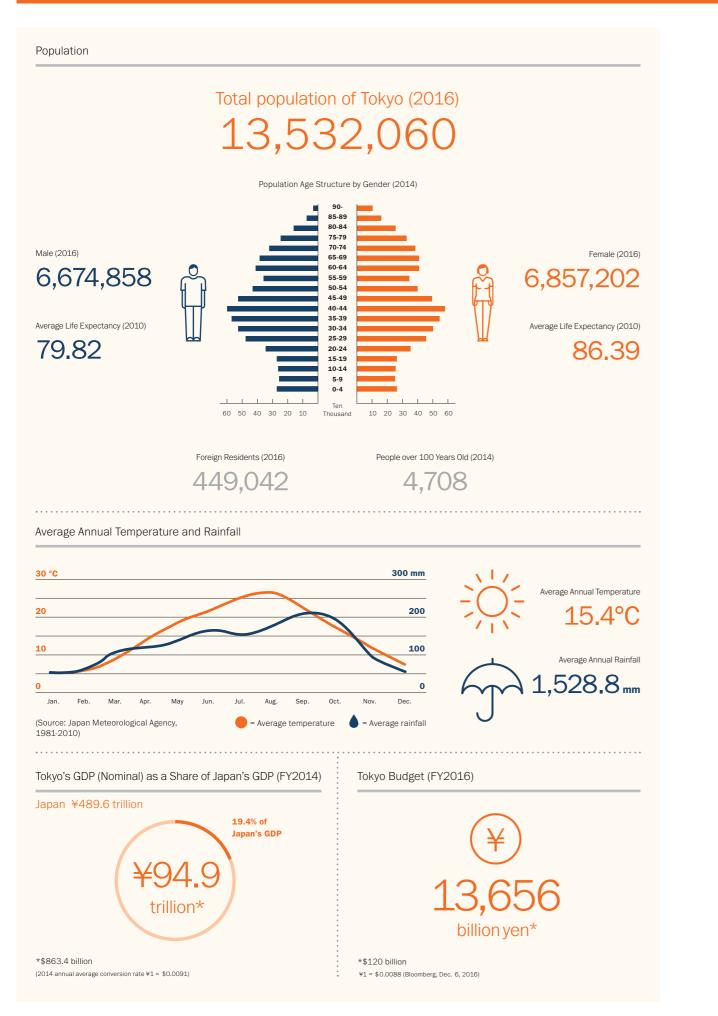
pionship three times, but he's taking a break at the moment because of a knee injury. "I am the only non-Japanese on the team, but never once since joining the team have I felt any racial barriers. This is a team that really wants to win, and sometimes we lock horns, but we can do that because we have respect for each other as

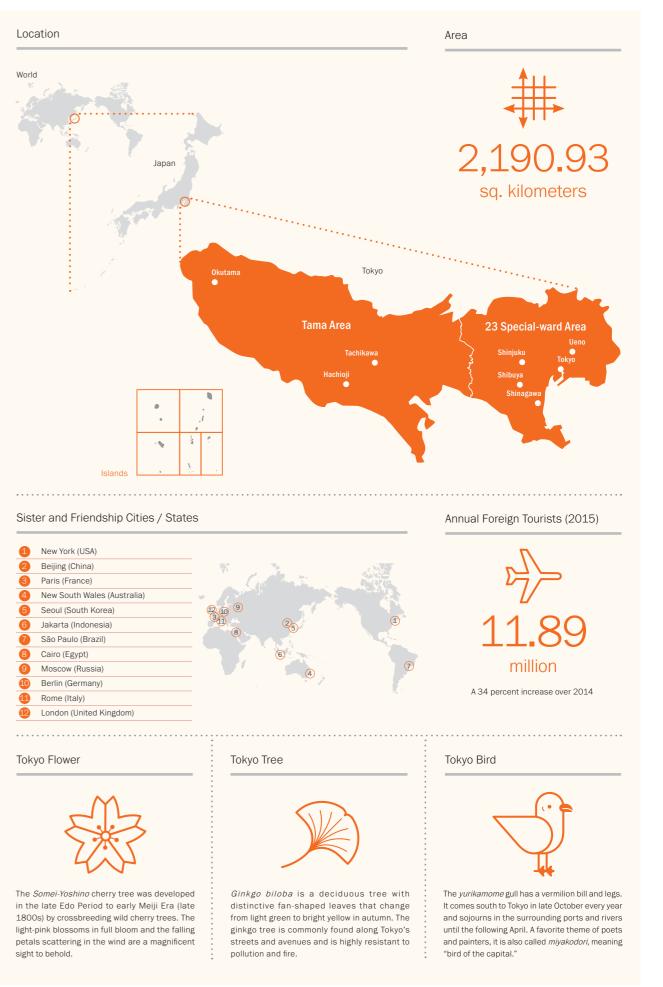
players. I feel that I have been able to build those kinds of relationships because this is Tokyo."

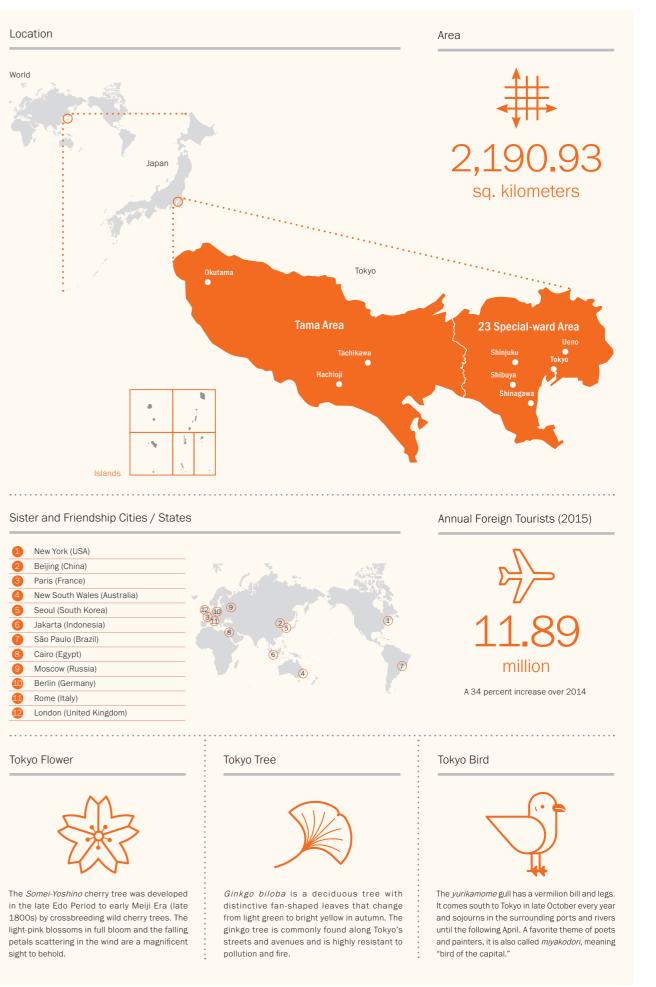
Abdin has high hopes for the Tokyo 2020 Paralympic Games. "Recently, attention is focusing on not just the Olympics but the Paralympics as well. I can't say that Tokyo currently has a sufficient environment for disabled sports, but the city will be sure to build the environment over the next four years in preparation for the Games. The Paralympics present a great opportunity for such developments. I am looking forward to these changes."

Mohamed Omer Abdin was born in 1978 in Khartoum, Sudan. He lost his sight at the age of twelve. He studied law at the University of Khartoum, but he decided that studying acupuncture and moxibustion in Japan would offer him greater opportunities. He arrived in Japan at the age of nineteen. He is now a specially appointed assistant professor at Tokyo University of Foreign Studies. He has written a book titled Waga Mousou [Imagine Japan].

Koichi Aizawa writes about sports and business for a number of monthly news magazines. He has published several books about American football and golf.











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