

The Miracle of Salt

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A conversation with Naomi Duguid, a writer, home cook and photographer based in Toronto, Canada about her latest book, *The Miracle of Salt*. Is salt really miraculous?

Naomi: Well, it's kind of miraculous because without it, apart from the fact that we need it to live, we use it to transform our food so that ... We have problems with times of plenty, overabundance. And we have problems with times of nothing, like think of winter or dry season in the tropics or whatever. And so early humans figured out they could freeze things to preserve them if they were in that kind of climate, they could maybe dry things if they were in the desert, but otherwise they needed to preserve them in another way. And salt was the way, because salt keeps out the bad microbes, if I can put it in a very, you know, kindergarten way. But really, it keeps out the bad microbes, makes an environment that is not friendly to them, and creates an environment that is friendly, in the right amounts, is friendly to lacto-fermentation. And so what you have is, you know, sauerkraut or you have, you know, something like pancetta. You salt in the correct amount, the meat is protected by the salt from pathogens, and an environment is created where it can ferment. You get better flavour. So that's an extra, that's a bonus. Plus you have food that you can eat in the winter. And so humans, you know, would not have survived in all the variety of environments that they did survive in in the pre-industrial era without the assistance of salt. It's just extraordinary. And we forget about that because it's just a box on a shelf in the grocery store. It costs nothing, you know.

Jeremy: So all salt is originally seawater?

Naomi: Yeah. It's, you know, sodium chloride. Yeah.

Jeremy: So how do people who live nowhere near the sea, how did they, how do they today get salt?

Naomi: So let's just talk, let's just eliminate the industrial era, and think about olden times when things were tougher and you were sort of stuck with what you had near you, or you had at great, with great difficulty and expense, sometimes had to trade for what you didn't have. So people inland, they might have access to salt in the ground, very unusual hard salt. They more likely would might have access to salt wells. In other words, you dig a well, you might be looking for sweet water and you're upset because it's salt water, but actually that salt water, then you can pump that up, as happens inland in lots of parts of Southeast Asia and many other places. And then you would boil it, you know, over a fire and the water would evaporate and there you'd have salt. So that's the inland thing, or you would trade. And so you would ... For example, in Ethiopia there's salt in the Danakil Depression way down below sea level, comes up on camels and it exists out in the open as salt crusted salt pans. So it gets dug by people in horrible heat, loaded on camels, even now, camels — or trucks now — and brought up to the highlands where there isn't salt. People in Tibet harvest salt from the edges of lakes, and then they trade it to Nepal, where there is no salt in Nepal. So salt is the story of travel. Salt is the story of difficulty. And it's also a story of sort of extortion.

Because if you don't have it, if you don't have salt, and I do, and your village in the mountains doesn't have salt, and my village in the valley has a salt well, which I've seen a lot of in Southeast Asia, then when you come down to to trade for salt, I can charge you quite a price for it. You need something fairly valuable to trade with me. Or if I'm a government and you, the whole populace, needs salt. This happened in France. It happened in many places. Then I can extort from my citizens. Oh, the King needs more money to be Louis the 14th or whoever, for his gold plated something or others. So he imposed the gabelle and it was imposed unevenly and unfairly. Or the British, you know, there they were in India and they thought, oh, we can we can tax this colony that we've conquered, tax the salt. So how are we going to do that? There's a long coast in India. Oh, let's just forbid them from gathering salt. Let's just tell them they mustn't. Well, you know, in the end, if you ... anybody who's seen Gandhi, the film, it really is a reality that Gandhi said, well, wait a minute. Nuts to that. Let's just walk. Let's just do an act of defiance, walk to the coast and gather salt from the seashore. Because it was ludicrous. But it's an instance of something that has happened for millennia.

Jeremy: In all your travels around the world, looking at salt, tasting salt. What strikes you? What what what do you recall as the most kind of, I don't know, the most memorable salt extraction that you've seen?

Naomi: Well, I was really struck. I was really struck by the salt terraces. It's not what you think of. I say terraces, you say rice. You know, rice terraces. That's what happens. And there are salt terraces in two places. One is not particularly beautiful. It's in Basque Country. And this is a salt well that produces, and then people used to, under the, in the Celtic times, they used to boil the salt out of the salt well. And when the Romans conquered they made terraces. And so there was evaporation. But the most memorable version of that — extraordinary — at the other end of the world is in Maras, in Peru. And that's the most stunning salt environment I've ever seen. You're way up in the Andes and the Altiplano. You're at sort of 3500 metres, 4000 metres actually, and the water comes out high up on a hill. The land is a sort of reddish sand and there are terraces down this steep hillside. So if you think about pictures of Balinese terraces, green, take away the green, make it all red, and then think of small pools of water reflecting the sky down this steep, steep hillside. It's unbelievable and it was extraordinary to walk in it. Later I realised nobody gave me trouble. I was on my own with a camera. I have vertigo, so it was a little bit ... It was a very anxious time, but it was so beautiful. And when I came out, I realised there was a sign that said, don't go into the terraces. But the people working in there were perfectly nice to me and told me where to go and how to get back out. Anyway, it's ... If anybody is going to go to Peru and going to Cusco, I would say just go to Maras and marvel at these terraces. Incredible.

Jeremy: Now, all these all these different salts. I mean, now you go to a fancy grocery, you've got black salt, you've got pink salt, you've got gray salt. Do they really taste ...

Naomi: Who cares? Are you saying who cares?

Jeremy: No, I'm not saying who cares. I'm saying, do they taste different?

Naomi: Oh, yes, they do taste different.

Jeremy: Well, how?

Naomi: There's two things. They taste different, but once you put them, once you use them to season your food, they have to be extremely distinctive for you to be able to tell the difference. So the black salt tastes very different because it's sulphurous. And so it's used as a flavouring rather than a seasoning, is how I would put it. And it's in India, it's in the subcontinent, it's used especially in hot season. You have something that cools you — a green mango, for example — and you put black salt in it and you make a drink out of it and it's sort of tart and the salt restores you. And there's something about the sulphurous taste that's completely delicious. I know it doesn't sound it, but it really is.

But the others, you know, the pink salts ... They all have trace elements in them. And so you'll have a little whiff of the brine of something. You'll have a just very ... These are all really subtle. The other thing you have is a texture difference. So this is not about how the salt is in the ground or in the water. This is how the person who extracted the salt from where it originates, how they've processed it. So then you're going to end up with, for example, flake salt, you know, fleur de sel and related flake salts come from the salt being evaporated in the sun or by boiling the water, Maldon salt boiled over, it was boiled over coal until very recently, like the late, until the 80s, I think. Now they do it with natural gas. So you get a skim of salt crystals on the surface. Okay, those are nice to hold in your hand and they're nice to ... There's a delicate little crunch. You wouldn't want to use those to salt your pasta water. I mean, what a waste of a salt that's refined, more expensive, refined in the sense somebody worked at making it this shape. You would use that as a finishing salt. You'd put it out on your table. You'd invite your guests to adjust their seasoning. Anyway, so it's ... There's two things. There's the texture for the cook. What what feels good when I pick it up, what do I ... How much salt am I picking up when I pick up a notional pinch? And then what's it going to give me in terms of saltiness. And then there's also the getting the flavour not sunk into the food, but sort of as that first little bite where you get that little crunch and you think, ah. And then you go on to eat your mouthful of salad.

Jeremy: And with basic cooking. Does it matter when you salt things? I mean, I always ... obviously you put salt in the pasta water. I do put salt in when I'm boiling potatoes. Does it matter?

Naomi: So do you know why you put salt in when you're boiling the pasta or the potatoes?

Jeremy: Well, partly because the salt gets absorbed into the material.

Naomi: Exactly. Exactly. That's it. And so that's it. You're salting the water. You salt, can soften dals, for example. You put salt in for beans and dals to help soften them. It used to be ... Somebody said somewhere and it was taken as gospel, sometime in some cookbook, I think in the 80s ... Oh, don't salt the water because it'll toughen the beans. Nonsense. I'm going to say nonsense. But yes, it does matter. So what you want is, you want to do it in layers in a way. So you're going to salt your potatoes, your potato water or your veg water, whatever, your pasta water. But that pasta, it's not fully seasoned. It's just got something. It's not a completely flat taste if you taste it right out of the water plain. And then you're going to layer on your seasoning because you have a sauce, or maybe you're just going to grate some excellent aged cheese on it, and that's going to season it. And all of these and the ... The immediate first taste of salt is one thing in a mouthful. And then there's also the pleasing continuation that the salt gives. So the flavour continues on as longer, I guess. This is a little bit wine speak, I don't know. But, so we want the seasoning and the balance of flavours to work all the way through the mouthful. You could just put salt on at the end and you're going to get a hit of it, but it's not going to be ... The potatoes are not going to be infused with an appropriate seasoning. Right?

Jeremy: And it's always sort of, you know, every recipe, every cook, everyone you speak to says: adjust the seasoning to taste. And that's fine. That's fine. I'm okay. Is there any way to rescue a dish that's got too much salt in it?

Naomi: It's the only thing that's really hard to rescue. So basically, if it's a soup, then just dilute it with a hell of a lot more liquid, you know, so that basically ... Or a bread dough, enlarge your bread dough, that's all you can do. And there are some basic rules of thumb that are quite useful. For every pound of meat in a ground meat, if you're making a burger or a sauce or something, a teaspoon of salt. So it's just a useful little way of judging, if you're stuck. But actually, that said, of course, as I say in the book, and I try and emphasise in the book, a given volume of salt does not weigh a given amount, and it's the weight of the salt

that determines the saltiness that it gives. So if you have flaked salt or coarse salt in a tablespoon, or let's just talk about a quarter cup. That's a big, large amount. This is where it really makes a difference. So a quarter cup of flaked salt weighs very little, like 30 grams, 32 grams, something like that. A quarter cup of table salt — which is fine, refined, packs a real punch. There's no other flavour except sodium chloride — weighs well over double that, so you can't ...

So here's what happened. There was a woman, a wonderful woman who was doing some of the editing of the book. And I said to her — and she's a very, very good cook — And I said to her, so be careful, you know, I have a bit in the chapter if you change your daily salt, you're a cook in the kitchen, you're used to reaching for this amount of salt to adjust your soup. If you change your baseline salt, your usual salt, you have to be attentive for a while because it will change what pinch is appropriate. And about a month and a half later she said, well, she said, I switched salts and I forgot your advice and I couldn't figure out for the first day, I couldn't figure out why everything was oversalted. And then I realised it was because I'd switched salts and I'd forgotten that it's the weight of salt. And so, because we work by instinct, we work by feel. So once ... If you're cooking regularly, you're not measuring your salt in your pasta water, or when you adjust the salt in a salad or in anything, a soup, you're doing it sort of by feel. You might check it if you really are mistrusting yourself, or your quantities are somehow different because you're cooking for a crowd. But if you ... That's assuming you're always working with your same kitchen salt, your, you know, workhorse salt. But if you change that workhorse salt; whoof!

Jeremy: And in the book, I was amazed to see there's a photograph of, I assume it's your salt, and there are about ... I counted at least a dozen and there are some hiding in the back. There are at least a dozen different labeled small jars of not so much pink, black, grey salt, but flavoured salts. And you've got a lot of recipes for those in the book. I was wondering, how do you think about it? I mean, when you're making a dish, you're in the middle of making it, you look at your salt shelf. How do you think about what to put in there?

Naomi: I rarely use a flavoured salt. I wanted to put flavoured salts in because it's a lovely way of preserving, like there's spruce tips salt in there, young spruce tips. And actually this morning I thought, oh, I'm going to be talking to Jeremy. Peaches are still in season. I took a

beautiful, perfect ripe peach, cut it into wedges and then sprinkled on some spruce tip salt. It was spectacular. It was so good, you know? Just a one off thing, you know, to bring forward a flavour of a particular thing.

Jeremy: I have a blue spruce on my terrace, and when I read that I thought mm, next spring when I have those beautiful soft little tips on ... So. Okay. Well now, the other one that surprised me was vanilla salt. Now vanilla sugar, yes, sure. But vanilla salt?

Naomi: It's pretty wild. And actually, somebody had mentioned it to me and so I made it and it is good. It's very delicious on tomatoes.

Jeremy: That's so strange.

Naomi: I know. Weird. Very weird.

Jeremy: But it's just ... a little sugar helps a tomato. But ...

Naomi: No, no, but that's the English in you talking. I don't think sugar helps an Italian tomato. I think it helps an English tomato that never quite got the sun it deserved. My grandmother, who was English, always put sugar on her tomatoes, and I said, why? And she said, I grew up in England and, you know, So. ... But if you have a good Italian tomato, I would suggest trying some vanilla salt on it just to see. There's an umami, sort of, because after all, remember vanilla is fermented. I mean, properly proper vanilla, it gets its aroma from fermentation and then it's flavouring the salt. It's pretty fun.

Jeremy: I'm going to ignore salt and fermentation. I know it's a huge topic and that's why I'm going to ignore it. But I want to talk about another thing, which is salt encrusted fish, which used to be quite a big thing here in Rome. It doesn't seem to be quite so common any more. But whenever I had it, it was always a surprise to me. Why isn't the fish salty?

Naomi: Well, of course it's because it's a coating. It's like coating it in clay. I mean, it's a show off dish. Right? And it also speaks to the fact that, it's being made at a time when salt is not expensive, because you're throwing it away after you're making a crust out of a thing that people used to break their backs to dig or, you know.

Jeremy: And was it then conspicuous consumption originally?

Naomi: Absolutely, absolutely. Think of it still as sort of a chef show off thing. Yeah. But I have a recipe for a salt crusted fish from Thailand, which is ... It's not a huge thick crust or anything, but it is crusted. And what it does is, it holds the moisture in, it creates — salt creates — a solid sort of outside layer, almost solid. And then you get this very tender, moist flesh so the grilling doesn't dry the fish out. Basically you could also you can oil a fish, you know, and that keeps most of the moisture in. But the salt does more.

Jeremy: And yet the salt doesn't penetrate the fish. Now I do find that slightly miraculous.

Naomi: And that's I think because you start with a dry fish, it's not dissolving salt. Salt has to be dissolved in water to travel in. So, you know, it has to be absorbed through moisture, right?

Jeremy: The trendiest salty thing at the moment, I think, apart from black, pink, whatever, is salted caramel. Do you have — you have recipes, and I'll come back to them in a minute — do you have any sense of where it sprang from and how it took over the world?

Naomi: I don't know about it, no. I mean, I don't know where it originated, but I mean, people have been playing around, especially recently — and again, this speaks to sugar not being expensive, salt not being expensive, so why not play with these two essentials? You know, most baking, sweet baking, requires a pinch of salt in it. We know that salt is necessary in sweets, you know? And if there's no salt there, then you just get the sort of splat of the sweetness. And the salt gives it, again, length and nuance. And so I have recipes where there's ... There's cookies with made with miso. The ice creams, I use miso in the ice cream. And once you get a sort of a, just this lovely extra depth of flavour. It's the umami from the fermented ingredient traveling into a sweet. And it's not that you know it when you taste the ice cream, you don't. You just sort of ... the first instinct is to say, mm, this is really extra good. This is filling my taste buds in a way that I didn't expect. And I think that's what the salted caramel ice cream does as well. There's this extra satisfaction.

Jeremy: And you've got, you've got miso espresso caramel custard.

Naomi: Oh it's unbelievable. It's so unbelievable. It's so delicious.

Jeremy: It's just so unlikely.

Naomi: It was an experiment. David Lebovitz had a recipe for a custard. And I thought, well, that doesn't look interesting to me, but the custard looks ... I love custard. Let me try it. What if I put a really dense cup of espresso in here? And what if I had miso for sort of that rounded umami? Well, let's just see. And then, oh, I guess we need caramel to make the custard, so the custard has a bath of something to float in at the end. And it was such a wow. I was very pleased with myself. Sweets are not my area, and I'm not, I don't, you know, rush to them. But it was it was thrilling, actually. Really thrilling.

Jeremy: I'm wondering what a miso tiramisu would be.

Naomi: Well, there you go. That's exactly ... There's a good question, and something for you to play with. Do you make tiramisu at home ever?

Jeremy: No. Well, there's this thing I've read, and it's in your book, of course, that salt somehow negates bitterness.

Naomi: Yeah, yeah. For sure. I mean, why is salad called salad? Because long ago, in languages in your part of the world, people salted their greens because the greens were all bitter. Bitter greens, dandelion, all salad. It was to release the bitterness. First of all a little bit drains out in liquid that drains out. But also it just ... the salt balances out or ... It means that our taste buds don't taste the bitterness to the same extent. Yeah. So there's two things. It draws out bitter liquid and it also balances it out. Really interesting. Yeah.

Jeremy: How did ... I mean, you've obviously been, you've traveled a lot, you've obviously been interested in salt for a long time, but have you always had it in mind to write about salt?

Naomi: No. It's really interesting. It took me a while to figure out what to do next after my Persia book. And there's a lot of people now writing about various parts of the world that they're from. Not my place to write about those things. But what I'm interested in is staple foods, frugality, essentials. So the flatbread book. So the rice book. That's always where I tend. And in any book about a region, I'm still looking at home cooking and essentials. So salt was just this obvious ... Once I realised that it was my subject, I thought, why didn't I think of this? What took me so long? But it's been, it's been thrilling because it pulls together all sorts of threads that I've been interested in. It cross connects, and I think the theme is necessity. And creativity,

of course. Human creativity. Whoa! Isn't this extraordinary that people have managed to survive in really hostile, difficult environments by working with their staples in creative ways, working with what they don't have, figuring out how to work around the fact that they don't have things.

Jeremy: And despite all your travelling, despite all you've done, is there anything or anywhere that you've read about to do with salt that you haven't been and that you'd like to go next?

Naomi: Well, I got stopped by Covid from going to Korea, because Korea has such an extraordinary tradition of ... I mean, I've been through, but I haven't spent any time there. I would love to be in Korea in the fall at kimchi making time, and also visit a couple of the salt making areas. Oh, I would love to see that. It's this notion of all this plenty. Or like the plenty of the fish in the Tonlé Sap in Cambodia. If you don't process it now, it will rot. So not only do you know that you're going to need it in two months, but actually it will rot if you don't do something with it.

And the other thing is, there's a salt I want to tell you about that I hadn't heard of and it has just come into production sort of two years ago. So the book was out when I first heard of it, and it's called Blackthorn Salt and it's south of Glasgow. So if you were south of Glasgow on that coast, how would you extract salt from seawater? Well, so, blackthorn is a technique that was apparently in some form used in a couple of places in northern Poland and Germany also. Wet and cold. They put, they built a big, huge crib about 40 feet long and about 35 feet high, with a staircase in the middle and with open sides, and they stuffed it full of blackthorn bushes. Okay, this is lots of little twigs and everything. And then they pump water from the sea right there, and sea water, and they pump it up into troughs at the top, and then it gets released and trickles down through the blackthorn. What they have south of Glasgow, next to the sea, is wind. The water trickles down and the wind blows, and then the water gets down, and then they pump it back up. And they do that for 3 or 4 days, and the salt concentration in the water increases as the water evaporates, so that then they finish it off by boiling it. But they're using very, very little natural gas. It's brilliant. Absolutely brilliant. And it has now, there's a flavour because there's a bit of a taste of the wood. It's the water is spending time on those twigs going all the way down. So again, you're not going to taste it once it's in your dish. But if you use

it as a finishing salt, there's this lovely little aroma. And if you taste it, you can taste it. So there's an answer to that question again.

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