

THE ART OF MAKING SUSHI: TRADITION, TECHNIQUE, AND BEAUTY OF JAPANESE CUISINE

Seni Membuat Sushi: Tradisi, Teknik, dan Keindahan Kuliner Jepang

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ABSTRACT

Sushi is one of Japan's traditional foods made primarily from raw fish and rice, and it is recognized worldwide. Originally, sushi came from a method of preserving fish using rice and salt that developed in China, before being adopted by Japanese society during the Yayoi period (300 BC–300 AD). This study employs a descriptive observational method through a qualitative approach with a literature review to explore the history, types, and significance of sushi in Japanese culture. Sushi has evolved from a lengthy fermentation process into modern variations that involve changes in techniques and ingredients, including the introduction of vinegar as a substitute for fermentation in the 16th century. Various types of sushi, such as Nigiri-zushi, Maki-zushi, Uramaki-zushi, Inari-zushi, Oshi-zushi, Nare-zushi, Temaki-zushi, and Chirashi-zushi, illustrate the richness of Japanese culinary culture. Beyond being a celebratory dish, sushi also contributes to the healthy dietary patterns of Japanese society, supported by the use of choumiryou, particularly vinegar, which serves as a natural antibacterial agent. This reflects the important role of traditional food in sustaining Japan's high life expectancy. The evolution and adaptation of sushi into a global icon highlight the dynamic and profound nature of Japanese culinary culture.

Keywords: Choumiryou, Life Expectancy, Sushi

ABSTRAK

Sushi merupakan salah satu makanan tradisional Jepang berbahan dasar ikan mentah dan nasi yang dikenal secara global. Awalnya, sushi berasal dari metode pengawetan ikan menggunakan nasi dan garam yang berkembang di Cina, kemudian diadopsi oleh masyarakat Jepang pada periode Yayoi (300 SM–300 M). Penelitian ini menggunakan metode observasi deskriptif melalui pendekatan kualitatif dengan studi literatur untuk menggali sejarah, jenis, dan signifikansi sushi dalam budaya Jepang. Sushi berevolusi dari metode fermentasi panjang menuju variasi modern yang melibatkan perubahan teknik dan bahan, termasuk penggunaan cuka yang menggantikan fermentasi pada abad ke-16. Berbagai jenis sushi, seperti Nigiri-zushi, Maki-zushi, Uramaki-zushi, Inari-zushi, Oshi-zushi, Nare-zushi, Temaki-zushi, serta Chirashi-zushi, menunjukkan kekayaan budaya kuliner Jepang. Selain sebagai hidangan

perayaan, sushi juga berkontribusi terhadap pola makan sehat masyarakat Jepang, didukung oleh penggunaan *choumiryou*, terutama cuka, sebagai antibakteri alami. Hal ini mencerminkan peran penting makanan tradisional dalam menopang harapan hidup masyarakat Jepang yang tinggi. Evolusi dan adaptasi sushi hingga menjadi ikon global memperlihatkan dinamika budaya kuliner yang kaya dan mendalam.

Kata Kunci: Choumiryou, Sushi, Harapan Hidup

INTRODUCTION

Sushi, like most other traditional Japanese dishes, is a dish made from rice and raw fish, with little or no seasoning. The book "Japan: An Illustrated Encyclopedia" explains that sushi originated in China, where it was a method of preserving fish by wrapping it in rice and salt, then fermenting it for two months to a year, or even two years. The rice is then discarded, leaving only the pickled fish to be eaten. This method of preserving fish was introduced to Japan during the Yayoi period, approximately 300 BC to 300 AD, the same period that rice cultivation (wet rice paddy cultivation) was introduced (Trahutami, 2018).

In ancient times, Japanese people were known for their strength and health, thanks to their consumption of large portions of sushi. One serving of traditional sushi, called *ikken* sushi, is equivalent to approximately 9 servings of modern sushi, or approximately 18 balls of sushi rice weighing 360 grams. Each portion of sushi includes a *neta* (topping) consisting of nine or more types of seafood (Omae and Tachibana, 1988).

In Japanese, the word "sushi" has two different kanji. One kanji uses the symbol for "fish," signifying a fish-based dish, while the other uses the symbol for "oiwai," meaning celebration. Therefore, for the Japanese, sushi is not just a traditional dish but also a special culinary symbol served at special celebratory occasions. Furthermore, sushi is often served as a treat to visiting guests (Trahutami, 2018). Furthermore, according to Mulyati *et al.*, (2023), "sushi" means "sour rice."

The original concept of sushi was originally made with rice flour and pieces of salted meat or fish. A natural preservation process occurs when the two ingredients are stacked in a container or bucket and weighted with stones, creating an anaerobic environment for fermentation. During this process, microorganisms produce lactic acid, which prevents the fish or meat from spoiling. The fermentation process typically lasts between 1 and 3 years, during which the fermented rice is discarded because it becomes too soft. This type of sushi is known as *Nare-zushi* (with "Nare" meaning fermentation), and is still used today in several Southeast Asian countries such as Thailand, Malaysia, and Laos. This method was first recorded in Chinese history dating back to the 2nd century (Anis, 2017).

Later, rice began to be used to speed up the fermentation process. In the 16th century, the addition of vinegar was introduced to reduce preparation time. This method was adopted by the Japanese as a way of making sushi, eventually becoming a part of Japanese cultural heritage. Since then, fermentation has been discontinued in sushi-making, and modern sushi, using only rice and vinegar, has become widely popular (Anis, 2017).

Until the 1970s, sushi was still considered a luxury food in Japan. Ordinary people only enjoyed sushi on special occasions, usually by special order (Omae and Tachibana, 1988). However, since the 1980s, sushi's popularity has begun to rise globally. The shape and ingredients of sushi have continued to evolve, both in Japan and in other countries. The classic concept of "fish on rice" has been adapted in numerous ways, creating countless delicious variations of sushi dishes (Heiter, 2007).

Today, sushi is not only a traditional Japanese dish but has achieved global popularity, with local adaptations in various countries creating new variations. This research is based on

the importance of understanding the history, development, and adaptation of sushi as a symbol of Japanese cuisine, possessing rich cultural, historical, and nutritional value.

RESEARCH METHODS

This research employed a descriptive observation method with a qualitative approach. The research was conducted through three main stages: data collection, data analysis, and presentation of results. The data collection stage employed a library method, namely gathering information from various sources such as journals, books, and available historical literature (Sari & Asmendri, 2020). Sugiyono (2012) also explains that library research is the study of theoretical, reference, and other scientific literature related to the norms, culture, and values that develop in the social situation being studied.

The technique used in this research was a literature study, in which data was obtained through reading, reviewing, and recording literature relevant to the research (Trahutami, 2019). The written sources reviewed included journal articles and books.

The next stage was data analysis, conducted using a qualitative descriptive approach. The facts obtained were analyzed to answer the research questions. Based on the collected data, the researchers presented information related to the study object, namely sushi.

The final results of this research are presented in descriptive form. With these steps, it is hoped that the research objectives can be optimally achieved.

RESULT

Sushi is widely recognized as a popular traditional Japanese food. When compared to fast food, which is now widely consumed by modern society, sushi is considered healthier. This is due to its relatively low-fat and low-sodium nutritional content, yet rich in protein, which is essential for cell growth and repair (Anis, 2017). Therefore, on certain occasions, sushi is positioned not only as a popular food but also as a nutritious processed food with the potential to help improve the nutritional quality of toddlers, particularly in meeting their daily protein needs, which are crucial for growth and development (Prameswari, *et al.*, 2019; Prasetyani & Mahendrastiti, 2022).

Furthermore, Pambudi (2017) explains that sushi can generally be grouped into several main types that differ from each other based on their shape and how they are served, including Nigiri-zushi, Maki-zushi, Uramaki-zushi, Inari-zushi, Oshi-zushi, Nare-zushi, Temaki-zushi, and Chirashi-zushi, where each type has its own characteristics that enrich the variety of Japanese culinary delights.

DISCUSSION

Types of Sushi

1. Nigiri-sushi

In the 1820s, Hanaya Yohei (1799–1858) of Edo is believed to have invented or developed the modern form of sushi known as nigiri-zushi (Mouritsen, 2009). Initially, the term Edo-zushi was used to refer to sushi made from seafood from Tokyo Bay. However, the term is now often used to refer to nigiri-zushi in general. In the Hokkaido region, renowned for its seafood, the term "raw sushi" refers to sushi topped with raw fish. This term is used to distinguish local sushi from other regions, which tend to use pre-boiled neta, such as shrimp, which quickly lose their freshness when served raw (Pambudi, 2017).

Nigiri-zushi consists of rice formed into small balls by hand, topped with a piece of fresh fish. The rice is freshly cooked, and then rice vinegar and salt are added. This process is called "quick fermentation" because it only takes a few minutes. The fish used is very fresh and uncured. The process of making nigiri-zushi is simpler, with no pressure applied other than to

shape the rice and place the fish on top. This makes nigiri-zushi an early version of fast food. Today, nigiri-zushi has become a sushi icon recognized worldwide (Mouritsen, 2009).



Figure 1. Nigiri-sushi with Red Tuna
(Source: Mouritsen, 2009)

Besides raw seafood, nigiri-zushi can also be served with cooked ingredients, such as tamagoyaki (sweet omelet) or grilled eel like unagi and anago. To keep the neta (topping) attached to the rice, nori (seaweed) is often used as a binder (Pambudi, 2017).



Figure 2. Nigiri-zushi with Baltic Whitefish and Nori
(Source: Mouritsen, 2009)

2. Maki-zushi

Maki-zushi is a type of sushi consisting of rice rolls topped with cucumber slices, tamagoyaki (sweet omelet), and other toppings, wrapped in a sheet of nori. The rolling process is done using a sudare, a rectangular woven bamboo mat (Pambudi, 2017). This sushi is served cut into small wheels and can be enjoyed directly or dipped in sauce (Noviana *et al.*, 2017).).

Maki-zushi is divided into three main types:

- Hosomaki: Rolls with a minimum diameter of 3 cm containing only one type of neta, such as tuna or cucumber.
- Futomaki: Rolls with a diameter of more than 5 cm, usually containing various kinds of nets.
- Temakizushi: Sushi made by rolling it yourself using nori before eating, where the neta is chosen directly from the plate.



Figure 3. Maki-zushi with Tuna
(Source: Gurunavi, 2018)

In the Kansai region, there is a tradition called Ehomaki to celebrate the Spring Equinox Day and invite good luck. This tradition involves eating a whole roll of futomaki in silence, while facing the cardinal directions which are thought to bring good luck. This tradition became popular in the 1970s, thanks to promotions from sushi merchant associations (Pambudi, 2017).

3. Uramaki-zushi

Uramaki-zushi is a type of sushi roll consisting of rice, cucumber, tamagoyaki, and other neta wrapped in nori. Uramaki-zushi differs from regular maki-zushi in that the rice is placed on the outside of the nori. The uramaki is rolled using a sudare, a bamboo mat specifically designed for rolling sushi (Pambudi, 2017).



Figure 4. Uramaki-zushi California Roll Type
(Source: Dwyer, 2012)

4. Inari-zushi.

Inari-zushi is a type of sushi in which rice is wrapped around aburage (tofu) cooked in a mixture of sugar and soy sauce. Unlike other types of sushi, inari-zushi is usually not filled with fish or additional side dishes, as aburage is already a sufficient source of protein. This type of sushi originates from the Toyokawa Inari Shrine in Toyokawa City, Aichi Prefecture, Japan (Pambudi, 2017).



Figure 5. Inari-zushi with Various Netta Variants
(Source: Ushijima, 2023)

5. Oshi-zushi

According to Pambudi (2017), the process of making Oshi-zushi is done by arranging rice together with neta, then both are pressed for a certain period of time with the aim of making the rice denser so that the final result of the sushi has a neat rectangular shape. After that, the compacted sushi is cut into smaller pieces so that it is easier for consumers to consume. In addition to the simple form, there are also variations of Oshi-zushi which are made by wrapping it in bamboo leaves, then pressing it for a while, usually for a period of time ranging from several hours to a full night, thus producing a distinctive texture and taste. The names of popular Oshi-zushi include:

- Saba-zushi contains mackerel which has several other names such as battera in Osaka Prefecture or bozushi in Kyoto.
- Masu-zushi from Toyama Prefecture.
- Tuna oshi-zushi from Mie Prefecture.
- Sanma-zushi and Gozaemon-zushi from Tottori Prefecture.
- Iwakuni-zushi from Yamaguchi Prefecture.

6. Nare-zushi

Considered one of the most delicious, yet less popular, types of sushi, Nare-zushi requires a very long preparation time, between one and three years, due to the fermentation process of the rice. When served, the sticky, mushy rice is usually discarded. This sushi was originally developed as a way to preserve food.

Nare-zushi is a type of sushi that undergoes only partial fermentation, leaving the main dish raw and typically eaten with fermented rice, which imparts a distinctive, slightly sour flavor. Some well-known variations of Nare-zushi include Kabura-zushi, originating from Ishikawa Prefecture, and Izushi, known in Hokkaido. Kabura-zushi, in particular, is made by sandwiching raw fish slices between two slices of daikon radish. The pieces are then placed in a wooden barrel filled with a mixture of cooked rice and yeast, and allowed to ferment for several days. When this sushi is served and consumed, the fermented rice that is still attached to the sushi is not cleaned or washed, so that it can provide a stronger and more distinctive taste to the dish (Pambudi, 2017).

7. Temaki-zushi

This type of sushi is typically enjoyed by families in Japan. Each person holds a triangular or square sheet of nori, about 15 cm in size, which is rolled into a cone shape. The cone is then filled with shari (vinegared rice) and gu (side dishes) of their choice. Gu can be natto, canned tuna, sashimi, or various vegetables. In addition to shoyu (Japanese soy sauce), some people also add mayonnaise for added flavor (Pambudi, 2017).

8. Chirashi-zushi

This type of sushi is served in a large bowl with rice as a base. Various ingredients such as fish, vegetables, meat, and other side dishes are neatly arranged on top of the rice (Pambudi, 2017). This sushi is similar to fried rice with a mixture of various side dishes. This sushi is available in two presentation variations: the Tokyo version and the Osaka version. In the Tokyo version, various side dishes are neatly arranged on top of a bowl of sushi rice. Meanwhile, in the Osaka version, various side dishes are cut into small pieces, mixed with sushi rice, and then topped with sliced omelet (Noviana *et al.*, 2017).



Figure 6. Chirashi-zushi with Various Netta Variants
(Source: Andoh, 2022)

Chirashi-zushi is a type of sushi that is quite rare in Japanese sushi restaurants, as it is usually made at home for special occasions or celebrations, such as Hina Matsuri (Girls' Festival). Chirashi-zushi is known by different names in different regions of Japan. For example, in Kagoshima Prefecture it is called Suzushi, while in Okayama Prefecture it is known as Matsurizushi. Some regions even garnish it with pieces of fruit such as apples, oranges, and cherries, adding a unique twist to the dish (Pambudi, 2017).

Choumiryou on Sushi and Its Influence on Life Expectancy of Japanese Society

Japanese life expectancy is among the highest in the world (Afiah *et al.*, 2013). Life expectancy in Japan has increased from 86.39 years in 2010 to 90.93 years in 2060 for women and from 79.64 years to 84.19 years for men (Unsriana, 2014). This makes Japan a global example of living a healthy and long life. One of the main factors contributing to this high life expectancy is diet. Traditional Japanese food is considered a natural recipe for longevity. It is undeniable that decades of dietary habits are a key factor behind the secret of Japanese longevity (Trahutami, 2019).

Traditional Japanese food offers extraordinary health benefits, boasting excellent nutritional content and the ability to slow down the cellular aging process. Because of this diet, the aging process in Japanese people is slower than in other parts of the world. It's no wonder that Japanese people often appear younger and more energetic than their actual age. Traditional Japanese cuisine, or washoku (和食), a cultural heritage passed down from generation to generation, has attracted the attention of not only the Japanese people but also people from various countries. Concurrently, the basic seasonings of Japanese cuisine, known as choumiryou (調味料), have also become increasingly popular (Trahutami, 2019).

Like other countries, Japan has a basic seasoning that is characteristic of its cuisine, known as choumiryou no sashisuseso (調味料のさしすせそ). This term refers to five main seasonings: "sa" from satou (佐藤) means sugar, "shi" from shio (塩) means salt, "su" (酢) means vinegar, "se" from shouyu (醤油) means soy sauce, and "so" from miso (味噌). In the past, these five spices were added sequentially to dishes, but now just one is enough to complete the distinctive Japanese flavor. Many Japanese feel that a dish is incomplete without one of these spices (Trahutami, 2019).

Most Japanese dishes contain choumiryou, including sushi. In sushi making, su, or vinegar, plays a crucial role as an antibacterial agent, given that the main ingredient is raw fish. Vinegar helps ensure the safety of raw fish consumption. Vinegar is typically applied to clean hands when making sushi to ensure cleanliness and flavor. However, it must be used appropriately, as too much vinegar can cause sushi to become too acidic, which not only affects the taste but can also cause digestive upset (Trahutami, 2019).

CONSLUSION

Sushi, one of Japan's iconic traditional foods, has a long history that has evolved from fish preservation methods to a modern dish loved worldwide. Its history began with the traditional fermentation technique known as Nare-zushi, and then with the innovation of vinegar in the 16th century, giving birth to modern sushi as we know it today.

This dish is not only a symbol of Japanese cuisine but also contributes to the high life expectancy of the Japanese people. The nutrients in sushi's main ingredients, such as raw fish and vinegared rice, help slow the aging process and support overall health.

The presence of choumiryou, or Japanese seasoning base, also plays a crucial role in maintaining the quality and safety of sushi, particularly the use of vinegar as an antibacterial. This combination of tradition, innovation, and health benefits makes sushi not just a food, but also a globally recognized part of cultural heritage and a healthy lifestyle.

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