

# How Sushi Went Global

*Theodore C. Bestor*

A 40-minute drive from Bath, Maine, down a winding two-lane highway, the last mile on a dirt road, a ramshackle wooden fish pier stands beside an empty parking lot. At 6:00 p.m. nothing much is happening. Three bluefin tuna sit in a huge tub of ice on the loading dock.

Between 6:45 and 7:00, the parking lot fills up with cars and trucks with license plates from New Jersey, New York, Massachusetts, New Hampshire, and Maine. Twenty tuna buyers clamber out, half of them Japanese. The three bluefin, ranging from 270 to 610 pounds, are winched out of the tub, and buyers crowd around them, extracting tiny core samples to examine their color, fingering the flesh to assess the fat content, sizing up the curve of the body.

After about 20 minutes of eyeing the goods, many of the buyers return to their trucks to call Japan by cellphone and get the morning prices from Tokyo's Tsukiji market – the fishing industry's answer to Wall Street – where the daily tuna auctions have just concluded. The buyers look over the tuna one last time and give written bids to the dock manager, who passes the top bid for each fish to the crew that landed it.

The auction bids are secret. Each bid is examined anxiously by a cluster of young men, some with a father or uncle looking on to give advice, others with a young woman and a couple of toddlers trying to see Daddy's fish. Fragments of concerned conversation float above the parking lot: "That's all?" "Couldn't we do better if we shipped it ourselves?" "Yeah, but my pickup needs a new transmission now!" After a few minutes, deals are closed and the fish are quickly loaded onto the backs of trucks in crates of crushed ice, known in the trade as "tuna coffins." As rapidly as they arrived, the flotilla of buyers sails out of the parking lot – three bound for New York's John F. Kennedy Airport, where their tuna will be airfreighted to Tokyo for sale the day after next.

Bluefin tuna may seem at first an unlikely case study in globalization. But as the world rearranges itself – around silicon chips, Starbucks coffee, or sashimi-grade

tuna – new channels for global flows of capital and commodities link far-flung individuals and communities in unexpected new relationships. The tuna trade is a prime example of the globalization of a regional industry, with intense international competition and thorny environmental regulations; centuries-old practices combined with high technology; realignments of labor and capital in response to international regulation; shifting markets; and the diffusion of culinary culture as tastes for sushi, and bluefin tuna, spread worldwide.

### Growing Appetites

Tuna doesn't require much promotion among Japanese consumers. It is consistently Japan's most popular seafood, and demand is high throughout the year. When the Federation of Japan Tuna Fisheries Cooperative (known as Nikkatsuren) runs ad campaigns for tuna, they tend to be low-key and whimsical, rather like the "Got Milk?" advertising in the United States. Recently, the federation launched "Tuna Day" (Maguro no hi), providing retailers with posters and recipe cards for recipes more complicated than "slice and serve chilled." Tuna Day's mascot is Goro-kun, a colorful cartoon tuna swimming the Australian crawl.

Despite the playful contemporary tone of the mascot, the date selected for Tuna Day carries much heavier freight. October 10, it turns out, commemorates the date that tuna first appeared in Japanese literature, in the eighth-century collection of imperial court poetry known as the *Man'yōshū* – one of the towering classics of Japanese literature. The neat twist is that October 10 today is a national holiday, Sports Day. Goro-kun, the sporty tuna, scores a promotional hat trick, suggesting intimate connections among national culture, healthy food for active lives, and the family holiday meal.

Outside of Japan, tuna, especially raw tuna, hasn't always had it so good. Sushi isn't an easy concept to sell to the uninitiated. And besides, North Americans tend to think of cultural influence as flowing from West to East: James Dean, baseball, Coca-Cola, McDonald's, and Disneyland have all gone over big in Tokyo. Yet Japanese cultural motifs and material – from Kurosawa's *The Seven Samurai* to Yoda's Zen and Darth Vader's armor, from Issey Miyake's fashions to Nintendo, PlayStation, and Pokémon – have increasingly saturated North American and indeed the entire world's consumption and popular culture. Against all odds, so too has sushi.

In 1929, the *Ladies' Home Journal* introduced Japanese cooking to North American women, but discreetly skirted the subject of raw fish: "There have been purposely omitted... any recipes using the delicate and raw tuna fish which is sliced wafer thin and served iced with attractive garnishes. [These]... might not sound so entirely delicious as they are in reality." Little mention of any Japanese food appeared in US media until well after World War II. By the 1960s, articles on sushi began to show up in lifestyle magazines like *Holiday* and *Sunset*. But the recipes they suggested were canapés like cooked shrimp on caraway rye bread, rather than raw fish on rice.

A decade later, however, sushi was growing in popularity throughout North America, turning into a sign of class and educational standing. In 1972, the

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*New York Times* covered the opening of a sushi bar in the elite sanctum of New York's Harvard Club. *Esquire* explained the fare in an article titled "Wake up Little Sushi!" Restaurant reviewers guided readers to Manhattan's sushi scene, including innovators like Shalom Sushi, a kosher sushi bar in SoHo.

Japan's emergence on the global economic scene in the 1970s as the business destination du jour, coupled with a rejection of hearty, red-meat American fare in favor of healthy cuisine like rice, fish, and vegetables, and the appeal of the high-concept aesthetics of Japanese design all prepared the world for a sushi fad. And so, from an exotic, almost unpalatable ethnic specialty, then to haute cuisine of the most rarefied sort, sushi has become not just cool, but popular. The painted window of a Cambridge, Massachusetts, coffee shop advertises "espresso, cappuccino, carrot juice, lasagna, and sushi." Mashed potatoes with wasabi (horseradish), sushi-ginger relish, and seared sashimi-grade tuna steaks show Japan's growing cultural influence on upscale nouvelle cuisine throughout North America, Europe, and Latin America. Sushi has even become the stuff of fashion, from "sushi" lip gloss, colored the deep red of raw tuna, to "wasabi" nail polish, a soft avocado green.

### Angling for New Consumers

Japan remains the world's primary market for fresh tuna for sushi and sashimi; demand in other countries is a product of Japanese influence and the creation of new markets by domestic producers looking to expand their reach. Perhaps not surprisingly, sushi's global popularity as an emblem of a sophisticated, cosmopolitan consumer class more or less coincided with a profound transformation in the international role of the Japanese fishing industry. From the 1970s onward, the expansion of 200-mile fishing limits around the world excluded foreign fleets from the prime fishing grounds of many coastal nations. And international environmental campaigns forced many countries, Japan among them, to scale back their distant water fleets. With their fishing operations curtailed and their yen for sushi still growing, Japanese had to turn to foreign suppliers.

Jumbo jets brought New England's bluefin tuna into easy reach of Tokyo, just as Japan's consumer economy – a byproduct of the now disparaged "bubble" years – went into hyperdrive. The sushi business boomed. During the 1980s, total Japanese imports of fresh bluefin tuna worldwide increased from 957 metric tons (531 from the United States) in 1984 to 5,235 metric tons (857 from the United States) in 1993. The average wholesale price peaked in 1990 at 4,900 yen (US \$34) per kilogram, bones and all, which trimmed out to approximately US \$33 wholesale per edible pound.

Not surprisingly, Japanese demand for prime bluefin tuna – which yields a firm red meat, lightly marbled with veins of fat, highly prized (and priced) in Japanese cuisine – created a gold-rush mentality on fishing grounds across the globe wherever bluefin tuna could be found. But in the early 1990s, as the US bluefin industry was taking off, the Japanese economy went into a stall, then a slump, then a dive. US producers suffered as their high-end export market collapsed. Fortunately for them, the North American sushi craze took up the slack. US businesses may have written off Japan, but Americans' taste for sushi stuck. An industry founded exclusively on

Japanese demand survived because of Americans' newly trained palates and a booming US economy.

### A Transatlantic Tussle

Atlantic bluefin tuna ("ABT" in the trade) are a highly migratory species that ranges from the equator to Newfoundland, from Turkey to the Gulf of Mexico. Bluefin can be huge fish; the record is 1,496 pounds. In more normal ranges, 600-pound tuna, 10 feet in length, are not extraordinary, and 250- to 300-pound bluefin, six feet long, are commercial mainstays.

Before bluefin became a commercial species in New England, before Japanese buyers discovered the stock, before the 747, bluefin were primarily sports fish, caught with fighting tackle by trophy hunters out of harbors like Montauk, Hyannis, and Kennebunkport. Commercial fishers, if they caught bluefin at all, sold them for cat food when they could and trucked them to town dumps when they couldn't. Japanese buyers changed all of that. Since the 1970s, commercial Atlantic bluefin tuna fisheries have been almost exclusively focused on Japanese markets like Tsukiji.

In New England waters, most bluefin are taken one fish at a time, by rod and reel, by hand line, or by harpoon – techniques of a small-scale fisher, not of a factory fleet. On the European side of the Atlantic, the industry operates under entirely different conditions. Rather than rod and reel or harpooning, the typical gear is industrial – the purse seiner (a fishing vessel closing a large net around a school of fish) or the long line (which catches fish on baited hooks strung along lines played out for many miles behind a swift vessel). The techniques may differ from boat to boat and from country to country, but these fishers are all angling for a share of the same Tsukiji yen – and in many cases, some biologists argue, a share of the same tuna stock. Fishing communities often think of themselves as close-knit and proudly parochial; but the sudden globalization of this industry has brought fishers into contact – and often into conflict – with customers, governments, regulators, and environmentalists around the world.

Two miles off the beach in Barbate, Spain, a huge maze of nets snakes several miles out into Spanish waters near the Strait of Gibraltar. A high-speed, Japanese-made workboat heads out to the nets. On board are five Spanish hands, a Japanese supervisor, 2,500 kilograms of frozen herring and mackerel imported from Norway and Holland, and two American researchers. The boat is making one of its twice-daily trips to Spanish nets, which contain captured Mediterranean tuna being raised under Japanese supervision for harvest and export to Tsukiji.

Behind the guard boats that stand watch over the nets 24 hours a day, the headlands of Morocco are a hazy purple in the distance. Just off Barbate's white cliffs to the northwest, the light at the Cape of Trafalgar blinks on and off. For 20 minutes, the men toss herring and mackerel over the gunwales of the workboat while tuna the size (and speed) of Harley-Davidsons dash under the boat, barely visible until, with a flash of silver and blue, they wheel around to snatch a drifting morsel.

The nets, lines, and buoys are part of an *almadraba*, a huge fish trap used in Spain as well as Sicily, Tunisia, and Morocco. The *almadraba* consists of miles of nets anchored to the channel floor suspended from thousands of buoys, all laid out to cut across the migration routes of bluefin tuna leaving the strait. This *almadraba*

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remains in place for about six weeks in June and July to intercept tuna leaving the Mediterranean after their spawning season is over. Those tuna that lose themselves in the maze end up in a huge pen, roughly the size of a football field. By the end of the tuna run through the strait, about 200 bluefin are in the pen.

Two hundred fish may not sound like a lot, but if the fish survive the next six months, if the fish hit their target weights, if the fish hit the market at the target price, these 200 bluefin may be worth \$1.6 million dollars. In November and December, after the bluefin season in New England and Canada is well over, the tuna are harvested and shipped by air to Tokyo in time for the end-of-the-year holiday spike in seafood consumption.

The pens, huge feed lots for tuna, are relatively new, but *almadraba* are not. A couple of miles down the coast from Barbate is the evocatively named settlement of Zahara de los Atunes (Zahara of the Tunas) where Cervantes lived briefly in the late 16th century. The centerpiece of the village is a huge stone compound that housed the men and nets of Zahara's *almadraba* in Cervantes's day, when the port was only a seasonally occupied tuna outpost (occupied by scoundrels, according to Cervantes). Along the Costa de la Luz, the three or four *almadraba* that remain still operate under the control of local fishing bosses who hold the customary fishing rights, the nets, the workers, the boats, and the locally embedded cultural capital to make the *almadraba* work – albeit for distant markets and in collaboration with small-scale Japanese fishing firms.

Inside the Strait of Gibraltar, off the coast of Cartagena, another series of tuna farms operates under entirely different auspices, utilizing neither local skills nor traditional technology. The Cartagena farms rely on French purse seiners to tow captured tuna to their pens, where joint ventures between Japanese trading firms and large-scale Spanish fishing companies have set up farms using the latest in Japanese fishing technology. The waters and the workers are Spanish, but almost everything else is part of a global flow of techniques and capital: financing from major Japanese trading companies; Japanese vessels to tend the nets; aquacultural techniques developed in Australia; vitamin supplements from European pharmaceutical giants packed into frozen herring from Holland to be heaved over the gunwales for the tuna; plus computer models of feeding schedules, weight gains, and target market prices developed by Japanese technicians and fishery scientists.

These "Spanish" farms compete with operations throughout the Mediterranean that rely on similar high-tech, high-capital approaches to the fish business. In the Adriatic Sea, for example, Croatia is emerging as a formidable tuna producer. In Croatia's case, the technology and the capital were transplanted by émigré Croatians who returned to the country from Australia after Croatia achieved independence from Yugoslavia in 1991. Australia, for its part, has developed a major aquacultural industry for southern bluefin tuna, a species closely related to the Atlantic bluefin of the North Atlantic and Mediterranean and almost equally desired in Japanese markets.

### Culture Splash

Just because sushi is available, in some form or another, in exclusive Fifth Avenue restaurants, in baseball stadiums in Los Angeles, at airport snack carts in

Amsterdam, at an apartment in Madrid (delivered by motorcycle), or in Buenos Aires, Tel Aviv, or Moscow, doesn't mean that sushi has lost its status as Japanese cultural property. Globalization doesn't necessarily homogenize cultural differences nor erase the salience of cultural labels. Quite the contrary, it grows the franchise. In the global economy of consumption, the brand equity of sushi as Japanese cultural property adds to the cachet of both the country and the cuisine. A Texan Chinese-American restaurateur told me, for example, that he had converted his chain of restaurants from Chinese to Japanese cuisine because the prestige factor of the latter meant he could charge a premium; his clients couldn't distinguish between Chinese and Japanese employees (and often failed to notice that some of the chefs behind his sushi bars were Latinos).

The brand equity is sustained by complicated flows of labor and ethnic biases. Outside of Japan, having Japanese hands (or a reasonable facsimile) is sufficient warrant for sushi competence. Guidebooks for the current generation of Japanese global *wandervogel* sometimes advise young Japanese looking for a job in a distant city to work as a sushi chef; US consular offices in Japan grant more than 1,000 visas a year to sushi chefs, tuna buyers, and other workers in the global sushi business. A trade school in Tokyo, operating under the name Sushi Daigaku (Sushi University) offers short courses in sushi preparation so "students" can impress prospective employers with an imposing certificate. Even without papers, however, sushi remains firmly linked in the minds of Japanese and foreigners alike with Japanese cultural identity. Throughout the world, sushi restaurants operated by Koreans, Chinese, or Vietnamese maintain Japanese identities. In sushi bars from Boston to Valencia, a customer's simple greeting in Japanese can throw chefs into a panic (or drive them to the far end of the counter).

On the docks, too, Japanese cultural control of sushi remains unquestioned. Japanese buyers and "tuna techs" sent from Tsukiji to work seasonally on the docks of New England laboriously instruct foreign fishers on the proper techniques for catching, handling, and packing tuna for export. A bluefin tuna must approximate the appropriate *kata*, or "ideal form," of color, texture, fat content, body shape, and so forth, all prescribed by Japanese specifications. Processing requires proper attention as well. Special paper is sent from Japan for wrapping the fish before burying them in crushed ice. Despite high shipping costs and the fact that 50 percent of the gross weight of a tuna is unusable, tuna is sent to Japan whole, not sliced into salable portions. Spoilage is one reason for this, but form is another. Everyone in the trade agrees that Japanese workers are much more skilled in cutting and trimming tuna than Americans, and no one would want to risk sending botched cuts to Japan.

Not to impugn the quality of the fish sold in the United States, but on the New England docks, the first determination of tuna buyers is whether they are looking at a "domestic" fish or an "export" fish. On that judgment hangs several dollars a pound for the fisher, and the supply of sashimi-grade tuna for fishmongers, sushi bars, and seafood restaurants up and down the Eastern seaboard. Some of the best tuna from New England may make it to New York or Los Angeles, but by way of Tokyo - validated as top quality (and top price) by the decision to ship it to Japan by air for sale at Tsukiji, where it may be purchased by one of the handful of Tsukiji sushi exporters who supply premier expatriate sushi chefs in the world's leading cities.

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### Playing the Market

The tuna auction at Yankee Co-op in Seabrook, New Hampshire, is about to begin on the second-to-last day of the 1999 season. The weather is stormy, few boats are out. Only three bluefin, none of them terribly good, are up for sale today, and the half-dozen buyers at the auction, three Americans and three Japanese, gloomily discuss the impending end of a lousy season.

In July, the bluefin market collapsed just as the US fishing season was starting. In a stunning miscalculation, Japanese purse seiners operating out of Kesennuma in northern Japan managed to land their entire year's quota from that fishery in only three days. The oversupply sent tuna prices at Tsukiji through the floor, and they never really recovered.

Today, the news from Spain is not good. The day before, faxes and e-mails from Tokyo brought word that a Spanish fish farm had suffered a disaster. Odd tidal conditions near Cartagena led to a sudden and unexpected depletion of oxygen in the inlet where one of the great tuna nets was anchored. Overnight, 800 fish suffocated. Divers hauled out the tuna. The fish were quickly processed, several months before their expected prime, and shipped off to Tokyo. For the Japanese corporation and its Spanish partners, a harvest potentially worth \$6.5 million would yield only a tiny fraction of that. The buyers at the morning's auctions in New Hampshire know they will suffer as well. Whatever fish turn up today and tomorrow, they will arrive at Tsukiji in the wake of an enormous glut of hastily exported Spanish tuna.

Fishing is rooted in local communities and local economies – even for fishers dipping their lines (or nets) in the same body of water, a couple hundred miles can be worlds away. Now, a Massachusetts fisher's livelihood can be transformed in a matter of hours by a spike in market prices halfway around the globe or by a disaster at a fish farm across the Atlantic. Giant fishing conglomerates in one part of the world sell their catch alongside family outfits from another. Environmental organizations on one continent rail against distant industry regulations implemented an ocean away. Such instances of convergence are common in a globalizing world. What is surprising, and perhaps more profound, in the case of today's tuna fishers, is the complex interplay between industry and culture, as an esoteric cuisine from an insular part of the world has become a global fad in the span of a generation, driving, and driven by, a new kind of fishing business.

Many New England fishers, whose traditional livelihood now depends on unfamiliar tastes and distant markets, turn to a kind of armchair anthropology to explain Japan's ability to transform tuna from trash into treasure around the world. For some, the quick answer is simply national symbolism. The deep red of tuna served as sashimi or sushi contrasts with the stark white rice, evoking the red and white of the Japanese national flag. Others know that red and white is an auspicious color combination in Japanese ritual life (lobster tails are popular at Japanese weddings for just this reason). Still others think the cultural prize is a fighting spirit, pure machismo, both their own and the tuna's. Taken by rod and reel, a tuna may battle the fisher for four or five hours. Some tuna literally fight to the death. For some fishers, the meaning of tuna – the equation of tuna with Japanese identity – is simple: Tuna is nothing less than the samurai fish!

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