

ABOUT THE RECIPES

Modernist Cuisine, both the culinary movement and this book, is dedicated to looking at cooking from new angles. We cover topics ignored by other culinary books, so it stands to reason that our recipes look somewhat different from those in other cookbooks. Our goal is to break down recipes in such a way that you can better understand not just the *what* (ingredients) and the *how* (methods), but also the *why*. To accomplish this, we needed a new format for presenting recipes.

The compact, modular form of our recipes makes them a broader resource for instruction and inspiration. They're meant to help you both understand the practical applications of culinary principles and visualize how you might apply those principles in other contexts.

In these five volumes, you'll find a huge variety of recipes and foods. Although we are telling the story of Modernist cuisine, our recipes are not limited to cutting-edge dishes—we cover everything from American regional barbecue to innovative flavored gels. The point is not to tout modern approaches or science for their own sake but to illustrate how the principles of Modernist cooking can be applied across a wide range of recipes.

An important thing to consider when following recipes in this book is that details matter, often to a great degree. In traditional cooking, there's a common precept that exact measurements don't matter much (at least in savory dishes): a handful of this, a few drizzles of that, a pinch of something else. Fundamentally, much of this kind of cooking is done "to taste," following the cook's experience.

That is not the case with pastry, where precision counts. You don't add yeast or baking powder to taste, and proportions of leavening to flour aren't left to creative impulse. Modernist cuisine tends to lean more toward the pastry chef's approach. In Modernist cooking, carefully measuring ingredients ensures consistent results.

In part, that is because the specialized ingredients used in this form of cuisine can be quite powerful. A little too much of a gelling agent, for example, can result in a tough, rubbery product, while too little will not produce the desired gelling effect. So measuring is a critical factor, at least if you'd like to attain the end result that we intended.

Ingredients and Equipment

You might be surprised to learn that although many people equate Modernist cooking with something akin to laboratory science, the majority of recipes here can be made with tools available in most standard kitchens. Even the recipes that involve sous vide techniques can be made without specialized gadgets; you can just use a simple pot on the stove and a thermometer (see page 2-240).

At the other end of the spectrum are recipes that do require a centrifuge, combi oven, freeze dryer, or other specialized tool. If you're interested in investing in such equipment, there are many places to find it, from eBay and other purveyors of secondhand equipment to scientific-equipment catalogs and a growing number of cooking stores.

Very few kitchens on Earth have all the equipment featured in this book (I know of only two: one at my house and another at our cooking lab). Our recipes were designed under the assumption that the optimal tools and equipment are on hand. If you don't have those tools at your disposal, those particular recipes will be more informational than practical, but they will still serve their purpose as an educational medium. Indeed, many recipes in cookbooks end up functioning primarily to provide information and inspiration. Not everyone who owns a copy of Auguste Escoffier's *Le Guide Culinaire* has made all his triple stocks and complicated forcemeats, for example, but there remains great instructional value in seeing his examples and reading the recipes.

What you won't find in our recipes is much attention to the most basic equipment, such as bowls and sauté pans. We presume that you'll know what equipment you need to use when we call for blending or simmering or sautéing.

Recipes here use a number of unusual ingredients, like xanthan gum, sodium alginate, gellan, essential oils, and glucono delta-lactone. Our glossary of cooking terms at the back of volume 5 describes each of these ingredients, and you may be surprised at how easy they are to acquire. Well-stocked supermarkets and health food stores sell many of them, because they are used in certain regional dishes or as substitutes for more routine products. People with wheat allergies, for instance,

Most of the laboratory equipment we use for cooking came from eBay, other Internet auction sites, second hand dealers or bankruptcy auctions of biotech firms. If you look hard, you can get bargains this way.

For more on where to purchase items mentioned in these volumes, see Sources of Equipment and Ingredients, page 5-XXX.

Salting “to taste” is fine, but for most foods, and most people’s taste, the proper salt level is 1%–1.5% salt by weight. A few salty foods may reach 2%, and some people might prefer a bit less than 1%, but the range is actually quite small.

For more on weight-to-volume conversions for common foods, see the reference tables provided near the end of volume 5.

A digital gram scale is a must-have for any serious cook. For more on digital scales, see page 4-41.

often use xanthan gum to replace the gluten protein found in wheat flour. Agar is often available where you’d find other Asian specialty products. The rise of the Internet has made finding such items much easier, and they are available from a number of online stores.

Seeing things like propylene glycol alginate in an ingredient list may take some getting used to, but it should be no stranger than a meringue recipe that calls for cream of tartar, a quick bread recipe that calls for baking powder, or a recipe for a regional specialty that calls for distinctive herbs and spices.

In a few cases, there may be local legal issues with some of the equipment we use. For one example, in the state of Texas there are laws requiring a government permit to own laboratory glassware, including the Büchner funnels and flasks that we recommend for vacuum filtration (see page 2-353). It may seem a bit odd to regulate a device we use for clarifying consommé, but there is a method to the madness: the laws are aimed at curbing production of methamphetamine and other illegal drugs. Whether one can do so by outlawing glassware is questionable, but that’s the law—at least there. Other places may have similar issues.

Another touchy area is distillation, which is regulated in the United States at both the federal and state levels. One piece of equipment we use in

this book, the rotary evaporator, is made for distilling; if it is used to distill and concentrate alcohol, it may be subject to regulation. Some states in the U.S. consider any and all alcohol distillation to be illegal, and they devote law enforcement resources to punishing moonshiners who make their own whiskey. At the other extreme, Oregon has a state-funded program dedicated to *promoting* artisanal craft distillers, which the state sees as businesses it wants to encourage.

Countries other than the U.S. have a wide range of regulations covering alcohol production. So find out what is appropriate for your area before you distill alcohol. Of course, rotary evaporators also have uses other than alcohol production.

Weights and Measures

You’ll see in these recipes that we measure ingredients by weight. Most cookbooks sold in America use U.S. weights and volumes for ingredients: $\frac{1}{2}$ cup of sugar, one teaspoon of salt, two cups of milk, etc. We find that these volume measurements are not sufficiently accurate in many instances.

Modernist recipes often require great precision in measuring ingredients. If you use a fraction of a percent more or less of certain gelling agents or thickeners—for example, one extra gram of the compound per liter of liquid—that imprecision will ruin the recipe. So rather than using more general volume measures in some cases and precise gram weights in others, we chose to use gram weights for all ingredients in the book.

We even list water by its weight rather than by its volume, unless the quantity needed is undefined. Salt is usually relegated to the vague notion of “to taste,” but where practical, we provide measurements for salt by weight. Obviously, if you like more or less salt, adding it to taste is always your prerogative, but we believe it’s important to maintain as much precision as possible so that you achieve the same textures and flavors that we did when developing these recipes.

Ingredients that come in distinct units, such as eggs or allspice berries, are an exception to this rule. We usually still measure these by weight, but we also list the rough equivalent units for reference. And some ingredients are called for “as needed,” when there simply is no single correct amount to use.

Digital gram scales are widely available in



cooking stores around the world. They're common enough now that a good basic model is not an expensive investment. If you've measured ingredients only by the cup and teaspoon until now, this is a great time to buy a good scale and begin applying a bit more precision to your recipe measurements.

In fact, you might want to consider getting two different scales if you're committed to cooking a range of recipes from this book. One would be your general-purpose scale, good for measuring weights from one gram to 1,000 grams or more. The second scale would be for finer measurements, accurately weighing items down to 0.01 gram. Such scales often max out at 100 grams or so and thus are not as widely applicable as the first type of scale.

Keep in mind that the final yield of a recipe will not necessarily be a simple sum of the weights of the ingredients. Some things get trimmed along the way, liquids evaporate, and unmeasured ingredients come into play (for example, the water used to soak dry beans will add weight to the finished dish). We provide yield information based on the real weight of the final results, as measured in our test kitchen.

Temperatures in the book are given in both Celsius and Fahrenheit. In general, where precise temperature is less critical, we do some rounding. It doesn't help much to know that 57 degrees Celsius equals 134.6 degrees Fahrenheit; 135 °F will work fine. Kitchen thermometers typically don't operate well at more than one to two full degrees of accuracy anyway (see page 269), and the controls of ovens and deep-fryers often jump by five-degree intervals.

But one of the central themes of Modernist cooking is that exact temperature control is called for under certain circumstances. Water baths used for sous vide cooking (see page 2-236) are a means of precisely controlling temperature. Combi ovens and water vapor ovens can do this, although not quite as accurately (see page 2-156). Accuracy is particularly important in the lower range of cooking temperatures. Typically, the higher the temperatures, the less critical it is that they be precise.

But when you're cooking salmon *mi-cuit* (literally "partially cooked"), the color of the flesh shouldn't change from the raw state, which requires careful temperature management. You need to cook the fish within a very narrow range, to no more than 40 °C / 104 °F; above that, it

becomes difficult to control the results. Many gelling agents are effective up to 85 °C / 185 °F, but if they are heated to higher than that temperature, the gel can fail.

Another issue to consider is that some of the newer ingredients, like hydrocolloids, come in a range of grades, brand names, and proprietary blends. We list the specific brands we used in developing the recipes as a point of reference and to provide some guidance about the properties that other brands may have. Don't let these slight variations intimidate you; once you get the hang of it, these details become second nature.

Sometimes a recipe will go awry for any number of reasons. Perhaps you're using a finicky hydrocolloid like gellan, which might gel prematurely if your tap water has a particularly high mineral content. Or perhaps your sous vide bags are leaking. We have tried to offer plenty of troubleshooting notes and examples of various scenarios to help you diagnose the most common problems, but we surely haven't caught them all. Unfortunately, there are many more ways to do something wrong than to do it right. When all else fails, try to treat these outcomes as a learning opportunity.

Baker's Percentage

You'll often want to scale a recipe up to get a higher yield or down to make a smaller quantity. You can do this by multiplying the ingredient quantities by a given factor or by doing some division to figure out the ratios of the ingredients.

The best system that we have found for making a recipe easy to scale is called baker's percentage, a method of measurement that is widely used in pastry and baking books. In a recipe that uses baker's percentage, one reference ingredient—usually the ingredient that most affects the yield or the cost of the recipe—is set to 100%. The quantity of each other ingredient is then cited as a percentage of the reference ingredient's weight.

For example, our recipe for Sous Vide Instant Hollandaise (see next page and page 4-228) sets egg yolks as the reference ingredient at 100% and calls for 75 grams of yolks. It calls for vinegar at a scaling of 47%, meaning 47% of the weight of the egg yolks—not 47% of the yield or 47% of the sum of all ingredients, just 47% of the weight of however much the yolks weigh.

Michael Ruhlman's cookbook *Ratio: The Simple Codes Behind the Craft of Everyday Cooking* is dedicated to the idea of using ratios to express quantities in recipes.

Any scaling system is mathematically equivalent to others. We use baker's percentages because they are convenient for the most common scaling situations and are already familiar to pastry chefs.

Example recipes and components of plated-dish recipes have similar formats. In cases where a recipe is inspired by, or adapted from, another chef, attribution is given after the recipe title ① and the date of the original is listed at the bottom of the recipe. ⑩ Temperatures ⑦ are set in heavier type to make them easier to find at a glance. Lines within the recipe ④ group ingredients into blocks; procedure steps apply only to ingredients in the same block as the step. In step 1, for example, "combine" means to combine just the wine, shallots, and vinegar—not to combine all ingredients in the recipe.

The total expected yield of the recipe ② differs from the sum of the ingredient weights when ingredients are lost or discarded during preparation or cooking. In addition to weights, ingredient quantities are specified using baker's percentages ③ to aid in scaling to higher or lower yields—see the previous page for more on using these percentages.

For ingredients that come in standard sizes, approximate numbers ⑤ are given as well. In certain cases, a special scaling percentage ⑥ is given to aid substitutions or to provide greater precision when needed, such as when using gelling agents. The special scaling is calculated as a percent of some combination of ingredients, as explained by a note ⑨ at the end of the recipe. When an ingredient is itself the product of a recipe or a step-by-step technique, a page reference ⑧ is given to the instructions for making it.

Baker's percentages provide an especially handy, reliable method to figure out the right amounts of minor ingredients needed to match the quantity of the major ingredient when scaling a recipe. Without baker's percentages, calculating quantities can be tricky.

EXAMPLE RECIPE

SOUS VIDE INSTANT HOLLANDAISE ① INSPIRED BY DANIEL HUMM Yields 345 g ②

INGREDIENT	QUANTITY	SCALING	PROCEDURE
White wine (dry)	100 g	133% ③	① Combine.
Shallots, finely minced	50 g	67%	② Reduce to syrup-like consistency.
White vinegar	35 g	47% ④	③ Strain.
Egg yolks	75 g ⑤ (four large)	100% (28%)* ⑥	④ Measure 20 g of wine reduction.
Stock or water	20 g	27%	⑤ Blend thoroughly with wine reduction.
Unsalted butter, melted	225 g	300%	⑥ Vacuum seal.
Salt	4 g	5.3%	⑦ Cook sous vide at 65 °C / 149 °F for 30 min.
Malic acid	1g	1.3%	⑧ Blend into yolk mixture until fully emulsified.
Two-stage fried egg see page 2-174 ⑧	four eggs		⑨ Season.
			⑩ Transfer to 1 l / 1 qt siphon.
			⑪ Charge with two nitrous oxide cartridges.
			⑫ Hold siphon in 60 °C / 140 °F.
			⑬ Garnish eggs with hollandaise as desired.

⑨ *(% of total weight of wine reduction, stock, and unsalted butter)

(original 2009, adapted 2010)⑩

So if you're using 75 grams of egg yolks to make the recipe, you need 35 grams of vinegar, because 75 grams times 47% equals 35. But say you only have 65 grams of egg yolks. How much vinegar should you use? This is where the scaling percentage really simplifies things. Just multiply the same 47% for vinegar times the actual weight of egg yolks available—65 grams—to get the answer: 30.5 grams of vinegar.

Keep in mind that the percentages of the minor ingredients will not add up to 100%, because scaling percentages give the weight as a proportion of the weight of the reference ingredient, not of the total weight of all ingredients in the recipe.

One challenge in using baker's percentages is that they can be difficult to use if you want to omit or add an ingredient, or if you substitute several ingredients of different quantities. This issue comes up most frequently in recipes that involve small quantities of potent thickeners or gelling agents. But it also arises for more common ingredients such as salt. In the hollandaise recipe above, for example, if you decide to use a more flavorful wine and stock, you may choose to reduce it a bit less than the recipe indicates to achieve the balance of flavors you want. But how should you then adjust the quantity of egg yolks to preserve the texture of the sauce?

We provide a special scaling percentage in many

cases to help with such situations. A note at the bottom of the recipe explains how the special percentage is calculated. Often it is a proportion of the weight of all ingredients in the recipe or of all other ingredients (omitting the weight of the ingredient that has the special percentage listed).

In the example above, we added the weights of the wine-shallot-vinegar reduction, the stock or water, and the butter, which came to about 268 grams when we made the recipe. The weight of the eggs, at 75 grams, is 28% of 268 grams, so we include the 28% as a special scaling percentage.

So, if in your adjustments to the recipe, you find that you end up with 300 grams of reduction, stock, and butter instead of the 268 grams we got, you can easily work out how much egg yolk to use by simply multiplying 300 grams by 28%: 84 grams of yolk should produce a texture very close to the original version.

The special scaling sometimes becomes crucial when using recipes that include hydrocolloids that are quite powerful in small quantities, so they must be added with great precision. Our recipe for a gelled Long Island Iced Tea on page 4-141, for example, suggests using 5.6% as much gelatin as you use of cola, thus 6.75 grams if using 120 grams of cola. But that ratio would not work well if you were to omit the tequila. In that case, you should

instead use the special scaling listed for gelatin, which is 1.6% of the total weight of all the other ingredients, or 6.25 grams.

Similarly, if you wanted to add, say, 60 grams of whiskey to the recipe, the special scaling percentage would let you easily work out the right amount of gelatin to use, which is 1.6% of the new total (450 g) of other ingredients: 7.2 grams of gelatin. Without the special percentage, you would be tempted to use just 6.75 grams of gelatin, and the result may not set the way the original recipe does.

Three Kinds of Recipes

The book features three distinct classes of recipes: example recipes, parametric recipes, and plated-dish recipes. Each serves a different purpose in illustrating how particular ingredients or techniques can be applied in the kitchen.

Example recipes are typically the shortest and simplest of the three kinds. Some come from leading Modernist chefs; others we developed ourselves. Each was carefully selected to illustrate the culinary principle at hand. Because they are focused on individual techniques or procedures, example recipes will not always result in complete dishes. In fact, many example recipes serve as components in more involved plated-dish recipes.

Example recipes may look surprisingly short and focused, and that's deliberate. For instance, we have a few recipes for making different types of tofu. We may offer a couple of suggestions for how to serve them, but the fundamental goal is to discuss the tofu itself, a core ingredient that can then be used in myriad dishes. These example recipes are often building blocks rather than complete recipes (although our silken tofu made with GDL is so good you could eat it straight).

The parametric recipes, the second of the three kinds, are quite unlike usual recipes—and, in our view, much more interesting. *Parametric* refers to the fact that these recipes have parameters that are set by one key ingredient or characteristic.

This idea echoes that of the master recipe, which many successful cookbooks have used as a foundation. Examples include books by the editors of *Cook's Illustrated*; *Sauces* and *Splendid Soups*, by James Peterson; and Raymond Sokolov's *The Saucier's Apprentice*. Master recipes illustrate

a basic technique in its purest form first, then use variations to elaborate the theme.

The key difference between a parametric recipe and a master recipe is that the latter must be very general in order to encompass its many variations, which get most of the space. A parametric recipe, in contrast, simply summarizes the variations in a compact form.

So, for example, our parametric recipe for pureed fruits and vegetables cooked sous vide, page 3.288, lists cooking times and temperatures for a wide variety of ingredients. At a glance, you can see that rhubarb puree should be cooked at 88 °C / 190 °F for one hour, whereas mango puree needs to be cooked at 75 °C / 167 °F for 20 minutes.

When recipes get more complicated, the parametric format really shines. Our parametric recipe for hot gels on page 4.160 summarizes the differences between 10 approaches to creating this dish, each of which uses different hydrocolloids that have their own scaling percentages.

We feel the parametric recipe is a strong concept for an instructional cookbook. Such a recipe does more than merely suggest methods for making one dish the same way again and again—it reveals the pattern and reasoning behind the chosen ingredients and methods, and thus makes it clearer how to apply those lessons in other circumstances. The parametric recipe thus takes the master recipe to a more detailed level, and serves as a launching point that allows you to change ingredients and quantities in a number of ways to produce dozens of variations. A single page of parametric recipes in the Gels or Thickeners chapters, for instance, might point the way to hundreds of different preparation options. The parametric approach also makes scaling the yield of a recipe up or down simpler than any other approach we know.

In parametric recipes, we are frequently concerned only with minor ingredients; often the only major ingredient is whatever liquid is being thickened. That liquid is the ingredient that sets the reference quantity, and the amount of other ingredients is given as a percentage of the reference. As an example, our recipe for ham consommé with melon beads (see page 4.66) simply lists xanthan gum at 0.24 %, which would mean using 2.4 grams for every 1,000 grams of base liquid.

This book contains 379 example recipes and 75 parametric recipe tables, each of which typically has 5–10 rows (many more, in a few cases). The total number of recipes in the parametric format is 814. In volume 5 you will find 49 plated dishes, which include a total of 329 component recipes. The grand total is 1,522 recipes in the book.

MAKING A SMOOTH PUREE

- ①** Prepare the vegetables by cutting them into evenly shaped, small pieces, as indicated in the table below.
- ②** Combine the vegetables with the liquid or seasoning indicated in the table. Set the weight of the produce to 100%. For example, use 12 g of butter for every 100 g of mushrooms.
- ③** Cook as indicated. Suggested methods, temperatures, and times are listed in the table.
- ④** Puree by using the tool indicated. Optionally, process with a rotor-stator homogenizer, ultrahigh-pressure homogenizer, or ultrasonic homogenizer for a finer texture. For large quantities, a colloid mill is an ideal tool.

Best Bets for Vegetable and Fruit Purees

Ingredient	Prep	Method	Cook			Liquid	(scaling)*	Tool	See page
			(°C)	(°F)	(min)				
apple ②	peeled, quartered	sous vide ③	90	194	2½ h ④	⑤	⑥	commercial blender	5-17 ⑧
asparagus	thinly sliced	sauté	high heat	10	⑦	vegetable stock unsalted butter	25% 15%	commercial blender	341
artichoke	hearts, thinly sliced	sous vide	80	176	45	vegetable stock olive oil	50% 5%	commercial blender	
beet	peeled, thinly sliced	sous vide	80	176	1 h	cooked beet juice unsalted butter	50% 15%	commercial blender	
broccoli	stems, peeled and sliced ⑨	sauté	medium heat	12	neutral oil	3%	commercial blender	426	
	florets, sliced	boil	high heat	4	neutral oil	3%	Pacojet		

⑩ *(set weight of prepared vegetable to 100%)

In many cases we have example recipes tied to entries in the parametric recipe table. These cross-references let you see a full example of how the parameters and formulas work in practice.

The final kind of recipe we use in this book is the plated-dish recipe. This comes closest to the recipes found in traditional cookbooks. Our plated-dish recipes offer instructions for creating an entire restaurant-style dish, including main ingredients, multiple garnishes, and details about how to assemble everything for serving. We describe the entire context of the dish in detail; thus, some of these recipes are quite involved, with many component parts. You can always opt to simplify things a bit by using only certain parts.

Plated dishes come in a wide variety of styles.

Parametric recipes typically contain three parts: an introduction that explains some of the underlying principles at work (not shown in this example), steps ① that outline the general procedure for making the recipe, and one or more tables, typically organized by main ingredient, ② that present the parameters—ingredients, quantities, preparation steps, cooking times and temperatures, etc.—for making a number of variations.

Ingredients for each variation are grouped together between horizontal lines. ⑥ In the example below, the recipe for asparagus puree calls for blending both vegetable stock and unsalted butter together with the sliced asparagus. More than one variation is sometimes given for a main ingredient, ⑨ as indicated by an indented line.

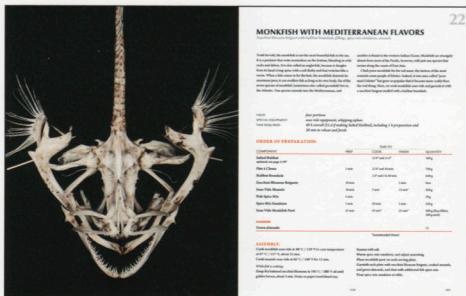
If no ingredient is listed for a variation, ⑤ that indicates that we don't consider any additional ingredient necessary in this case. A value of "n/a" indicates that the value for that column is not applicable for a given variation.

Cooking instructions ③ typically include both temperatures and times, given in minutes (min) or hours (h), as indicated by the unit at the top of the column. When a time is unusually short or long, the abbreviated unit is included with the number. ④

Quantities in parametric recipe tables are often given as percentages of a liquid or a main ingredient, ⑦ as indicated by a note at the bottom of the table. ⑩ References to related example recipes, plated-dish recipes, or step-by-step procedures are often given in a "See page" column. ⑧

We have full-on Modernist dishes that would not be out of place at leading Modernist restaurants. But we also have dishes that are far more informal, like barbecue from the American South, a pork belly picnic, and even the perfect omelet. For us, a plated recipe doesn't have to be fancy, as long as it's made with the quality and care of more elaborate preparations. Our hamburger is the best one we know how to make, and we believe that you should put every bit as much effort into making a great hamburger as you would if you were making dishes with loftier ambitions.

Some Modernist dishes are lavishly complex à la Heston Blumenthal, while others are boldly minimalist in the style of Ferran Adrià. Other Modernist chefs, including Grant Achatz, David



MONKFISH WITH MEDITERRANEAN FLAVORS

MONKFISH WITH MEDITERRANEAN FLAVORS

Zucchini blossom beignet with halibut brandade filling, spice mix emulsion, mussels

①

Truth be told, the monkfish is not the most beautiful fish in the sea. It is a predator that waits motionless on the bottom, blending in with rocks and debris. It is also called an anglerfish, because it dangles from its head a long spine with a soft fleshly end that twitches like a worm. When a fish comes in for the bait, the monkfish distends its enormous jaws; it can swallow fish as long as its own body. Six of the seven species of monkfish (sometimes also called goosefish) live in the Atlantic. One species extends into the Mediterranean, and

another is found in the western Indian Ocean. Monkfish are strangely absent from most of the Pacific, however, with just one species that swims along the coasts of East Asia.

Chefs prize monkfish for the tail meat; the texture of the meat reminds some people of lobster. Indeed, it was once called "poor man's lobster" but grew so popular that it became more costly than the real thing. Here, we cook monkfish sous vide and garnish it with a zucchini beignet stuffed with a halibut brandade.

②

YIELD:

four portions

SPECIAL EQUIPMENT:

sous vide equipment, whipping siphon

TIME REQUIRED:

③ 49 h overall (15 d if making Salted Halibut), including 1 h preparation and 30 min to reheat and finish

④ ORDER OF PREPARATION:

COMPONENT	PREP	COOK	FINISH	QUANTITY
⑤ Salted Halibut optional, see page 3-187			12 h* and 15 d*	160 g
Pâté à Choux	5 min	⑦ 12 h* and 10 min		750 g
Halibut Brandade		2 d* and 1 h 20 min		640 g
Zucchini Blossom Beignets	10 min		5 min	four
Sous Vide Mussels	10 min	3 min	15 min*	450 g
Fish Spice Mix	5 min			10 g
Spice Mix Emulsion	*	20 min	2 min	250 g
Sous Vide Monkfish Pavé	25 min	⑧ 45 min*	25 min*	400 g (four fillets, 100 g each)
GARNISH				12
Green almonds				

*(unattended times)

ASSEMBLY: ⑨

Cook monkfish sous vide at 48 °C / 119 °F to core temperature of 47 °C / 117 °F, about 25 min.

Cook mussels sous vide at 65 °C / 149 °F for 12 min.

While fish is cooking:

Deep-fry battered zucchini blossoms in 195 °C / 380 °F oil until golden brown, about 3 min. Drain on paper towel-lined tray.

Season with salt.

Warm spice mix emulsion, and adjust seasoning.

Place monkfish pavé on each serving plate.

Garnish each plate with zucchini blossom beignet, cooked mussels, and green almonds, and dust with additional fish spice mix.

Pour spice mix emulsion at table.

FISH

151

⑩ HALIBUT BRANDADE

Yields 800 g

⑪ The quantity of the whole milk will depend on the size of the fish as well as the shape and size of the container.

Good quality, store-bought salt cod can be substituted for the halibut.

INGREDIENT	QUANTITY	SCALING	PROCEDURE
Whole milk	as needed		① Soak halibut in milk for 12 h.
② Drain fish, and discard milk.			② Repeat steps 1 and 2 three times, for total soaking time of 48 h. Reserve 20 g of liquid from final soaking step.
Salted halibut optional, see page 3-187	160 g	100%	④ Vacuum seal reserved soaking liquid, halibut, and garlic together.
Garlic, sliced and blanched twice	25 g	16%	⑤ Cook sous vide at 58 °C / 133 °F to a core temperature of 57 °C / 133 °F, about 20 min. Hold at this core temperature for another 15 min.
Water	1 kg	625%	⑥ Pulse in food processor until finely shredded.
Yukon Gold or other waxy potatoes, thinly sliced	250 g	156%	⑦ Vacuum seal potato slices in a thin even layer.
Extra-virgin olive oil	90 g	56%	⑧ Cook sous vide at 90 °C / 194 °F for 45 min.
			⑨ Drain potatoes, and pass through ricer.
			⑩ Mix into potatoes.
			⑪ Pass through a fine sieve.
			⑫ Fold sieved potatoes into halibut-garlic mixture.
			⑬ Refrigerate.

