6  “Japanese Design Today” — Into Tomorrow
An interview with Hiroshi Kashiwagi, professor emeritus at Musashino Art University

8  Simpler Signs
Japan has introduced a number of new pictograms to make getting around simpler for foreign visitors.

12  Sporty Tractors
A new breed of tractor is roaming Japan’s fields.

14  21_21 DESIGN SIGHT Vision
The ever-changing program of exhibits at 21_21 DESIGN SIGHT highlights the possibilities for future design.

10  Design Resolves Issues of the Times
On the enduring significance of the Good Design Award

4  PRIME MINISTER’S DIARY

22  SCIENCE & TECHNOLOGY
Vending Machines as Guardians

24  MY WAY
The Garden Path
In this month’s Feature, we take a look at the past, present and future of Japanese design, with a focus in particular on how designers are responding to the challenges and opportunities associated with increased tourism and the upcoming 2020 Tokyo Olympics.

Universal Kitchenware
Elderly and physically disabled people can find a new joy in eating thanks to sensitively designed cutlery and tableware.

Culture Reappraised
An interview with Kenya Hara, graphic designer, curator and art director for Muji

Hospital “Check In” Made Simple
A hospital in Sapporo has borrowed ideas from airport design to better welcome patients from overseas.

SMEs OVERSEAS
Braille for All

WASHOKU
Happy Food

NATIONAL PARKS
Kerama Islands: Amazing Zamami

PRODUCTION
The Japan Journal
MANAGING EDITOR
Hitoshi Chiba
EDITOR
Alex Hendy
EDITORIAL SUPPORT
Eriko Kiura
CONTRIBUTORS
Rob Gilhooly, Mao Fujita, Kyoko Motoyoshi, Hiroshi Sakurai, Kentaro Sano, Kumiko Sato, Akira Umezawa
DESIGN
Hirofumi Okadome
PHOTOS
Hitoshi Chiba, Yuichi Itabashi, Rob Gilhooly, Yoshifusa Hashizume, Hiroshi Sakurai, Kumiko Sato, Satoshi Tanaka, Akira Umezawa
VIDEOGRAPHY
Satoshi Tanaka

ON THE COVER
The Future by Design
Photos: Hiroshi Sakurai, Akira Umezawa, The Japan Institute of Design Promotion, Japanese Standards Association, Yanmar Co., Ltd.
On August 7, Shinzo Abe, Prime Minister of Japan, held a summit meeting with Samdech Akka Moha Sena Padei Techo Hun Sen, Prime Minister of the Kingdom of Cambodia.

Prime Minister Abe stated that Prime Minister Hun Sen has consistently supported Japan’s “Proactive Contribution to Peace,” and that since the first deployment of PKO units to Cambodia, peace-building has become a major pillar of Japan’s foreign policy. He stated that he highly appreciates Cambodia’s participation in PKO missions in recent years and that Japan will continue to implement Defense Capacity Building Assistance to Cambodian personnel. Citing the examples of the completion of the Tsubasa Bridge, the start of direct flights linking Japan and Cambodia, and the establishment of the Sunrise Japan Hospital in Phnom Penh, Prime Minister Abe stated that cooperation with Prime Minister Hun Sen is producing results. He praised the smooth implementation of recent local elections and expressed the expectation that Cambodia’s next national election will be conducted in a free and fair manner, noting that Japan will continue to provide electoral reform assistance. He also noted that Japan will continue to implement cooperation for Khmer Rouge trials. He stated that Japan would like to cooperate with Cambodia on strengthening the free and open maritime order based on the rule of law in the Indo-Pacific region as global commons.

As for the development cooperation, economy, culture and people-to-people exchanges, referring to Japan’s assistance and investment to contribute to human resources development in line with international standards, Prime Minister Abe stated that Japan will enhance assistance in areas including improvement of logistics, industrial human resource development and reinforcement of urban functions, with a view to assisting Cambodia in becoming a middle-to-high-income country by 2030. He noted that the two projects for which exchanges of notes were to be signed on that day, amounting to 27.4 billion yen, will also contribute to the creation of business opportunities and requested that further efforts be made to improve the investment environment in Cambodia. He also noted that over the past five years exchanges have taken place among approximately 3,500 people and that Japan will continue to maintain a high level of exchange, with a view to further expanding the basis for friendship. He also noted that Japan will establish a Consular Office in Siem Reap next year.

The two leaders also engaged in a candid and significant exchange of opinions on urgent issues in the regional and international arenas, including North Korea and the South China Sea. In particular, with regard to the situation surrounding North Korea, the two leaders confirmed that the international community should work together to place pressure on North Korea and that they would also cooperate in the ASEAN-related meetings this year. Prime Minister Hun Sen expressed his support for efforts towards the early resolution of the abductions issue. On the issue of the South China Sea, the two leaders confirmed the importance of the rule of law, among other matters. Prime Minister Abe also stated that with protectionist moves spreading around the world, Japan will cooperate with Cambodia on the Regional Comprehensive Economic Partnership (RCEP) to ensure the conclusion of a high-quality agreement. Prime Minister Abe also expressed appreciation to Prime Minister Hun Sen for Cambodia’s support in Osaka’s bid to host the 2025 World Exposition.
The characteristics of Japanese design, according to influential designer Kenya Hara, are “detail, courteousness, subtlety and concision.” Through interviews with designers such as Hara, and introductions to some exemplary new products and technologies, this month’s Feature highlights the distinctive traits of Japanese design today and throws light on how design will shape the way society in the future looks and behaves.
“Japanese Design Today” – Into Tomorrow

SINCE 2004, a touring exhibition that aims to convey Japanese culture through contemporary design, has been held all over the world. We spoke with Hiroshi Kashiwagi, professor emeritus at Musashino Art University, a design critic who serves on the selection committee for the exhibited works.

Japanese Design Today 100, a touring exhibition that introduces Japanese products and designs, has enjoyed great popularity since it began in 2004. The second version of the exhibition is currently being held. Could you please give us an overview?

Japanese Design Today 100 was a touring exhibition held abroad continuously for a period of ten years. The Touring Exhibition: Japanese Design Today 100 <renewal version> began as another ten-year project in 2014. As in the previous project, eleven of the 100 products selected are leading designs from the early postwar period, while the remaining eighty-nine products comprise modern items created from 2014 onward.

When we travel overseas, we get a feel for the culture of the place and understand it by looking at the design of things at our destination such as store windows, fashion and buildings. In the same way, the purpose of the touring exhibition is to see Japanese culture through contemporary products. For example, we hope that visitors to the exhibition will get a sense of the importance that Japanese

Hiroshi Kashiwagi, professor emeritus at Musashino Art University, serves on the selection committee for the “Japanese Design Today 100” exhibition.
culture places on meticulous finish, imbued with qualities such as a delicate aesthetic sense and consideration for the user of the product.

**How popular is the touring exhibition?**

It enjoys considerable popularity, attracting large numbers of visitors ranging from young students to the general public. Interestingly, at the previous touring exhibition, many people asked how they could buy certain products or expressed a strong wish to own them. This time, therefore, an email address and URL information have been included alongside the product exhibits. The primary purpose of the touring exhibition is to introduce Japanese culture, but it seems that when visitors see the products they want to own them [laughs].

**What are the characteristic elements of Japanese design?**

Not surprisingly, the fact that they are meticulous and well thought out. One example is Naoki Tera- da’s 15.0% Ice Cream Spoon, which is being exhibited in the current touring exhibition. When you hold the spoon, the temperature of your hand is transmitted immediately, making it easy to scoop ice cream. It’s an extremely sophisticated product with superb visual appeal. Another example is the contemporary reinterpretation of traditional crafts. Lacquerware is especially popular, so much so that some people end up taking the exhibits [laughs]. People appreciate items that convey Japanese tradition and originality, such as iron kettles, hot-water bottles, ceramics, even kitchen knives, and these things are related to folk arts and crafts, or mingei.

**You mean mingei [folk crafts] are an expression of Japanese originality?**

When Soetsu Yanagi, who founded the Mingei [folk crafts] movement, established the Japan Folk Crafts Museum in 1936, he said that he wanted it to be a place where visitors to the museum would understand the extent of Japanese culture at first glance. After that, Japan experienced growing interest in crafts, particularly ceramics and furniture, with an increasing number of events being held across the country to introduce crafts. Today, Japan’s crafts are recognized the world over as a category that expresses Japanese originality.

**The 1964 Olympics is said to have been the turning point in the pursuit of originality.**

At that time, there was a strong awareness in respect of originality. The thing that changed decisively was graphic design. The Tokyo Olympics poster designed by Yusaku Kamekura caused a stir for its fusion of the traditional Japanese aesthetic sense of simplicity and modern design. It was after this that world-class designers began to emerge in Japan. Whereas most posters showcase the product, in Japan we are seeing a rapid increase in creative posters that give strong prominence to the aesthetic sense. This is rarely seen in the rest of the world.

**Where do you think this originates?**

Put very simply, I think it originates in Japan’s unique print culture. It is the division of labor and cooperation resulting in the high level of technical skill seen in ukiyo-e woodblock prints. Later, from the Meiji period [1868–1912], Japan learned from Western posters. However, rather than simply imitate these, the Japanese learned techniques, which were combined with traditional Japanese printing methods, resulting in the gradual emergence of originality. Visitors to the touring exhibition can see that Japanese-style originality for themselves. When the touring exhibition comes to a city near your readers, I hope they will go and see it with the mindset of tourists sightseeing in Japan.  

---

Interview by HITOSHI CHIBA
Anticipating an increase in foreign visitors nearing the Tokyo Olympics and Paralympics in 2020, Japanese Industrial Standards (JIS) pictograms or guide signs were revised on 20 July 2017 to be simpler for not only Japanese but also foreign tourists to understand.

### Pictograms

Pictograms are guide signs that make it possible to visually guide visitors to sites and facilities without relying on words. Various perspectives exist regarding their origin, but the first Tokyo Olympics in 1964 is said to be the beginning of their use, which has spread worldwide. On that occasion, designer Masaru Katsumi and other members of the project team sought to solve problems related to Japanese people’s poor command of foreign languages by effectively using pictograms. In 1987, the International Organization for Standardization (ISO) adopted the Emergency exit sign developed by Sign Center President Yukio Ota and other designers as an ISO standard. This sign, created in Japan, is one of pictograms that are recognized worldwide.

Various pictograms have been newly developed to improve the comprehensibility and noticeability of guide signs or revised to suit the changing times in Japan and overseas. However, some of the pictograms used in Japan are based on the Japanese Industrial Standards, a national standard enacted under the Industrial Standardization Act. In some cases, they differ from their counterparts based on ISO standards. Those differences may sometimes confuse foreign visitors. They are, for example, pictograms for connecting flights, baggage claim, nursery, parking, first aid and so on. Such pictograms based on ISO standards can have a straightforward meaning for everyone, regardless of their native language, country or region of origin.

Managing consistency between ISO-based and JIS-based pictograms is essential for Japan as the number of foreign visitors continues to grow, even faster than forecast, ahead of the 2020 Tokyo Olympics and Paralympics.

To address such issues, the Ministry of Economy, Trade and Industry (METI), the central government office responsible for the guide signs and JIS standards, examined the results of surveys of both Japanese and foreign people prior to revision of the JIS Act. Subsequently METI revised the Act and pictograms used in Japan on 20 July 2017. On that occasion, it introduced fifteen new JIS-based pictograms and help marks (Figure 2) aimed at improving the convenience of foreign visitors, in addition to revising seven existing pictograms (Figure 1). Five pictograms in Japan, namely those for parking

---

**Table 1: Comparison of existing JIS and new ISO versions**

<table>
<thead>
<tr>
<th>Existing JIS</th>
<th>New ISO (ISO version)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking</td>
<td>Parking</td>
</tr>
<tr>
<td>Baggage claim</td>
<td>Baggage claim</td>
</tr>
<tr>
<td>First aid</td>
<td>First aid</td>
</tr>
<tr>
<td>Connecting flights</td>
<td>Connecting flights</td>
</tr>
<tr>
<td>Nursery</td>
<td>Nursery</td>
</tr>
</tbody>
</table>

---

**Figure 1: The seven JIS pictograms to be revised for consistency with ISO pictograms**

---

*For making the pictograms consistent with ISO versions (*transitional period: two years)*

*[The existing JIS versions will be removed from the list of JIS through a two-year transitional period from 20 July 2017, to 19 July 2019.]*

**Optional pictograms**

Users of the symbols can select whichever they prefer.

**Other changes**

Information (Unmanned station) Question & answer (Manned station)

---

**KENTARO SANO**

---

Simpler Signs

---

**Feature** THE FUTURE BY DESIGN

---

8 HIGHLIGHTING JAPAN
Figure 2: The fifteen new JIS-based pictograms and help marks

Wireless LAN  Charge point  Vending machine  ATM for overseas cards  Ostomate facilities
Station office/Station staff  Car  Rental bicycle / Bicycle sharing  Convenience store  Audio guide
Emergency train stop button  Do not lean objects on the platform door  Do not lean over the platform door  Be aware of closing door  Fasten seat belt

* A help mark aims to serve people who need assistance or special care. Such people are able to carry the sign with them and announce their need for such assistance to others.

lots, baggage claim, aid stations, connecting flights and facilities for babies and infants (baby-care rooms), were changed to ISO-based signs in the latest revision.

METI has set a period of two years (from 20 July 2017 to 19 July 2019) for the complete transition to pictograms based on ISO standards. The revision also made the pictogram for hot springs selectable from two choices, the conventional JIS-based sign or the ISO-based sign. In addition, the meanings of information counter signs, “i,” which is described later, were adjusted.

Kunihiro Nagata, a member of the International Standardization Division of METI, explained the key points of the latest pictogram revisions as follows.

“The parties that install signs are now able to choose from a pictogram familiar to Japanese people or the ISO-based sign to indicate hot springs. We allow them to choose the appropriate guide sign based on their own assessment. Foreign visitors seem to prefer the ISO-based signs, but we’d like them also to appreciate the symbolic mark of Japanese hot-spring culture and to enjoy the hot-spring experience as part of that. In addition to pictograms that indicate locations and facilities, we have introduced help marks that express concepts. These signs allow bearers in need of assistance or consideration such as those who have artificial joints or women in the early stage of pregnancy to share their needs with the people around them.

The JIS-based signs newly introduced (refer to Figure 2) support actions in addition to indicating locations and facilities such as the signs for convenience stores and automatic teller machines (ATMs) that can accept credit cards issued overseas. “We would really like foreign visitors to be aware of these signs to better enjoy their trips to Japan,” says Nagata.

Pictograms for information counters and information centers will cater to foreign visitors in particular. Prior to the revisions, there were two types of signs for information counters in Japan, “i” and “?” The former indicated unattended counters and the latter indicated that personnel are on duty to offer information to visitors on a full-time basis. On this occasion, METI changed the rule to use “i” for both attended and unattended counters in light of the growing international trend to use “i” for information counters of both types. Meanwhile, METI did not change the “?” sign widely used in Japan. Personnel are on duty on a full-time basis to answer various questions at counters indicated with this sign.

“We would like foreign visitors to understand the differences. We would like them to know what the “?” sign means in addition to the “i” sign,” says Nagata. “In any case, we would like them to look for the “?” sign or the “i” sign first when they come to Japan.”
Design Resolves Issues of the Times

Now entering its sixtieth year, the Good Design Award and its recipients continue to reflect societal changes.

KYOKO MOTOYOSHI

The Japan Institute of Design Promotion (JDP) has conferred the Good Design Award on recipients as varied as robots, housing complexes, space stations, home electrical appliances, automobiles and furniture. The Good Design Award is Japan’s only comprehensive design evaluation and recommendation movement for a wide range of fields. It is rooted in the Good Design Selection System (or G Mark System), which was founded in 1957 by the Ministry of International Trade and Industry (currently the Ministry of Economy, Trade and Industry) for trade promotion. In recent years, roughly 1,200 designs are recognized every year, including applications from both Japan and overseas. In the sixty years since its establishment, around 44,000 designs have been recognized.

The G Mark, which represents the Good Design Award, continues to play a role as a symbol of “good design” over half a century since the establishment of the award.

Motomi Kawakami, chairman of the JDP, says, “The Good Design Award is not just a competition for superior design, a design is evaluated in terms of whether or not it ‘can enrich our lives and society.’ There are many different designs around us.
The award is intended to select those that are currently necessary, with foresight from a wide range of fields, and to disseminate the designs and to lead our entire society toward a richer future.”

The criteria for the evaluation of the Good Design Award have changed from year to year. Initially, the primary focus was on “economy and usability,” that is, the overall product function. For example, an electric rice cooker manufactured by Toshiba, which won the award in 1958, was an epoch-making product that had a large impact on society because it had achieved dramatic efficiency as an electric appliance and shifted the conventional work of cooking rice away from using a stove. This design has been popular for many years as the original electric rice cooker model.

In the 1970s, the oil crisis caused a major shift in thought.

Kawakami says, “At that time, people faced the challenge of manufacturing products by using as few resources as possible, which led to compact industrial products, such as the camera. This evolution is compatible with ‘manufacturing sustainable products,’ which is a major issue today.”

In the late 1970s, focus shifted from material affluence, which was required during the postwar restoration period, to mental affluence. The evaluation of design was also impacted by the shift in thought from material affluence to a mentally rich life. This age was symbolized by original Japanese products, including Sony’s Walkman, a portable music player that won the Good Design Award in 1981.

In addition, Kanazawa Citizen’s Art Center (1-1 Daiwa-machi, Kanazawa, Ishikawa), which opened in 1996 and won the Good Design Grand Award the following year, changed design perspectives in many ways.

“Kanazawa Citizen’s Art Center was a comprehensive cultural facility that was built by reconstructing an old Daiwa spinning mill. As a particularly noticeable point, we focused on the great design as reconstructed architecture and also the fact that local citizens voluntarily managed the facility around the clock without a break. Kanazawa Citizen’s Art Center was a public cultural facility established by the Kanazawa municipal government to support civil arts activities as a national pioneering project. What we cannot see, such as the effort to build a system for managing people and the effort to create a comprehensive environment for enriching people’s lives, came to be recognized anew as the field of design,” says Kawakami.

In recent years, Good Design Award-winning designs by small- and medium-sized venture companies are receiving a lot of attention. One such example is “HACKberry” electric hands (which can be intuitively manipulated by a person without a hand using their arm muscles), invented by exiii Inc., which won the Gold Good Design Award in 2015. They were evaluated in recognition of their significant reduction of manufacturing costs using a 3-D printer as well as the construction of a system for adding choices in function and design by disclosing design data on the Internet and providing it to developers and designers worldwide for free.

Regarding Japanese design of the future, Kawakami says, “In 2011, Japan experienced the Great East Japan Earthquake, an unprecedented disaster, and entered a new era with a shift toward new values. I feel that an increasing number of people try to choose things that they really need and increase their focus on mental affluence rather than material affluence. Due to the impact of the declining birthrate, Japan will see more social changes, such as in families, lifestyles and communities. Under such circumstances, people will consider what is truly necessary design.”

Kawakami maintains that design has the power to solve contemporary issues.
UNTIL recently, the qualities that were sought after in agricultural machinery were horsepower, performance, functionality, safety, resistance to breakdown, and efficiency. Yanmar Co., an agricultural machinery manufacturer headquartered in Osaka, has taken on the challenge of providing new value in terms of design, in addition to satisfying these traditional requirements. Yanmar has achieved innovation through designs which had never crossed anyone’s mind before in the realm of agriculture.

In 2012, Yanmar celebrated its 100th anniversary. During much discussion about the next 100 years, the key words “design” and “branding” came to the fore. Yanmar set up a project to give shape to these concepts, and asked graphic designer Kashiwa Sato and industrial designer Kiyoyuki Okuyama for their cooperation. The project focused on designs for the branding of every single Yanmar product not to mention tractors and combine harvesters, which are Yanmar’s core products.

In 2013, Yanmar launched a new concept tractor, the YT01-Y-CONCEPT YT01 ADVANCED TRACTOR, as part of its Premium Brand Project.

The company responsible for the design was KEN OKUYAMA DESIGN. CEO Okuyama Kiyoyuki is famous overseas as Ken Okuyama, who has been involved in the design of Porsche and Ferrari cars. The sports-car like design combined with excellent functionality and performance caused quite a stir.

Naoki Sakata from Yanmar’s Public Relations Group explains, “Mr. Okuyama was born into a farming family and has an interest in or rather an attachment to farming. He was, therefore, able to produce not just designs for tractors and combine harvesters but comprehensive designs which considered the user and took comfort and ease of

**SPORTY TRACTORS**

Brightly colored tractors with the appeal of sports cars are transforming the agricultural landscape in Japan.

**MAO FUJITA**
In fact, Okuyama went to farms and drove and operated tractors himself many times to develop his ideas before making the designs.

When it came to giving shape to the vision of this concept tractor and mass producing the tractor as the YT Series, the technical expertise that Yanmar has built up over a century was fully demonstrated. Sakata says, “Usually, when we commercialize a concept model, the design changes from its concept. However, the development team was determined to produce a finished product which was as faithful as possible to the concept from a design intended for mass production. Those involved on the manufacturing side worked on development feeling a sense of unity.” Mr. Okuyama’s design together with the milestone of Yanmar’s 100th anniversary energized the team.

With the tractors creating a buzz and gaining popularity, the Yanmar YT3 Series of mid-size tractors, which are suited to farming in Japan where fields are small, was awarded the Good Design Gold Award 2016. This is the size which is also suited to hobby farms overseas, and Yanmar has already started selling the YT3 Series in North America.

Farming in Japan faces major problems, not least population aging and a shortage of farmers.

Sakata says, “Yanmar has been involved in Japan’s agricultural industry for 100 years through the supply of agricultural machinery. Looking ahead to the next 100 years, Yanmar would like to reshape farming, change the image of farming, and make farming more sustainable. Our tractor designs are a part of our efforts.”

Yanmar’s employees are also told by elderly farmers that their sons have taken over their farms from them, saying they’d like to have a go at farming because it’s cool. The designs are having a huge impact on the problems facing farming.

Sakata says, “The impact of the Tokyo Motor Show was also huge, but in 2015 there was a parade of 100 Ferraris along Midosuji Dori, Osaka’s main street, and a Yanmar tractor led the parade, making a big impression.”

Through such events, Yanmar may have prompted people and children who have no direct connection with tractors to give some thought to farming. Sakata says, “Amid all the announcements, the excitement and buzz we are creating in bringing design to the forefront, it is important to anticipate the next 100 years.”

Prior to focusing on design, Yanmar had continuously conducted research and development based on ergonomics on aspects such as the positioning of the tractor control panel and the driver’s seat, and had achieved fine craftsmanship.

The advent of the YT series, combining outstanding performance and excellent design, has now also given Yanmar an identity. Moving forward, Yanmar plans to focus on enhancing its corporate value through the integration of design features in other products besides tractors to further clarify its identity. This may be one answer to the problems facing Japan’s farming industry.
21_21 DESIGN SIGHT Vision

With its ever-changing program of temporary exhibitions, 21_21 DESIGN SIGHT in central Tokyo highlights the possibilities for future design.

21_21 DESIGN SIGHT was designed by architect Tadao Ando. The museum structure, 80% of which is underground, is characterized by a large steel-plate roof which slopes to the ground. Photo: Masaya Yoshimura

Tokyo Midtown in Minato Ward, Tokyo, is an urban space with multiple functions accommodating commercial facilities, cultural facilities, offices, hotels and residences within an area of about 68,900 square meters. Among these facilities, in Midtown Garden, is a building that looks like a bird spreading its wings. Called 21_21 DESIGN SIGHT, the building is open to the public as a space where people can enjoy seeing, understanding and experiencing design through exhibitions, workshops and discussion events.

In 2003, designer Issey Miyake contributed an essay entitled “Time to Create a Design Museum” to the Asahi shimbun newspaper. In response to his strong call for the possibilities of design, leading Japanese designers and companies sympathized and decided to establish a base for design culture within the grounds of Tokyo Midtown where an urban project using design as an important element was underway.

In 2007, 21_21 DESIGN SIGHT was launched as the world’s first design “sight” without possessing permanent exhibits, directed by designers to showcase iconic contemporary works. Tadao Ando directed the architectural design. The building is characterized by its sloping roof, to all appearances formed from one sheet of folded steel — based on the concept of “A Piece of Cloth,” Issei Miyake’s basic working philosophy. The structure is about 80% underground so that the building does not obscure the park’s spacious landscape and warmly welcomes people who enjoy walking across the promenade.

Noriko Kawakami, associate director of 21_21 DESIGN SIGHT, says, “21_21 DESIGN SIGHT is a site as ‘sight.’ Perfect

KUMIKO SATO

Noriko Kawakami, associate director of 21_21 DESIGN SIGHT
Photo: Yoshifusa Hashizume
vision is known as 20/20 vision in English. 21_21 DESIGN SIGHT was named with our intention that the venue would be one which offers vision beyond 20/20 showing what lies ahead and the opportunity to see things from a different angle."

Without permanent exhibitions, 21_21 DESIGN SIGHT has exhibited thirty-five programs based on different themes each time. In addition to having Issey Miyake, graphic designer Taku Satoh and product designer Naoto Fukasawa as directors, 21_21 DESIGN SIGHT has invited other designers and artists, many engineers, craftsmen and experts in a wide range of fields from outside or collaborated with companies and educational institutes to address these many different themes. Kawakami says, “The basic concept behind 21_21 DESIGN SIGHT’s programs is to communicate the idea that design is a human-rooted activity as widely as possible. We hold program meetings every month. 21_21 DESIGN SIGHT directors pay attention to what is happening in the world, exchange opinions about what they have in mind and discuss what they want to convey through 21_21 DESIGN SIGHT.”

Past programs include themes that seem to have nothing to do with design, such as water, bones and prayer. This shows that 21_21 DESIGN SIGHT is a “sight” that approaches perspectives from the viewpoint of design. “In 2016, we held the 31st exhibition titled ‘DOBOKU: Civil Engineering.’ It focused on the civil engineering work that supports the urban infrastructure that we are hardly aware of in our daily lives. We hoped that visitors to 21_21 DESIGN SIGHT would enjoy discovering a new sight when they walked through the buildings on their way home,” says Kawakami. “We hope that 21_21 DESIGN SIGHT will be a place that induces visitors to start conversations compulsively and triggers thoughts about something new.”

The first exhibition of 2017, the tenth anniversary year, was titled “ATHLETE.” Former 400-meter hurdler Dai Tamesue participated as one of the exhibition directors in the program, which focused on the movement of athletes that improve physical function to their limit. “GRAND PROJECTS: HOW FAR WILL YOU GO?” is currently underway, and introduces creators who continue to take on grand challenges that seem to be impossible. From October 20, 2017, the program will focus on the “Wild: Untamed Mind,” inviting anthropologist Shinichi Nakazawa as an exhibition director.

21_21 DESIGN SIGHT, which has stretched the perspectives of visitors for ten years since its launch, will start to take new steps toward the next decade by showing that people themselves have the power to surpass conventional wisdom and self-imposed limits.
For the physically challenged and the elderly, whose gripping power is weak and who are unable to move their hands and shoulders as they wish, regular forks and spoons are difficult to use. For these people, simply eating a meal can be stressful and affect their quality of life.

A Japanese company has been tackling this problem. Located in Tsubame, Niigata Prefecture, Japan's largest production area of Western tableware, AOYOSHI Co. manufactures innovative spoons, knives and forks for the physically challenged and the elderly.

AOYOSHI embarked on the development of spoons for welfare use in 1986.

“Before that, overseas contract manufacturing accounted for 90% of our products. The yen appreciated sharply due to the Plaza Accord in 1985, and the export industry in Japan as a whole was hit hard. The Western tableware industry in Tsubame was also stuck in a slump, and difficult times continued for our company,” says Kohei Akimoto, senior executive director of AOYOSHI.

To overcome the crisis caused by the sharp appreciation of the yen, AOYOSHI needed to develop its market in Japan rather than overseas. To that end, it worked on the development of “spoons for welfare use” as a new brand concept for the domestic market. AOYOSHI was inspired by Yoshiro Aoyagi, then-president (current chairman), who made utensils for his daughter, who had a disability in her hands due to polio. He devised spoons that were easy for her to use.

“I came up with the idea that if we make spoons for those who have difficulty using their hands, it will contribute to society,” says Akimoto, looking back on that time.

However, mass-produced products did not sell at all at the beginning. Individual needs can differ widely due to the degree of disability in terms of the size of a product and also depending on the dominant hand of the user, and it was difficult to meet these needs. In a desperate effort to create a variety of designs and find an ideal material, Akimoto came across a new material called “shape memory...
“polymer” developed by Mitsubishi Heavy Industries (later spun off, in 2008, and currently SMP Technologies Inc.), which can transform itself freely, as much as needed, with the application of heat.

Looking for a way to customize the products for the needs of the physically challenged, Akimoto thought, “This is it.” He asked Mitsubishi Heavy Industries to pursue joint development by visiting the company and saying, “I want to make products for welfare use.”

His passion moved the large company, and the “WiLL-1,” a spoon for welfare use, was created in 1991. The grip part of the WiLL-1 becomes easily malleable when soaked in hot water at 70°C or higher, softening like rubber according to the shape of the hand of the user. The grip then hardens in the new shape when soaked in cold water at 20°C or lower. This has enabled AOYOSHI to meet a variety of needs and create a grip that can be adapted to the hand of each individual user.

The WiLL-1 was a selected work at “Japanese Design: A Survey Since 1950,” sponsored by the Philadelphia Museum of Art in 1994, due to its highly valued functionality and design. AOYOSHI continued to improve the product and established a new brand in Japan, receiving many awards, including the Good Design Award (at that time, the Minister of International Trade and Industry Award) in 1996 and the First Kids Design Award (the Kids Design Association President's Award and the Product Design Division Award) from the Ministry of Economy, Trade and Industry in 2007.

In addition, the “Light Universal Spoon,” launched in 2004, became a hot-selling product following the WiLL-1. The prevalent spoons in Japan are based on a Western size and are too heavy for the elderly. They are difficult to use and can even cause accidental swallowing because the quantity of food that they hold is too large.

For example, the quantity of food held by an average curry spoon is about 25 grams, which is too large for an elderly person whose swallowing strength has weakened. AOYOSHI has decreased the size to about 16 grams by flattening the shape of the bowl part that holds the food and lightening the weight by hollowing the grip. In addition, AOYOSHI has completed a “spoon that is easy to use for the elderly,” pursuing functionality and a beautiful design jointly with researchers on welfare and human engineering, for example, with a unique angle at the neck part.

If you sit in front of tableware with a brilliant and beautiful form, you will feel like picking it up and using it. AOYOSHI has received feedback from users such as, “I have regained the joy of eating” and “I have found a silver lining in my life.”

“We would like to continue to manufacture products for the elderly and the physically challenged so that they can enjoy eating. We would also like to make comprehensive proposals for products related to “food,” for use around the dining table to unit kitchens,” says Akimoto.

AOYOSHI continues to pursue the development of functions and designs that support the joy of living.
Increasing numbers of foreign tourists, particularly from Asia, are visiting Japan’s northernmost island of Hokkaido, one of the country’s most popular tourist destinations. In fiscal 2016, the number of guest nights for foreign visitors in Sapporo (1.95 million), a popular city base for sightseeing in Hokkaido, reached 2.09 million, a new record high for the fifth consecutive year. With this increase, the number of inbound tourists requiring emergency healthcare has also increased. Sapporo is responding to this need by developing medical facilities where people from abroad can receive treatment with a sense of security.

Sapporo Higashi Tokushukai Hospital was one of the first hospitals in Sapporo to focus on treating patients from abroad. In 2013, the hospital set up an International Medical Support Office staffed with full-time interpreters who together handle ten languages, including English, Russian, Chinese, Korean and Spanish. It has also established a system that can accommodate both emergency patients and medical tourists seeking treatment or checkups.

In 2015, the hospital added facilities for foreign patients that were designed based on the concept...
of an airport. The hospital looked at airports including Hokkaido’s own New Chitose Airport. The airport won the MILT (Ministry of Land, Infrastructure, Transport and Tourism) Minister’s Merit Award for Promoting Barrier-Free Design in 2011 for its sophisticated barrier-free initiatives, including six-language information signs and large pictograms that are easy for anyone to follow in the international terminal.

“The airport is visited by many people from abroad and has a number of ideas to receive them. When we added facilities to the hospital, we looked at designs including signs and colors used at airports to guide foreign visitors,” says Shingo Kamano, a member of the hospital’s general affairs section.

The hospital’s main entrance is now approached by a covered driveway similar to those seen at international airports. Inside the building, departments are differentiated by colors, and many pictograms are used in the hospital’s guides and floor maps. In addition to Japanese and English, Chinese and Russian are used in many signs.

A lounge exclusively for foreign patients has been set up next to the International Medical Support Office, where interpreters are standing by ready for prompt action. A multi-faith Prayer Room has been established next to the waiting room. If Muslim patients are hospitalized, they are provided with a halal menu.

Because of these initiatives, the hospital was accredited in 2015 under the Japan Medical Service Accreditation for International Patients system (promoted by the Ministry of Health, Labour and Welfare since fiscal 2011) overseen by the Japan Medical Education Foundation.

The number of foreign patients visiting the hospital has risen sharply, from around 400 in fiscal 2014 to around 640 in fiscal 2015 and around 1,200 in fiscal 2016.

“Because medical care is related to human life, I strive to fully understand doctors’ explanations before I interpret what they say for patients. I feel that foreign patients are relieved when they can communicate in their mother tongue,” says Yukari Matsumura, an interpreter at the International Medical Support Office.

At Sapporo Higashi Tokushukai Hospital, when doctors explain their diagnosis or treatment to foreign patients who do not speak Japanese, interpreters sit with them. If no interpreters are available, patients can communicate in their native tongue using a videophone function on a tablet.

Since last year, Pepper, a humanoid robot, has been stationed on the first floor and provides guidance on the hospital in Japanese. There are plans to have the robot speaking English and Chinese in the future.

“We plan to develop our system further and add languages that can be used in the hospital so that patients from as many countries as possible can receive treatment with a sense of security. We would like to disseminate our expertise on treating foreign patients to other medical institutions in Hokkaido,” says Toshiki Sasaki, a member of the hospital’s medical affairs section.

People-friendly designs lead to services that are accessible to patients from wherever they hail.
Culture Reappraised

Kenya Hara is Japan’s leading thinker on contemporary design and a major force in shaping the way Japanese design is perceived overseas. Since 2002, he has been art director and adviser of Mujirushi Ryohin, better known globally as Muji, and president of Nippon Design Center. He is also a member of the Japan Design Committee, a grouping founded by leaders of Japan’s design, architecture and arts communities. The designer, who has been watching society with his own unique outlook, talked about the future challenges for Japan in the changing world.

What are the characteristics of Japanese design?

Four words — detail, courteousness, subtlety, concision. However, the airport designs, for example, are not at all interesting, despite Japanese architects being highly regarded and global prizewinners. Or, if you look at Japan’s nightscape — pilots around the world say that Japan’s nightscape is the most beautiful. That’s not only because the air is clear, but also because not one light bulb is missing. That’s how thorough Japanese are. I don’t think there is anywhere in the world that pays that much attention to detail. Those who clean don’t just go home when their shift is up; they carry on until they feel their work is done. This is a matter of course for those providing the service and those using it. It’s an unspoken principle in Japan that I think is a really crucial backdrop to Japanese design.

Has Japanese traditional culture influenced your own design concept?

Culture is always a local thing. There is no such thing as global culture. It is important to interpret an individual culture in relative terms within a global context and to put it in a global context without spoiling its unique traits. In order to do that, one has to be able to explain what Japanese culture is.

In the Meiji period (1868–1912), Japan threw away what we think of as traditional Japanese culture and adopted Western culture. Among the good things we imported were the functional aspects of civilization ... but we also incorporated Western culture. Today, we have slowly started to recognize the values of our own tradition and aesthetic sense. Quite simply, there are things that people from overseas have found unique and fascinating about Japan, and I think that it is time for us to start appreciating them, too. Japanese people really need to learn about their own culture in greater depth, myself included. We also have to think of Japanese tradition and aesthetic sense not as old or nostalgic things but as resources for the future.

Is this important when planning ahead for global events like the Olympics?

Aside from the Olympics, I think we are entering a new era, one we could call the “nomadism era.” The opposite of nomadism is “sedentarism.” Influential figures on the international stage are flying all over the world on business. Or, they are constant travelers who visit various destinations and enjoy the rich culture of each place. So, these experiences make them see the diversity of world cultures and start realizing the value of each.

The population that is moving across the borders has increased around tenfold since 1964 when the Tokyo Olympics were held. It is said that this will continue expanding to make up a quarter of the world’s population by around 2030. This is the reason why tourism will be the world’s biggest industry in the twenty-first century.

Japan should be prepared for this reality, in a way it hasn’t been before, to welcome visitors from around the world and present the mysterious and wonderful culture we have here. As the job of the designer is to visualize value, our job now is to show Japan in its best light.
Is this part of how design has changed?
The shape of industry has changed. The industrial model that has dominated Japan over the seventy years since the war is an industrialized one whereby raw materials would be imported and goods like cameras and fridges manufactured and exported ... I think that age is coming to an end. Technologies will function not in a physical form, but in the background of daily life. I think we can already see new industries offering potential. For example, refrigerators and air conditioning may maintain their basic functions, but will be incorporated into walls and then further into a wider integrated system or, for example, IoT.

The home will transition from a living space to an important junction for a variety of industries including energy, communication, transport, artificial intelligence, robotics, travel and so on. So as a result we will start to see, through dwellings, new industrial possibilities that are different from what we now call architectural design. I produce an exhibition called HOUSE VISION, based on the belief that the role of designers is to create a picture of things of the future that are presently latent and difficult to visualize.

What are the different challenges facing the 2020 Olympics compared with the 1964 Tokyo Games?
The last Olympics came at a time of high economic growth when Japan was rebuilding after the war and it was important for people to proudly show the rest of the world just how well it could recover. Since then we've experienced the bubble economy and are moving into a post-industrial society and facing a number of social challenges such as the declining birthrate and increasing proportion of the elderly. Japan has grown, but didn't have the chance to properly mature. And I think that Japan just grew into an adult now and will reach maturity.

A large part of Japan’s landscape is dominated by mountains that formed by volcanic activities and plate movements. It is blessed with abundant water sources and dynamic, yet delicately distinct four seasons. And it has such a huge variety of unique qualities - the sea that surrounds the country, Japanese cuisine that takes advantage of seasonal food, hot springs that bubble up all around ... Until now the entire archipelago of Japan was used like one factory churning out products to export. We have to turn that around and redesign the entire archipelago for 2020 when people from around the globe come to Japan. I believe that designers can play a big role in working toward that goal. The year 2020 must be the passing point, I think; the target will be a little way farther on.

Tell us a little about the Japan Design Committee.
I joined about eighteen years ago and served as the chairperson for eight years. It’s a collective of about twenty-five designers, architects and critics. They are leaders in their own fields and work individually in each area. The objective of the committee is to gather to exchange ideas and to obtain a broader view. Located in a department store in Ginza, Tokyo, the committee operates galleries, selects products for DESIGN COLLECTION and develops shops. As Japan heads toward that era of maturation, I think an organization such as this will be very useful when looking toward new situations arising in Japanese culture as a resource.

Interview by ROB GILHOOLY
VENDING MACHINES AS GUARDIANS

IoT, the most advanced technology has potential to get back the human connection which once existed strongly in the society.

KUMIKO SATO

This June, the National Institute of Information and Communications Technology (NICT) commenced a field verification test, “Community-based IoT Infrastructure Using Vending Machines,” in Sumida Ward, Tokyo. The service is designed to monitor the safe status of children and the elderly by building a security network using vending machines with handheld terminals such as smartphones.

IoT is an abbreviation for the Internet of Things. It is today’s most prevalent technology for the collection and analysis of data from many sensors, providing useful information for future decision making or to control direction. However, NICT’s ideas for the use of IoT are slightly different.

Yozo Shoji, Ph.D., director of the Social-ICT Innovation Laboratory of NICT, says, “Generally, IoT is assumed to use Big Data. However, that might not be effective for a system to solve local issues related to the safe and secure life of the people. This project is based on the idea of local data production for local data consumption, though the scale of the collected data is not so big.”

The community contributing type of IoT service promoted by NICT is characterized by the creation of a real-time information sharing network for the local area using the wireless communications standard Wi-SUN, marking the first attempt in the world to do so. Wi-SUN possesses radio-wave detection capabilities of about several hundred meters, with a “multi-hop” communications characteristic which enables data to be sent by relay. If wireless bases that serve as relay points are distributed within the range of radio waves, it is possible to develop wireless communications platforms in high density covering a wide range at a low cost, without the need to construct large

Dr. Yozo Shoji, director of the Social-ICT Innovation Laboratory at NICT
Photo: Kumiko Sato

In Sumida Ward, Tokyo, a child carries a location transmitting device attached to his school bag.
Photo: ©NICT Confidential

NICT’s location-transmitting device is small and portable.
Photo: ©NICT Confidential

In Sumida Ward, Tokyo, a child carries a location transmitting device attached to his school bag.
Photo: ©NICT Confidential

NICT’s location-transmitting device is small and portable.
Photo: ©NICT Confidential

IoT, the most advanced technology has potential to get back the human connection which once existed strongly in the society.

KUMIKO SATO

This June, the National Institute of Information and Communications Technology (NICT) commenced a field verification test, “Community-based IoT Infrastructure Using Vending Machines,” in Sumida Ward, Tokyo. The service is designed to monitor the safe status of children and the elderly by building a security network using vending machines with handheld terminals such as smartphones.

IoT is an abbreviation for the Internet of Things. It is today’s most prevalent technology for the collection and analysis of data from many sensors, providing useful information for future decision making or to control direction. However, NICT’s ideas for the use of IoT are slightly different.

Yozo Shoji, Ph.D., director of the Social-ICT Innovation Laboratory of NICT, says, “Generally, IoT is assumed to use Big Data. However, that might not be effective for a system to solve local issues related to the safe and secure life of the people. This project is based on the idea of local data production for local data consumption, though the scale of the collected data is not so big.”

The community contributing type of IoT service promoted by NICT is characterized by the creation of a real-time information sharing network for the local area using the wireless communications standard Wi-SUN, marking the first attempt in the world to do so. Wi-SUN possesses radio-wave detection capabilities of about several hundred meters, with a “multi-hop” communications characteristic which enables data to be sent by relay. If wireless bases that serve as relay points are distributed within the range of radio waves, it is possible to develop wireless communications platforms in high density covering a wide range at a low cost, without the need to construct large

Dr. Yozo Shoji, director of the Social-ICT Innovation Laboratory at NICT
Photo: Kumiko Sato

In Sumida Ward, Tokyo, a child carries a location transmitting device attached to his school bag.
Photo: ©NICT Confidential

NICT’s location-transmitting device is small and portable.
Photo: ©NICT Confidential

In Sumida Ward, Tokyo, a child carries a location transmitting device attached to his school bag.
Photo: ©NICT Confidential

NICT’s location-transmitting device is small and portable.
Photo: ©NICT Confidential
base stations. However, in reality it is time-consuming and expensive to secure locations for installing wireless bases and construct them. As a result, NICT turned its attention to vending machines, which are widely distributed throughout Japan. Vending machines are located within several hundred meters of each other in urban areas. If fixed type wireless routers are installed in them, vending machines can become reliable wireless bases. Asahi Soft Drinks Co., headquartered in Sumida Ward, is cooperating in this verification test. It is estimated that more than 90% of the Sumida Ward area can be covered using the company’s soft drink vending machines as wireless bases. Moreover, if taxis and suchlike, which run actively in the region, have a function for the collection and distribution of information regarding IoT wireless service, IoT wireless service areas will be created more efficiently in residential areas. This year, with the cooperation of Honjo Taxi Co., also headquartered in Sumida Ward, smartphone-type wireless routers will be installed in its vehicles, and the verification of “moving” IoT wireless service areas will be carried out.

“Our laboratory’s job is to verify how new wireless technologies will support society. This infrastructure must be a shared type that everyone can use, in a way that will benefit society. Therefore, it will be indispensable to obtain approval from organizations and companies which operate and provide the service putting it into practical use,” says Dr. Shoji.

Although the volume of data to be handled is not so big, the IoT of Wi-SUN makes it possible to share local information in real time, and it can be expected to solve a variety of issues. Potential uses include searching for lost elderly persons, the monitoring of vacant homes which might collapse, supporting regional security and safety, such as crime prevention, and encouraging community revitalization by sending notifications of events in shopping districts, as well as tourist information.

For example, NICT planned a system to ensure traffic safety for children during this verification test. In the system, a small transmitter is distributed to children aged 7 and 8, who statistically have the largest number of accidents caused by rushing out in front of cars. When these children run near a vending machine which serves as a base, the information will be sent to the next base, one after another, and be shared. Vehicles equipped with the smartphone-type wireless router will be alerted before the children run by. Dr. Shoji says, “Even at a crossing with a blind spot, it will be possible to share the presence of a running child sufficiently early via wireless communications.” He adds, “In the past, there would be an adult who would see a child playing on the road and say to him or her, ‘Watch out!’ The Monitoring Vending Machines are inspired by such an adult, who would watch the community and twitter.”

In modern Japan, networks of human relationships of the past no longer functioned. Cutting-edge IoT might be able to compensate and recreate such networks.
Jakob Sebastian Björk, originally from Sweden, lives with a Japanese tortoiseshell cat surrounded by antiques in a city in the Kanto area that retains the old charm of Japan beloved by distinguished men of letters. Björk, who has acquired Japanese citizenship, has taken the Japanese name “Tatsumasa Murasame.”

“The family name ‘Murasame’ was given to me by my master. The given name ‘Tatsumasa’ is a combination of ‘dragon’ (tatsu), the [zodiac] year when I was born, and one character from my master’s name,” says Murasame.

The person that Murasame refers to as “master” is the president of a landscape gardening company in the Chubu region, where Murasame studied for five years as an apprentice. Murasame has worked as a designer of Japanese gardens for seven years now. “Western gardens are created in a symmetrical shape with neat lines and you can easily see that they are beautiful. But Japanese gardens based on Buddhist philosophy adopt natural elements that are not standardized. The older they become, the more mature they grow. The more I learn about the beauty of Japanese gardens, the more I understand the depth of...”
their beauty,” says Murasame.

Murasame, who was raised in a small town in the southernmost part of Sweden, dreamt about foreign cultures since he was a child and was captivated by researching the history and culture of countries all over the world. The one that he paid particular attention to was Japan, an island nation with a unique culture cultivated over many years. As a high school student, he was invited to Japan by a Japanese friend with whom he enjoyed writing on the Internet and he experienced a three-month homestay in Yokohama. This experience influenced his decision to live in Japan. He returned to Sweden, and visited Japan again after graduating from high school. When finally he moved to Japan, it was a dream come true.

In the beginning, Murasame worked at jobs that required linguistic skills, such as English and Swedish teacher, interpreter and translator, to make a living. On holidays, he enjoyed visiting castles dating from the Warring States period (1467-1568), which he loved very much. One day he visited Adachi Museum of Art in Shimane and was greatly impressed by its magnificent Japanese garden. He had thought that Japanese culture would be distant from Swedish culture, but he discovered that the aesthetic sense of regarding nature as something special within Japanese gardens could also be seen in the Swedish view of nature. So when he came across a recruitment advertisement for a landscape garden designer, he applied for the position without hesitation. His application was accepted.

Initially Murasame did only apprentice work such as cleaning, but studied hard while watching the master and senior apprentices at work. The master recognized his passion and taught Murasame many things, such as how to use the tools and the nature of trees. Murasame eventually became a garden designer skilled enough to be entrusted with the work of pruning a pine tree, which is the test of a full-fledged garden designer.

Murasame has since moved on to another company and is currently engaged in designing and constructing gardens in response to client requests. His dream is to build a Japanese garden from scratch on his own. However, there are not so many orders for the construction of Japanese gardens and, worse, Murasame has had to field requests to demolish old gardens.

“I understand that it is difficult for individual households to continue to maintain and manage large Japanese gardens. But I hope to persuade people to keep the precious trees and attractive stones, even if they reduce the size of their gardens. Once the elements that had obtained harmony for many years are removed, they will never return to their old state,” Murasame says solemnly.

For a time Murasame had wanted to disseminate the positive aspects of Japanese gardens to other countries, but has come to realize that he needs to communicate the beauty of Japanese gardens to Japanese people as well.

“Traditional culture is a significant asset of Japan, because many foreigners come to Japan to enjoy it. Not only should Japan preserve traditional culture with great care and attention, it should also strengthen such efforts,” says Murasame.

“Bonsai is now more popular abroad than it is in Japan,” he points out. “I will seek what I can do as a Japanese citizen and garden designer so that more Japanese people will reflect on and embrace the positive aspects of Japanese culture such as can be found in a mature Japanese garden.”
Of the Japanese IT companies, Nippon Telesoft Co. stands out as unique. While developing software for power plant control and traffic control systems, it also produces ICT peripheral devices for visually challenged people. Nippon Telesoft started this line of business when a person involved in government administration once shared his concerns with them: “We ask a braille transcriber to create handouts for visually challenged people, but we cannot detect errors nor make detailed orders since we cannot read braille.” Under the company’s corporate philosophy, “Use technology to overcome technological challenges,” Nippon Telesoft developed braille translation software that allows even those not familiar with braille to easily create a document in braille. Since then, it has developed products such as refreshable braille displays and a Braille KARAOKE System that synchronizes song lyrics on a monitor with a user’s braille display. Meanwhile the company’s braille printers, which have the largest domestic share, are the only Japan-made braille printers to have advanced overseas.

“Twelve employees do everything from development, through designing and manufacturing, to sales. We have improved our braille printers by gradually adding functions for more than ten years. While manufacturers from northern European countries, which work to improve welfare as a national commitment, have 70% of the world share, we have managed to gain a share of a little less than 10%. I believe that this is due to our products’ additional values generated by our capabilities to develop both software and hardware,” says Hideaki Kaneko, president (CEO) of Nippon Telesoft.

The braille printers developed by Nippon Telesoft are equipped with an innovative function for the simultaneous printing of braille and non-braille ink characters. The printers, which can handle 100 different languages, received the Special Prize from the Tokyo Venture Technology Award 2003. While conventional braille printers punch the braille dots into paper, Nippon Telesoft’s printer features a delicate mechanism that presses paper against pins to minimize the operational noise and vibrations, making it barrier-free.

“Generally a braille printer makes a loud noise when it prints. We were aware that braille printers installed at schools could only be used early in the morning before the students arrive. If we focus on the development of specialized technology for visually challenged people only, we limit the utility of that product to those who are challenged. We develop our products to be accessible by those who support visually challenged people as..."
well,” says Kaneko.

The braille printers of Nippon Telesoft have further broadened the possibilities for the already mature welfare services in developed countries. For example, they have revolutionized over-the-counter services in hospitals and banks. Staff who are unfamiliar with braille can create braille documents that contain important information, such as the type of medicine and its dose or a bank account status, by checking the information written in non-braille characters.

For the devices aimed at developing countries, the company provides user support in addition to product delivery.

Since 2016, Nippon Telesoft has been working on a project in Vietnam for the empowerment of persons with disabilities that was adopted by the Japan International Cooperation Agency (JICA) under its Support for Japanese Small and Medium Enterprises Overseas Business Development program (“Verification Survey with the Private Sector for Disseminating Japanese Technologies for an ICT Education Center Aiming to Improve Empowerment for Persons with Disabilities”). In Vietnam, out of the total population of about 100 million, 1 million people suffer from visual disability, and when weak eyesight is included, the number rises to 3 million. Although the Vietnam Blind Association (VBA) has started establishing centers to support visually challenged people in urban locations and other areas, the situation remains harsh and many handicapped people are cared for by their families and remain indoors.

In cooperation with the VBA, Nippon Telesoft has established ICT courses in Hanoi and Hue, and plans to provide learning support and classes on personal computers and administrative software to give visually challenged people educational and employment opportunities.

“Although personal computers and smartphones are very comfortable to use for able-bodied people, they are indeed very difficult to use for visually challenged people. We are striving to remove this handicap by providing auxiliary components and software that overcome handicaps with the functions of voice and braille,” explains Kaneko.

Making use of the company’s experience of exporting its products to ASEAN countries, Nippon Telesoft has already delivered ten braille printers that have been specially adapted for humid climates. The VBA has great expectations for the courses.
bonito flakes, which jig and dance atop the bubbling pancakes, better known as “okonomiyaki.”

According to Hisao Miyahara, CEO of Osaka-Boteju, that

HE griddle sizzles and hisses as Masanobu Nishikura pours out the dense, lumpy cream-colored mixture, and with two teko steel spatulas fashions his creations into thick, oval cakes.

As each one cooks he flips them over like burgers, then transfers them onto freshly cracked eggs, spinning each one in turn like a DJ whirling discs.

“The trick is to cook them enough, but not too much,” says Nishikura of Osaka-Boteju as he slaps on the pièce de résistance, a viscous brown savory sauce, followed by thin squiggles of mayonnaise and dried

For the people of Osaka, a night out eating okonomiyaki is a fun event.

At Osaka-Boteju, Masanobu Nishikura prepares and serves the restaurant’s famed okonomiyaki pancakes. Diners cut slices from the hot plate in front of them.

According to a 2014 government survey, there are 16,551 places nationwide serving okonomiyaki or its close cousin takoyaki (grilled octopus dumplings). Of those, 2,850, or 17.2 percent, are in Osaka — by far the most prevalent in Japan and more than double the number in Tokyo (1,215).

According to Hisao Miyahara, CEO of Osaka-Boteju, which is the oldest okonomiyaki outlet in Osaka, that

HAPPY FOOD
figure is probably higher. “There’s not a street or alleyway in these parts where you can’t find an okonomiyaki joint and it’s often said there are about 5,000 of them in Osaka alone,” he says. “It’s a deeply ingrained, and loved, part of Osaka’s food culture.”

Okonomiyaki is a relatively new addition to Japanese cuisine, first gaining widespread popularity in the 1950s, when Osaka-Boteju opened its doors.

Its roots, however, date back much further to a dish that was first concocted in a Kyoto teahouse more than 400 years ago.

A simple flour-based crêpe known as funoyaki is thought to be okonomiyaki’s earliest precursor, created, it is said, by sixteenth-century tea guru Sen no Rikyu, who was born in Sakai, present-day Osaka Prefecture, as a cha-gashi snack to accompany green tea.

Over the years, this went through several evolutions, including letter-shaped moji-yaki in the Meiji period (1603–1867) and later on dondon-yaki, a sweet street food and children’s favorite that later was made by dagashi-ya sweetshop owners and served wrapped in a sheet of newspaper, according to Miyahara’s son Yoshio, who is general manager at Osaka-Boteju.

In the Taisho period (1912–1926), green onion-filled issen-yoshoku gained popularity in Kyoto bearing an even closer resemblance to okonomiyaki, not least due to the inclusion of Worcester sauce among its ingredients.

By the 1930s, this had evolved into what is known today as okonomiyaki, or “as you like it, grilled,” a popular item that was also a bit of a luxury item, Yoshio says.

“The main ingredients such as flour and eggs were so expensive you didn’t normally get to eat them unless you were ill,” he explains.

Like dondon-yaki before it, at extra cost, favored toppings could be added, explaining the name it was given, he adds.

Staple ingredients for an Osaka okonomiyaki include flour, eggs, grated naga-imo yam, finely diced cabbage and dashi fish stock for the batter, while the topping includes thin slices of pork belly, squid, octopus, dried bonito flakes, aonori (dried seaweed) and the okonomiyaki sauce, which is like a sweet, viscous version of Worcester sauce that is invariably made from a decades-old family recipe.

“The secret is in the sauce,” says Hisao Miyahara, adding that nonetheless some overseas visitors who are unfamiliar with the custom of splashing sauces on their food tend to forgo that part of the experience.

“A variety of okonomiyaki are made at each individual eatery, and new ingredients, such as cheese and mochi (sticky rice cakes) have been added in recent years. But what distinguished each store was their sauce, which is how they generated their own loyal following.”

Boteju was the first establishment in Osaka to concoct this nourishing dish on a grill right in front of the customer, a tradition that spread far and wide throughout the city and also in other parts of Japan, most notably Hiroshima, where another version of Okonomiyaki garnered widespread popularity.

Fourteen years ago, Miyahara spearheaded a movement to bring Osaka’s okonomiyaki to the attention of a wider audience, in particular to foreign fans of Japanese cuisine, in the process forming an association of okonomiyaki restaurants, which he chairs.

The first event held to celebrate its inauguration was the creation of an 8-meter wide okonomiyaki, concocted on a specially developed grill in the grounds of a local temple. The resulting pancake was big enough to feed 5,000 people.

“One of our objectives is to promote okonomiyaki as ‘happy food,’ not just to Osakans and Japanese but to international visitors as well,” he says. “We Osakans see a night out eating okonomiyaki as a fun event, and we want to nurture that culture.”
SHOALS of flying fish fizz low over the water in fright as the big ocean ferry presses westward to Zamami in the Kerama Islands. The journey from Okinawa’s main-island port of Naha takes two hours on this vessel, stopping once on the way, at Aka Island. Tourists take selfies on the breezy upper deck, risking their sun hats, as a background of uninhabited islands and immaculate beaches unrolls behind them. Zamami old-timers snooze soundly on the carpets below.

One of four inhabited islands in Okinawa’s remote Kerama cluster of twenty or so islands, Zamami is also one of the two local municipalities, along with its larger neighbor, Tokashiki, whose beaches, coral reefs and clear blue waters make up the Kerama Islands National Park.

The island’s port village is small and its narrow streets more comfortably navigated on foot, but for the traveler keen to take in all of Zamami’s 24 kilometers of coastline, the renting of a moped or mini car is recommended – the latter, like the ferry and the family-run inns, best booked in advance of arrival.

A short drive from the village to any of Zamami’s elevated observation points is rewarded with spectacular views of the famed “Kerama blue” ocean and verdant, white sand-laced islands beyond. The ascent to these viewpoints, through lush tropical vegetation,
is an essential part of any trip to Zamami.

But it is for immersed proximity to the extensive coral reefs that most people come to the Kerama Islands, one of the world’s outstanding diving destinations. Moray eels, pygmy seahorses, dogtooth tuna and manta rays are among the incredible 1,000 or so species of fish inhabiting the 400 species of coral here. Snorkelers too find themselves in submarine paradise, as the shallow waters close to the shore drop off suddenly affording close-up views of countless colorful reef fish. Most thrillingly of all, on Ama beach, sea turtles swim just a few meters from the shore at high tide. Lifeguards alert snorkelers to the turtles’ presence so there is no danger of missing out.

Ama beach is also the launch pad for a variety of other ocean sports and excursions. The tranquility of the sea here makes kayaking an attractive proposition for visitors of all ages and sea-faring abilities. Trips lasting as long as six hours can be arranged through the Kerama Kayak Center in the village. The currents off Zamami are deceptively quick – which partly explains why the coral is so plentiful and the ocean so clear – and for safety reasons therefore certified kayak guides accompany paddlers at all times. Four-seater Hobie trimarans, which are propelled by pedal, paddle or sail, are a laid-back alternative to the sleek kayaks.

Standup paddleboarding is another water sport visitors can enjoy in Zamami while, further from the shore, sea anglers may be rewarded with a catch of giant yellowfin tuna or marlin. Photographs of notable recent catches hang in the tackle shop in the village.

In the winter, from December to April, humpback whales return to the warm waters of Zamami to breed and raise their young. Veteran whale-searching staff look out for them from the observatories and communicate the whales’ location to the whale-watching boats on the sea. The villagers record the whales’ tail patterns and report that the same humpbacks return to Zamami year after year.

Back on the ferry with the wind in their hair, visitors departing this beautiful island will understand that the urge to return is strong.
In this haiku by the poet and nun Chiyo-ni (1703–1775), the writer conveys her surprise on waking one day to find her well bucket invaded by morning glories. Unwilling or unable to disturb the beauty of the scene, she chooses instead to borrow water from a neighbor. Morning glories of many varieties were cultivated in Japan in the nineteenth century, when the flowers became symbolic of the summer. Morning glories are a common and celebrated sight to this day, often found climbing from residential window boxes where they provide colorful and leafy natural shade.

 morning glory —
the well-bucket entangled
I ask for water

Haiku by Chiyo-ni; translated by Patricia Donegan and Yoshie Ishibashi