

Beauty of Japanese Pearl



JETRO
Japan External Trade Organization



Japan Pearl Exporters' Association
<https://japan-pearl.com/>

Hong Kong International Diamond, Gem & Pearl Show 2024
Pearl Industry Fair Japan

The Pearl Charter

Pearls are living treasures nurtured by Mother Earth whose sublime beauty has been admired since antiquity.

Our mission is to extract and heighten their natural beauty through a harmonious blend of nature's power and human skill.

Pearls are currently being produced on a global scale as more people around the world discover a love of pearls.

We believe that pearls bring hope, enrich human lives, and play a vital role as messengers of world peace.

Pearls are gifts of devotion to the spirit of beauty born from nature and humanity.

As members of the pearl industry, we proudly vow to use every available resource to fulfill our mission and utilize our expertise and know-how as pioneers of the global pearl industry to promote pearl culture and support its legacy while respecting the transcendental value behind the history and legacy of pearls.

Japan Pearl Promotion Society
Established 1993
Revised 2019

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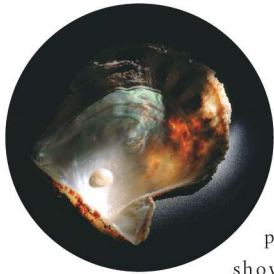
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What makes Japan the center of the pearl world ?

Japanese businesses handle more than 60% of the sea grown pearls produced around the world.

How did Japan develop into the center for global pearl production?

The answer lies more than 120 years in the past, when Japan started developing the innovations that would lead the transition from natural pearls to cultured pearls.



The move from natural to cultured pearls

Pearls have been called the oldest jewelry on the planet. Records show that humans

were already using pearls around 4,000 BCE. The question of how natural pearls formed was a mystery until the 11th century. Until then, pearls were believed to come from angel tears or moonlight dew. Such rare natural pearls were cherished treasures that only rulers or nobility could own. In the 19th century, the Persian Gulf developed into a major production site for the harvesting of natural pearls. However, overharvesting and harsh working environments threatened to exhaust this limited resource. Europeans began researching how pearls form and ways for humans to create pearls. Research progressed around the globe, and in 1893 Kokichi Mikimoto succeeded in cultivating hemispherical pearls. In 1907, Tokichi Nishikawa, Kokichi Mikimoto, and Tatsuhei Mise each developed their own method for cultivating spherical pearls. Since then, Japan has been the center of global pearl production. Japan's Akoya pearl, the Silver lipped pearl grown in areas such as Australia and Indonesia, and the Black lipped pearl cultivated in regions like French Polynesia all use the same techniques invented in Japan.



Cultured pearls are the sustainable jewelry.

The history of pearls spans 6,000 years, though cultured pearls have only existed for 130 years. Since their introduction, however, cultured pearls have radically changed the history of the pearl industry. They have helped address the overharvesting of a resource with a multi-year production cycle and made significant progress in addressing the issue of environmental destruction. Harvesting from rafts in gentle coastal waters has dramatically improved working conditions for the people involved in pearl cultivation and harvesting. Moreover, while pearls were once a symbol of wealth and power, the cultivation of pearls has transformed them into something that everyone can enjoy.

For cultured pearls, the history of the pearl industry itself laid the foundation for sustainable conditions that link humans and nature. This is a fundamental difference between pearls and other jewelry and the reason that pearls deserve the title of sustainable jewelry.



Momme

An international unit for pearl weight. Pearl cultivation began in Japan, so a traditional Japanese unit is used worldwide.
1 momme = 3.75 grams.



Hanadama pearls

Describes pearls with few blemishes and excellent shape, nacre thickness, luster, and color when they are harvested from the sea (before they are turned into a product).
No clearly defined standard exists.

What gives Japanese pearls their beauty ?

Why are Japan's world renowned Akoya pearls so highly acclaimed ?



Planet

Raised in Japan's diverse climate and abundant nature.

Examining an Akoya pearl closely, we find that it is not simply white, but contains a uniquely vibrant and warm iridescence, like a bubble. This alluring beauty comes from the special properties of the Japanese Akoya oyster, which thrives within the combination of Japan's unique climate and bountiful nature.

Japan's Akoya oysters secrete a special rainbow-hued nacre not found in other host oysters, which forms delicate crystal layers. Japan's four distinct seasons also result in significant variations in water temperature throughout the year. This provides the ideal conditions for Akoya oysters to secrete their nacre, creating thick nacre layers in the warmer seasons and finely detailed layers during the colder months. With calm waters surrounded by mountains and forests, the plentiful ria coastlines provide the optimal environment for pearl cultivation.



The people who grow the pearls

No effort is spared in creating the best pearls.

It has been more than 130 years since pearl cultivation began in Japan. The process of inserting the nucleus that will become the core of the pearl begins in the spring. Highly trained workers place each nucleus by hand. One or two nuclei are carefully inserted into host oysters that are meticulously grown for two to three years. This process significantly affects the final quality of the pearl. After the insertion of the nucleus, the oysters are left to grow in sheltered waters for several weeks before being transferred to the open sea. Changes in water temperature and tides, as well as the condition of the plankton that act as their food, are then meticulously managed for one to two years until harvest. Oysters are cleaned several times a month to remove any algae or barnacles. Rafts are also moved if there are rapid changes in water temperature, typhoons, or harmful algal blooms. Even the slightest lapse in management can quickly diminish the vitality of the oysters. Higher quality crystals form in colder waters, so the harvest is delayed until winter when the ocean is at its coldest. Growers vigilantly attend to their oysters throughout the three to four years between growing a host oyster from infancy to nucleus insertion and through to harvest in order to create beautiful pearls.

People



People making pearls shine.

Legacy craftsmanship

The pearls carefully raised by growers are collected by processors located primarily in Kobe and Mie. They then undergo selection and processing under the care of experienced professionals. They take the hopes of the growers and meticulously inspect each harvested pearl by hand before working to reveal its inherent beauty and enhance its value as a piece of jewelry. (This same process is applied to both Akoya pearls and pearls imported from abroad.) As with cultivation techniques, Japan is the global leader in this processing technique, which is one of the reasons why Japan is a world-recognized hub for pearls.

Pearl

Nurtured by nature and people.

The beauty of Japanese pearls lies in Japan's abundant nature and high-level techniques from production to processing, the attention given to the fine details of the pearl, and the devotion of the people involved in creating those pearls.



Akoya pearls

Akoya pearls are often referred to as the origin of Japanese cultured pearls. They are smaller than 10 mm in size, typically ranging from 6 to 8 mm. They are closer to perfect sphere compared to other pearls and are renowned for their uniquely attractive color and luster.

Pearl quality

Evaluating pearl quality is a complex process. Unlike diamonds, there are no universally defined standards or certificates of authenticity for pearls. This lack of defined quality standards can make evaluating pearl quality confusing. However, it is precisely this undefined quality that makes pearls endlessly fascinating. Pearls are evaluated based on six general quality factors. However, since pearls are products of nature, no two pearls are ever alike.

1 Nacre thickness

Nacre thickness refers to the thickness of the layer of nacre, which is formed by calcium carbonate crystals and proteins. This layer is closely related to the color and depth of luster of the pearl. Techniques such as x-rays and ultrasound can be used to measure and quantify nacre thickness. However, evaluating the quality of nacre thickness requires considering not only the thickness itself but also the condition of the nacre, including factors such as grain, transparency, and impurities. Akoya pearls, in particular, have extremely thin and delicate crystals that are only 0.3 to 0.8 microns thick. These pearls are known for their unique iridescence, which is created by their distinctively lush appearance resulting from the presence of over 1,000 layers of nacre.

3 Blemish

Blemish is a general term for wrinkles or unevenness on the surface of a pearl. There are various types of blemishes, and the type, size, amount, and position are important factors in evaluating the quality of a pearl. Pearls with fewer blemishes generally command higher prices. However, pearls are natural products, so a certain degree of blemish is considered a unique characteristic that adds value to a pearl. For example, a pearl with multiple blemishes can still be highly valuable if it has superior nacre thickness, luster, an appealing color, or other notable features. However, excessive blemishes can affect the durability of the pearl. It is important to distinguish between natural blemishes that occur during cultivation and processing blemishes that occur during the processing stage, as the latter can cause a pearl to deteriorate.

2 Luster

Luster refers to the brilliance and shine of a pearl. More than simply the light that reflects off the surface, a deep luster is created by the interference of light refracting from within the pearl itself. As such, luster is impacted by the thickness, uniformity, and transparency of the nacre. It's often assumed that a thick nacre creates a good luster, but a pearl with a thick layer of poor quality nacre will produce a dull luster. Alternatively, a pearl with a thin nacre layer may initially appear shiny, but it lacks depth as it is only a strong surface reflection. Akoya pearls are harvested during the winter because the colder water produces a more intricate and beautiful nacre, which significantly enhances the luster.

4 Color

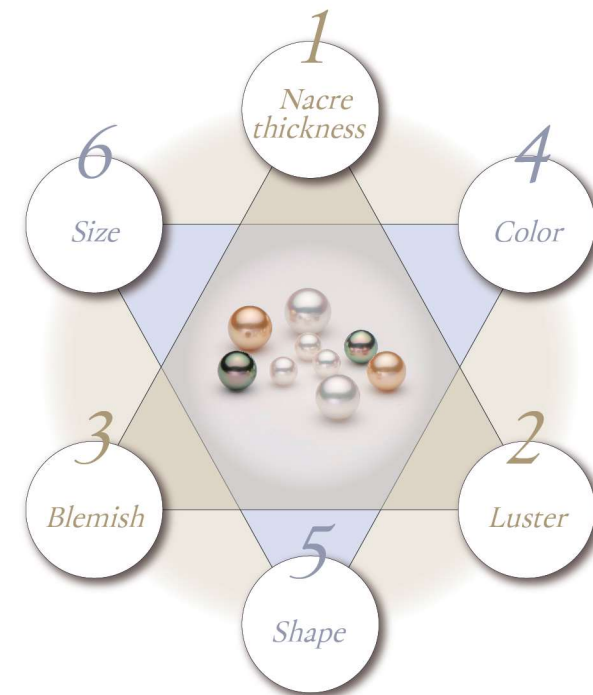
Color is a personal choice, so no one color is better than another. There are two types of pearl colors: the body color created by the pigment secreted from the host mollusc, and the iridescence, which refers to the three-dimensional rainbow colors with slightly different central and exterior colors found in high-quality pearls. These two properties influence each other in complex ways. Pearl color can also be altered through processing. While there is no requirement to disclose information about whitening, toning, or pre-treatments used to enhance a pearl's natural color, there is an obligation to disclose any dyeing, irradiation, or other processes that change a pearl's natural color. If all other five factors are equal, toned and untoned pearls are considered to have the same quality valuation and rarity.

5 Shape

Perfectly spherical non-nucleated natural pearls used to be extremely rare and valuable. As a result, pearls that are closest to a perfect sphere are more highly valued, even with cultured pearls where a spherical nucleus is inserted. However, the nacre layer tends to deform as it thickens, resulting in pearls that are not perfectly spherical. These deformed pearls are believed to have thicker nacre. In recent years, the popularity of other shapes such as drop and Baroque has increased, making shape more of a personal preference, similar to color. Therefore, no one shape is considered superior.

6 Size

Pearl size is measured in millimeters (mm) and is typically displayed as the diameter. Akoya pearls range from 3 to 9 mm in size, which is smaller compared to silver or black-lipped pearls that often exceed 10 mm. Pearls are usually sorted and listed in 0.5 mm increments. In the past, a larger pearl of the same quality would have been more highly valued. However, with advancements in cultivation techniques and the availability of various designs and accessories, size has become less significant in determining the value of a pearl. The characteristics of the host mollusk and changes in the environment during pearl formation can enhance the value of extremely rare sizes. Nonetheless, like color and shape, size is ultimately a matter of personal preference and not the primary factor in valuation.



1-3 can be evaluated objectively, but the valuations of 4-6 depend on personal preference.

Types of Pearls

Pearls are primarily categorized as **natural** or **cultured** pearls.

Natural Pearls

Natural pearls are formed around tiny irritating substances that become trapped within the bodies of certain types of mollusks, without any human interference.

Cultured Pearls

Cultured pearls require human intervention and management. Most host mollusks used in the cultivation process are specifically grown for this purpose, although some wild hosts have also been collected and used.

Next, pearls can be classified as either **seawater** or **freshwater** pearls.

Seawater pearls

Seawater pearls are formed by mollusks that live in the ocean, such as Akoya oysters, Silver lipped oysters and Black lipped oysters, etc. Typically, one mollusk produces one pearl, although some can produce multiple pearls, but these are usually small. Seawater pearls are challenging to cultivate, requiring extensive labor and higher production costs. Additionally, they require skilled technicians to handle them.

Fresh water pearls

Freshwater pearls are formed by mollusks that live in shallow freshwater bodies such as lakes, swamps, and rivers (For example, Ikecho mussels and Triangle mussels, etc.). Each mollusk can produce between 10 and 20 pearls. Freshwater pearls are less labor and cost intensive compared to seawater pearls, and they have a higher pearl production efficiency.



Pearl producing regions around the world.

The Earth is home to over 100,000 types of mollusks, but only a few species create the pearls that make such valuable jewelry. The cultivation of oysters began in Japan, with the Akoya oyster. The techniques developed for hosting oysters and mussels have since spread worldwide. The unique features of each host organism create stark differences in size, color, brilliance, and other properties.

Akoya pearl



Shell height: 7-10 cm
Pearl size: 3-9 mm
Main production region: Japan

Black lipped pearl



Shell height: 15 cm
Pearl size: 8-15 mm
Main production region: French Polynesia

Silver lipped pearl



Shell height: 25 cm
Pearl size: 9-18 mm
Main production regions: Indonesia
Australia
The Philippines
Myanmar

Fresh water pearl



Shell height: approx. 10 cm (Ikecho mussel)
Pearl size: 3-15 mm
Main production region: China



The sustainability of pearls

The Sato-Umi coastal economy: Achieving the coexistence of humans and a thriving nature.

Pearl cultivation was developed 130 years ago. Japanese people carry out aquafarming in the places where they live. Mie, Nagasaki, and Ehime Prefectures are Japan's three main areas of pearl cultivation and are known for their inland seas and intricate coastlines. People work in the orchards and rice fields located on the hills and flatlands around where pearl cultivation occurs. The fertile soil drains into the rivers, carrying an abundance of nutritional minerals out to sea. These seas house the rafts used in pearl cultivation, where oysters feast on the assembled plankton. In this way, areas where pearls are raised are deeply linked with human activity and nature.

Traditional knowledge and techniques that cannot be automated.

Even in our technologically developed world, the process of cultivating pearls is still largely carried out by hand. Most of the Japan's pearl production comes from small- and medium-sized businesses, who pass down their secret techniques to only a limited number of select individuals.

A range of initiatives

Japan Pearl Exporters' Association works with a variety of entities including pearl growers and industry organizations to promote sustainability initiatives. Pearls are jewelry born from Mother Earth. We strive to protect the ocean and forests by utilizing cultivated pearls without any waste. Previously, fishing gear and equipment used in cultivation were disposed of or incinerated, but we are now dedicated to upcycling them.



Everything is utilized.

The ability to use every part of the pearl oyster is well known. Shells can be made into buttons and the adductor muscle is a famous seasonal delicacy in each region. The meat has also begun to be composted, where it returns to the local soil. And so, the cycle of nature's blessing continues, from land to sea and from sea to land.

Picture credits: Mie Prefecture Pearl Promotion Council



Forestry initiatives

To promote the cycle between the land and the sea, we support the NPO Hitotsubuno Shinju and their work to reforest mountains near pearl cultivating sites.



Upcycling

Recently, aquaculture waste has become an issue at pearl cultivation sites. We have always periodically cleaned beaches near cultivation farms, but we are now upcycling recovered fishing nets and other abandoned items to improve the sustainability of cultivation farms.

Japan Pearl Exporters' Association (JPEA)

Date of establishment 13 July 1954

Purpose Japan Pearl Exporters' Association is an organization of exporters established with the approval of the Minister of International Trade and Industry (currently the Minister of Economy, Trade and Industry) under the Export and Import Transaction Act. Its purpose is to prevent unfair export trading, establish a system for export trading, and promote the healthy development of the pearl industry by working towards the enhancement of common benefits for its members.

Number of Members 135 companies (as of April 2023)

Primary activities Pearl Industry Fair Japan (twice annually)
Various auctions (discussion forums)
International trade fairs and exhibitions (Japan Pearl Pavilion)
Exported pearl quality control (blue tags)
Bonded warehouses
Overseas market reports, international PR
Providing information on trading, customs duties, etc.
Sustainability activities

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JPEA



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