

Kimura H., Aya. *Fermenting for the Future: Japanese Pickles and Microbial Foodways*, California, LA: University of California Press, 2026. 336 pp., ISBN 9780520410015.

Kimura H., Aya. *Fermenting for the Future: Japanese Pickles and Microbial Foodways*, California, LA: University of California Press, 2026. 336 pp., ISBN 9780520410015.

Keywords: Antibiocene, Fermentation, Microbiopolitics, Waste, In-betweenness, Japan

Aya Hirata Kimura's *Fermenting for the Future: Japanese Pickles and Microbial Foodways* is, on its surface, a study of *tsukemono*, the pickled vegetables that sit at the edge of Japanese cuisine, overshadowed by sushi and sake and rarely treated as worthy of sustained analysis. Kimura uses *tsukemono*'s marginality, decline, and its more recent partial revival to ask a considerably broader question: how did relations among humans, microbes, vegetal plants, and place come to be reorganized through empire, industrial capitalism, retail infrastructure, and changing habits of taste and smell, and what becomes possible once those relations are recognized as damaged rather than simply lost?

The book resists two easy stories. It is not a Pasteurian narrative in which science discovered germs, hygiene triumphed, and fermentation quietly disappeared. Nor is it a redemptive multispecies narrative in which the probiotic turn represents humans rediscovering their debt to microbial life. Kimura's term for what she studies instead is the *fermentation assemblage*: the shifting web of vegetable varieties, household labor, soil, markets, regulation, and microbial ecology that made *tsukemono* possible in the first place. Industrialization, she argues, did not simply change how pickles were made. It rearranged that entire web, severing relations that had once been taken for granted.

To track this reorganization, Kimura adjusts what she calls the aperture of microbiopolitical analysis, borrowing the photographic metaphor deliberately. Held tight on the intimate encounter between individual and microbes, the picture misses the forces working in the background; by opening wider, it brings four recurring apertures into view that are technoscience, capitalism, nation-state, and what she terms sensing culture, the historically shifting norms by which smells and textures come to register as appetizing or repulsive. This is the book's most consequential methodological choice. Kimura takes multispecies scholarship seriously without driving attention to situated human-microbial relations, which crowd out political economy.

The first half of the book, "Antibiotic Modulations," works largely through history. Chapter 1 relocates *tsukemono* within the provisioning demands of an industrializing, imperial Japan, where feeding factory workers and soldiers required food that could travel and be stored. Kimura identifies three rifts opened by this demand, separating foods from particular vegetable varieties, from older rural-urban nutrient cycles, and eventually from fermentation itself, since a soldier's ration needed to be stable in ways that living fermentation could not guarantee. Canned *fukujinzuke* could, in a provisioning officer's phrase, "walk with the

military” (p. 66); the elites who prized Metchnikoff’s lactic-acid bacteria and ordinary soldiers eating sterilized rations belonged to the identical historical moment, not sequential ones.

Chapter 2 follows this logic into the postwar period, showing how hybrid seeds, state agricultural policy, and an expanding retail sector rewarded uniform, transportable vegetables over the local varieties that particular fermentation practices depended on. Chapter 3 turns from plants to microbes themselves, tracing how self-service retail, plastic packaging, and cold chains made microbial liveliness, the gas, the souring, and the swelling of a sealed package, into a defect rather than a sign of a food doing what it should. Kimura’s account of fermentation attunement, the practical, largely female sensory competence for judging and recalibrating a changing pickle, gives this chapter its sharpest claim: what industrial food removed was not only a microorganism but a form of knowledge, one she connects suggestively to James Scott’s *mētis*, hands-on knowledge (p. 122, cf. Scott 1998).

Part II, “Probiotic Turns,” asks whether anything resembling repair is underway, and answers with considerable caution. Chapter 4 examines efforts to revive heirloom vegetables through projects such as Kyoto’s Yamashina eggplant, only to show that relocalization occurs within capitalist relations rather than outside them; heritage becomes a market niche as readily as it becomes a form of care. The chapter’s contrast between “food with *fūdo*” and the plant factory’s “food without *fūdo*” is a genuinely useful way of naming two divergent Anthropocene responses to ecological anxiety. Chapter 5, on *kin-katsu*, literally means “microbe hunting,” the popular pursuit of good microbes for health and wellness, and is arguably the book’s other pointed intervention. Kimura’s concept of *charismatic microbes*, extending her earlier work on charismatic nutrients, shows how a strain isolated from Kyoto *suguki* can be detached from the vegetable, the maker, and the place that produced it, and reissued as a branded ingredient, part of a class of successful strains she says carry “elite pedigrees” (p. 161). Traditional fermented foods become, in her phrase, a “mining ground” for novel strains, while the small producers who sustained them rarely capture the resulting value (p. 179). The probiotic turn, she insists, is not taken as granted the antibiotic turn’s reversal; it can be its commercial continuation. Chapter 6 counters with fermentation practitioners who use gift exchange, shared starters, and cooperative production to treat microbes as abundant rather than proprietary, becoming, as Kimura puts it, “givers/receivers, gifters/gifted, and activists/agitators” (p. 213), though she is careful to note that such abundance requires ongoing cultivation rather than occurring by itself. Chapter 7 pushes the argument furthest into the idiom of *awai*, or in-betweenness (p. 216), which Kimura uses to describe fermentation’s refusal to resolve into either control or its absence. She is explicit that *awai* is not evidence of a timeless Japanese ecological wisdom; the same culture produced Minamata disease and Fukushima, and *awai* is better read as a resource assembled in response to those damages than as an inheritance from them.

The conclusion draws these threads into a claim that gives the book unusual reach beyond fermentation studies, wherein agrifood scholarship has organized itself around production and consumption while neglecting a third domain, *decomposition*, the rotting, discarding, and recirculating through which matter continues after its apparent endpoint. Extending Fujihara Tatsushi, Kimura widens the category of decomposer to include the waste workers, night-soil carriers, and women tending *nukadoko* whose labor makes decomposition possible. It is a modest-sounding move with analytic force, and one that anthropologists of waste in particular will continue to sit with.

What makes the book persuasive, in the end, is its refusal to let either half of its argument settle into comfort. A reader could easily take the political economy of Part I as the temporal history and the sensory, ontological material of Part II as its more speculative counterpart, but Kimura resists that hierarchy: *awai* without attention to capitalism risks becoming a romanticized relationality, while an account of retail infrastructure and hybrid seeds alone cannot explain why one smell reads as appetizing and another as rot. Holding the two together through the aperture metaphor is an original entry, even if the book's vocabulary accumulates viscosity that readers unfamiliar with science and technology studies may occasionally take stock.

A further question the book raises but does not fully resolve is how far its framework travels outside Japan. Kimura is careful to present *awai* and *fūdo* as historically produced responses rather than cultural essences, thereby guarding her argument against the gastronationalism she explicitly criticizes. Still, given how tightly the analysis is built from Japanese contexts, readers working on fermentation elsewhere will need to do some translating of their own before applying it. That is less a flaw than an invitation, and it is once consistent with Kimura's argument that microbiopolitics should be theorized from place rather than assumed to be universal.

Fermenting for the Future demonstrates clear relevance to the anthropology of food, environmental humanities, multispecies ethnography, science and technology political ecology, and the still-developing anthropology of ruins and waste. Its prominence, though, is less a claim about fermentation than a method for asking what any designated forms of fermentation, or any given microbial relation more broadly, is doing within a particular assemblage of power. That question, and the endeavor with which Kimura pursues it across empire, supermarkets, biotech labs, and backyard *nukadoko*, is what makes this a book worth the field's sustained attention.

Works cited:

Scott, James C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, CT: Yale University Press.

Author

NGA Shi Yeu is a PhD candidate in Social Anthropology at Stockholm University, Sweden, and a Wenner-Gren Wadsworth Fellow. His doctoral project focuses on human-microbe interfaces in Taiwan's probio-technological platforms and supplemental health-scapes through the ways of eating good bacteria.



/© 2026 NGA Shi Yeu