


## Time and microbes, tides and bodies: on fermentation as artistic practice and culinary cruising

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# Time and microbes, tides and bodies: on fermentation as artistic practice and culinary cruising

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## ABSTRACT

Spotlighting creative practices that feature fermentation as an artistic medium, this essay surveys two collaborative projects—*Tidatables: Venetian Speculative Gastronomy* at TBA21's Ocean Space in Venice in 2021 and *Polyphonic Bodies II* as part of the fifth season of Delfina Foundation's *The Politics of Food* program in London in 2022—and situates them within the larger landscape of the development of fermentation not only as an artistic medium but also microbes as co-collaborators. In short, I seek to run with what Sandor Katz calls “the creative force of fermentation” (2020). To do so, I outline the relationship between fermentation and time and its orientation toward the future. I then build off of Sarah Ensor's “ecology of cruising” (2017) to introduce what I call “culinary cruising” and, along the way, add galleries, museums, and studios to the stages where fermentation performs. The essay concludes by arguing for the importance of food studies research that travels beyond academic spaces and for the messiness of collaborations and the limits of control.

## Introduction

In 2018 *Artsy* declared fermentation “the art world's strangest new trend” (Leddy 2018). From a 2017 video in which Leila Nadir and Cary Peppermint center kimchi in their reinterpretation of Martha Rosler's seminal 1975 *Semiotics of the Kitchen* as *Probiotics of the Kitchen* to Philippe Parreno's Turbine Hall 2016–2017 *Anywhen* installation of yeast colonies at London's Tate Modern, the article surveys contemporary artists surrendering to the mess, stickiness, and wonder of fermentation. Why fermentation *and* art? Why fermentation *as* art? And why now? A trend, by definition, is temporal. Like a whisper of wind, it can disappear as quickly as it appears. Fermentation, in contrast, is about endurance. It is about extending time, about stretching it to last longer, about making foods – and the communities they support – survive.

Fermentation is also ancient. With traces traveling back to at least 10,000 BCE, it is one of the world's oldest food preservation methods (Pérez Bobadilla and Guzman Serrano 2022, 665) and known use of biotechnology (Campbell-Platt 1994, 254).<sup>1</sup> Nonetheless, this *Artsy* headline gestures to a curious development: the emergence of fermentation as an artistic medium and microbes as co-collaborators.<sup>2</sup> Ferments have

migrated from kitchen pantries and restaurant kitchens and from breweries and dairy farms to artist studios, galleries, and museums. What does this signify for the human and more-than-human communities – meaning the other life forms that people share this planet with – that ferments, gather, grow, and sustain? This essay addresses this question by introducing and reflecting on two culinary projects. The first is *Tidetables: Venetian Speculative Gastronomy*, a collaboration between chef Marco Bravetti, food designer Katinka Versendaal, and myself, a food cultural historian, hosted at TBA21's Ocean Space in Venice, Italy, in June 2021. *Tidetables* borrowed from fermentation practices to consider how time transforms ingredients, the importance of balance, and the fine line between preservation and fossilization. The second is *Polyphonic Bodies II*, an experimental tasting I organized with curator Erin Li and chef and artist Songsoo Kim as part of Delfina Foundation's fifth edition of *The Politics of Food* program in 2022 in London, England, that played with hospitality and co-existence to share dishes celebrating biodiversity and fermentation, movement and fluidity. But before I get to these projects and connect them to, first, what I call culinary cruising and, second, the question of why fermentation as a creative and collaborative medium and why now, I pause and detour to consider time – as an ingredient, as a creative force, as a threatening bully – and its intimate relationship with food.

### Best before: fermentation and futures

In his review of anthropologist Claude Lévi-Strauss's infamous “culinary triangle”—*cru*, *cuit*, and *pourri*, the raw, the cooked, and the rotten (see Lévi-Strauss 2013) – the writer Adam Gopnik zooms in on the latter. The rotten, he argues, is where “the real work is done” (2023). “We save the world from rotting by rolling it in salt, smoking it in maple fires, preserving it in brine,” details Gopnik. “Nature is always going bad, and the most immediate form of ‘good’ that humans know is keeping that from happening” (Gopnik 2023). This is especially true of fermentation and other “preservation” methods. Recipes provide instructions for postponing decay. They seek to preserve, to slow down time. This formula casts time as a tyrant, a threat, which rhymes with historian E.P. Thompson's chronology of different types of time, from “nature's time” and “clock time,” and the contexts in which time interrupts – “time as a devourer, a defacer, a bloody tyrant” (Thompson 1967, 57). Everything that falls under the category of cooking is entangled with distinct temporalities, from the preservation of food as a race against time to the synchronization required to get the “timing” of a meal right. A recipe, in other words, has many moving parts. And a meal with multiple recipes has even more.

Fermentation, however, falls through the cracks of Lévi-Strauss's “culinary triangle,” and is neither raw nor cooked, “ni cru ni cuit” (Frédéric 2023). Nor is it rotten, per se. Instead, fermentation hangs somewhere in between, illustrating what food writer and fermentation revivalist Sandor Katz calls “the creative spaces between” the extremes of “fresh and rotten foods” (2011, 170). Furthermore, as anthropologist Sidney W. Mintz underlines, “‘Fermentation’ is no single phenomenon, invitation or event” (Mintz 2011, 17). Instead, fermentation is best understood as a process that stages what happens when categories melt, and how this tastes.

Chronicling what she calls “culinary time,” food writer Jenny Linford structures her book *The Missing Ingredient: The Curious Role of Time in Food and Flavour* based on seconds and minutes, hours and days, weeks and months and years. “Time,” she writes, “is the universal ingredient in the food we cook and eat. As an invisible ingredient, however, it is seldom considered in its own right. Time is an essential part of the act of cooking. To cook food well, one needs to know how to use time appropriately” (Linford 2018). Cooking, in other words, is a time-based practice that connects not only different flora and fauna in relation, but also their timescales. For example, every now and then Rowen White, a Mohawk seed keeper and farmer, drops a slideshow of memes on Instagram. In autumn 2022 one zoomed in on a package of salt. The top photograph markets its content: “Mined deep in the Himalayan Mountains from abundant salt beds formed in the Jurassic era, more than 250 million years ago, our Himalayan Pink Salts are the highest quality 100% natural salt,” it reads. The bottom photograph reveals its expiry date: “09/22/2022.” “Just my luck,” wrote its creator, “my 250 million year old Himalayan salt expired in September.” Sarcasm aside, there is an obvious disconnect between timescales. Between salt as an intimate encounter of geological time, of deep time, and of how a best before date polices when to consume what. Fermentation at large is, of course, not dependent on salt, but lacto-fermentation is and specifically uses salt to lengthen time, to elongate a best before. Fermentation even goes one step further by proposing that a food is not “best before” but instead “best after.”

Fermentation, in short, knots temporalities into relation. In the introduction to *Timescales: Thinking Across Ecological Temporalities* Carolyn Fornoff, Patricia Eunji Kim, and Bethany Wiggin disagree with T.S. Eliot’s claim in his 1915 breakout poem that he can measure his life with coffee spoons.<sup>3</sup> “By insisting on the plurality of scales, and on their overlaps and entanglements,” the authors “... push back against the discrete, measurable time period” (Fornoff, Kim, and Wiggin 2020). A timescale implies depth and is a composition of temporalities that jostle and overlap. But expiry dates seek to simplify. In 2011 Lisa Myers – an Anishinaabe artist, musician, and curator – organized an exhibition in Toronto with the title *Best Before* featuring work by KC Adams (nêhiyaw/Anishinaabe), Keesic Douglas (Ojibway from the Rama First Nation), Peter Morin (from the Tahltan Nation), Suzanne Morrissette (Métis), and Cheryl L’Hirondelle (Métis/Cree) based on their family and community recipes. The title sports a double meaning (Myers 2011). On the one hand, it returns to Gopnik and points toward the date before a food that risks going “bad” is still “good,” which is to say (legally) safe to eat. On the other, it summons nostalgia and the sense that things were “better” in the past.

I visit the concept of “best before” here to introduce some of the questions directing the thinking behind the two projects that follow. How does the act of making food, of cooking, shape perceptions of time? How can a food both be in and out of time? Which ingredients make you aware of the time that you taste? And what kind of time is it? A recipe, for example, often involves both “active” and “passive” time: the twelve times I flip and fold my bread dough and the one hour I wait in between folds. But this distinction between active and passive asks: for whom? Microbes are not only good to make bread and countless other foods with, but also good to think with. This is because they exaggerate the forms of collaboration that all acts of cooking engage with – this is what I call “culinary cruising,” a concept I return to.

Fermentation – and its so-called revival in Europe and North America since the early 2000s – is an example of a traditional craft that literally extends not only the best-before date of a perishable food, but also promotes new contemporary cultural meanings of community and collaboration. Beyond the timer’s task in keeping track of how long the dough has been rising, time both adds and subtracts value to particular foods. The older a red wine, for instance, the higher the price, or the slower the sourdough. But as milk inches closer and closer to its expiry date, a store might chip away at its price tag. Then there is the speed of food: slow versus fast.<sup>4</sup> There is also its seasonal immediacy: fresh or frozen. But ferments disobey such binaries. Instead, to quote fermentation expert and communication studies scholar Maya Hey, “ferments mediate multiple relationships, brokering the affordances of food ingredients, humans, microbes, time, and place” (2019, 14). A ferment can be fresh even when its ingredients, especially its salt, is old or even ancient. In other words, fermentation claims the liminal, the in between.

Timers, if you let them, can guide your cooking. They can hold your hand and give you a second opinion on when to take the bread out of the oven, on when something is “done.” The kitchen timer can be a clock, but doesn’t have to be. You can keep an eye on how long something has been baking without knowing what time it is. And yet timers still connect to time studies and environmental humanities scholar Michelle Bastian’s fascination with “what it is that clocks do, and particularly what they *might* do” (Bastian 2017, 150). And so “clocks suggest that everything is, in principle, able to be connect with everything else” and yet, as Bastian outlines, “Telling time in a time of extinctions poses different problems” (150). This is because “hunger shifts time, and once steady, predictable relationships give way to uncertain futures” (167). In addition to spotlighting how eating is an ecological act, which is to say a way of “being ecological” (see Gora 2024; Morton 2018), fermentation, I argue, exaggerates time as an ingredient. It renders time more material, more visible, more present. This is because fermentation, by default, is future oriented. Although some ferments are quick, others test the patience of their makers, making them put their hunger on hold, forcing them wait. Fermentation turns jars and glasses, tanks and barrels, crocks and pots into time machines, saving food for tomorrow. It is, thus, about both security and speculation. Securing abundant foods for future times of lack. Speculating a dish that a ferment will one day shape. Fermentation also reveals the stakes of eating in a time of climate crisis, proposing an eating with as opposed to an eating of – which the project *Tidetable: Venetian Speculative Gastronomy* explores.

### **Eating ecologies: stories about tides**

A battery of glass jars marches across the table. Lids keep the contents of some a safe distance from the nose. But others are open, letting their scents loiter and drift. Some jars support candles. Others hold water and kelp gleaned from the city’s canals. Some came straight from Marco’s kitchen, and others Katinka filled for the dinner. Many of them exhibit how, to return to Gopnik, cooks save the world from going “bad” by drying it, brining it, or rolling it in salt. Taken together these jars and their contents, many of which are fermented, propose one answer to the question *Tidetable: Venetian Speculative Gastronomy* posed: Can Venice eat *with*

the lagoon? This living pantry is a response (Figure 1). Fermentation, after all, extends best before dates, it develops an awareness of landscapes, of flora and fauna, and of microbes, and of the connections between human appetites and the worlds they sculpt.

*Tidetable*s was a collaboration between a chef, Marco Bravetti, a food designer, Katinka Versendaal, and a food cultural historian, myself, hosted at TBA21's Ocean Space in Venice, Italy, in partnership with the Center for the Humanities and Social Change at Ca' Foscari University of Venice.<sup>5</sup> From 17 to 19 June 2021 we staged three dinners and then, on 20 June, a public tasting and discussion with others active in Venice's foodways – benthic ecologist Camilla Bertolini, chef and artist Lorenzo Barbasetti di Prun, permaculturist Michele Savorgnano, and environmental journalist and geographer Chiara Spadaro – titled “*Ciacoe in Tocio: Ideas, Conversations, and Sauces for Eating with the Lagoon.*”<sup>6</sup> The impetus for all four events was to translate the research I had done over the past year into a series of dishes. Instead of a conference paper or a journal article, we envisioned a menu – a mix-and-match meal where each course makes an argument, bolsters a statement, or chases after a question. (Ironically this essay now attempts the reverse.)

*Tidetable*s casts food as a critical means with which to experience Venice and its lagoon. The table becomes a laboratory for understanding and shaping watery worlds and coastal futures, eating a method of inquiry. Calling for a move away from an exclusive focus on terrestrial food politics, cultural studies scholar Probyn (2016, 7) asks: “can we eat *with* the ocean?” Everyone eats the ocean and seafood, especially, illuminates how we are entangled in each other's appetites. For example, we all eat fish even if we don't eat fish, which is to say that 25% of the global catch “ends up in strange places: as food for pigs and poultry, as fish oil supplements, and . . . as processed food for fish” – it shows up in agricultural fertilizer and supermarket white bread (Probyn 2016, 5). In short, “There is no innocent place in which to escape the food politics of human-fish entanglement” (Probyn 2016, 5). “Eating the ocean: We do it every day,” she states, “often without knowing it. Humans have eaten the ocean for as long as we've been around. Now we're at risk of eating it up . . . ” (2016, 2). So, in turn, Probyn wonders (2016, 130): “How to eat the ocean well?” *Tidetable*s speculates answers. One part meal and one part investigation, this edible essay shadows the rhythms of the tide to ask: What does it mean to eat *with* something? What does it mean to eat with the tide or against it?

Many recipes end with the instruction to “salt to taste.” *Tidetable*s, in contrast, starts with salt. As the dinner invitation detailed, a recipe for salt calls for two ingredients: the sea and the sun. “But what is the recipe for Venice?” it asked. The city of Venice emerged from salt marshes – from the labor of tides carrying seawater back and forth, in and out. As a “forest on the sea” (Appuhn 2009), Venice is a balancing act and salt knows a thing or two about balance. Too little and even the most confident of legumes tastes like it is missing something. Too much and drought spreads across the mouth. The human appetite for salt, the anthropologist Margaret Visser points out, reveals that we are in fact “walking marine environments” (Visser 1986/2010, 115). The sea in our mouths. The lagoon on our tongues. Yes, salt stories are often love stories but not exclusively nor are they without drama or damage. As much as salt preserves – keeping ingredients in line

and flavors in balance – it also destructs and erodes. In dialogue with salt’s duality, *Tidetable*s draws from Venice’s past and present to reimagine its future.

After welcoming our guests and their appetites to the table, we introduced the project, its aims, and our expectations. “Eating is not passive,” we told them. The mouth performs labor, in tandem with the work of the stomach. Here we drew from writer Priya Basil, who insists that “Stories enact a form of mutual hospitality. What is a story if not an enticement to stay? You’re invited in, but right away you must reciprocate and host the story back . . .” (Basil 2019, 26). And so we asked those at the table to host the story back. A story about Venetian speculative gastronomy. This request doubles as an introduction to critical eating studies.

Rachel Carson began her 1937 essay “Undersea” with the question: “Who has known the ocean?” She then asserts: “Neither you nor I, with our earth-bound senses. . .” (Carson 1937, 322). What does it mean to know the ocean? Food cultural history, for example, approaches the question of how humans know animals and plants through culinary practices, the foods they eat and the stories they season them with. This could be one way to know the ocean. Carson, herself, also shares some advice: “To sense this world of waters known to the creatures of the sea we must shed our human perceptions of length and breadth and time and place, and enter vicariously into a universe of all-pervading water” (222). And so *Tidetable*s is an attempt to know the lagoon. Recognizing cooking “as a kind of inquiry” (Heldke 1998, 18), it is also an exercise in what gender studies scholar Kyla Wazana Tompkins calls “critical eating studies.” Advocating for a shift from food to eating goes beyond food as commodity. “It is the ‘where’ of where we eat and where food comes from;” she outlines, “the ‘when’ of historically specific economic conditions and political pressures; the ‘how’ of how food is made; and the ‘who’ of who makes and gets to it. Finally . . . it is the many ‘whys’ of eating— . . . hunger, necessity, pleasure, nostalgia, and protest – that most determine its meaning” (Tompkins 2012, 4). A shift from *what* to *how* (11). A shift from noun to verb.

Instead of detailing each dish, this essay focuses on those starring fermentation alongside ones that structure the arc of the meal’s narrative. Unfolding in four acts, the first – “Old Salt” – serves four dishes and borrows from fermentation practices to consider when preservation turns into fossilization and the fine line that stands between the two. Venice derived its early wealth and power from salt. It produced salt for trade in Chioggia by the seventh century and along the Dalmatian coast by the tenth (Kurlansky 2002, 103). But then a series of floods and storms in the thirteenth century forced it to import more salt, which is when Venetians discovered that they could make more money trading salt than producing it (105). Salt, in turn, financed other trades, including spices. Venice, in other words, is a city built by salt.

The economic value of salt reveals its many social, political, and cultural lives in addition to its culinary ones. Beyond the edible, salt has been a currency, a path to trade routes, a basis of taxation and a source of revolution. If the proof is in the pudding, then in the case of salt the proof is in its name: it is the root of words such as salad, soldier, and salary. It wasn’t always commonplace to ask someone to pass it, which is the origin of the expression above or below the salt. When salt was a valuable seasoning it was placed in

the middle of a dining table and honored guests were seated above and others below. For much of its history, salt has been scarce and expensive. Only in the mid-nineteenth century, due to industrial salt, did it become commonplace. Sea salt is minimally unrefined and absorbs minerals, such as magnesium and calcium, from the sea. A slow food, its ingredients are water, sun, and time.

Salt also executes order. It conducts how an ingredient behaves. But as much as salt preserves – keeping ingredients in line and flavors in balance – it also damages and erodes. *Acqua alta* exposes Venice’s brick walls to saltwater, which they cannot digest. Salt corrodes the bricks and, overtime, they soften and break down. The name of this act, thus, has a brace of meanings: the first is salt that is, obviously, old, but “old salt” is also a term for a someone with years of experience at sea who has lived to tell many a tale, many a sea story. In dialogue with salt’s duality, with its work as both a verb and a noun, the dishes explore how time transforms ingredients. They also counter the dominant narrative that Venice is “dying.” In contrast, fermentation is a living process, making something become perhaps even more alive the more time passes.

The first dish—*Sour-dine*—borrows from Venice’s iconic *sarde in saor*, but instead of preserving sardines in vinegar, it casts sourdough bread and *barena* honey gleaned from the lagoon’s salt marshes. The Slow Food organization includes this honey in its Ark of Taste – a living catalog of heritage foods threatened with extinction. The high tide submerges the salt marshes—*barene*—and these brackish lands are carpeted with amphibious plants, the likes of *salicornia veneta*, sea aster, golden samphire, and sea lavender (*ea fioreta di barena*), the latter from which the honey is made. Marco’s *Sour-dine* puts this honey to work to cure sardines that he seasons with *saorum* (*sarde in saor garum*), pickled wild capers, sour herbs, and sourdough flakes.

Although not fermented, the next dish—*Mussel Brulée*—exaggerates the arm-wrestle of a competition that is salt versus sugar, sour versus sweet. Marco pickled mussels only to smother them with juniper salted caramel, fashioning a mollusk into a *crème brûlée*. *Cuttlefish and Shiitake* was the third dish: cured cuttlefish, including its guts and garum, matched with preserved and deep fried shiitake mushroom. The final dish in the first act—*Out of Time*—played with how a dish knots different temporalities together. Marco assembled a cast of old and young ingredients: unripe green tomatoes, last year’s salted apricot, preserved with fermentation, and “rancid” beef fat, a nod to traditions of aging meat.

“The Oyster that Got Away” – the second act – borrows its name from the Venetian dish *osei scampài* (“the birds that got away”), which ironically includes the likes of veal or pork or beef, but never fowl. Its name has spun two interpretations: the first is that a hunting trip out into the lagoon was unsuccessful and so the meat stepped in for the birds the hunter could not catch. The second is that the majority of Venetians, save for the wealthy, ate little wild fowl since these birds were reserved for the elite, and so the joke became that their catch flew away (Spector 2020, 112). Thinking beyond fish, this act challenges imaginations of edibility. It is also a reminder that historically Venetians ate much more than

just fish. For many people, when their eyes see water their appetites crave fish, but what about plants? How do the salt marshes taste if you approach them through flora as opposed to fauna? The dinner, in general, and this act, in particular, celebrates biodiversity and proposes a living pantry for eating with the lagoon. Thinking beyond fish, it wonders what happens to a dish if its seafood star is missing or becomes endangered or even extinct. Or perhaps it could disappear and then reappear as a garum or sauce? A phantom dish. A ghost food. And so Marco crafted *Ostrega Scampada* from kombucha SCOBY and cucumber, oyster leaves and seaweeds, beach mustard and fennel, to mimic an oyster's flavors and textures without the oyster itself.

The third act – “Excuse Me, There is a Tide in My Soup” – explores a lagoon “in here” as opposed to a lagoon “out there” – an awareness of eating with or against the ecosystem. This is in line with “nature’s time” and how coastal creatures “integrate their lives with the tides” (Thompson 1967, 56, 59). This act asks: What role do humans play in this lagoon ecosystem? This also connects to discussions about nature, culture, and natureculture and uses food as a means to cultivate a sense of proximity and intimacy with the lagoon and its tide cycles. Can a soup speak in tides?

“It is easy to picture the steady coming-in and going-out of waters as a breath of the lagoon,” details natural scientist Fabrizio Fabbri, “which ‘inhales’ high tide and ‘exhales’ low tide” (Iovino 2016, 50). But fishers also identify the lagoon “as ‘the uterus of the sea,’” reports anthropologist Rita Vianello, “when they wish to highlight that it’s the privileged reproductive area of many aquatic species” (Vianello 2021, 97). Some also say that Venice is the lagoon. Water is obviously the dominant element and covers 67% of the total area. But more than water alone, the lagoon is a threshold, a liminal space, a transitional ecosystem where the maritime and the terrestrial constantly interact with each other eroding any stable border between land and sea. The tide continually transforms the landscape. And so we invite the tide to transform the table. For *Archipe-legumes* each bowl collects a convivial gathering of fresh and dried beans, seaweeds and lagoon herbs, which Marco then floods with a miso broth and gò soup, seaweeds and lagoon foraged herbs. A floating landscape, an amphibious one.

The fourth and final act thematizes overtourism as a monoculture. Titled “No Reservations” after the late celebrity chef Anthony Bourdain, it considers limits and scarcity, the shared roots between hospitality and hostility, and how the demand for localness can endanger localness in a city where guests increasingly outnumber hosts. The final two dishes—*Salicornia goes black*, where chopped salicornia stained with chocolate and caramelized miso mimics *risotto al nero di seppia* and *Tartichoke*, a nixtamalized artichoke bottom tartelette with herbs and flowers – reflect on tourist culinary imaginations of and interactions with Venice. From one *Tidetable* dish to the next, a few central themes surface: maintaining and restoring a balance between Venice and its environment; seasonal rhythms and cycles; the relationship between salt and time, between preservation and evolution; and the clash between appetites, politics, and the Venetian lagoon.



**Figure 1.** *Tidetable*s: Venetian Speculative Gastronomy 2021, Venice, Italy. Image by Federico Botta.

### **Culinary cruising: stories about bodies**

The downside of a table is that it can only accommodate so many chairs, and that of a dinner is that it can only feed so many mouths. So for the fourth *Tidetable* presentation we changed the format to a tasting. Following a discussion open to the public, conversations carried on from the stage to the courtyard and were punctuated by bites of *Tidetable* dishes: a mouthful of sweet pickled mussels, a spoonful of “invasive” noodles. This discursive snacking is what I call culinary cruising. In dialogue with the work of Leo Bersani, literary scholar Sarah Ensor develops the concept of an ecology of cruising. She proposes cruising as “an ecological ethic more deeply attuned to our impersonal intimacies with the human, nonhuman, and elemental strangers that constitute both our environment and ourselves” (Ensor 2017, 150). Anonymity is central to cruising and it is exactly “cruising’s impersonal intimacies” that Ensor believes can contribute to the development of a disanthropocentric ecological imagination (Ensor 2017, 158).

To further bolster my concept of culinary cruising I connect Ensor’s work to what Hey calls “anonymous intimacy.” Reflecting on her experiment of making “homemade cheese” with bacteria that lives on human hands, Hey asks “What’s really in that cheese?”

(2019, 262) to then index milk, rennet, bacterial cultures, time, and herself. “There is a literal piece of me in this food and every other food I ever make,” she writes. “The food and I are already entangled, even when we are linguistically separate as subject and object. How can we describe this separate-but-not relationship? Once someone used the phrase ‘anonymous intimacy’ to describe this collapsing of distance: ‘I don’t know you, but if I were to eat your food I would be incorporating a piece of you. And parts of us would get to know each other’” (2019, 262). Because intimacy is characterized by anonymity, it connects to cruising. Fermentation exaggerates this intimacy between food and feed, drawing attention to how eating is always a multispecies act, which means that to eat is to be in relation with the flora fauna cultures cast as food (Battis 2020; Donati 2014; Gora 2021). Culinary cruising picks up on the potential in fleeting encounters, in promiscuous eating, in impersonal yet intimate acts. It is also realistic in its recognition that even if what we eat becomes part of us, we can only know it so well. This distance does not distinguish the intimacy that eating enacts. Furthermore, culinary cruising points to what a tasting, rather than perhaps a meal, can offer.

A year and a half later, in 2022, I revisited culinary cruising as part of *Polyphonic Bodies II*—a communal tasting celebrating biodiversity and fermentation, movement and fluidity organized with curator Erin Li, chef and artist Songsoo Kim as part of Delfina Foundation’s fifth season of *The Politics of Food* program in London, England. We filled a December afternoon with three fifty-minute tastings at Asymmetry Art Foundation. Playing with forms of hospitality and co-existence, the tasting aims to nurture a curious yet welcoming social situation that breaks down the boundaries and conventions of the collective meal – which is to say a script of courses, a hierarchy of seating, and a repertoire of flavors organized according to national allegiances. *Polyphonic Bodies II* instead serves an edible landscape and invites visitors to graze, “forage,” and freely combine bites, the process of which catalyzes connections and conversations related to biodiversity, cultural plurality, the climate crisis, and the generosity of the microbes that choreograph good health and pleasure (Figure 2).

As the name gives away, the tasting was a sequel to an event Erin Li curated at Whitechapel Gallery. On 1 December 2022, the gallery and its environs became a stage for street dance, an art, she asserts, that “rejects definition.” “Constantly evolving and fusing influences from various geographies,” the press release asserts that “street dance represents a continuous migration across histories, a journey between genres in search of endless composite configurations and a fine blend of collectivity and individuality.” The program presented “a series of seamless performances” by Chandenie Gobardhan, Chris Zhongtian Yuan, Duane Nasis, and Jamal Sterrett, in which one flowed into the next and each explored “street dance as an embodiment of the identity in flux.”

*Polyphonic Bodies II* retained its celebration of fluidity and it, too, spotlighted the body. “In the process of meeting myself and others,” Songsoo elaborates in the invitation, “I have met food as a practice and medium and have been learning what taste is, bitterness, sensing, fermenting, movement, and being moved. In this play, I think of pleasures and desires. Through ‘tasting’ together I’m learning what possibly ‘taste’ could be.” Taste is, of course, a loaded concept closely tied to social rules and divides, but a tasting is a promiscuous and playful affair, one that asks the mouth to graze.

Before the tasting, we asked participants to gather or glean an object enroute – perhaps a stone that catches their eye or a leaf that speaks to their mood. After guests removed their coats and offered what they had brought, resting it on the table, we handed them a card, about the size of a menu, inviting them to take their time to arrive, to read, to follow its instructions at their own pace. The text was inspired by Yoko Ono’s instructional “imagine pieces,” in general, and her *Tuna Fish Sandwich Piece*, in particular, reading as follows:

## One

Imagine one million microbes on your tongue  
at the same time.

Imagine your appetite as a landscape,  
your hunger as an ecosystem.

Grab a bowl of grains,  
hold it with both hands,  
follow the fish.  
What do you smell? What do you taste?

Translate these flavors into words,  
into feelings, into gestures,  
and share them with someone you do not know.

## Two

What do the grains need?  
What grabs your nose’s attention?  
Follow the food. Move up, move down.  
Bite what you gather. Mix how you please.

Imagine one million microbes dancing through your body.  
Notice how fermentation makes you taste time,  
how it maps the relationship between  
rot, control, and care.

## Three

With eyes, nose, and tongue,  
a tea master can decipher the region, altitude,  
and side of the hill where the trees grow.  
What do you taste in your hand?  
Return the leaves to the tablescape, place them on the stones.  
Before you depart, let the tea fill you with 16 years of  
moist air and regenerative energy.

But words without materials do not a recipe make, so we shared questions and prompts with visitors while they snacked their way around the room. Their eating began not with the mouth but with the nose. Dangling beneath an open door frame was a banner of dried fish. Songsoo ladled mixed grains into each guest's bowl – an ode to congee and to comfort. A mix and match bowl. The fish referenced a Korean tale about an old man, who, as the story goes, was rather stingy, and so in his house it was the smell of fish rather than their valuable flesh that seasoned the food. This story flavored the grains. And then, with the gentle nudging of the text, guests were invited to mix and match the foods they found across the room in their bowls. Alkaline quail eggs, pickled mussels, pepper dulce oil, and bean citrus powder fanned across the table. On the bookshelves were plates of lacto-fermented mushrooms and dried wild leaves and on a low table in the middle room there was a platter of oven fermented daikon and kaki sambol. To end, Erin brewed pu'er tea. Once cups were dry, we invited guests, as a final gesture, to scatter the leaves in the bowl that collected their initial offerings. By the end of the three tastings, the table had transformed into a still life.



**Figure 2.** *Polyphonic Bodies II* 2022, London, England. Image by Barney Pau.

## A body and its microbes: fermentation as artistic practice

Writing about these projects preserves them, but I also want to push beyond preservation alone to consider other futures. What do these projects say about our current time, about the time we have inherited, and the future time that we – and our appetites – are shaping? And how have artists, designers, and cultural practitioners at large reinvented fermentation? How have the spaces of its reinvention – from galleries, museums, and art studios – tethered new meanings and values to what fermentation means, does, and builds in an era marked by resource scarcity and an increasingly unpredictable changing climate? And how does fermentation gather microbes and other more-than-human actors to imagine more inclusive and just shared futures? The emergence of fermentation as an artistic medium also tangles with developments in relational aesthetics, participatory art practices, and museums and galleries as, increasingly or at least in aspiration, democratic spaces of co-creation.<sup>7</sup>

One of the contemporary appeals of microbes is that they raise questions about how human humans are. The title of Sonja Bäumel's 2015–2016 multidisciplinary research project turned installation and exhibition offers an answer: *Fifty Percent Human*. Her collaboration seeks to reshape understandings of the human body in tandem with its environment, to bridge science and society, and, more specifically, to test how to challenge concepts of the human microbiome and the role artists play in translating abstract research into immediate experiences (Bäumel et al. 2018, 571). Microbiology research reframes human bodies as “ecosystems rich in biodiversity, which contain complex societies of microbes” (571). The writer Robert Macfarlane translates this, detailing how *Homo sapiens*, well, “our guts are jungles of bacterial flora, our skins . . . blooming fantastically with fungi” (Macfarlane 2019, 104). But like a sweater that's just a touch too tight, this complexity is not necessarily comfortable. To repeat, if microorganisms blanket our bodies, “then how human are we?” (Bäumel et al. 2018, 571) and what makes us human. In other words, “humans are ‘bags of microbes’” (Fournier 2020, 99),<sup>8</sup> which is to say equally microbial and human in our cell composition, and, to quote Hey, “the notion of *we* already encompasses multiple species” (Hey 2021, 1). There is no singular. Being is always plural, and art is a potential channel through which to air such transformative research, to entertain such important claims. This projects, as well as the others I chronicle, is a literal example of what Katz calls its creative force (2020), recognizing that the “fermentation arts are human cultural manifestations” of the fact that the “successful coexistence with microbes is a biological imperative” (Katz 2011, 168). It is telling that his seminal tome is titled *The Art of Fermentation* (Katz 2012).<sup>9</sup>

In 2016 Lauren Fournier, a writer, curator, and artist, began exploring with *Fermenting Feminism* as a curatorial framework, approaching it as a methodology and a metaphor by asking “what it would mean to ferment feminism?” (2020, 88). Over four years *Fermenting Feminism* assumed various forms, shifting shape to encompass screenings and listening sessions, art exhibitions and performances, colloquia and publications. Rather than a traveling exhibition, Fournier framed it as “site-responsive” (91) that wended from Copenhagen and Berlin to Kansas City and Toronto, and shared an open call to solicit the likes of artists and writers, chefs and brewers, scientists and witches. Here, Fournier drew inspiration from Katz and how he “mobilizes fermentation as a practice of queer activism and care” (89). This is because, as Hey connivingly argues,

fermentation challenges anthropocentrism (2019, 251). Similar to *Fifty Percent Human*, *Fermenting Feminism* resists human exceptionalism and rallies for more inclusive ways of living together.

Writing about fermentation in the practices of WhiteFeather Hunter, Amor Muñoz, and Anna Dumitriu, art historians Mariana Pérez Bobadilla and Rodrigo Guzman Serrano argue that “In art, fermentation can be understood metaphorically as a representation of transformation. However, as a biocultural phenomenon within a posthuman framework, it manifests a complex lattice of multispecies relationships, microbiopolitics, and metaphorical figurations that are adopted in works of art and biology as medium and content” (2022, 665). In the framing of such exhibitions, fermentation has gone from a medium to a form of multispecies collaboration. To be sure, the intricacies and power dynamics of collaborating with microbes – and their meanings – are complex. And yet, recognizing the labor of microbes in co-creating SCOBY for an art performance or bread for a narrative meal begins to map how eating is always a collective endeavor and how it makes and unmakes environments, how it makes and unmakes worlds – from the ones we host in our guts to the ones that host us.

### **Conclusion: tides, bodies, and futures**

A trend is time-based, short. And although more and more cultural practitioners are spotlighting microbes and what you can make with them, ferments connect to continuation, to futures rather than to trends and the hunt for the next-new-thing. Part of the appeal of fermentation is its durability and its range, both in terms of ferments themselves and in their geography. From rice to grapes, from cabbage to grains, and from anchovies to pork, ferments map food cultures around the world. Culinary time – and fermentation time in particular – stretches and slows down, exhales and bubbles, to reveal connections. It visualizes and materializes microbes, which are famously “invisible” to the eye. This capacity for transformation is part of fermentation’s appeal.

“As a force for change,” argues Katz, “fermentation is relatively gentle. Bubbles are not flames” (Katz 2020, 15). Compared to fire, fermentation is less dramatic. Instead, it is slow and steady, more of a simmer and less of a boil. Bacteria that both spawned life on earth and continues to be its matrix is what drives fermentation, gifting it its power and outfitting it as an unstoppable force. As Katz writes, fermentation “recycles life, renews hope, and goes on and on” (15). In other words, fermentation endures. It looks to the future. And as Hey points out together with gender studies scholar Alexandra Ketchum, “As both a metaphor and a material practice, fermentation has the potential for literal and figurative change” (Hey and Ketchum 2018). This further underlines its appeal for artists, designers, and others, its potential for imagining, proposing, and realizing other futures.

Fermentation discloses multispecies labor and collaboration. It celebrates culinary cruising and the intimacy in fleeting encounters. Fermentation troubles questions about authorship and control and is an unambiguous way of marking and tracing time. And although it provides a snapshot of a certain time and place and is, therefore, an archive of sorts, fermentation is less of a still life and more of a moving image. Recognizing their labor challenges imaginations of microbes as “invisible.” Furthermore, it also recognizes their power.

Cooking is about control. It is about taming temperature, regulating textures, disciplining tastes, and containing the mess of turning flora and fauna into food. And although much can go wrong in the kitchen, from the threat of blandness to the dangers of burns, fermentation challenges imaginations of control. Looking beyond the fear of a spoiled ferment, my sourdough starter, for instance, doesn't submit to my commands quite like the broccoli I grease with oil and blast in the oven. Instead, my starter's (if I can even call it mine) moods and demands humble my sense of control, even if the act of kneading, folding, and shaping dough might gift me some sense of mastery, a sense of comfort in panic baking (Gora 2016, 2020). The sourdough starter that I feed with equal parts flour and warm water lives up to bioscientist Jessica A. Lee's description of an unbaked sourdough loaf as "a garden, home to micro-organisms of diverse species and functions" (Lee 2011, 175). This also subscribes to Hey's description of how, alongside knowledge, "fermentation combines multiple species, multiple sense, and multiple scales of life that challenge assumptions about control" (Hey 2019, 254). The implications are significant. To challenge human control is to challenge anthropocentrism. It is to propose more inclusive forms of being in relation with non-human others. To eating together. To eating with.

*Tidetable* and *Polyphonic Bodies II* channeled collaboration to reflect on the relationship between eating and ecology. To consider the relationality of eating. Both projects are examples of culinary cruising that add up to a larger argument. Food, to risk pointing out the obvious, is not just discourse or symbol. It requires hands and mouths, noses and stomachs. Food can spark pleasure, but can also cause illness. So it matters how much salt we add. And it matters how long we leave the dough "to rest." This is because practice matters. So why did these projects engage with fermentation? One answer, as I have argued, is that fermentation further exaggerates ecological intimacy and how appetites are never isolated. But fermentation also raises the stakes. It makes it even more obvious how eating is always an environmental and multispecies act. And this is why food studies research needs to show up on plates and in glasses, why it needs to migrate outside of academic spaces to interrupt menus and intervene in recipes. It is only in these material encounters that it will also be humbled by the mess of collaboration, the circularity of cooking.

## Notes

1. For a crash introduction to the history of fermentation see (Campbell-Platt 1994) and (Skinner 2022).
2. This also connects to bioart. See (Kelley 2016) and (Kelley 2023). For the ethical engagement of bioart and how it grafts onto the power structures of "two relatively elite fields of knowledge specialization and production: Biotechnology and Art" see (Hey, Hunter, and St-Hilaire 2019) (69). For a rich catalog of bioart projects see (Cerpina and Stenslie 2022).
3. "The Love Song of J. Alfred Prufrock" is the poem, which features the lines: "For I have known them all already, known them all/Have known the evening, mornings, afternoons,/I have measured out my life with coffee spoons" (Eliot 1915/1963).
4. For a more nuanced approach that falls between fast and slow, Mintz advocates for "food at moderate speeds" (Mintz 2006, 3).
5. That fall it took on a new name: The New Institute Centre for Environmental Humanities (NICHE).

6. *Tocio* is the Venetian word for sauce, but also doubles as a verb—*tociare*—that is similar to dip, as in to dip or even to take a dip.
7. In addition to Naddir and Peppermint and Perreno, some contemporary artists working with fermentation, to name just a few, are Grace Gloria Dennis, Rice Brewing Sisters Collective, Alanna Lynch, and Zayaan Khan. This is to say that this topic warrants much future thought and attention. And for relational aesthetics see (Bourriaud 1998/2024) and, in response (Bishop 2012).
8. Fournier borrows this term from planetary geologist Catherine Neish.
9. In addition to an art, fermentation is often described as a craft. But Jessica A. Lee pokes a hole in this by writing, “Fermentation is primarily the business of yeast and bacteria. We humans aren’t actually very good at it; we cultivate microbes to do the biochemical work for us. So while fermentation is often seen as a craft, it may in fact more accurately be described as a sort of micro-agriculture” (Lee 2011, 175).

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