THE TINES THEY ARE A-CHANGIN'

A history of table technology By Steven Shapin

Discussed in this essay:

Consider the Fork: A History of How We Cook and Eat, by Bee Wilson. Basic Books. 352 pages. \$26.99. basicbooks.com.



he fork is worth considering. It's considered a billion times a day as a tool for delivering food to face. Some of that considering flows from practical uncertainties about how to use the thing. If you're British or European, you grip the fork in your left hand, index finger on the back and convex surface upwards. You then secure a piece of meat on the tines as you cut with the knife held in your right hand. You can stabilize the cut-up meat with some smooshed vegetables at the Steven Shapin teaches history of science at Harvard.

distal end, and, finally, tines pointing down, use the left hand to convey the whole package to the mouth. If you're American, you do things differently. The securing-andcutting business is much the same, but you then perform a zigzag maneuver, putting the knife down and shifting the fork to your right hand. If there's iust meat on the end, the usual practice is to bring it to the mouth convex surface up, but if there are veggies involved, it's common to use the concave surface to scoop them, spoon style. (Peas are a problem and the

cause of much anxiety, and the only certainty is that they're a fork affair. You don't line them up on your knife or spear them one by one on the tip, though the temptation to do so comes from the fact that the fork isn't well suited to dealing with peas.)

Although some sorts of forks were around in antiquity and the Middle Ages—think of Neptune's trident or the peasant's pitchfork—the fork as a standard table implement was unknown in western Europe until it appeared in Italian court circles, probably between the eleventh and fourteenth

centuries. Into the early seventeenth century, its use struck English tourists as remarkable. In 1611, the eccentric foot traveler Thomas Coryat picked out fork use as an admirable and peculiarly Italian custom—a marvelous advance on the promiscuous placing of dirty fingers in the communal meat bowl and he encouraged it when he returned to England, where it was widely regarded as just the sort of fussiness that foreigners went in for. In Jonathan Swift's 1738 skit "Polite Conversation," fork use was condemned as effete and unnatural: "Fingers were made before forks, and hands before knives." The number of tines changed over time from two to three to four—but the fork remained a problem utensil into the early twentieth century: in 1905, H. G. Wells dramatized the tension attending English social mobility through a parvenu's fork anxiety at a posh London hotel, where a fork in the protagonist's untrained hand was "an instrument of chase rather than capture."

The artificiality of the table fork was just the point: you didn't need a fork for purely practical reasons the way you might need the spoon and the knife. (As shown by the occasional invention of hybrid implements advertised as functionally superior—the spork, the sporf, the spife, the knork, the runcible spoon.) The fork is a bit of table technology that makes manifest a changing moral order. Cutlery has a special advantage in doing so, since feeding happens, if you're lucky, several times a day, and, if you're sociable, in the presence of other people. The table is an intimate site; it's where you find out about others and they find out about you. Here is the point of the pea problem: feeding isn't only a matter of the more or less practical; it's also about the more or less proper how things are rightly done in our sort of society, by our sort of people. In 1848, Thackeray's Book of Snobs used that disgusting pea practice as a paradigm: "Society having ordained certain customs, men are bound to obey the law of society, and conform to its harmless orders." If I were to eat peas with my knife, I would be "insulting society" just as much as if I were to go to a tea party in a dressing gown and slippers. Homer Simpson eats his peas with a knife, and that says it all.

Cutlery, then, offers rich potential for getting things wrong. The "harmless orders" of table technique involve not just the use of the fork but knowing which fork, which spoon, knife, and glass pertain to which purpose. During periods of rapid social mobility in Georgian and Victorian England, specialpurpose silverware proliferated: grapefruit, coffee, tea, mayonnaise, mustard, salt, egg, and ice-cream spoons; marrow and Stilton scoops; butter and olive picks; fish knives, slices, and forks; oyster, pickle, and cake forks; tongs for sugar, sardines, and asparagus; grape shears; cake and pea servers. The pleasure of witnessing faux pas was probably among the highlights of a well-supplied Victorian or Edwardian dinner party.

Table manners are an approved form of hypocrisy: they sustain the pretense that something benign is happening when, from another point of view, what's going on is pretty bloody. In the 1930s, the great German historical sociologist Norbert Elias wrote about what he called the "civilizing process" through which both the modern world and the modern self were brought into being. The civilized self, in Elias's view, kept the body under control, managed or denied human carnality—and the hero of this story was the fork, which allowed its user to display a certain distance from the violence of food preparation and consumption. You didn't seize your meat with your fingers or stab it with your knife. A book of manners published in the late seventeenth century prescribed both proper fork use and the state of mind in which the instrument should be employed: "You must not by any awkward gesture show any signs that you are hungry, nor fix your Eyes upon the meat, as if you would devour all ... and be sure you touch nothing but with your Fork." William Burroughs wrote of "the naked lunch" as that "frozen moment when everyone sees what is on the end of every fork," but it was the fork that helped you not see the dead flesh for what it was.

As fork use increased, so the table knife changed shape. The tip was once pointed, the cutting edge sharp: it was the sort of thing you could use, if you wanted, to kill. In came the fork, and the tip of the table knife became rounded and the cutting edge could scarcely cut. These days, you'd be hard put to injure someone seriously with common

cutlery, and the more substantial weapons used to carve the celebratory turkey or suckling pig are invariably handed to the senior male and then put safely away once the beast has been dismembered. The only table implement now really well adapted to separating muscle into bite-size bits is the steak knife, a reminder of the table knife's former glory.

ee Wilson's delightful Consider the Fork: A History of How We Cook and Eat does talk about the fork, but that's just one part of her ebulliently written and unobtrusively learned survey of the tools we have used to prepare, preserve, and consume our food. She recognizes that there is something counterintuitive in thinking of forks, pots, pans, and stoves as technologies at all. The historian David Edgerton recently wrote about "the shock of the old," the technologies we forgot to remember because they were new so long ago and are now so taken for granted. We're accustomed to thinking of artifacts as technology insofar as they are "high"—electronic, digital, and, of course, very new-but few technologies have been as transformative and are as pervasive as those in our kitchens and on our dinner tables.

An apparent distinction here is between the utilitarian and the expressive aspects of kitchen and table technologies, though you come away from Wilson's story wondering whether any of these technologies are, or ever have been, purely practical. Consider that odd Georgian invention, the sterling-silver fish knife. Wilson observes that silver implements for dealing with fish provided two advantages to those who could afford them: unlike steel, silver did not react chemically with the lemon juice that invariably accompanied fish on English tables (a reaction that made the fish taste bad), and a fish knife's scalloped shape was possibly a way of distinguishing it from ordinary knives in the cutlery drawer. Metallurgical properties constituted a pragmatic justification for the silver fish knife, but the fact that it was silver also displayed social distinction. Yet prejudice against fish knives developed and persisted among the nineteenth-century British aristocracy. The authentically posh didn't use fish knives but instead maneuvered the flesh off the bone and onto the plate by the deft use of two forks. The silver fish knife was an implement that seemed posh ornate, dainty, and precious—but that, like a preference for the word "serviette" over "napkin," missed its mark. (To put it in terms of BBC comedies, Hyacinth Bucket would almost certainly own fish knives, while Audrey fforbes-Hamilton would not.) Since fish knives were a recent innovation, their possession betrayed the fact that you hadn't inherited your silver but bought it. So the fish knife was both an aspirational symbol and a target for those who wanted to ridicule clumsy gestures toward social climbing, as John Betjeman did in his brutal poem "How to Get On in Society": "Phone for the fish knives, Norman/ As Cook is a little unnerved:/ You kiddies have crumpled the serviettes/ And I must have things daintily served."

ilson devotes one substantial chapter to fire, the energy source that, until the advent of the electric range and the microwave, cooked your food. As she writes:

In the modern kitchen, fire has not just been tamed. It has been so boxed off, you could forget it existed at all, amid the cool work-tops and all the on-off switches that enable us to summon heat and dismiss it again in a second.

That ability originated in a series of nineteenth-century inventions, starting with Count Rumford's very large brick stove (which never really took off) and getting a serious grip on the middle-class market with the development of cast-iron "kitcheners" in the middle of the century. First they were fired by coal or wood, providing safer and cleaner sources of heat; later, gasfired cookstoves made safety and cleanliness matters of course.

The kitchen had historically been an unsafe and unpleasant place, with heat management as the major cause of its nastiness. An open hearth meant that cooks got seriously burned; untended children often got killed. You had to be extremely careful about your hair and your clothing, so women, of course, were at greatest risk. The kitchen was by far the most dangerous room in the home, so dangerous that in medieval great houses, kitchens were often constructed as separate buildings, connected to the house proper by covered passages.

Different modes of managing fire required different skills. In 1825, the gourmand Jean Anthelme Brillat-Savarin wrote that cooking may be taught, "but a man who can roast is born with the faculty." Modern readers won't have the slightest idea what he was talking about—why ever should roasters be born rather than made?—and that's because roasting is now practically synonymous with baking, both operations being carried out in dry heat in an enclosed oven. Set the thermostat to 350°F, throw in the meat, baste occasionally, and wait for the digital thermometer to ping. But a roast originally involved rotation: you had to keep the meat turning and carefully manage its distance from the open flame. That's very difficult work: get it wrong and the precious roast is burned or tough or raw at the center. Although the overall control of the operation was usually in the hands of a master roaster, the constant rotation of the spit was the work of a now disappeared kitchen role, that of the "turnspit" or "turnbroach." Turnspits in medieval England were typically boys, sometimes as young as five, and when, between the sixteenth and eighteenth centuries, tender consciences began to bridle at the use of children, specially bred dogs were imprisoned in large wheels fixed on a wall near the fireplace and connected to the spit by a pulley. Dog wheels, Wilson notes, were a feature of American restaurants into the nineteenth century. Animal-rights campaigners targeted the practice, but when one of them visited kitchens to check for dog wheels, "he several times found that the dogs had been replaced at the fire by young black children." By the mid-eighteenth century, however, mechanization was doing much to replace animate turnspits, and Wilson estimates that about half of English homes—and not just the great houses—then possessed a technology that few now will even have heard of: a mechanical jack.

Direct-fire cooking had many disagreeable features, but the hearth historically played a social role that no Maytag or Viking can fill. The hearth was literally the focus of household life: it warmed, it lighted, it nurtured. (Focus is, after all, the Latin word for "fireplace.") The tasks of attending to the fire—starting it, fueling it, tamping it down for the night—were, Wilson

writes, "the dominant domestic activities until 150 years ago, with the coming of gas ovens." (She reminds us that "curfew" once referred not to a time when people must be off the street but to a piece of kitchen technology, "a large metal cover placed over the embers at night to contain the fire.")

In her later discussion of modern technologies of cooling, Wilson speculates that the refrigerator, avidly adopted by many Americans in the first third of the twentieth century, eventually became "a new focal point for the kitchen, taking over from the old hearth. Once, we congregated around fire," she writes; "now people organize their lives around the hard, chilly lines of the refrigerator." Previously, if you wanted to preserve food you relied on salting, drying, or smoking. The domestic refrigerator was a transformative technology, the final repository for fresh or frozen foods that traveled to it long distances along artificially cooled channels. But families don't congregate around the fridge the way they once did around the hearth, the glowing dial of the radio, or the flickering television. Instead, much of the fridge's organizing significance is visible on its exterior surfaces: fridge doors are where family members stick postcards from friends holidaving in Tuscany, where they display tidbits of local news and keep track of who in the household is in and who is out, which provisions need to be got in, and whether a poem can be created from a scrambled set of magnetized word chips. The fridge door has emerged as a virtual gathering place. Your family might not congregate there, but you know that everyone will pass by and take notice.

The domestic fridge is now fewer than a hundred years old, but the modern kitchen is a palimpsest of old and new technologies. My own kitchen contains a rustic mortar and pestle made in Central America from volcanic rock; rust-prone carbonsteel knives bought from E. Dehillerin in Paris; several Japanese highchromium forged-stainless-steel knives; a Chinese chef's knife (or tou) and an iron wok; an Italian mezzaluna (which I rarely use, though its herb-chopping virtues are rightly celebrated by Wilson); and, of course, a Cuisinart (which I use a lot). Both my mother and my

grandmother cooked with cast-iron pots and skillets made since the 1890s by a company in the Appalachians. I was a fool not to have made off with some of their cookware, because the heat conduction and retention of cast iron is superb, and after long seasoning it's practically nonstick.

Then there are the cookbooks, whose recipes have changed radically over time. An early modern recipe might, for example, instruct the cook to take several chickens "about the bigness of a Partridge" and "boyl them till they be half boyled enough," but now we need to know exactly how much the chickens should weigh and exactly how long they should be cooked. The premodern cook was presumed to know all this in a rough-and-ready, good-enough-to-begetting-on-with form; the modern cook wants it all specified and, ideally, demonstrated on television or YouTube. Indeed, when the modern recipe directs the cook to "season to taste," it takes for granted—perhaps wrongly—that the cook knows how the dish is supposed to taste. Such assumptions are the occasion for Wilson's bafflement at American cookbooks' use of the "cup" measure, originating with Boston's Fannie Farmer in the late nineteenth century and since then distinguishing American volumetrics from normal practice elsewhere. What in the world is a cup, even carefully leveled as Farmer firmly insisted it must be? It wasn't just a matter of which cup you used, as that could be, and eventually was, standardized; the enduring problem is that any measure of volume is an unreliable guide to the amount of stuff contained in that volume. A cup of flour, Wilson notes, can vary from four to six ounces, depending, for example, on whether and how the flour has been sifted.

hen, in the early 1970s, I moved into a tenement flat in Edinburgh, it had a tiny room called a scullery. In much of Britain the scullery was a space for washing dishes or clothes, but in the north of England and in Scotland the word often designated a kitchen. Mine, scarcely big enough for one person, contained only a small stove. I was puzzled and a bit irritated by this arrangement, but Scottish friends explained that the preparation of food was traditionally

considered an unclean activity, best carried out in private. The scullery represented kitchen Calvinism.

That division of domestic space didn't survive gentrification, and the scullery underwent a conversion—in my flat, into the place where the fridge sat, and, in others', into a small loo, a space whose privacy was taken as a matter of course. The stove was brought out into the dining room, which then became known as the kitchen. This shifting about of bourgeois space happened in much of the Anglo-American world in the second half of the twentieth century. Food preparation came out of the closet: what was private became sociable, what was dirty and unpleasant became delightful, and what had been done by servants was now presided over by the mistress of the house—and, increasingly, by the master. Changing technology had a lot to do with that, creating the physical conditions under which cooking could be transformed from drudgery to pleasure and offering new means of displaying social distinction: the smooth granite work surfaces. the grill and professional-grade extractor hood, the gleaming AGA range, the espresso machine, the celebrityauthored cookbooks with sumptuous shallow-focus photography, the cohabitation of the technologically avantgarde and the nostalgically artisanal.

New technology has not released food preparation and consumption from its expressive role; it has just changed the ways in which we say who we are and what we value. Indeed, though many aspects of food preparation have become vastly less timeconsuming and onerous than they once were, some of us now spend far more time in food preparation than is strictly necessary for fueling our bodies. Seeking to recover "the tastes we have lost," we aim to recover the modes of work that produced those tastes—the lost arts of baking, butchery, sausagemaking, preserving, and even, in Wilson's case, roasting using a mechanical jack in front of an open fire. Our kitchens highlight the modern tensions between labor and leisure, between the technologies of efficiency and those of authenticity, between modern food preparation as a way of freeing up time for important things and as itself the ultimately important thing.

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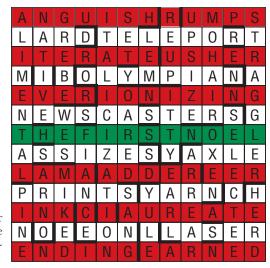
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SOLUTION TO THE DECEMBER PUZZLE

NOTES FOR "SEASON'S GREETINGS":

Puzzle editing by Dan Asimov. Note: * indicates an anagram.

The entry at 23A, THE FIRST NOEL, is a direction to remove the first L from each Across answer in a red row.



ACROSS: 1. languish*; 7. lumps*; 10. C(L)ard; 11. *; 13. l(iterat*)e; 14. lush*-(d)er(rev.); 15. *; 16. lever, rev.; 17. L(1-on)1(rev.)-zing; 20. *; 26. homophone; 27. a(X[mas])le; 28. llam-a, rev.; 31. lad-de(E)r; 33. leer, rev.; 34. homophone; 36. (chimne)y-a-r(ibbo)n; 38. l(etter)-in-K(ringleland); 40. hidden; 41. la(s[ky])er*; 42. (b)lending; 43. lear(n)ed*.

DOWN: 1. (Sant)a-l-1-mental*; 2. (1-Magi)native; 3. E-berg, rev.; 4. it-it-Liza-a-coin*; 5. two mngs.; 6. *; 7. (c)upsize; 8. hidden in reverse; 9. St.-ra(GG-£)er*; 12. L(evantine)-E-M(agi); 18. *; 19. initials; 21. hidden; 22. s(el-ect*)ee; 24. fi(N[ativity])ance; 25. (b)ox-en; 27. (st)ar-rear; 29. (me)nora(h)*; 30. first letters; 32. (y)ear-l(ose); 34. (o)pine; 35. *; 36. homophone; 37. homophone.

But that story about the "some of us" who "love to cook" captures only one mode of modernity and only one modern iteration of the kitchen. There are other scenes, and these are absent from Wilson's engrossing book, though they're almost certainly a lot more common than her absorbing AGA saga. One scene is, of course, the kitchens of the poor and struggling; another is the kitchens of middle-class people unenchanted by food and its preparation. What's a pleasure for Wilson and me is a pain in the ass for a lot of people. In the past few years, fiftieth-anniversary editions of two of America's most popular cookbooks appeared. One—you've guessed it—was Mastering the Art of French Cooking, by Iulia Child, whose batterie de cuisine is now a foodie shrine in the Smithsonian. The other—which I bet you haven't guessed—is The I Hate to Cook Book, by Peg Bracken, whose pots and pans are now presumably in a landfill. More than 3 million copies of I Hate were sold, and, after the book had been out of print for some years, the rights were eagerly snapped up by publishers who reckoned it was "in sync with lifestyles today" and that there were millions of home cooks still yearning to whip up something quick and tasty with a packet of onion-soup mix, some canned peas, and that indispensable tin of cream-of-mushroom soup without using any piece of kitchenware more exotic than a Jell-O mold. The middle classes, too, know their way very well in and out of the microwave; they are a profitable market for Whole Foods's ready-made Harvest Squash Soup and Marks & Spencer's heat-andserve chicken Kiev; they eat out a lot; they often eat alone; and with many of them, the made-from-scratch meal for the whole family is an endangered species. Just as the kitchen has become a more social space, so the dining room has fallen into relative disuse.

We talk a lot about food, but much of it is just talk: our kitchens may be well appointed, but the equipment, like the cookbooks—and a bit like the fish knife—is often for show. Bee Wilson speaks to some of us, Peg Bracken to others. Wilson's people sit around in their kitchens, trading stories about sous vide machines and immersion blenders. Bracken's people are just as contemporary but have different pri-

orities: "If anyone gives you a shiny new cooking utensil for Christmas, you're as thrilled as a janitor with a new bucket of cleaning solvent," she writes. "The less attention paid to your cooking equipment, the better." And the less said about it, the better: "Your cooking is a personal thing, like your sex life, and it shouldn't be the subject of general conversation."

THE CHAMELEON

Thornton Wilder's multifaceted life and work By Michael Dirda

Discussed in this essay:

Thornton Wilder: A Life, by Penelope Niven. HarperCollins. 848 pages. \$39.99. harpercollins.com.

Thornton Wilder: Collected Plays and Writings on Theater, edited by J. D. McClatchy. The Library of America. 888 pages. \$40. loa.org.

Thornton Wilder: The Bridge of San Luis Rey and Other Novels 1926–1948, edited by J. D. McClatchy. The Library of America. 731 pages. \$35. loa.org. Thornton Wilder: The Eighth Day, Theophilus North, Autobiographical Writings,

edited by J. D. McClatchy. The Library of America. 864 pages. \$35. loa.org.

oor Thornton Wilder! He was awarded the Pulitzer Prize three times, produced not one but two high school classics—the short novel The Bridge of San Luis Rey (1927) and the play Our Town (1938)—and essentially wrote the book for the phenomenally popular Broadway musical Hello, Dolly! Most of his seven novels became bestsellers, as well as selections of the Book of the Month Club. Throughout his career, Wilder served as U.S. literary ambassador to the world, going on goodwill missions to South America, attending conferences in Europe, and appearing on the cover of *Time* magazine with the American flag in the background.

All of these were, of course, terrible career moves. Even before Wilder's death in 1975 at the age of seventy-eight, he had come to be widely, if wrongly, perceived as the gray-flanneled Rotarian of American letters, at once middlebrow, patriotic, and—pick one—sentimental or sententious. That his work repeatedly obsessed over the family and family life didn't help. Out of context, even his most-quoted sentence—from the close of *The Bridge of San Luis Rey*—sounds as hokey as a Hallmark card: "There is

Michael Dirda is the author, most recently, of Classics for Pleasure (Harcourt) and On Conan Doyle (Princeton University Press).

a land of the living and a land of the dead and the bridge is love, the only survival, the only meaning."

Alas, the strikes against Wilder don't stop there. He remained unmarried, enjoyed the company of elderly ladies, liked to pal around with handsome young men, and seems to have been either that old-fashioned thing, a confirmed bachelor, or that politically incorrect thing, a closeted homosexual. Whichever the case, Wilder hardly lived up to his last name. Worst of all, he was your father's kind of writer—successful.

As Penelope Niven demonstrates in her capacious and authoritative Thornton Wilder: A Life, Wilder was in fact among the most cosmopolitan of men, a writer who never repeated himself, a fastidious stylist with a flair for every kind of comedy, from the most ironic to the most farcical, a major interpreter of Gertrude Stein and James Joyce, fluent in French, German, Italian, and Spanish, and a guy who could hold his liquor at least as well as his friends Hemingway and Fitzgerald. Just as nearly all of Wilder's novels remain fresh, readable, and remarkably difficult to categorize, so some of his plays, such as the famous The Skin of Our Teeth (1942) and The Long Christmas Dinner (1931), could almost be