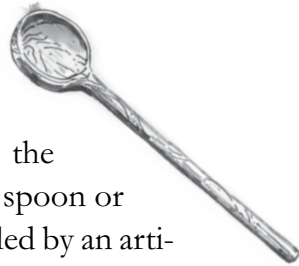


Introduction

A wooden spoon – most trusty and lovable of kitchen implements – looks like the opposite of ‘technology’ as the word is normally understood. It does not switch on and off or make funny noises. It has no patent or guarantee. There is nothing futuristic or shiny or clever about it.

But look closer at one of your wooden spoons (I’m assuming you have at least one because I’ve never been in any kitchen that didn’t). Feel the grain. Is it a workmanlike beech factory spoon or a denser maplewood or olivewood whittled by an artisan? Now look at the shape. Is it oval or round? Slotted or solid? Cupped or flat? Perhaps it has a pointy bit at one side to get at the lumpy bits in the corner of the pan. Maybe the handle is extra-short, for a child to use, or extra-long, to give your hand a place of greater safety from a hot skillet. Countless decisions – economic and social as well as those pertaining to design and applied engineering – will have gone into the making of this object, and these in turn will affect the way this device enables you to cook. The wooden spoon is a quiet ensemble player in so many meals that we take it for granted. We do not give it credit for the eggs it has scrambled, the chocolate it has



helped to melt, the onions it has saved from catching with a quick swirl.

The wooden spoon does not look particularly sophisticated – traditionally, it was given as a booby prize to the loser of a competition – but it has science on its side. Wood is non-abrasive and therefore is gentle on pans – you can scrape away without fear of scarring the metal surface. It is non-reactive: you need not worry that it will leave a metallic taste or that its surface will degrade on contact with acidic citrus or tomatoes. It is also a poor conductor of heat, which is why you can stir hot soup with a wooden spoon without burning your hands. Above and beyond its functionality, however, we cook with wooden spoons because we always have. They are part of our civilization. Tools are first adopted because they meet a certain need or solve a particular problem, but over time the utensils we feel happy using are mainly determined by culture. In the age of stainless steel pans, it is perfectly possible to use a metal spoon for stirring without ruining your vessels, but to do so feels obscurely wrong. The hard metal angles smash up your carefully diced vegetables and the handle does not grip so companionably as you stir. It clanks disagreeably, in contrast to the gentle tapping of wood.

In this plastic age, you might expect that we would have taken to stirring with synthetic spatulas, especially since wooden spoons don't do well in dishwashers (over many washes, they tend to soften and split); but on the whole, this is not so. I saw a bizarre product in a kitchenware shop recently: 'wooden silicone spoons', on sale for eight times the price of a basic beech spoon. They were garishly coloured, heavy plastic kitchen

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spoons in the shape of a wooden spoon. Apart from that, there was nothing wooden about them. Yet the manufacturers felt that they needed to allude to wood to win a place in our hearts and kitchens. There are so many things we take for granted when we cook: we stir with wooden spoons but eat with metal ones (we used to eat with wood, too); we have strong views on things that should be served hot and things that must remain raw. Certain ingredients we boil; others we freeze or fry or grind. Many of these actions we perform instinctively, or through obediently following a recipe. It is perfectly clear to anyone who prepares Italian food that a risotto should be cooked by the gradual addition of liquid, while pasta is boiled fast in an excess of water – but why?*

Most aspects of cooking are far less obvious than they first appear, and there is almost always another way of doing things: the utensils that were not adopted, for whatever reason; the water-powered egg whisk, the magnet-operated spit-roaster. It took countless inventions, small and large, to get to the well-equipped kitchens we have now, where our old low-tech friend the wooden spoon is joined by mixers, freezers and microwaves; but the history is largely unseen and unsung.

Traditional histories of technology do not pay much attention to food. They tend to focus on hefty industrial and military

* You might reply: because risotto needs to be starchy and creamy, whereas slippery pasta benefits from having some of its starch washed away in the water. But this still begs the question. Pasta can be delicious cooked risotto-style, particularly the small rice-shaped Orzo, with the incremental addition of wine and stock. Equally, risotto-style rice can be very good with a single large addition of liquid at the beginning, as in paella.

developments: wheels and ships, gunpowder and telegraphs, airships and radio. When food is mentioned, it is usually in the context of agriculture – systems of tillage and irrigation – rather than the domestic work of the kitchen. But there is just as much invention in a nutcracker as in a bullet. Often, inventors have been working on something for military use, only to find that its best use is in the kitchen. Harry Brearley was a Sheffield man who invented stainless steel in 1913 as a way of improving gun barrels; inadvertently, he improved the world's cutlery. The American Percy Spencer, creator of the microwave oven, was working on naval radar systems when he happened upon an entirely new method of cooking. Our kitchens owe much to the brilliance of science and a cook experimenting with mixtures at the hob is often not far off a chemist in the lab: we add vinegar to red cabbage to fix the colour and bicarbonate of soda to counteract the acidity of lemon in a cake. It is wrong to suppose, however, that technology is just the appliance of scientific thought. It is something more basic and older than this. Not every culture has had formal science – a form of organized knowledge about the universe which starts with Aristotle in the fourth century BC. The modern scientific method, where experiments form part of a structured system of observation, prediction and hypothesis, is as recent as the seventeenth century; the problem-solving technology of cooking goes back thousands of years. Since the earliest Stone Age humans hacking away at raw food with sharpened flints, we have always used invention to devise better ways to feed ourselves.

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The word ‘technology’ comes from the Greek. *Techne* means an art, skill or craft and *logia* means the study of something. Technology is not a form of robotics but something very human: the creation of tools and techniques that answer certain uses in our lives. Sometimes technology can mean the tools themselves; other times it refers to the inventive know-how that made the tools possible; or the fact that people use these particular tools and not others. Scientific discovery does not depend on usage for its validity; technology does. When equipment falls out of use, it expires. However cleverly designed it may be, an egg-beater does not fully achieve its purpose until someone picks it up and beats eggs.

Consider the Fork is an exploration of the way the implements we use in the kitchen affect what we eat, how we eat, and what we feel about what we eat. Food is the great human universal. Nothing is certain in this world except death and taxes, the saying goes. It should really be death and food. Plenty of people avoid taxes (not earning any money is one way, but certainly not the only one). Some live without sex, that other fact of life. But there is no getting beyond food, which is a fuel, a habit, a higher pleasure and a base need, the thing which gives pattern to our days or which gnaws us with its lack. Anorexics may try to escape it, but for as long as you live, hunger is inescapable. We all eat. Yet the ways in which we have satisfied this basic human need have varied dramatically at different times and places. The things that make the biggest difference are the tools we use.

Most days, my breakfast consists of coffee; toast, butter,

marmalade; and orange juice, if the children haven't drunk it all. Described like this, as bare ingredients, it is a meal that could belong to any moment of the past 350 fifty years. Coffee has been consumed in England since the mid seventeenth century; oranges for the juice and the marmalade since 1290. Toasted bread and butter are both ancient. The devil, however, is in the detail.

To make the coffee, I don't boil it for twenty minutes and then clarify it with isinglass (a form of collagen from fish bladders), as I might have done in 1810; I do not make it in a 'scientific Rumford Percolator' as some did in 1850; I do not make it in a jug with a wooden spoon, pouring cold water over the hot grounds to make them fall to the bottom in the Edwardian style; I do not make it in an electric coffee-maker, as I might still if I lived in the United States; I do not pour hot water over an acrid spoonful of instant as in student years; and I do not generally make it in a French press *cafetière*, though I did in the 1990s. I am an early twenty-first-century coffee obsessive (but not quite obsessive enough, yet, to have invested in a state-of-the-art Japanese siphon brewer). I grind my beans (Fairtrade) superfine in a burr grinder and make myself a flat white (espresso, with steamed milk poured over) using a cappuccino machine and a range of utensils (coffee scoop, tamper, steel milk jug). On good mornings, after ten minutes or so of concentrated effort, the technology works, and the coffee and milk meld into a delicious foamy drink. On bad mornings, they explode all over the floor.

Toast, butter and marmalade were known and loved by the

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Elizabethans. But Shakespeare never ate toast such as mine, cut from a wholegrain loaf baked in an automatic bread-maker, toasted in a four-slot electric toaster, and eaten off a white dishwasher-safe china plate. Nor did he know the joys of spreadable butter and high-fruit marmalade, both of which indicate the presence in my household of a large and fully functioning fridge. Besides, Shakespeare's marmalade would probably have been made with quinces, not oranges. My butter is not rancid or too hard – as I remember almost all butter being when I was a child in the 1970s and 1980s. I spread it with a stainless steel knife, which leaves no metallic tang and does not react with the fruit sugars in the marmalade.

As for the orange juice, the technology behind it seems the simplest of all – take oranges, squeeze juice – but is probably the most complicated. Unlike the Edwardian housewife, who laboriously squeezed oranges in a conical glass squeezer, I usually pour my juice from a Tetra Pak carton (first launched as Tetra Brik in 1963). Though the ingredients list only oranges, the juice will have been made using a bewildering array of industrial techniques, the fruit squelched with hidden enzymes and strained with hidden clarifiers and pasteurized and chilled and transported from country to country, all for my breakfast pleasure. The fact that the juice does not pucker my mouth with bitterness is thanks to a female

