



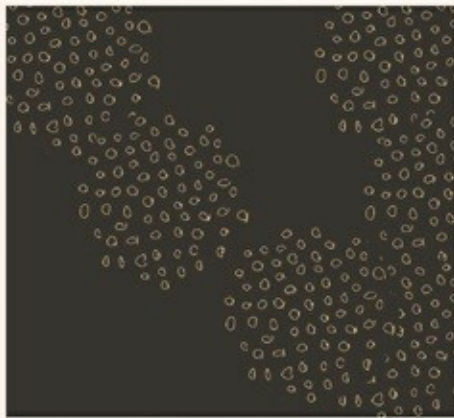
SALT, FAT, ACID, HEAT

Mastering the Elements of Good Cooking



Art by Wendy MacNaughton
Foreword by Michael Pollan

Samin Nosrat



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Praise for SALT FAT ACID HEAT

“This beautiful, approachable book not only teaches you how to cook, but captures how it should *feel* to cook: full of exploration, spontaneity, and joy. Samin is one of the great teachers I know, and wins people over to cooking with real food—organic, seasonal, and alive—with her irrepressible enthusiasm and curiosity.”

—**Alice Waters**, *New York Times* bestselling author of *The Art of Simple Food*

“Everyone was impressed when Michael Pollan managed to summarise the huge and complex subject of what we should be eating in just seven words: ‘Eat food, not too much, mostly plants.’ Samin Nosrat has managed to summarise the huge and complex subject of how we should be cooking in just four words: ‘salt, fat, acid, heat.’ Everyone will be hugely impressed.”

—**Yotam Ottolenghi**, *New York Times* bestselling author of *Jerusalem*
“*Salt, Fat, Acid, Heat* is a must for anyone wanting to be a better cook. Samin Nosrat, along with Wendy MacNaughton’s fun illustrations, teaches the fundamentals of cooking and dives into the four elements that make food taste great. So do yourself a favour and buy this book. I promise you won’t regret it.”

—**April Bloomfield**, James Beard Award-winning chef and author of *A Girl and Her Pig*

“Like the amazing meals that come out of Samin Nosrat’s kitchen, *Salt, Fat, Acid, Heat* is the perfect mixture of highest-quality ingredients: beautiful storytelling, clear science, an infectious love of food, and Wendy MacNaughton’s powerful art. Nosrat’s prose combined with MacNaughton’s beautiful illustrations are a perfect guide to employing the science of cooking for maximum deliciousness.”

—**Rebecca Skloot**, *New York Times* bestselling author of *The Immortal Life of Henrietta Lacks*

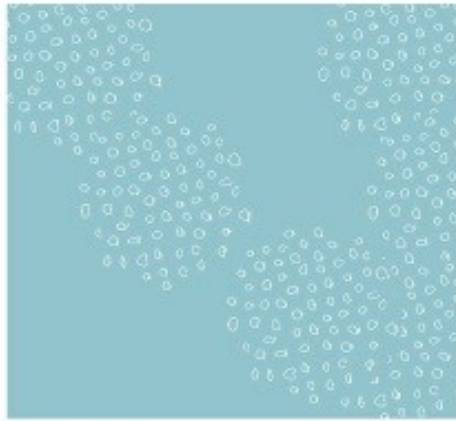
“*Salt, Fat, Acid, Heat* is a very important book not because it contains many excellent recipes, although it does, or because it is written by a Chez Pannisse alum, although it is. It is important because it gives home cooks a compass with which to navigate their own kitchens, and it places trust in them that they will be able to use that compass. Samin’s easygoing, cook-by-feel approach is never condescending or elitist. It is a step towards

cooking without recipes and true empowerment (and joy!) in the kitchen.”

—**John Becker** and **Megan Scott**, fourth-generation stewards of the *New York Times* bestselling *Joy of Cooking*

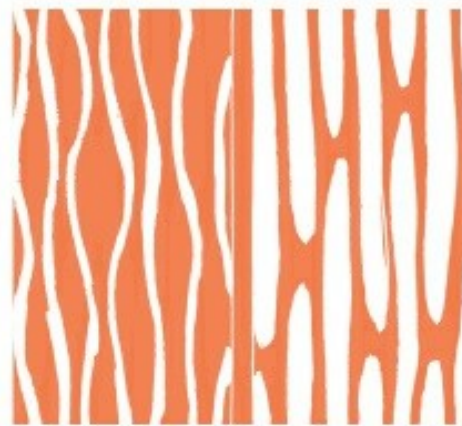
“*Salt, Fat, Acid, Heat* is a wildly informative, new-generation culinary resource. Samin Nosrat’s wealth of experience comes together here in a pitch-perfect combination of charm, narrative, straight-talk, illustration, and inspiration. Ticking all the boxes for new and seasoned cooks alike, this book meets you wherever you are in the kitchen, in all the right ways.”

—**Heidi Swanson**, *New York Times* bestselling author of *Super Natural Cooking*



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CANONGATE

Published in Great Britain in 2017 by Canongate Books Ltd,
14 High Street, Edinburgh EH1 1TE

canongate.co.uk

This digital edition first published in 2017 by Canongate Books

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Illustrations © Wendy MacNaughton, 2017

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First published in the USA by Simon & Schuster, 1230 Avenue of the
Americas

New York, NY 10020

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available on
request from the British Library

9781782112303

eISBN 9781782112310

Interior design by Alvaro Villanueva

For Alice Waters, who gave me the kitchen, and for Maman, who gave me the world

*Anyone who likes to eat, can soon
learn to cook well.*

—Jane Grigson

CONTENTS

Foreword

Introduction

How to Use This Book

PART ONE

The Four Elements of Good Cooking

SALT

FAT

ACID

HEAT

What to Cook

PART TWO

Recipes and Recommendations

Kitchen Basics

Recipes

Salads

Dressings

Vegetables

Stock and Soups

Beans, Grains, and Pasta 280 Eggs

Fish

Thirteen Ways of Looking at a Chicken

Meat

Sauces

Butter-and-Flour Doughs

Sweets

Cooking Lessons

Suggested Menus

Tips for Further Reading

Acknowledgements

Bibliography

Index

About the Author & the Illustrator



FOREWORD

As I write these words, this book hasn't even been published yet, but already it feels indispensable.

That must sound over-the-top, I know, but I honestly can't remember the last time I read a book on cooking that was this useful or unusual. I suspect that's because reading *Salt, Fat, Acid, Heat* feels less like being in the pages of a cookbook than at a really good cooking school, standing in your apron around the butcher-block island listening as a smart, eloquent, and occasionally hilarious chef demonstrates how to repair a broken mayonnaise. (Add a few drops of water and then "whisk with the urgency of a swimmer escaping a shark.") Now she passes around the bowl of silky, no-longer-broken emulsion so you can dip a tasting spoon and feel it on your tongue. *I get it.*

In *Salt, Fat, Acid, Heat*, Samin Nosrat manages to take us so much deeper and farther into the art of cooking than cookbooks ordinarily do. That's because her book offers so much more than recipes, a literary genre that, while useful, has severe limitations. A well-written and thoroughly tested recipe might tell you how to produce the dish in question, but it won't teach you anything about how to cook, not really. Truth be told, recipes are infantilising: *Just do exactly what I say, they say, but don't ask questions or worry your little head about why.* They insist on fidelity and faith, but do nothing to earn or explain it.

Think how much more we learn—and retain!—when a teacher doesn't just enumerate the step-by-step instructions but explains the principles behind them. Armed with reasons, we no longer have to cling to a recipe like a lifeboat; now we can strike out on our own and begin to improvise.

Even though it contains plenty of excellent recipes, this is a book concerned foremost with principles. Samin Nosrat has taken the sprawling, daunting, multicultural subject we call cooking and boldly distilled it to four essential elements—or five, if you count the core principle of tasting along the way. Master these principles, she promises, and you will be able to cook delicious food of any kind, in any tradition, whether a salad dressing or a braise or a galette. Season food with the proper amount of salt at the proper moment; choose the optimal medium of fat to convey the flavour of your ingredients; balance and animate those ingredients with acid; apply the right type and quantity of heat for the proper amount of time—do all

this and you will turn out vibrant and beautiful food, with or without a recipe. It's a big promise, but if you take her course—i.e. read this book—you will find that Samin delivers. Whether you are new to cooking or have decades of experience under your apron, you will understand how to build striking new layers of flavour in whatever you cook.



Besides being a gifted and deeply experienced cook with years of experience in some of the best kitchens in the Bay Area, Samin is a natural teacher—exacting, inspiring, and eloquent. I happen to know this firsthand, because Samin, who had once been my writing student, became my cooking teacher when I set out to research my book *Cooked*.

We had met a decade earlier, after Samin had written asking if she could audit my graduate class in food journalism at Berkeley. Letting her in was one of the best decisions I've made, not only as a professor of writing but as an eater of food. Samin more than held her own with the journalists in the class, demonstrating the winning voice and surefooted prose now on display in this book, but she really put the rest of us in the shade when it came to snack.

This being a class about food, naturally we ate, taking turns each week bringing in a “storied snack”—some food item or dish that tells a little story, whether about the student's background, project, or passion. We've snacked on baguettes salvaged from a Dumpster; on foraged mushrooms and weeds; and on ethnic foods of every description, but we seldom got to consume more than a bite or two plus the story. Samin served us a whole meal: a sumptuous spinach lasagna made completely from scratch and served on actual plates with linens and silverware, items that had never before crossed the threshold of my classroom. While we ate the best lasagna any of us had ever tasted, Samin told us the story of how she learned to make pasta, mixing the flour and eggs by hand, while in Florence, apprenticed to Benedetta Vitali, one of her most influential teachers. We were all captivated, as much by her storytelling as her cooking.

So years later, when I decided to get serious about cooking, there was no question whom I would ask to teach me. Samin agreed immediately, and so once a month for more than a year, she would come over, usually on a Sunday afternoon, and together we would cook a three-course meal, each one organised around a different theme. Samin would burst into the

kitchen with her market bags, apron, and roll of knives, announcing the theme of that day's lesson, which often matched the principles laid out in this book. "Today we're going to learn all about emulsions." (Which she memorably described as "a temporary peace treaty between fat and water.") If meat were on the syllabus, Samin would often stop by or phone the night before, to make sure the roast or chicken was properly seasoned, which is to say early and amply: at least twenty-four hours in advance, with about five times as much salt as your cardiologist would recommend.

The sessions began as one-on-one tutorials, with Samin and me chopping and chatting around the kitchen island, but in time, my wife, Judith, and our son, Isaac, found themselves drawn into the kitchen by the aromas and the laughter emanating from it. It seemed a shame not to share the delicious meals we began turning out more widely, so we began inviting friends to join us for dinner, and in time, our friends began arriving earlier and earlier in the evening and then in the afternoon, so that they might help roll out a piecrust on the kitchen island or turn the crank on the pasta machine as Isaac fed it amber discs of eggy dough.

There is something infectious about Samin's teaching, in the combination of her passion, humour, and patience, but especially in her ability to break the most complex operation down into steps that immediately made sense because she never failed to explain the principle behind them. You salted meat so early to give it time to diffuse into the muscle, where it dissolves strands of proteins into a liquid-retaining gel, thus making for moister meat at the same time it builds flavour from the inside out. Every such step has a little story behind it; and as soon as you know it, the step makes perfect sense and, eventually, it becomes second nature, part of your culinary muscle memory.



Yet as logical and even scientific as Samin can be about the techniques she's imparting, in the end she believes cooking with distinction depends on tasting and smelling—on educating our senses and then learning to trust them. “Taste, taste, and then taste again,” she would tell me, even as I did something as simple and seemingly boring as sautéing an onion. Yet there was an intricate evolution unfolding in that pan as the rectangles of onion went from crisply acidic to clean and sweet to faintly smoky as they caramelised and then bittered slightly as they browned. She showed me how a half dozen distinct flavours could be teased from that single humble ingredient, all depending on how you managed principle number four, heat—and deployed your senses, for each stage in the onion's evolution carried its own distinct and learnable aroma. Now what recipe ever conveyed all that? As Samin likes to say, quoting another of her teachers, “Recipes don't

make food taste good. People do.”

What I love most about this book is that Samin has somehow found a way (with the help of Wendy MacNaughton’s equally inspired and informative illustrations) to bring both her passion for, and intelligence about, cooking to the page. The result is a book that instructs and delights in equal measure (no mean feat in any piece of writing) and one that I predict will soon find its place on the short shelf of books on cooking that you can’t imagine living without. You will want to make room for this one.

—Michael Pollan



INTRODUCTION

Anyone can cook anything and make it delicious.

Whether you've never picked up a knife or you're an accomplished chef, there are only four basic factors that determine how good your food will taste: salt, which enhances flavour; fat, which amplifies flavour and makes appealing textures possible; acid, which brightens and balances; and heat, which ultimately determines the texture of food. Salt, Fat, Acid, and Heat are the four cardinal directions of cooking, and this book shows how to use them to find your way in any kitchen.

Have you ever felt lost without a recipe, or envious that some cooks can conjure a meal out of thin air (or an empty refrigerator)? Salt, Fat, Acid, and Heat will guide you as you choose which ingredients to use, how to cook them, and why last-minute adjustments will ensure that food tastes exactly as it should. These four elements are what allow *all* great cooks—whether award-winning chefs or Moroccan grandmothers or masters of molecular gastronomy—to cook consistently delicious food. Commit to mastering them and you will too.

As you discover the secrets of Salt, Fat, Acid, and Heat, you'll find yourself improvising more and more in the kitchen. Liberated from recipes and precise shopping lists, you'll feel comfortable buying what looks best at the farmer's market or butcher's counter, confident in your ability to transform it into a balanced meal. You'll be better equipped to trust your own palate, to make substitutions in recipes, and cook with what's on hand. This book will change the way you *think* about cooking and eating, and help you find your bearings in any kitchen, with any ingredients, while cooking any meal. You'll start using recipes, including the ones in this book, like professional cooks do—for the inspiration, context, and general guidance they offer, rather than by following them to the letter.

I promise this can happen. You can become not only a good cook, but a great one. I know, because it happened to me.



I have spent my entire life in pursuit of flavour.

As a child, I found myself in the kitchen only when Maman enlisted me and my brothers to peel raw broad beans or pick fresh herbs for the traditional Persian meals she served us every night. My parents left Tehran for San Diego on the eve of the Iranian Revolution, shortly before I was

born in 1979. I grew up speaking Farsi, celebrating No-Ruz, the Iranian New Year, and attending Persian school to learn how to read and write, but the most delightful aspect of our culture was the food—it brought us together. Rare were the nights when our aunts, uncles, or grandparents didn't join us at the dinner table, which was always filled with plates mounded high with herbs, platters of saffron rice, and fragrant pots of stew. Invariably, I was the one who snagged the darkest, crunchiest pieces of *tahdig*, the golden crust that formed at the bottom of every pot of Persian rice Maman made.

Though I certainly loved to eat, I never imagined I'd become a chef. I graduated from high school with literary ambitions, and moved north to study English literature at UC Berkeley. I remember someone mentioning a famous restaurant in town during my freshman orientation, but the idea of dining there never occurred to me. The only restaurants I'd ever eaten at were the Persian kebab places in Orange County my family trekked to each weekend, the local pizza joint, and fish taco stands at the beach. There were no famous restaurants in San Diego.

Then I fell in love with Johnny, a rosy-cheeked, sparkly-eyed poet who introduced me to the culinary delights of his native San Francisco. He took me to his favourite taqueria, where he taught me how to construct an order for the perfect Mission burrito. Together, we tasted baby coconut and mango ice creams at Mitchell's. We'd sneak up the stairs of Coit Tower late at night to eat our slices of Golden Boy Pizza, watching the city twinkle below. Johnny had always wanted to dine at Chez Panisse but had never had the chance. It turned out that the famous restaurant I'd once heard about was an American institution. We saved up for seven months and navigated a labyrinthine reservation system to secure a table.

When the day finally arrived, we went to the bank and exchanged the shoe box of quarters and dollar bills for two crisp hundred-dollar bills and two twenties, dressed up in our nicest outfits, and zoomed over in his classic convertible VW Beetle, ready to eat.

The meal, of course, was spectacular. We ate *frisée aux lardons*, halibut in broth, and guinea hen with tiny chanterelle mushrooms. I'd never eaten any of those things before.

Dessert was chocolate soufflé. When the server brought it to us, she showed me how to poke a hole in the top with my dessert spoon and then pour in the accompanying raspberry sauce. She watched me take my first

bite, and I ecstatically told her it tasted like a warm chocolate cloud. The only thing, in fact, that I could imagine might improve the experience was a glass of cold milk.

What I didn't know, because I was inexperienced in the ways of fancy food, was that for many gourmands the thought of consuming milk after breakfast is childish at best, revolting at worst.

But I was naïve—though I still contend that there's nothing like a glass of cold milk with a warm brownie, at any time of day or night—and in that naïveté, she saw sweetness. The server returned a few minutes later with a glass of cold milk and two glasses of dessert wine, the *refined* accompaniment to our soufflé.

And so began my professional culinary education.

Shortly afterwards, I wrote a letter to Alice Waters, Chez Panisse's legendary owner and chef, detailing our dreamy dinner. Inspired, I asked for a job waiting tables. I'd never considered restaurant work before, but I wanted to be a part of the magic I'd experienced at Chez Panisse that night, even in the smallest way.

When I took the letter to the restaurant along with my résumé, I was led into the office and introduced to the floor manager. We instantly recognised each other: she was the woman who'd brought us the milk and dessert wine. After reading my letter, she hired me on the spot. She asked if I could return the next day for a training shift.

During that shift, I was led through the kitchen into the downstairs dining room, where my first task was to vacuum the floors. The sheer beauty of the kitchen, filled with baskets of ripe figs and lined with gleaming copper walls, mesmerised me. Immediately I fell under the spell of the cooks in spotless white chef's coats, moving with grace and efficiency as they worked.

A few weeks later I was begging the chefs to let me volunteer in the kitchen.

Once I convinced the chefs that my interest in cooking was more than just a dalliance, I was given a kitchen internship and gave up my job as a waitress. I cooked all day and at night I fell asleep reading cookbooks, dreaming of Marcella Hazan's Bolognese sauce and Paula Wolfert's hand-rolled couscous.



Since the menu at Chez Panisse changes daily, each kitchen shift begins with a menu meeting. The cooks sit down with the chef, who details his or her vision for each dish while everyone shells peas or peels garlic. He might talk about his inspiration for the meal—a trip to the coast of Spain, or a story he'd read in the *New Yorker* years ago. She might even detail a few specifics—a particular herb to use, a precise way to slice the carrots, a sketch of the final plate on the back of a scrap of paper—before assigning a dish to each cook.

As an intern, sitting in on menu meetings was inspiring and terror-inducing in equal measure. *Gourmet* magazine had just named Chez Panisse the best restaurant in the country, and I was surrounded by some of the best cooks in the world. Just hearing them *talk* about food was

enormously educational. *Daube provençal*, Moroccan *tagine*, *calçots con romesco*, *cassoulet toulousain*, *abbacchio alla romana*, *maiale al latte*: these were the words of a foreign language. The names of the dishes were enough to send my mind reeling, but the cooks rarely consulted cookbooks. How did they all seem to know how to cook anything the chef could imagine?

I felt like I'd never catch up. I could hardly imagine the day would come when I'd be able to recognise all of the spices in the kitchen's unlabelled jars. I could barely tell cumin and fennel seeds apart, so the thought of getting to a point where I could ever appreciate the nuanced differences between Provençal *bouillabaisse* and Tuscan *cacciucco* (two Mediterranean seafood stews that appeared to be identical) seemed downright impossible.

I asked questions of everyone, every day. I read, cooked, tasted, and also wrote about food, all in an effort to deepen my understanding. I visited farms and farmers' markets and learned my way around their wares. Gradually the chefs gave me more responsibility, from frying tiny, gleaming anchovies for the first course to folding perfect little ravioli for the second to butchering beef for the third. These thrills sustained me as I made innumerable mistakes—some small, such as being sent to retrieve coriander and returning with parsley because I couldn't tell the difference, and some large, like the time I burned the rich beef sauce for a dinner we hosted for the First Lady.

As I improved, I began to detect the nuances that distinguish good food from great. I started to discern individual components in a dish, understanding when the pasta water and not the sauce needed more salt, or when an herb salsa needed more vinegar to balance a rich, sweet lamb stew. I started to see some basic patterns in the seemingly impenetrable maze of daily-changing, seasonal menus. Tough cuts of meat were salted the night before, while delicate fish fillets were seasoned at the time of cooking. Oil for frying had to be hot—otherwise the food would end up soggy—while butter for tart dough had to remain cold, so that the crust would crisp up and become flaky. A squeeze of lemon or splash of vinegar could improve almost every salad, soup, and braise. Certain cuts of meat were always grilled, while others were always braised.

Salt, Fat, Acid, and Heat were the four elements that guided basic decision making in every single dish, no matter what. The rest was just a